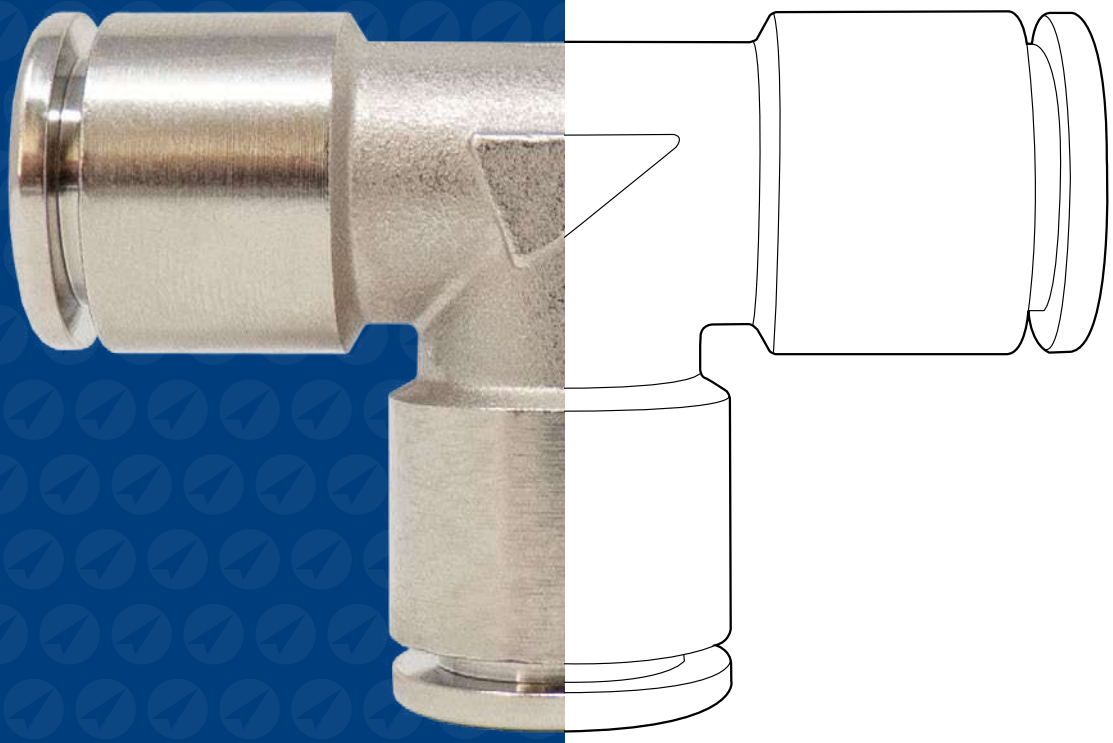
TierreFittings®

INDUSTRIAL AUTOMATION - HYGIENIC&FOOD - FOOD&BEVERAGE



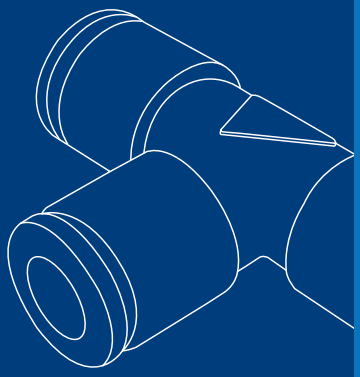
TierreGroup®

# TierreGroup®

Always a fittings solution

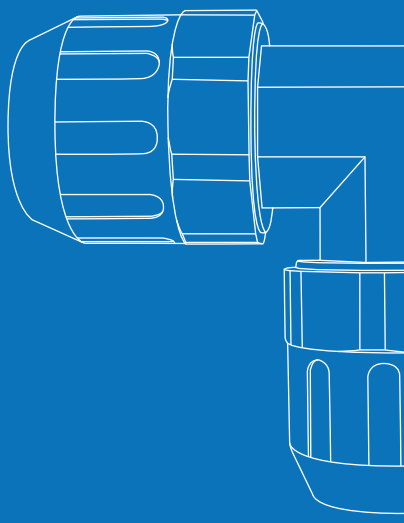
## TierreFittings®

INDUSTRIAL AUTOMATION
HYGIENIC & FOOD
FOOD & BEVERAGE



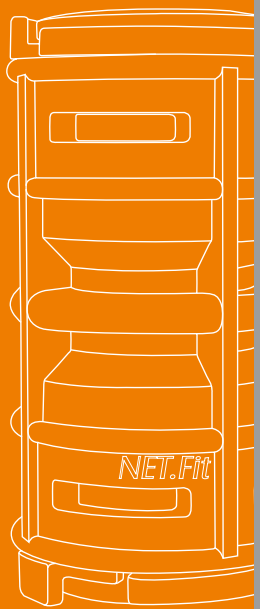
## F-Line®.PRO

AIR DISTRIBUTION
NETWORKS



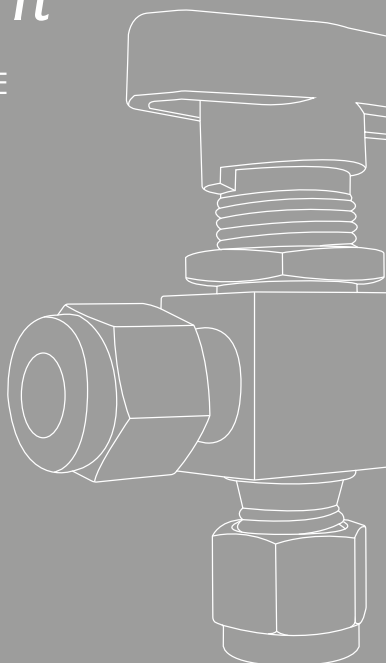
## NET.Fit®

PUSH-IN FITTINGS
FOR TELECOM
MICRODUCTS



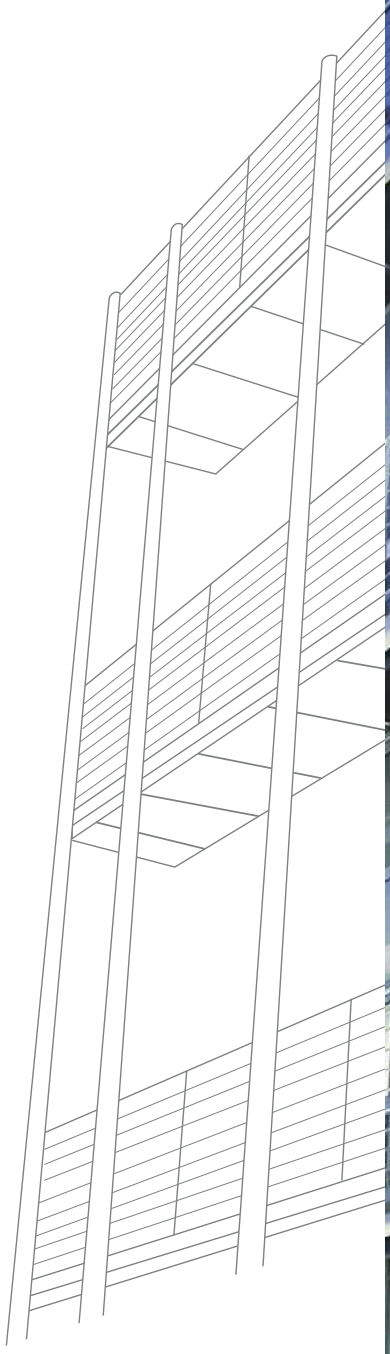

## INOX.Fit®

HIGH PRESSURE
SOLUTIONS



TierreFittings®

# INDUSTRIAL AUTOMATION
# HYGIENIC & FOOD
# FOOD & BEVERAGE



TierreGroup®

TierreFittings®

F-Line®.PRO

NET.Fit®

INOX.Fit®







# COMPANY PROFILE

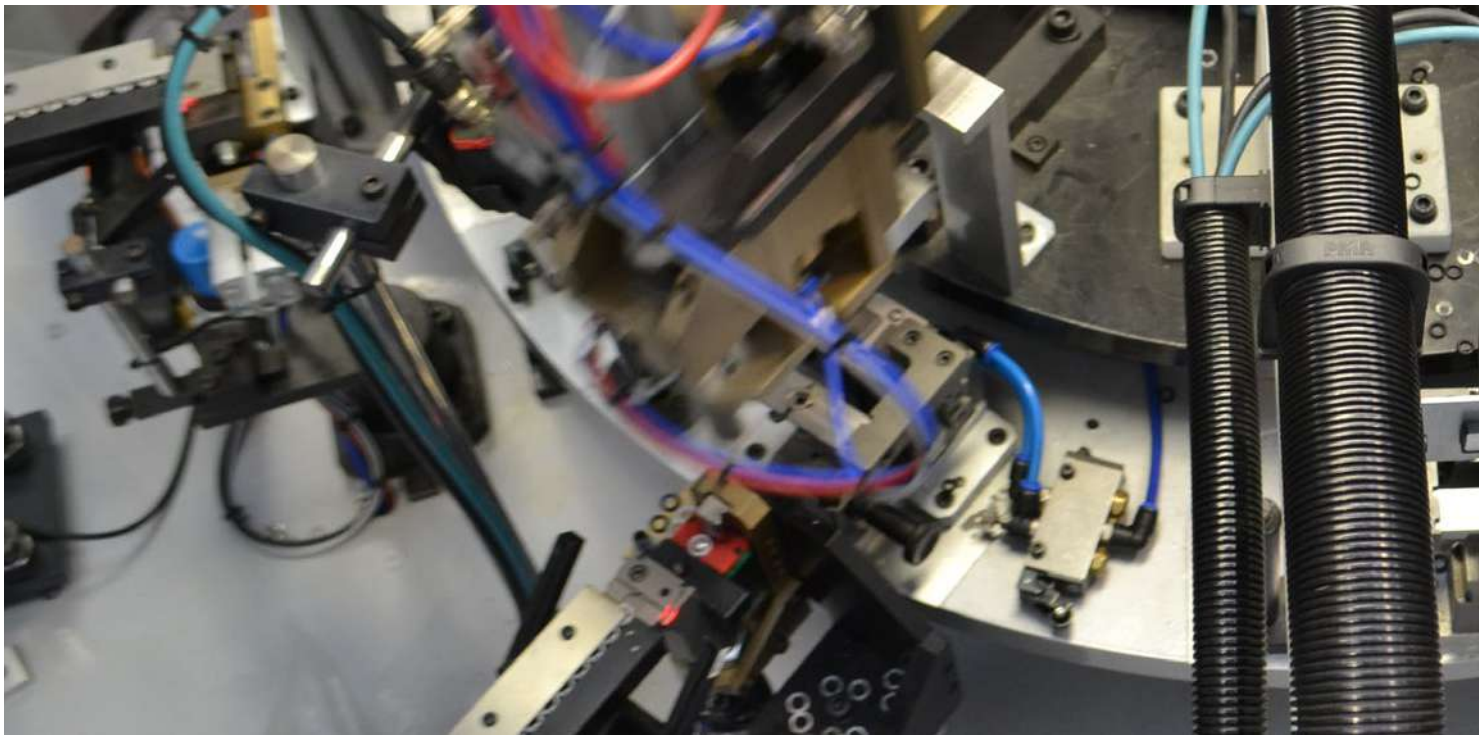
## In the union there is our whole philosophy.

**The Tierre story is the story of a union,** or rather of many unions. **A union between passions, people and ideas:** it is from here that in 1998 one of the leading companies for fittings in the fields of pneumatic automation, food & beverages and telecommunications was established.

**Honesty, respect and fairness are the core principles that make Tierre Group a large family.**

Leading to other qualities such as reliability, punctuality and flexibility thanks to a skilled, young and focused management team. This is how the company quickly established an extensive product range capable of satisfying every need, fast delivery times and the excellent customer service.

**The secret of Tierre Group? The People**, making the most of them is at the centre of the company's success, because enthusiastic and motivated collaborators put heart and passion into everything they do to in order to achieve the best performance and set new benchmarks.



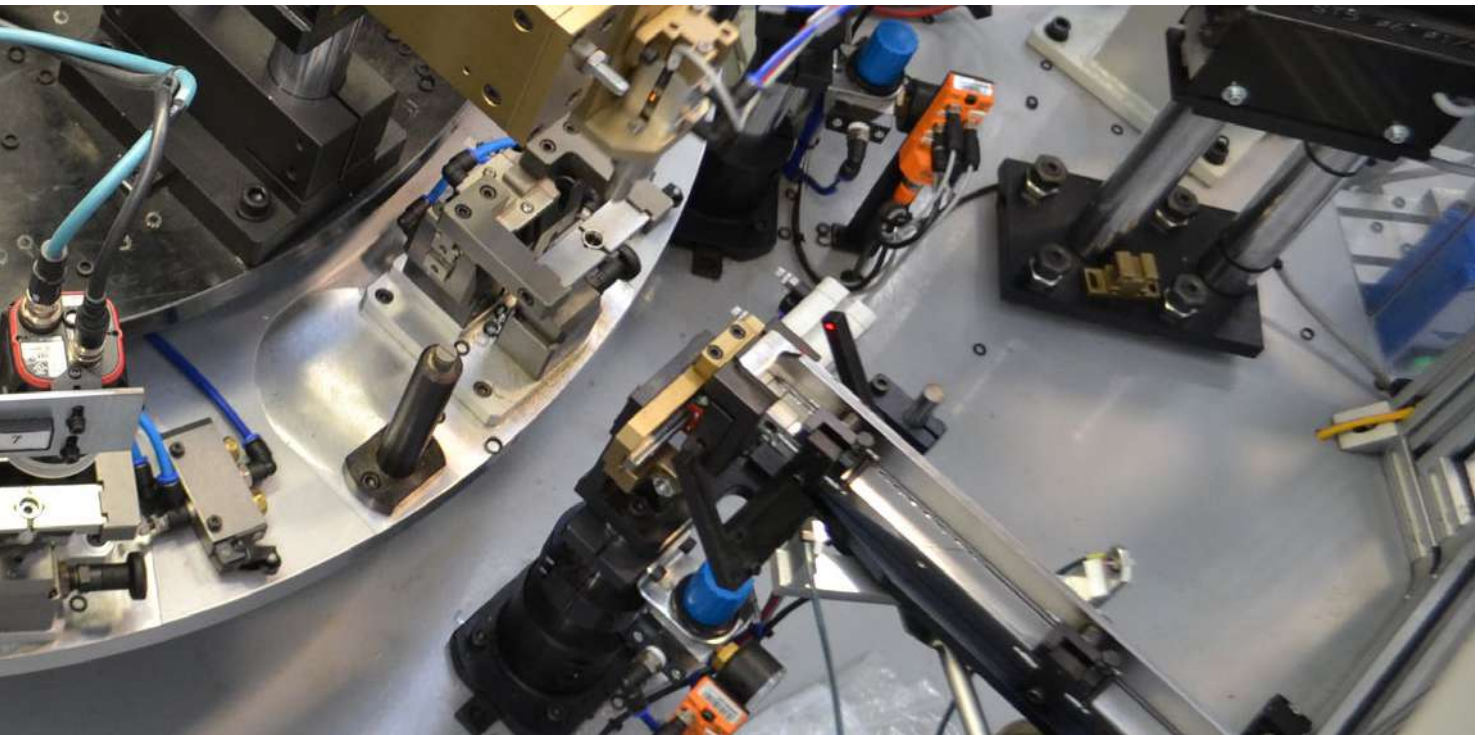


## Experience and innovation in their perfect union.

**Invest today to create new possibilities tomorrow.** It is with this thought process that the vision and credibility of Tierre Group is embraced. Following this philosophy, the company has gone beyond its traditional expertise in the distribution and supply of high-quality products to become a leading name in the field of fittings production.

Tierre Group responds every day to meet the specific and complex needs of its customers, **through the design and development of innovative high-performance solutions in different sectors.**

**Designing and fully realizing the components of its main product ranges** has been the key to the success of Tierre Group. This was made possible by the great resources dedicated to technological innovation. Starting from its modern high-tech offices, utilising an advanced internal management system and automatic vertical storage warehouses, up to the new manufacturing plant located in Brescia which has been the heart of the Tierre Group transformation. The ability to offer customized solutions for every specific need, together with constant technical research on materials, allows Tierre Group to obtain production efficiency and high levels of performance for all products. In addition, each process is controlled based on the most stringent Italian and European standards, which are regulated and certified internationally.






## People are the future. And the future is in people.

Since it was established, Tierre Group has never stopped growing as a result of **a team of closely-knit people, united by an infinite passion for their work.** It is from their vision, their knowledge and their dialogue that, day after day, new ideas and new paths are developed that go beyond pre-established boundaries and set ever more ambitious goals.
It is with this spirit that **today the company develops projects and programs aimed at enriching and enhancing its resources by offering healthy and constructive work spaces and environments,** professional and motivational training courses and implementing programs with prestigious universities such as, the SDA Bocconi in Milan.
All this, because the future of people is the future of Tierre Group.

MANAGEMENT SYSTEM CERTIFICATION DNV ISO 9001 • ISO 14001

assofluid

FEDERTEC

AVR VALVOLE E RUBINETTI
ASSOCIAZIONE ITALIANA COSTRUTTORI VALVOLE E RUBINETTERIA

FEDERATA ANIMA CONFINDUSTRIA MECCANICA VARIA






## Tierre Group Figures.

More than **20 years** of experience, 3 Plants (Headquarters & Central Warehouse in Milano, Brass & Stainless Steel AISI 316L Production in Brescia and Plastic for Optical Fibres Production in Zhejiang China). A professional team of **50 people** committed to the development of a fast growing global business with its main focus on the EMEA Area. More than **20 million pieces have been produced & distributed** through a consistent & reliable network of partners, offering a high level of quality & service.



# INDEX


**PUSH-IN FITTINGS** **1**

 WTR SERIES 3

 COMPACT CDC PNEUMATICS 31

 M SERIES 43

 OTR SERIES 59

 FOOD GRADE HFR SERIES 73

 FLUIDFIT 81

 XVR SERIES 99

 CDC PNEUMATICS CARTRIDGES 109

 FLUIDFIT CARTRIDGES 113

**PUSH-ON FITTINGS** **117**

 ACETAL RESIN 119

 BRASS 125

 POLYPROPYLENE 139

 PVDF 149

 STAINLESS STEEL AISI 316L 157

**COMPRESSION FITTINGS** **165**

 YELLOW BRASS 167

 NICKEL-PLATED BRASS 181

 STAINLESS STEEL AISI 316 DIN 2353 191

**BARB CONNECTORS** **199**

 POLYPROPYLENE 201

 BRASS 209

 NYLON 217

 PVDF 231

 STAINLESS STEEL AISI 316 241

 CLAMPS 245

**STANDARD FITTINGS** **251**

 MICROCAST 253

 BRASS 263

 BAYONED JOINT 279

 NYLON 289

 PVDF 299

 STAINLESS STEEL AISI 316 307

**FUNCTION FITTINGS** **317**

 FLOW REGULATORS 319

 EXHAUST VALVES 355

 STOP FITTINGS 367

 CHECK VALVES 373

**HAND VALVES** **395**

 SLIDE VALVES 397

 WTR SERIES VALVES 403

 DUALTECH VALVES 411

 TRIOTECH VALVES 415

 FLUIDFIT VALVES 419

**ACCESSORIES & AIR GUNS** **423**

 SILENCERS 425

 DISTRIBUTION MANIFOLDS 435

 PRESSURE GAUGES 441

 TANKS 451

 SEALING FOR THREADED ELEMENTS 455

 CAF AIR GUN 467

 CB AIR GUN WITH HIGH FLOWRATE 471

 PSF ALUMINIUM AIR GUN 475

 UGPT-7 BLOW COMB COMPRESSED AIR 479

**QUICK COUPLINGS** **483**


NYLON 485


ACETAL RESIN 489


COMPRESSED AIR 497


HIGH PERFORMANCE AIR&FLUIDS - CD SERIES 533


HIGH PERFORMANCE AIR&FLUIDS 563

**INDUSTRIAL VALVES** **621**


INDUSTRIAL VALVES 623


SOLENOID VALVES 673

**TECHNICAL TUBES** **685**


POLYURETHANE TUBE ON POLYESTER BASIS 689


HIGH QUALITY POLYURETHANE TUBE ON POLYESTER BASIS 693


POLYURETHANE TUBE ON POLYETHER BASIS 699


ANTISTATIC POLYURETHANE TUBE 703


ANTI-SPARK POLYURETHANE TUBE FLAMEX HYBRID 707


SELF-EXTINGUISHING POLYURETHANE TUBE 715


POLYAMIDE TUBE PA12 719


POLYETHYLENE TUBE 725


CALIBRATED PTFE TUBE 729


CALIBRATED FEP TUBE 733

**TECHNICAL TUBES** **685**

 SILICONE TUBE 737

 PVC CRYSTAL CLEAR TUBE 741

 PVC CRYSTAL REINFORCED TUBE 745

 POLYURETHANE TUBE WITH NON-TOXIC PVC INNER LAYER 749

 PVC TUBE WITH POLYESTER FIBRE REINFORCEMENT 753

 COILED TUBES & ACCESSORIES 757

 PUSH-LOCK HOSES & FITTINGS 767

**AIR LINE SYSTEM** **779**

 AIR LINE SYSTEM 781

**CHEMICAL SEAL TABLE** **789**

**ALPHANUMERIC INDEX** **797**

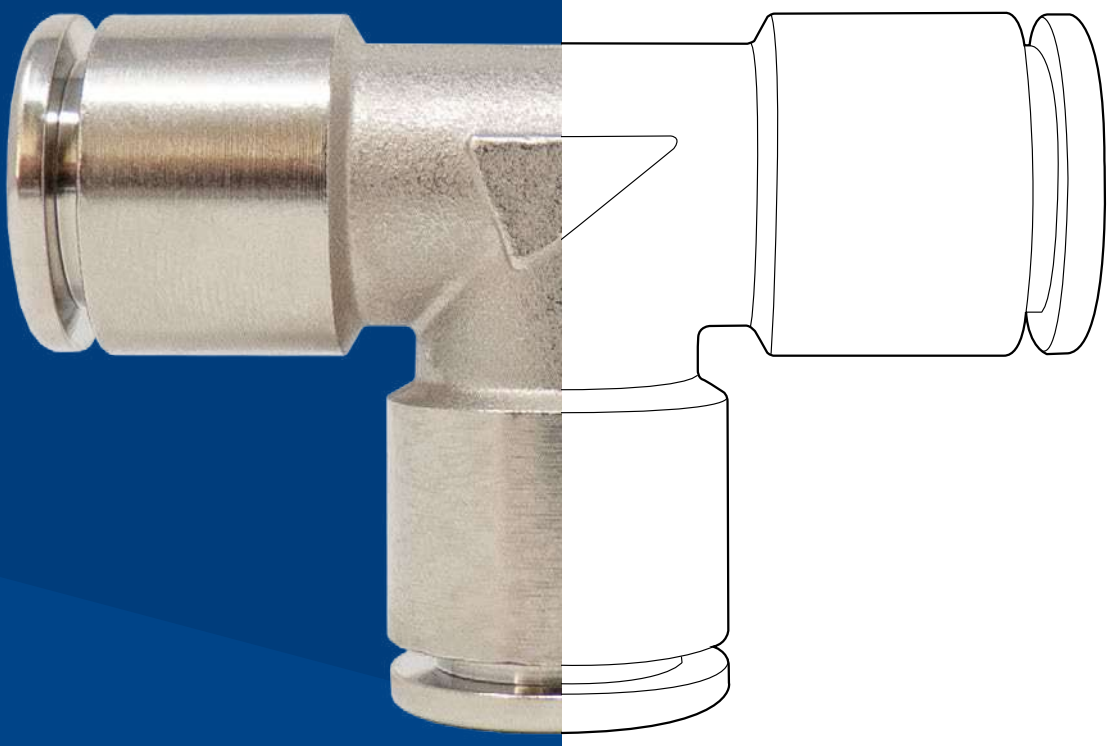
TierreGroup®
Always a fittings solution

# L'unione ideale tra tecnologia e performance.



**FOLLOW US!**

# PUSH-IN FITTINGS



# TECHNICAL INDEX



p. 3

**WTR SERIES**

**Materials:** Nickel-plated brass & PBT
**Pressure:** 16 Bar
**Temperature:** from 0°C to 60°C
**Range:** Ø4 - Ø16 / R1/8" to R1/2"
Ø4 - Ø16 / M5 to G1/2"



p. 31

**COMPACT CDC PNEUMATICS**

**Materials:** Nickel-plated brass & PBT
**Pressure:** 10 Bar
**Temperature:** from 0°C to 60°C
**Range:** Ø4 - Ø6 / R1/8"
Ø3 - Ø6 / M3 to G1/8"



p. 43

**M SERIES**

**Materials:** Nickel-plated brass, PA66 and Stainless steel AISI 303
**Pressure:** 20 Bar
**Temperature:** from -20°C to 80°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"
Ø4 - Ø12 / M5 to G1/2"



p. 59

**OTR SERIES**

**Materials:** Nickel-plated brass
**Pressure:** 20 Bar
**Temperature:** from -20°C to 80°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"
Ø4 - Ø12 / M5 to G1/2"



p. 73

**FOOD GRADE HFR SERIES**

**Materials:** TEA+ plated brass
**Pressure:** 20 Bar
**Temperature:** from -20°C to 150°C
**Range:** Ø4 - Ø12 / M5 to G1/2"



p. 81

**FLUIDFIT**

**Materials:** POM
**Pressure:** 20 Bar
**Temperature:** from -20°C to 98°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"
Ø4 - Ø12 / G1/8" to G1/2"



p. 99

**XVR SERIES**

**Materials:** Stainless steel AISI 316L
**Pressure:** 20 Bar
**Temperature:** from -20°C to 150°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"
Ø4 - Ø12 / M5 to G1/2"



p. 109

**CDC PNEUMATICS CARTRIDGES**

**Materials:** Nickel-plated brass
**Pressure:** 10 Bar
**Temperature:** from 0°C to 60°C
**Range:** Ø4 - Ø12



p. 113

**FLUIDFIT CARTRIDGES**

**Materials:** Brass and POM
**Pressure:** 20 Bar
**Temperature:** from -20°C to 98°C
**Range:** Ø4 - Ø12

*drawings and technical data are not binding & can be changed without notice*

# PUSH-IN FITTINGS
## WTR SERIES

## PLUS

**COMPLETE RANGE** thanks to 20 years of experience in the industry

**HIGHEST LEVEL OF PERFORMANCES** working pressure up to 16 bar, increased working temperature from -20°C to 80°C

**PLASTIC STEM SYSTEM** to allow connection with different kind of fittings

**MADE FROM TOP QUALITY TECNOPOLYMERS** to guarantee long-lasting components

**100% LEAK-PROOF TESTED**

**IN COMPLIANCE WITH ISO 14743 (EXCEPT Ø16)**

**SUITABLE FOR VACUUM APPLICATIONS**

**STATIC GRIPPING SYSTEM** in order to stop all movement of the tube when inserted, granting a leak-proof connection

Every fitting is **DESIGNED TO GUARANTEE MAXIMUM POSSIBLE FLOW RATE** accordingly to the diameter of the tube and the thread



p. 7 / **WTRC-R**



p. 8 / **WTRC-G**



p. 9 / **WTROC-R**



p. 9 / **WTROC-G**



p. 10 / **WTRCF-G**



p. 10 / **WTRMF-G**



p. 11 / **WTRMM**



p. 11 / **WTRSL-R**



p. 12 / **WTRSL-G**



p. 12 / **WTRL-R**



p. 13 / **WTRL-G**



p. 14 / **WTRLL-R**



p. 14 / **WTRLL-G**



p. 15 / **WTRLH-R**



p. 15 / **WTRLH-G**



p. 16 / **WTRLF-G**



p. 16 / **WTRLM**



p. 17 / **WTRH-R**



p. 17 / **WTRH-G**



p. 18 / **WTRHF-R**



p. 18 / **WTRHF-G**



p. 19 / **WTRT-R**



p. 19 / **WTRT-G**



p. 20 / **WTRST-R**



p.20 / **WTRST-G**



p. 21 / **WTRWT-R**



p. 21 / **WTRWT-G**



p. 22 / **WTRKD-R**



p. 22 / **WTRKD-G**



p. 23 / **WTRUC**



p. 23 / **WTRG**



p. 23 / **WTRUL**



p. 24 / **WTRUT**



p. 24 / **WTRGT**



p. 24 / **WTRY**



p. 24 / **WTRW**



p. 25 / **WTRZA**



p. 25 / **WTRK**



p. 25 / **WTRKG**



p. 25 / **WTRGJ**



p. 26 / **WTRLJ**



p. 26 / **WTRLGJ**



p. 26 / **WTRTJ**



p. 26 / **WTRTGJ**



p. 27 / **WTRYJ**



p. 27 / **WTRWJ**



p. 27 / **WTRKJ**



p. 27 / **WTRPF**



p. 28 / **WTRIJ**



p. 28 / **WTRIG**



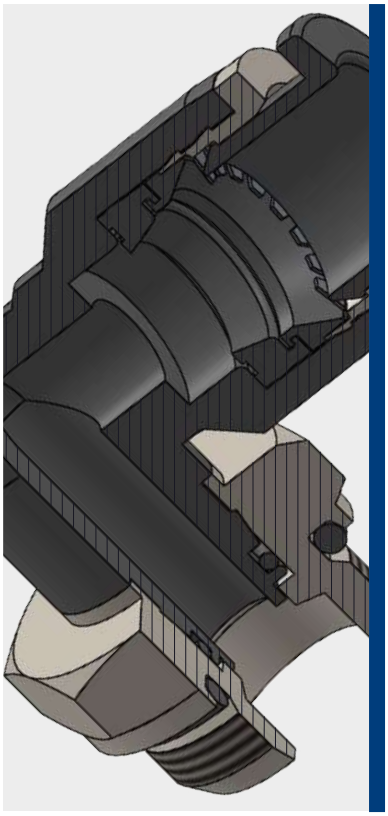
p. 28 / **WTRP**



p. 28 / **WTRUC-PRD**



p. 29 / **WTRCV**



-20°C ÷ 80°C

**Working pressure:**
16 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air & Vacuum
(do not use in water application)

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"
- Metric ISO 262
  M5, M6 and M7

Polyamide PA,
Polyurethane PU,
Polyethylene PE

**AVAILABILITY**
Available with NPT thread on request

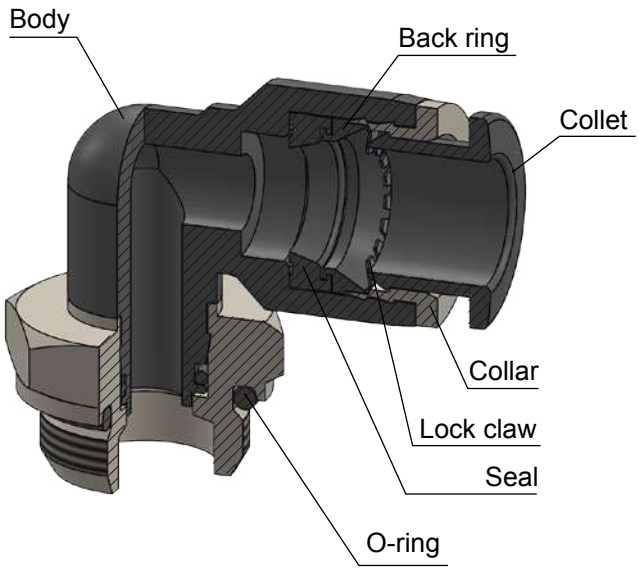
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR

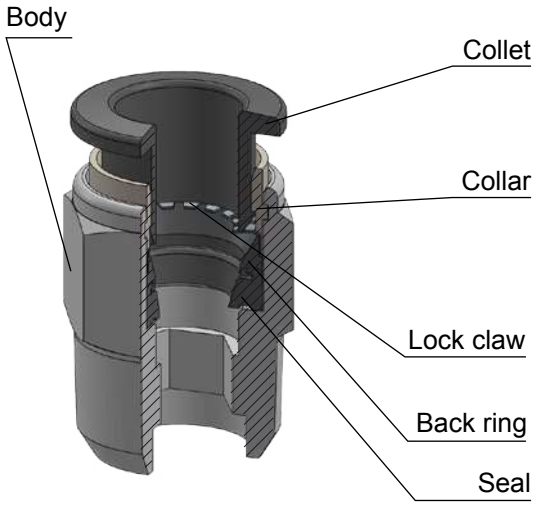
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | M6x1 | M7x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|---|
| Nm | 1,5 | 2 | 3 | 6 | 10 | 18 | 23 |

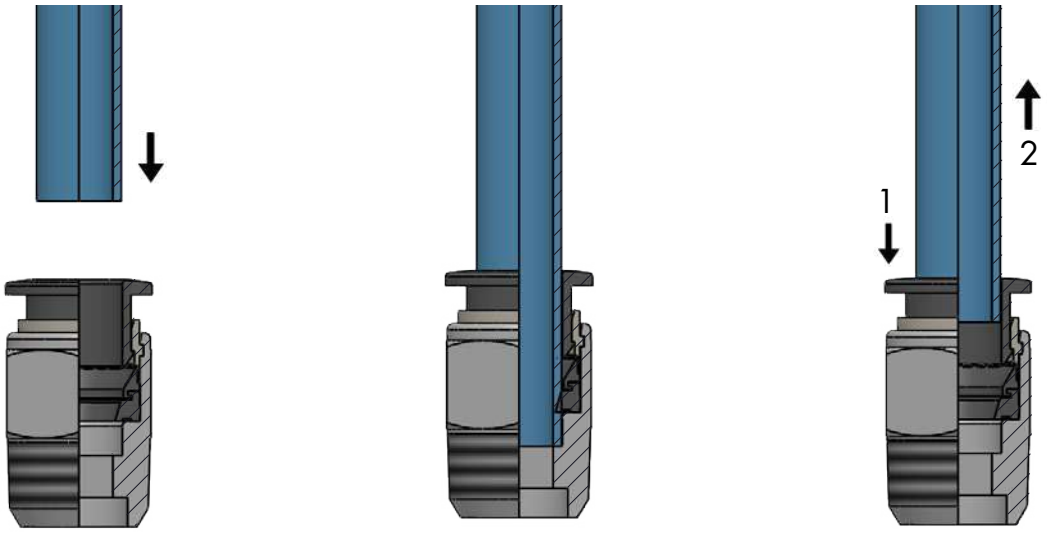
*drawings and technical data are not binding & can be changed without notice*

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCE - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|---|---|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 | ± 0,15 | ± 0,15 |

## INSERTION DEPTH - METRIC TUBE

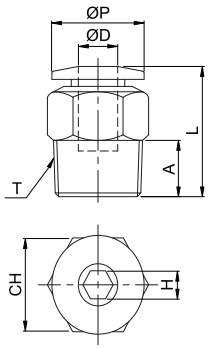
| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|---|---|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 15 | 16,5 | 18,8 | 20,1 | 22,9 | 22,9 | 23,6 |

*drawings and technical data are not binding & can be changed without notice*

## WTRC-R

Male connector BSPT thread nickel-plated



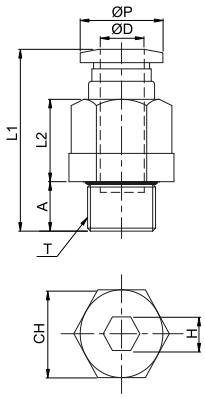



| CODE | ØD | T | ØP | A | L | CH | H | g |
|---|---|---|---|---|---|---|---|---|
| WTRC04R01 | 4 | R 1/8" | 9,8 | 7 | 19,3 | 10 | 3 | 6,2 |
| WTRC04R02 | | R 1/4" | 9,8 | 9,5 | 17,9 | 14 | 3 | 9,8 |
| WTRC06R01 | 6 | R 1/8" | 11,9 | 7 | 20,4 | 12 | 4 | 6,9 |
| WTRC06R02 | | R 1/4" | 11,9 | 9,5 | 22,7 | 14 | 4 | 13,3 |
| WTRC06R03 | | R 3/8" | 11,9 | 10,5 | 20,7 | 17 | 4 | 19,9 |
| WTRC06R04 | | R 1/2" | 11,9 | 13,5 | 24,7 | 21 | 4 | 39,8 |
| WTRC08R01 | 8 | R 1/8" | 13,8 | 7 | 25,4 | 14 | 5 | 10 |
| WTRC08R02 | | R 1/4" | 13,8 | 9,5 | 24,9 | 14 | 6 | 11,9 |
| WTRC08R03 | | R 3/8" | 13,8 | 10,5 | 21,9 | 17 | 6 | 17,5 |
| WTRC08R04 | | R 1/2" | 13,8 | 13,5 | 25,9 | 21 | 6 | 37,6 |
| WTRC10R01 | 10 | R 1/8" | 17,2 | 7 | 27,7 | 17 | 5 | 16,4 |
| WTRC10R02 | | R 1/4" | 17,2 | 9,5 | 29,5 | 17 | 6 | 18,6 |
| WTRC10R03 | | R 3/8" | 17,2 | 10,5 | 27 | 17 | 8 | 20,7 |
| WTRC10R04 | | R 1/2" | 17,2 | 13,5 | 25,3 | 21 | 8 | 34,6 |
| WTRC12R02 | 12 | R 1/4" | 19,6 | 9,5 | 32,9 | 20 | 6 | 24,5 |
| WTRC12R03 | | R 3/8" | 19,6 | 10,5 | 29,9 | 20 | 8 | 25,3 |
| WTRC12R04 | | R 1/2" | 19,6 | 13,5 | 32,9 | 21 | 8 | 41 |
| WTRC16R03 | 16 | R 3/8" | 24,3 | 10,5 | 37,6 | 24 | 8 | 42 |
| WTRC16R04 | | R 1/2" | 24,3 | 13,5 | 35,6 | 24 | 10 | 42,1 |

## WTRC-G

Male connector BSPP & metric thread nickel-plated





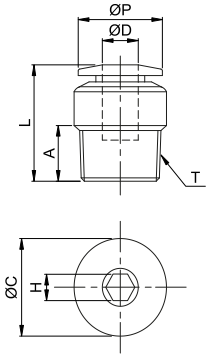

| CODE | ØD | T | ØP | A | L1 | L2 | CH | H | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRC04M5 | 4 | M5x0,8 | 9,8 | 3,8 | 20,1 | - | 10 | 2 | 5,7 |
| WTRC04M6 | | M6x1 | 9,8 | 4,5 | 20,8 | - | 10 | 2,5 | 6,1 |
| WTRC04M7 | | M7x1 | 9,8 | 4,5 | 20,8 | - | 10 | 2,5 | 6,9 |
| WTRC04G01 | | G 1/8" | 9,8 | 5 | 19,3 | 7,4 | 10 | 3 | 7,4 |
| WTRC04G02 | | G 1/4" | 9,8 | 5,8 | 16,6 | 3,9 | 10 | 3 | 9,4 |
| WTRC06M5 | 6 | M5x0,8 | 11,9 | 3,8 | 21,2 | - | 12 | 2 | 7,4 |
| WTRC06M6 | | M6x1 | 11,9 | 4,5 | 21,7 | - | 12 | 2,5 | 7 |
| WTRC06M7 | | M7x1 | 11,9 | 4,5 | 21,7 | - | 12 | 2,5 | 7,2 |
| WTRC06G01 | | G 1/8" | 11,9 | 5 | 19,9 | 6,7 | 12 | 4 | 7,5 |
| WTRC06G02 | | G 1/4" | 11,9 | 5,8 | 20,4 | 6,4 | 12 | 4 | 10,8 |
| WTRC06G03 | | G 3/8" | 11,9 | 6,8 | 20 | 4,5 | 12 | 4 | 17 |
| WTRC06G04 | | G 1/2" | 11,9 | 8 | 21,7 | 4,5 | 12 | 4 | 27,5 |
| WTRC08G01 | 8 | G 1/8" | 13,8 | 5 | 24,4 | 11,1 | 14 | 5 | 11,7 |
| WTRC08G02 | | G 1/4" | 13,8 | 5,8 | 22,2 | 7 | 14 | 6 | 11,1 |
| WTRC08G03 | | G 3/8" | 13,8 | 6,8 | 21,2 | 4,5 | 14 | 6 | 15,7 |
| WTRC08G04 | | G 1/2" | 13,8 | 8 | 22,9 | 4,5 | 14 | 6 | 27 |
| WTRC10G01 | 10 | G 1/8" | 17,2 | 5 | 26,3 | 11 | 17 | 5 | 15,9 |
| WTRC10G02 | | G 1/4" | 17,2 | 5,8 | 27,5 | 13,9 | 17 | 6 | 20,4 |
| WTRC10G03 | | G 3/8" | 17,2 | 6,8 | 25 | 8,9 | 17 | 8 | 20,6 |
| WTRC10G04 | | G 1/2" | 17,2 | 8 | 22,7 | 4,9 | 17 | 8 | 28,5 |
| WTRC12G02 | 12 | G 1/4" | 19,6 | 5,8 | 31,2 | 12 | 20 | 6 | 26,3 |
| WTRC12G03 | | G 3/8" | 19,6 | 6,8 | 28,2 | 11 | 20 | 8 | 24,3 |
| WTRC12G04 | | G 1/2" | 19,6 | 8 | 28,9 | 9,5 | 20 | 8 | 33,3 |
| WTRC14G03 | 14 | G 3/8" | 21,8 | 6,8 | 31,8 | 13 | 21 | 8 | 30 |
| WTRC14G04 | | G 1/2" | 21,8 | 8 | 29,5 | 10 | 24 | 10 | 20 |
| WTRC16G03 | 16 | G 3/8" | 24,3 | 6,8 | 34,9 | 14,5 | 24 | 8 | 42 |
| WTRC16G04 | | G 1/2" | 24,3 | 8 | 36,1 | 18 | 24 | 10 | 50,7 |

*drawings and technical data are not binding & can be changed without notice*

## WTROC-R

Male connector round body with internal hexagon BSPT thread nickel-plated



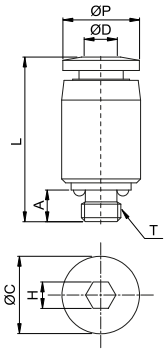



| CODE | ØD | T | ØP | ØC | A | L | H | g |
|---|---|---|---|---|---|---|---|---|
| WTROC04R01 | 4 | R 1/8" | 9,8 | 10 | 7 | 19,3 | 3 | 5,6 |
| WTROC04R02 | | R 1/4" | 9,8 | 14 | 9,5 | 17,9 | 3 | 11,2 |
| WTROC06R01 | 6 | R 1/8" | 11,9 | 12 | 7 | 20,4 | 4 | 6,3 |
| WTROC06R02 | | R 1/4" | 11,9 | 14 | 9,5 | 22,7 | 4 | 12,5 |
| WTROC06R03 | | R 3/8" | 11,9 | 17 | 10,5 | 20,7 | 4 | 19 |
| WTROC08R01 | 8 | R 1/8" | 13,8 | 14 | 7 | 25,4 | 5 | 10,2 |
| WTROC08R02 | | R 1/4" | 13,8 | 14 | 9,5 | 24,9 | 6 | 13,1 |
| WTROC08R03 | | R 3/8" | 13,8 | 17 | 10,5 | 21,9 | 6 | 17,3 |
| WTROC08R04 | | R 1/2" | 13,8 | 21 | 13,5 | 25,9 | 6 | 37,9 |
| WTROC10R01 | 10 | R 1/8" | 17,2 | 17 | 7 | 27,7 | 5 | 20,8 |
| WTROC10R02 | | R 1/4" | 17,2 | 17 | 9,5 | 29,5 | 6 | 22,5 |
| WTROC10R03 | | R 3/8" | 17,2 | 17 | 10,5 | 27 | 8 | 22,6 |
| WTROC10R04 | | R 1/2" | 17,2 | 21 | 13,5 | 25,3 | 8 | 34 |
| WTROC12R02 | 12 | R 1/4" | 19,6 | 20 | 9,5 | 32,9 | 6 | 21,5 |
| WTROC12R03 | | R 3/8" | 19,6 | 20 | 10,5 | 29,9 | 8 | 22,2 |
| WTROC12R04 | | R 1/2" | 19,6 | 21 | 13,5 | 32,9 | 8 | 37,3 |

## WTROC-G

Male connector round body with internal hexagon metric thread nickel-plated



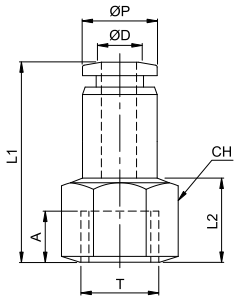



| CODE | ØD | T | ØP | ØC | A | L | H | g |
|---|---|---|---|---|---|---|---|---|
| WTROC04M5 | 4 | M5x0,8 | 9,8 | 10 | 3,8 | 20,1 | 2 | 5,2 |
| WTROC04M6 | | M6x1 | 9,8 | 10 | 4,5 | 20,8 | 2 | 5,6 |
| WTROC06M5 | 6 | M5x0,8 | 11,9 | 12 | 3,8 | 21 | 2 | 6,8 |
| WTROC06M6 | | M6x1 | 11,9 | 12 | 4,5 | 21,7 | 2 | 7,2 |

## WTRCF-G

Female connector BSPP thread nickel-plated



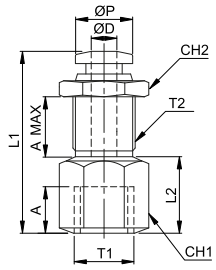



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRCF04G01 | 4 | G 1/8" | 9,8 | 7 | 23,3 | 9,5 | 14 | 12,5 |
| WTRCF04G02 | | G 1/4" | 9,8 | 9 | 25,3 | 11,5 | 17 | 18 |
| WTRCF06G01 | 6 | G 1/8" | 11,9 | 7 | 24,4 | 10 | 14 | 15 |
| WTRCF06G02 | | G 1/4" | 11,9 | 9 | 26,4 | 12 | 17 | 19,3 |
| WTRCF06G03 | | G 3/8" | 11,9 | 10 | 27,4 | 13 | 19 | 26,3 |
| WTRCF08G01 | 8 | G 1/8" | 13,8 | 7 | 25,9 | 10 | 14 | 15,8 |
| WTRCF08G02 | | G 1/4" | 13,8 | 9 | 27,9 | 12 | 17 | 19,4 |
| WTRCF08G03 | | G 3/8" | 13,8 | 10 | 28,9 | 13 | 19 | 18,4 |
| WTRCF08G04 | | G 1/2" | 13,8 | 12 | 30,9 | 15 | 24 | 32,8 |
| WTRCF10G01 | 10 | G 1/8" | 17,2 | 7 | 27,7 | 10 | 17 | 28,5 |
| WTRCF10G02 | | G 1/4" | 17,2 | 9 | 29,7 | 13,3 | 17 | 27 |
| WTRCF10G03 | | G 3/8" | 17,2 | 10 | 30,7 | 14,3 | 19 | 24,6 |
| WTRCF10G04 | | G 1/2" | 17,2 | 12 | 32,7 | 16,3 | 24 | 38,5 |
| WTRCF12G02 | 12 | G 1/4" | 19,6 | 9 | 32,9 | 11 | 20 | 44,2 |
| WTRCF12G03 | | G 3/8" | 19,6 | 10 | 33,9 | 12 | 20 | 35,9 |
| WTRCF12G04 | | G 1/2" | 19,6 | 12 | 35,9 | 15,5 | 24 | 34,2 |

## WTRMF-G

Bulkhead female connector BSPP thread nickel-plated



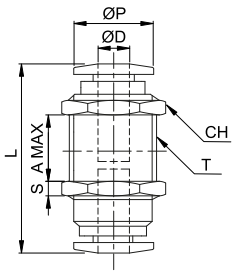



| CODE | ØD | T1 | T2 | ØP | A | A MAX | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WTRMF04G01 | 4 | G 1/8" | M12x1 | 9,8 | 7 | 5,4 | 23,3 | 9,5 | 14 | 14 | 15,5 |
| WTRMF04G02 | | G 1/4" | M12x1 | 9,8 | 9 | 5,4 | 25,4 | 11,6 | 17 | 14 | 20,4 |
| WTRMF06G01 | 6 | G 1/8" | M14x1 | 11,9 | 7 | 6,9 | 24,2 | 7 | 17 | 17 | 26,3 |
| WTRMF06G02 | | G 1/4" | M14x1 | 11,9 | 9 | 6,9 | 29,2 | 12 | 17 | 17 | 26,5 |
| WTRMF06G03 | | G 3/8" | M14x1 | 11,9 | 10 | 6,9 | 30,2 | 13 | 19 | 17 | 35,1 |
| WTRMF08G01 | 8 | G 1/8" | M16x1 | 13,8 | 7 | 9,4 | 26,4 | 5 | 19 | 19 | 32 |
| WTRMF08G02 | | G 1/4" | M16x1 | 13,8 | 9 | 9,4 | 34,4 | 12 | 19 | 19 | 42,4 |
| WTRMF08G03 | | G 3/8" | M16x1 | 13,8 | 10 | 9,4 | 34,4 | 13 | 19 | 19 | 42,4 |
| WTRMF08G04 | | G 1/2" | M16x1 | 13,8 | 12 | 9,4 | 36,4 | 15 | 24 | 19 | 47,7 |
| WTRMF10G01 | 10 | G 1/8" | M20x1 | 17,2 | 7 | 9,4 | 29 | 7,7 | 21 | 24 | 52,8 |
| WTRMF10G02 | | G 1/4" | M20x1 | 17,2 | 9 | 9,4 | 31 | 9,7 | 21 | 24 | 53,5 |
| WTRMF10G03 | | G 3/8" | M20x1 | 17,2 | 10 | 9,4 | 34,3 | 13 | 21 | 24 | 53,8 |
| WTRMF10G04 | | G 1/2" | M20x1 | 17,2 | 12 | 9,4 | 36,3 | 15 | 24 | 24 | 58,8 |
| WTRMF12G02 | 12 | G 1/4" | M22x1,5 | 19,6 | 9 | 10,9 | 33,5 | 9,1 | 24 | 27 | 68,2 |
| WTRMF12G03 | | G 3/8" | M22x1,5 | 19,6 | 10 | 10,9 | 34,4 | 10 | 24 | 27 | 62,7 |
| WTRMF12G04 | | G 1/2" | M22x1,5 | 19,6 | 12 | 10,9 | 39,4 | 15 | 24 | 27 | 62,3 |

## WTRMM

Bulkhead connector nickel-plated



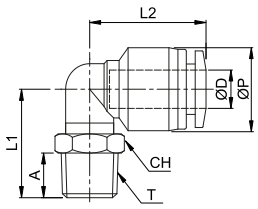



| CODE | ØD | T | ØP | A MAX | L | S | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRMM0400 | 4 | M12x1 | 9,8 | 8,2 | 30,1 | 3,5 | 14 | 15,4 |
| WTRMM0600 | 6 | M14x1 | 11,9 | 8,5 | 31,8 | 4 | 17 | 21,4 |
| WTRMM0800 | 8 | M16x1 | 13,8 | 8,8 | 35,3 | 4,5 | 19 | 26,8 |
| WTRMM1000 | 10 | M20x1 | 17,2 | 11,5 | 39 | 5 | 24 | 52,7 |
| WTRMM1200 | 12 | M22x1 | 19,6 | 12,8 | 45,3 | 5 | 27 | 59,8 |

## WTRSL-R

Short swivel male elbow BSPT thread nickel-plated



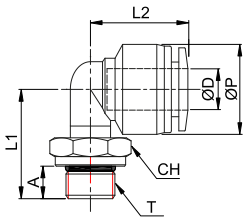



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRSL04R01 | 4 | R 1/8" | 11,1 | 7 | 16 | 17,5 | 10 | 5,8 |
| WTRSL04R02 | | R 1/4" | 11,1 | 9,5 | 19,5 | 17,5 | 14 | 6,3 |
| WTRSL06R01 | 6 | R 1/8" | 13 | 7 | 17 | 19 | 10 | 6,4 |
| WTRSL06R02 | | R 1/4" | 13 | 9,5 | 20,5 | 19 | 14 | 12,4 |
| WTRSL06R03 | | R 3/8" | 13 | 10,5 | 22 | 19 | 17 | 14,2 |
| WTRSL06R04 | | R 1/2" | 13 | 13,5 | 25,5 | 19 | 21 | 17,3 |
| WTRSL08R01 | 8 | R 1/8" | 15,1 | 7 | 21,3 | 22,8 | 12 | 11,5 |
| WTRSL08R02 | | R 1/4" | 15,1 | 9,5 | 21,5 | 22,8 | 14 | 13,3 |
| WTRSL08R03 | | R 3/8" | 15,1 | 10,5 | 23 | 22,8 | 17 | 20,3 |
| WTRSL08R04 | | R 1/2" | 15,1 | 13,5 | 26,5 | 22,8 | 21 | 21,9 |
| WTRSL10R01 | 10 | R 1/8" | 18,8 | 7 | 25,5 | 26,3 | 14 | 15,4 |
| WTRSL10R02 | | R 1/4" | 18,8 | 9,5 | 26 | 26,3 | 14 | 18,4 |
| WTRSL10R03 | | R 3/8" | 18,8 | 10,5 | 25 | 26,3 | 17 | 21,9 |
| WTRSL10R04 | | R 1/2" | 18,8 | 13,5 | 28,5 | 26,3 | 21 | 24,8 |
| WTRSL12R02 | 12 | R 1/4" | 21,5 | 9,5 | 29,5 | 29,6 | 17 | 33,6 |
| WTRSL12R03 | | R 3/8" | 21,5 | 10,5 | 26,5 | 29,6 | 17 | 36,2 |
| WTRSL12R04 | | R 1/2" | 21,5 | 13,5 | 30 | 29,6 | 21 | 39,5 |

## WTRSL-G

Short swivel male elbow BSPP & metric thread nickel-plated



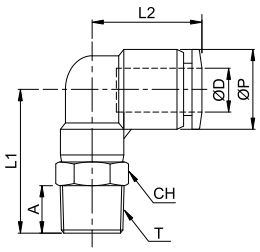



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRSL04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 15,3 | 17,5 | 8 | 5,2 |
| WTRSL04M7 | | M7x1 | 11,1 | 4,5 | 17 | 17,5 | 10 | 6,1 |
| WTRSL04G01 | | G 1/8" | 11,1 | 4,8 | 14,8 | 17,5 | 14 | 7,6 |
| WTRSL04G02 | | G 1/4" | 11,1 | 5,5 | 16 | 17,5 | 17 | 11,3 |
| WTRSL06M5 | 6 | M5x0,8 | 13 | 3,8 | 15,3 | 19 | 8 | 5,8 |
| WTRSL06M7 | | M7x1 | 13 | 4,5 | 17 | 19 | 10 | 6,7 |
| WTRSL06G01 | | G 1/8" | 13 | 4,8 | 15,8 | 19 | 14 | 8,3 |
| WTRSL06G02 | | G 1/4" | 13 | 5,5 | 17 | 19 | 17 | 13,3 |
| WTRSL06G03 | | G 3/8" | 13 | 6,5 | 18,5 | 19 | 20 | 16,8 |
| WTRSL06G04 | | G 1/2" | 13 | 7,5 | 19,5 | 19 | 24 | 20,1 |
| WTRSL08G01 | 8 | G 1/8" | 15,1 | 4,8 | 20 | 22,8 | 14 | 11,9 |
| WTRSL08G02 | | G 1/4" | 15,1 | 5,5 | 18 | 22,8 | 17 | 13,8 |
| WTRSL08G03 | | G 3/8" | 15,1 | 6,5 | 19,5 | 22,8 | 20 | 21,2 |
| WTRSL08G04 | | G 1/2" | 15,1 | 7,5 | 20,5 | 22,8 | 24 | 23,9 |
| WTRSL10G01 | 10 | G 1/8" | 18,8 | 4,8 | 24,3 | 26,3 | 14 | 21,3 |
| WTRSL10G02 | | G 1/4" | 18,8 | 5,5 | 23,1 | 26,3 | 17 | 24,3 |
| WTRSL10G03 | | G 3/8" | 18,8 | 6,5 | 21,5 | 26,3 | 20 | 27,6 |
| WTRSL10G04 | | G 1/2" | 18,8 | 7,5 | 22,5 | 26,3 | 24 | 31,2 |
| WTRSL12G02 | 12 | G 1/4" | 21,5 | 5,5 | 26,5 | 29,6 | 17 | 33,8 |
| WTRSL12G03 | | G 3/8" | 21,5 | 6,5 | 23 | 29,6 | 20 | 35,6 |
| WTRSL12G04 | | G 1/2" | 21,5 | 7,5 | 24 | 29,6 | 24 | 39,8 |

## WTRL-R

Swivel male elbow BSPT thread nickel-plated





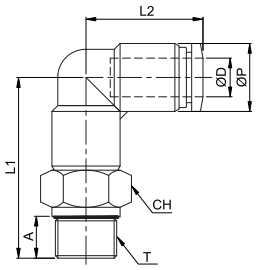

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRL04R01 | 4 | R 1/8" | 11,1 | 7 | 23,5 | 17,5 | 10 | 8,1 |
| WTRL04R02 | | R 1/4" | 11,1 | 9,5 | 27 | 17,5 | 14 | 13,9 |
| WTRL06R01 | 6 | R 1/8" | 13 | 7 | 25,2 | 19 | 12 | 11,5 |
| WTRL06R02 | | R 1/4" | 13 | 9,5 | 28,2 | 19 | 14 | 16,5 |
| WTRL06R03 | | R 3/8" | 13 | 10,5 | 29,7 | 19 | 17 | 22,6 |
| WTRL06R04 | | R 1/2" | 13 | 13,5 | 33,2 | 19 | 21 | 35,9 |
| WTRL08R01 | 8 | R 1/8" | 15,1 | 7 | 26,5 | 22,8 | 14 | 17,6 |
| WTRL08R02 | | R 1/4" | 15,1 | 9,5 | 29 | 22,8 | 14 | 17,7 |
| WTRL08R03 | | R 3/8" | 15,1 | 10,5 | 30,5 | 22,8 | 17 | 25,3 |
| WTRL08R04 | | R 1/2" | 15,1 | 13,5 | 34 | 22,8 | 21 | 38,2 |
| WTRL10R01 | 10 | R 1/8" | 18,8 | 7 | 29,5 | 26,3 | 17 | 30,7 |
| WTRL10R02 | | R 1/4" | 18,8 | 9,5 | 32 | 26,3 | 17 | 31,4 |
| WTRL10R03 | | R 3/8" | 18,8 | 10,5 | 33 | 26,3 | 17 | 30,8 |
| WTRL10R04 | | R 1/2" | 18,8 | 13,5 | 36,5 | 26,3 | 21 | 47,3 |
| WTRL12R02 | 12 | R 1/4" | 21,5 | 9,5 | 35,5 | 29,6 | 20 | 44,3 |
| WTRL12R03 | | R 3/8" | 21,5 | 10,5 | 36,5 | 29,6 | 20 | 46,7 |
| WTRL12R04 | | R 1/2" | 21,5 | 13,5 | 39,5 | 29,6 | 21 | 51,2 |
| WTRL14R03 | 14 | R 3/8" | 23,2 | 10,5 | 41,5 | 31,7 | 21 | 53 |
| WTRL14R04 | | R 1/2" | 23,2 | 13,5 | 45,5 | 31,7 | 24 | 62 |
| WTRL16R03 | 16 | R 3/8" | 26 | 10,5 | 43 | 33 | 24 | 67,6 |
| WTRL16R04 | | R 1/2" | 26 | 13,5 | 46 | 33 | 24 | 72,8 |

*drawings and technical data are not binding & can be changed without notice*

## WTRL-G

Swivel male elbow BSPP & metric thread nickel-plated





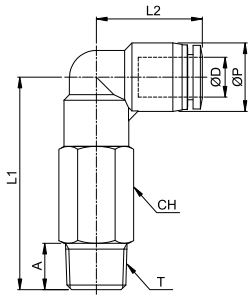

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRL04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 17,3 | 17,5 | 8 | 5,1 |
| WTRL04M6 | | M6x1 | 11,1 | 4,5 | 18 | 17,5 | 8 | 5,3 |
| WTRL04G01 | | G 1/8" | 11,1 | 5 | 24 | 17,5 | 14 | 11,8 |
| WTRL04G02 | | G 1/4" | 11,1 | 5,8 | 25,3 | 17,5 | 17 | 17,9 |
| WTRL06M5 | 6 | M5x0,8 | 13 | 3,8 | 17,3 | 19 | 8 | 5,8 |
| WTRL06M6 | | M6x1 | 13 | 4,5 | 18 | 19 | 8 | 6 |
| WTRL06G01 | | G 1/8" | 13 | 5 | 25,2 | 19 | 14 | 14,6 |
| WTRL06G02 | | G 1/4" | 13 | 5,8 | 26,5 | 19 | 17 | 17,5 |
| WTRL06G03 | | G 3/8" | 13 | 6,8 | 28 | 19 | 20 | 24,4 |
| WTRL06G04 | | G 1/2" | 13 | 8 | 29,2 | 19 | 24 | 38,4 |
| WTRL08G01 | 8 | G 1/8" | 15,1 | 5 | 26 | 22,8 | 14 | 17,5 |
| WTRL08G02 | | G 1/4" | 15,1 | 5,8 | 27,3 | 22,8 | 17 | 20,5 |
| WTRL08G03 | | G 3/8" | 15,1 | 6,8 | 28,8 | 22,8 | 20 | 26,6 |
| WTRL08G04 | | G 1/2" | 15,1 | 8 | 30 | 22,8 | 24 | 36,8 |
| WTRL10G01 | 10 | G 1/8" | 18,8 | 5 | 29 | 26,3 | 17 | 31,2 |
| WTRL10G02 | | G 1/4" | 18,8 | 5,8 | 29,8 | 26,3 | 17 | 30,5 |
| WTRL10G03 | | G 3/8" | 18,8 | 6,8 | 31,3 | 26,3 | 20 | 34,6 |
| WTRL10G04 | | G 1/2" | 18,8 | 8 | 33,5 | 26,3 | 24 | 47,3 |
| WTRL12G02 | 12 | G 1/4" | 21,5 | 5,8 | 33,8 | 29,6 | 20 | 43,9 |
| WTRL12G03 | | G 3/8" | 21,5 | 6,8 | 34,8 | 29,6 | 20 | 44,5 |
| WTRL12G04 | | G 1/2" | 21,5 | 8 | 36,5 | 29,6 | 24 | 51,8 |
| WTRL14G03 | 14 | G 3/8" | 23,2 | 6,8 | 39,8 | 31,7 | 21 | 52 |
| WTRL14G04 | | G 1/2" | 23,2 | 8 | 41,5 | 31,7 | 24 | 61 |
| WTRL16G03 | 16 | G 3/8" | 26 | 6,8 | 40,8 | 33 | 24 | 64 |
| WTRL16G04 | | G 1/2" | 26 | 8 | 42 | 33 | 24 | 66,5 |

*drawings and technical data are not binding & can be changed without notice*

## WTRLL-R

Long swivel male elbow BSPT thread nickel-plated



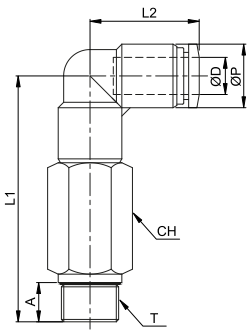



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRLL04R01 | 4 | R 1/8" | 11,1 | 7 | 35,5 | 17,5 | 10 | 14,2 |
| WTRLL04R02 | | R 1/4" | 11,1 | 9,5 | 39 | 17,5 | 14 | 26,2 |
| WTRLL06R01 | 6 | R 1/8" | 13 | 7 | 39,2 | 19 | 12 | 22 |
| WTRLL06R02 | | R 1/4" | 13 | 9,5 | 42,2 | 19 | 14 | 29,2 |
| WTRLL06R03 | | R 3/8" | 13 | 10,5 | 43,7 | 19 | 17 | 39,4 |
| WTRLL06R04 | | R 1/2" | 13 | 13,5 | 47,2 | 19 | 21 | 62,9 |
| WTRLL08R01 | 8 | R 1/8" | 15,1 | 7 | 41,8 | 22,8 | 14 | 34,6 |
| WTRLL08R02 | | R 1/4" | 15,1 | 9,5 | 44,3 | 22,8 | 14 | 33,1 |
| WTRLL08R03 | | R 3/8" | 15,1 | 10,5 | 45,8 | 22,8 | 17 | 45,6 |
| WTRLL08R04 | | R 1/2" | 15,1 | 13,5 | 49,3 | 22,8 | 21 | 70,1 |
| WTRLL10R01 | 10 | R 1/8" | 18,8 | 7 | 49,5 | 26,3 | 17 | 61,2 |
| WTRLL10R02 | | R 1/4" | 18,8 | 9,5 | 52 | 26,3 | 17 | 62,5 |
| WTRLL10R03 | | R 3/8" | 18,8 | 10,5 | 53 | 26,3 | 17 | 56,7 |
| WTRLL10R04 | | R 1/2" | 18,8 | 13,5 | 56,5 | 26,3 | 21 | 87,2 |
| WTRLL12R02 | 12 | R 1/4" | 21,5 | 9,5 | 58,5 | 29,6 | 20 | 86,7 |
| WTRLL12R03 | | R 3/8" | 21,5 | 10,5 | 59,5 | 29,6 | 20 | 100,7 |
| WTRLL12R04 | | R 1/2" | 21,5 | 13,5 | 62,5 | 29,6 | 21 | 89,7 |

## WTRLL-G

Long swivel male elbow BSPP & metric thread nickel-plated





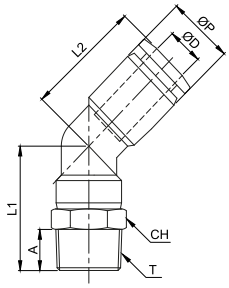

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRLL04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 29,3 | 17,5 | 8 | 10,4 |
| WTRLL04M6 | | M6x1 | 11,1 | 4,5 | 30 | 17,5 | 8 | 10,8 |
| WTRLL04G01 | | G 1/8" | 11,1 | 5 | 36 | 17,5 | 14 | 25,9 |
| WTRLL04G02 | | G 1/4" | 11,1 | 5,8 | 37,3 | 17,5 | 17 | 26,6 |
| WTRLL06M5 | 6 | M5x0,8 | 13 | 3,8 | 31,3 | 19 | 8 | 11,4 |
| WTRLL06M6 | | M6x1 | 13 | 4,5 | 32 | 19 | 8 | 11,8 |
| WTRLL06G01 | | G 1/8" | 13 | 5 | 39,2 | 19 | 14 | 30,5 |
| WTRLL06G02 | | G 1/4" | 13 | 5,8 | 40,5 | 19 | 17 | 43,3 |
| WTRLL06G03 | | G 3/8" | 13 | 6,8 | 42 | 19 | 20 | 57 |
| WTRLL06G04 | | G 1/2" | 13 | 8 | 43,2 | 19 | 24 | 91,5 |
| WTRLL08G01 | 8 | G 1/8" | 15,1 | 5 | 41,3 | 22,8 | 14 | 35,4 |
| WTRLL08G02 | | G 1/4" | 15,1 | 5,8 | 42,6 | 22,8 | 17 | 48 |
| WTRLL08G03 | | G 3/8" | 15,1 | 6,8 | 44,1 | 22,8 | 20 | 60,3 |
| WTRLL08G04 | | G 1/2" | 15,1 | 8 | 45,3 | 22,8 | 24 | 93,7 |
| WTRLL10G01 | 10 | G 1/8" | 18,8 | 5 | 49 | 26,3 | 17 | 61,8 |
| WTRLL10G02 | | G 1/4" | 18,8 | 5,8 | 49,8 | 26,3 | 17 | 68,7 |
| WTRLL10G03 | | G 3/8" | 18,8 | 6,8 | 51,3 | 26,3 | 20 | 78,7 |
| WTRLL10G04 | | G 1/2" | 18,8 | 8 | 53,5 | 26,3 | 24 | 105,8 |
| WTRLL12G02 | 12 | G 1/4" | 21,5 | 5,8 | 56,8 | 29,6 | 20 | 98,1 |
| WTRLL12G03 | | G 3/8" | 21,5 | 6,8 | 57,8 | 29,6 | 20 | 101,9 |
| WTRLL12G04 | | G 1/2" | 21,5 | 8 | 59,5 | 29,6 | 24 | 124,3 |

*drawings and technical data are not binding & can be changed without notice*

## WTRLH-R

Swivel male elbow 45° BSPT thread nickel-plated



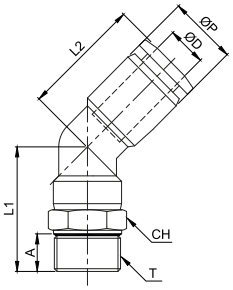



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRLH04R01 | 4 | R 1/8" | 11,1 | 7 | 22,2 | 16,2 | 10 | 8 |
| WTRLH04R02 | | R 1/4" | 11,1 | 9,5 | 25,7 | 16,2 | 14 | 13,8 |
| WTRLH06R01 | 6 | R 1/8" | 13 | 7 | 23,9 | 17,7 | 12 | 11 |
| WTRLH06R02 | | R 1/4" | 13 | 9,5 | 26,9 | 17,7 | 14 | 16 |
| WTRLH06R03 | | R 3/8" | 13 | 10,5 | 28,4 | 17,7 | 17 | 22,2 |
| WTRLH06R04 | | R 1/2" | 13 | 13,5 | 31,9 | 17,7 | 21 | 35,4 |
| WTRLH08R01 | 8 | R 1/8" | 15,1 | 7 | 27,1 | 20,9 | 14 | 17,3 |
| WTRLH08R02 | | R 1/4" | 15,1 | 9,5 | 29,6 | 20,9 | 14 | 17,4 |
| WTRLH08R03 | | R 3/8" | 15,1 | 10,5 | 31,1 | 20,9 | 17 | 25 |
| WTRLH08R04 | | R 1/2" | 15,1 | 13,5 | 34,6 | 20,9 | 21 | 37,9 |
| WTRLH10R01 | 10 | R 1/8" | 18,8 | 7 | 29,7 | 22,2 | 17 | 30 |
| WTRLH10R02 | | R 1/4" | 18,8 | 9,5 | 32,2 | 22,2 | 17 | 30,7 |
| WTRLH10R03 | | R 3/8" | 18,8 | 10,5 | 33,2 | 22,2 | 17 | 30,1 |
| WTRLH10R04 | | R 1/2" | 18,8 | 13,5 | 36,7 | 22,2 | 21 | 46,6 |
| WTRLH12R02 | 12 | R 1/4" | 21,5 | 9,5 | 35,2 | 26,3 | 20 | 42,6 |
| WTRLH12R03 | | R 3/8" | 21,5 | 10,5 | 36,2 | 26,3 | 20 | 45 |
| WTRLH12R04 | | R 1/2" | 21,5 | 13,5 | 39,2 | 26,3 | 21 | 49,5 |

## WTRLH-G

Swivel male elbow 45° BSPP & metric thread nickel-plated



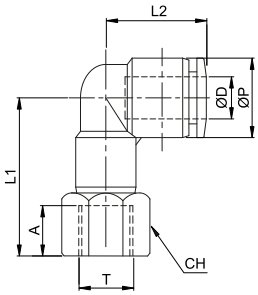



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRLH04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 20 | 16,2 | 10 | 8,1 |
| WTRLH04M6 | | M6x1 | 11,1 | 4,5 | 20,7 | 16,2 | 10 | 8,3 |
| WTRLH04G01 | | G 1/8" | 11,1 | 5 | 22,7 | 16,2 | 14 | 11,7 |
| WTRLH04G02 | | G 1/4" | 11,1 | 5,8 | 24 | 16,2 | 17 | 17,8 |
| WTRLH06M5 | 6 | M5x0,8 | 13 | 3,8 | 21,7 | 17,7 | 12 | 10,8 |
| WTRLH06M6 | | M6x1 | 13 | 4,5 | 22,4 | 17,7 | 12 | 11,5 |
| WTRLH06G01 | | G 1/8" | 13 | 5 | 23,9 | 17,7 | 14 | 14,2 |
| WTRLH06G02 | | G 1/4" | 13 | 5,8 | 25,2 | 17,7 | 17 | 17,5 |
| WTRLH06G03 | | G 3/8" | 13 | 6,8 | 26,7 | 17,7 | 20 | 24 |
| WTRLH06G04 | | G 1/2" | 13 | 8 | 27,9 | 17,7 | 24 | 38 |
| WTRLH08G01 | 8 | G 1/8" | 15,1 | 5 | 26,6 | 20,9 | 14 | 17,2 |
| WTRLH08G02 | | G 1/4" | 15,1 | 5,8 | 27,9 | 20,9 | 17 | 20,2 |
| WTRLH08G03 | | G 3/8" | 15,1 | 6,8 | 29,4 | 20,9 | 20 | 26,3 |
| WTRLH08G04 | | G 1/2" | 15,1 | 8 | 30,6 | 20,9 | 24 | 36,5 |
| WTRLH10G01 | 10 | G 1/8" | 18,8 | 5 | 29,2 | 22,2 | 17 | 30,6 |
| WTRLH10G02 | | G 1/4" | 18,8 | 5,8 | 30 | 22,2 | 17 | 29,9 |
| WTRLH10G03 | | G 3/8" | 18,8 | 6,8 | 31,5 | 22,2 | 20 | 34 |
| WTRLH10G04 | | G 1/2" | 18,8 | 8 | 33,7 | 22,2 | 24 | 46,7 |
| WTRLH12G02 | 12 | G 1/4" | 21,5 | 5,8 | 33,5 | 26,3 | 20 | 42,4 |
| WTRLH12G03 | | G 3/8" | 21,5 | 6,8 | 34,5 | 26,3 | 20 | 43 |
| WTRLH12G04 | | G 1/2" | 21,5 | 8 | 36,2 | 26,3 | 24 | 50,3 |

## WTRLF-G

Swivel female elbow BSPP & metric thread nickel-plated



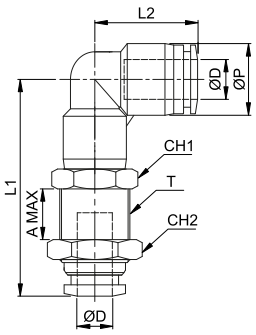



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRLF04M5 | 4 | M5x0,8 | 11,1 | 4,5 | 19,5 | 17,5 | 10 | 7,4 |
| WTRLF04M6 | | M6x1 | 11,1 | 5 | 20 | 17,5 | 10 | 7,2 |
| WTRLF04G01 | | G 1/8" | 11,1 | 7 | 23 | 17,5 | 14 | 13,9 |
| WTRLF04G02 | | G 1/4" | 11,1 | 9 | 25 | 17,5 | 17 | 18,2 |
| WTRLF06M5 | 6 | M5x0,8 | 13 | 4,5 | 20,7 | 19 | 12 | 10,6 |
| WTRLF06M6 | | M6x1 | 13 | 5 | 21,2 | 19 | 12 | 10,4 |
| WTRLF06G01 | | G 1/8" | 13 | 7 | 24,4 | 19 | 14 | 16,4 |
| WTRLF06G02 | | G 1/4" | 13 | 9 | 26,4 | 19 | 17 | 21,3 |
| WTRLF06G03 | | G 3/8" | 13 | 10 | 27,7 | 19 | 19 | 30 |
| WTRLF08G01 | 8 | G 1/8" | 15,1 | 7 | 24,8 | 22,8 | 14 | 19,4 |
| WTRLF08G02 | | G 1/4" | 15,1 | 9 | 27 | 22,8 | 17 | 24,1 |
| WTRLF08G03 | | G 3/8" | 15,1 | 10 | 28,5 | 22,8 | 19 | 32,4 |
| WTRLF08G04 | | G 1/2" | 15,1 | 12 | 30,5 | 22,8 | 24 | 41,6 |
| WTRLF10G01 | 10 | G 1/8" | 18,8 | 7 | 23 | 26,3 | 17 | 27,7 |
| WTRLF10G02 | | G 1/4" | 18,8 | 9 | 29,5 | 26,3 | 17 | 33,8 |
| WTRLF10G03 | | G 3/8" | 18,8 | 10 | 31 | 26,3 | 19 | 34,3 |
| WTRLF10G04 | | G 1/2" | 18,8 | 12 | 33,5 | 26,3 | 24 | 51,2 |
| WTRLF12G02 | 12 | G 1/4" | 21,5 | 9 | 26 | 29,6 | 21 | 36,7 |
| WTRLF12G03 | | G 3/8" | 21,5 | 10 | 34 | 29,6 | 21 | 49,2 |
| WTRLF12G04 | | G 1/2" | 21,5 | 12 | 36,5 | 29,6 | 24 | 54,7 |

## WTRLM

Bulkhead swivel elbow nickel-plated





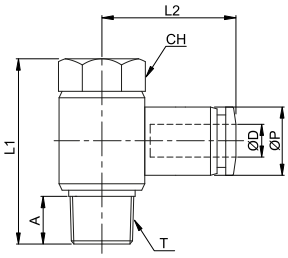

| CODE | ØD | T | ØP | A MAX | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRLM04 | 4 | M12x1 | 11,1 | 4,1 | 28,5 | 17,5 | 14 | 14 | 15 |
| WTRLM06 | 6 | M14x1 | 13 | 5,7 | 34,1 | 19 | 17 | 17 | 27,2 |
| WTRLM08 | 8 | M16x1 | 15,1 | 7,2 | 40,6 | 22,8 | 17 | 19 | 38 |
| WTRLM10 | 10 | M20x1 | 18,8 | 7,4 | 45,5 | 26,3 | 21 | 24 | 55 |
| WTRLM12 | 12 | M22x1 | 21,5 | 9,7 | 51,6 | 29,6 | 24 | 27 | 85 |

*drawings and technical data are not binding & can be changed without notice*

## WTRH-R

Swivel male banjo elbow BSPT thread nickel-plated



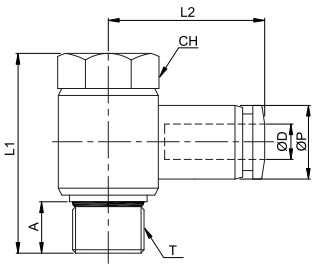



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRH04R01 | 4 | R 1/8" | 11,1 | 7 | 23 | 22,3 | 10 | 10,5 |
| WTRH04R02 | | R 1/4" | 11,1 | 9,5 | 26,3 | 24 | 14 | 21,9 |
| WTRH06R01 | 6 | R 1/8" | 13 | 7 | 23 | 23,1 | 10 | 11 |
| WTRH06R02 | | R 1/4" | 13 | 9,5 | 26,3 | 25,1 | 14 | 22,5 |
| WTRH06R03 | | R 3/8" | 13 | 10,5 | 31,9 | 26,8 | 19 | 37,8 |
| WTRH08R01 | 8 | R 1/8" | 15,1 | 7 | 23 | 25,6 | 10 | 11,8 |
| WTRH08R02 | | R 1/4" | 15,1 | 9,5 | 26,3 | 28,6 | 14 | 23,3 |
| WTRH08R03 | | R 3/8" | 15,1 | 10,5 | 31,9 | 29,6 | 19 | 38,4 |
| WTRH08R04 | | R 1/2" | 15,1 | 13,5 | 38,6 | 32,6 | 24 | 75,4 |
| WTRH10R02 | 10 | R 1/4" | 18,8 | 9,5 | 26,3 | 31 | 14 | 26,7 |
| WTRH10R03 | | R 3/8" | 18,8 | 10,5 | 31,9 | 31,6 | 19 | 41,8 |
| WTRH10R04 | | R 1/2" | 18,8 | 13,5 | 38,6 | 34,6 | 24 | 78,8 |
| WTRH12R02 | 12 | R 1/4" | 21,5 | 9,5 | 26,3 | 33,5 | 14 | 28,2 |
| WTRH12R03 | | R 3/8" | 21,5 | 10,5 | 31,9 | 35,6 | 19 | 43,4 |
| WTRH12R04 | | R 1/2" | 21,5 | 13,5 | 38,6 | 36,6 | 24 | 80,3 |

## WTRH-G

Swivel male banjo elbow BSPP & metric thread nickel-plated



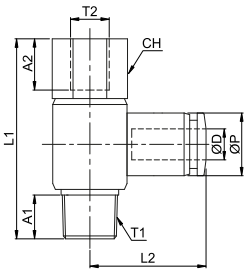



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRH04M5 | 4 | M5x0,8 | 11,1 | 4 | 18 | 20 | 8 | 6,6 |
| WTRH04M6 | | M6x1 | 11,1 | 4,5 | 18,5 | 20 | 8 | 11,8 |
| WTRH04G01 | | G 1/8" | 11,1 | 5 | 22,5 | 22,3 | 10 | 11,5 |
| WTRH06M5 | 6 | M5x0,8 | 13 | 4 | 18 | 21,9 | 8 | 7,2 |
| WTRH06M6 | | M6x1 | 13 | 4,5 | 18,5 | 21,9 | 8 | 12,4 |
| WTRH06G01 | | G 1/8" | 13 | 5 | 22,5 | 23,1 | 10 | 12 |
| WTRH06G02 | | G 1/4" | 13 | 5,8 | 26,2 | 25,1 | 14 | 23 |
| WTRH08G01 | 8 | G 1/8" | 15,1 | 5 | 22,5 | 25,6 | 10 | 12,8 |
| WTRH08G02 | | G 1/4" | 15,1 | 5,8 | 26,2 | 28,6 | 14 | 23,8 |
| WTRH08G03 | | G 3/8" | 15,1 | 6,8 | 31,7 | 29,6 | 19 | 40,9 |
| WTRH10G02 | 10 | G 1/4" | 18,8 | 5,8 | 26,2 | 31 | 14 | 27,2 |
| WTRH10G03 | | G 3/8" | 18,8 | 6,8 | 31,7 | 31,6 | 19 | 44,3 |
| WTRH12G03 | 12 | G 3/8" | 21,5 | 6,8 | 31,7 | 35,6 | 19 | 45,9 |
| WTRH12G04 | | G 1/2" | 21,5 | 8 | 37,1 | 36,6 | 24 | 79,3 |

## WTRHF-R

Swivel female banjo elbow BSPT thread nickel-plated



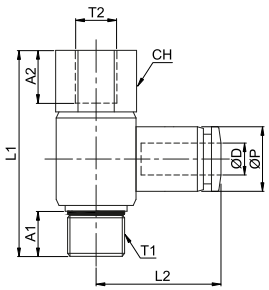



| CODE | ØD | T1 | T2 | ØP | A1 | A2 | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| WTRHF04R01 | 4 | R 1/8" | G 1/8" | 11,1 | 7 | 7 | 29 | 22,3 | 14 | 16,4 |
| WTRHF04R02 | | R 1/4" | G 1/4" | 11,1 | 9,5 | 9 | 33,3 | 24,1 | 17 | 27,4 |
| WTRHF06R01 | 6 | R 1/8" | G 1/8" | 13 | 7 | 7 | 29 | 23,1 | 14 | 17 |
| WTRHF06R02 | | R 1/4" | G 1/4" | 13 | 9,5 | 9 | 33,3 | 25,1 | 17 | 28 |
| WTRHF06R03 | | R 3/8" | G 3/8" | 13 | 10,5 | 10 | 39,9 | 26,8 | 19 | 44,8 |
| WTRHF08R01 | 8 | R 1/8" | G 1/8" | 15,1 | 7 | 7 | 29 | 25,6 | 14 | 17,8 |
| WTRHF08R02 | | R 1/4" | G 1/4" | 15,1 | 9,5 | 9 | 33,3 | 28,6 | 17 | 28,8 |
| WTRHF08R03 | | R 3/8" | G 3/8" | 15,1 | 10,5 | 10 | 39,9 | 29,6 | 19 | 45,4 |
| WTRHF08R04 | | R 1/2" | G 1/2" | 15,1 | 13,5 | 12 | 46,5 | 32,6 | 24 | 71,9 |
| WTRHF10R02 | 10 | R 1/4" | G 1/4" | 18,8 | 9,5 | 9 | 33,3 | 31 | 17 | 32,2 |
| WTRHF10R03 | | R 3/8" | G 3/8" | 18,8 | 10,5 | 10 | 39,9 | 31,6 | 19 | 48,8 |
| WTRHF10R04 | | R 1/2" | G 1/2" | 18,8 | 13,5 | 12 | 46,5 | 34,6 | 24 | 75,3 |
| WTRHF12R02 | 12 | R 1/4" | G 1/4" | 21,5 | 9,5 | 9 | 33,3 | 33,5 | 17 | 33,7 |
| WTRHF12R03 | | R 3/8" | G 3/8" | 21,5 | 10,5 | 10 | 39,9 | 35,6 | 19 | 50,4 |
| WTRHF12R04 | | R 1/2" | G 1/2" | 21,5 | 13,5 | 12 | 46,5 | 36,6 | 24 | 76,8 |

## WTRHF-G

Swivel female banjo elbow BSPP & metric thread nickel-plated



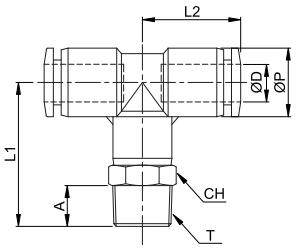



| CODE | ØD | T1 | T2 | ØP | A1 | A2 | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| WTRHF04M5 | 4 | M5x0,8 | M5x0,8 | 11,1 | 4 | 5,5 | 20,5 | 20 | 10 | 8,3 |
| WTRHF04M6 | | M6x1 | M6x1 | 11,1 | 4,5 | 6 | 21 | 20 | 10 | 8,3 |
| WTRHF04G01 | | G 1/8" | G 1/8" | 11,1 | 5,5 | 7 | 30 | 22,3 | 14 | 18,4 |
| WTRHF06M5 | 6 | M5x0,8 | M5x0,8 | 13 | 4 | 5,5 | 20,5 | 21,9 | 10 | 8,9 |
| WTRHF06M6 | | M6x1 | M6x1 | 13 | 4,5 | 6 | 21 | 21,9 | 10 | 8,9 |
| WTRHF06G01 | | G 1/8" | G 1/8" | 13 | 5,5 | 7 | 30 | 23,1 | 14 | 19 |
| WTRHF06G02 | | G 1/4" | G 1/4" | 13 | 6,5 | 9 | 33,7 | 25,1 | 17 | 30,5 |
| WTRHF08G01 | 8 | G 1/8" | G 1/8" | 15,1 | 5,5 | 7 | 30 | 25,6 | 14 | 19,8 |
| WTRHF08G02 | | G 1/4" | G 1/4" | 15,1 | 6,5 | 9 | 33,7 | 28,6 | 17 | 31,3 |
| WTRHF08G03 | | G 3/8" | G 3/8" | 15,1 | 7,5 | 10 | 39,7 | 29,6 | 19 | 47,9 |
| WTRHF10G02 | 10 | G 1/4" | G 1/4" | 18,8 | 6,5 | 9 | 33,7 | 31,1 | 17 | 34,7 |
| WTRHF10G03 | | G 3/8" | G 3/8" | 18,8 | 7,5 | 10 | 39,7 | 31,6 | 19 | 51,3 |
| WTRHF12G03 | 12 | G 3/8" | G 3/8" | 21,5 | 7,5 | 10 | 39,7 | 35,6 | 19 | 52,9 |
| WTRHF12G04 | | G 1/2" | G 1/2" | 21,5 | 9 | 12 | 45 | 36,6 | 24 | 77,3 |

## WTRT-R

Swivel male central tee BSPT thread nickel-plated



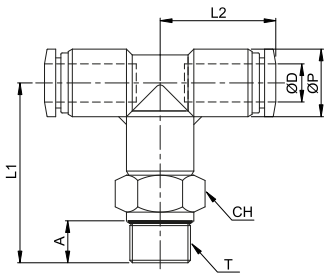



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRT04R01 | 4 | R 1/8" | 11,1 | 7 | 24,5 | 18,5 | 10 | 10,5 |
| WTRT04R02 | | R 1/4" | 11,1 | 9,5 | 28 | 18,5 | 14 | 16,3 |
| WTRT06R01 | 6 | R 1/8" | 13 | 7 | 25,5 | 19,3 | 12 | 14,1 |
| WTRT06R02 | | R 1/4" | 13 | 9,5 | 28,5 | 19,3 | 14 | 19,1 |
| WTRT06R03 | | R 3/8" | 13 | 10,5 | 30 | 19,3 | 17 | 25,2 |
| WTRT06R04 | | R 1/2" | 13 | 13,5 | 33,5 | 19,3 | 21 | 38,5 |
| WTRT08R01 | 8 | R 1/8" | 15,1 | 7 | 29 | 22,7 | 14 | 20,9 |
| WTRT08R02 | | R 1/4" | 15,1 | 9,5 | 31,4 | 22,7 | 14 | 21 |
| WTRT08R03 | | R 3/8" | 15,1 | 10,5 | 32,9 | 22,7 | 17 | 28,6 |
| WTRT08R04 | | R 1/2" | 15,1 | 13,5 | 36,4 | 22,7 | 21 | 41,5 |
| WTRT10R01 | 10 | R 1/8" | 18,8 | 7 | 34,5 | 27 | 17 | 37,9 |
| WTRT10R02 | | R 1/4" | 18,8 | 9,5 | 37 | 27 | 17 | 38,6 |
| WTRT10R03 | | R 3/8" | 18,8 | 10,5 | 38 | 27 | 17 | 38 |
| WTRT10R04 | | R 1/2" | 18,8 | 13,5 | 41,5 | 27 | 21 | 54,5 |
| WTRT12R02 | 12 | R 1/4" | 21,5 | 9,5 | 38,5 | 29,6 | 20 | 52,8 |
| WTRT12R03 | | R 3/8" | 21,5 | 10,5 | 39,5 | 29,6 | 20 | 55,2 |
| WTRT12R04 | | R 1/2" | 21,5 | 13,5 | 42,5 | 29,6 | 21 | 59,7 |
| WTRT16R03 | 16 | R 3/8" | 26 | 10,5 | 43 | 33 | 24 | 81 |
| WTRT16R04 | | R 1/2" | 26 | 13,5 | 46 | 33 | 24 | 85,5 |

## WTRT-G

Swivel male central tee BSPP & metric thread nickel-plated





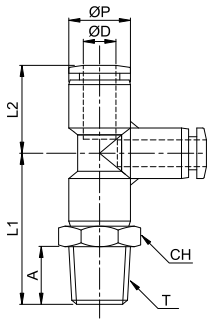

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRT04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 22,3 | 18,5 | 10 | 10,6 |
| WTRT04M6 | | M6x1 | 11,1 | 4,5 | 23 | 18,5 | 10 | 10,8 |
| WTRT04G01 | | G 1/8" | 11,1 | 5 | 25 | 18,5 | 14 | 14,2 |
| WTRT04G02 | | G 1/4" | 11,1 | 5,8 | 26,3 | 18,5 | 17 | 20,3 |
| WTRT06M5 | 6 | M5x0,8 | 13 | 3,8 | 23,3 | 19,3 | 12 | 13,9 |
| WTRT06M6 | | M6x1 | 13 | 4,5 | 24 | 19,3 | 12 | 14,6 |
| WTRT06G01 | | G 1/8" | 13 | 5 | 25,5 | 19,3 | 14 | 17,2 |
| WTRT06G02 | | G 1/4" | 13 | 5,8 | 26,8 | 19,3 | 17 | 20,5 |
| WTRT06G03 | | G 3/8" | 13 | 6,8 | 28,3 | 19,3 | 20 | 27 |
| WTRT06G04 | | G 1/2" | 13 | 8 | 29,5 | 19,3 | 24 | 41 |
| WTRT08G01 | 8 | G 1/8" | 15,1 | 5 | 28,4 | 22,7 | 14 | 20,8 |
| WTRT08G02 | | G 1/4" | 15,1 | 5,8 | 29,7 | 22,7 | 17 | 23,8 |
| WTRT08G03 | | G 3/8" | 15,1 | 6,8 | 31,2 | 22,7 | 20 | 29,9 |
| WTRT08G04 | | G 1/2" | 15,1 | 8 | 32,4 | 22,7 | 24 | 40,1 |
| WTRT10G01 | 10 | G 1/8" | 18,8 | 5 | 34 | 27 | 17 | 38,4 |
| WTRT10G02 | | G 1/4" | 18,8 | 5,8 | 34,8 | 27 | 17 | 37,7 |
| WTRT10G03 | | G 3/8" | 18,8 | 6,8 | 36,3 | 27 | 20 | 41,8 |
| WTRT10G04 | | G 1/2" | 18,8 | 8 | 38,5 | 27 | 24 | 54,5 |
| WTRT12G02 | 12 | G 1/4" | 21,5 | 5,8 | 36,8 | 29,6 | 21 | 52,4 |
| WTRT12G03 | | G 3/8" | 21,5 | 6,8 | 37,8 | 29,6 | 21 | 53 |
| WTRT12G04 | | G 1/2" | 21,5 | 8 | 39,5 | 29,6 | 24 | 60,3 |
| WTRT14G03 | 14 | G 3/8" | 23,2 | 6,8 | 39,8 | 31,7 | 21 | 61 |
| WTRT14G04 | | G 1/2" | 23,2 | 8 | 41,5 | 31,7 | 24 | 69 |
| WTRT16G03 | 16 | G 3/8" | 26 | 6,8 | 40,8 | 33 | 24 | 76,6 |
| WTRT16G04 | | G 1/2" | 26 | 8 | 42 | 33 | 24 | 79,4 |

*drawings and technical data are not binding & can be changed without notice*

## WTRST-R

Swivel lateral male tee BSPT thread nickel-plated



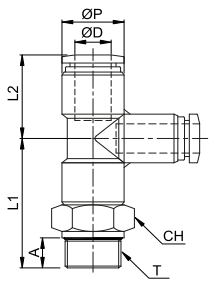



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRST04R01 | 4 | R 1/8" | 11,1 | 7 | 24,5 | 18,5 | 10 | 10,5 |
| WTRST04R02 | | R 1/4" | 11,1 | 9,5 | 28 | 18,5 | 14 | 16,3 |
| WTRST06R01 | 6 | R 1/8" | 13 | 7 | 25,5 | 19,3 | 12 | 14,1 |
| WTRST06R02 | | R 1/4" | 13 | 9,5 | 28,5 | 19,3 | 14 | 19,1 |
| WTRST06R03 | | R 3/8" | 13 | 10,5 | 30 | 19,3 | 17 | 25,2 |
| WTRST06R04 | | R 1/2" | 13 | 13,5 | 33,5 | 19,3 | 21 | 38,5 |
| WTRST08R01 | 8 | R 1/8" | 15,1 | 7 | 29 | 22,7 | 14 | 20,9 |
| WTRST08R02 | | R 1/4" | 15,1 | 9,5 | 31,4 | 22,7 | 14 | 21 |
| WTRST08R03 | | R 3/8" | 15,1 | 10,5 | 32,9 | 22,7 | 17 | 28,6 |
| WTRST08R04 | | R 1/2" | 15,1 | 13,5 | 36,4 | 22,7 | 21 | 41,5 |
| WTRST10R01 | 10 | R 1/8" | 18,8 | 7 | 34,5 | 27 | 17 | 37,9 |
| WTRST10R02 | | R 1/4" | 18,8 | 9,5 | 37 | 27 | 17 | 38,6 |
| WTRST10R03 | | R 3/8" | 18,8 | 10,5 | 38 | 27 | 17 | 38 |
| WTRST10R04 | | R 1/2" | 18,8 | 13,5 | 41,5 | 27 | 21 | 54,5 |
| WTRST12R02 | 12 | R 1/4" | 21,5 | 9,5 | 38,5 | 29,6 | 20 | 52,8 |
| WTRST12R03 | | R 3/8" | 21,5 | 10,5 | 39,5 | 29,6 | 20 | 55,2 |
| WTRST12R04 | | R 1/2" | 21,5 | 13,5 | 42,5 | 29,6 | 21 | 59,7 |

## WTRST-G

Swivel male lateral tee BSPP & metric thread nickel-plated





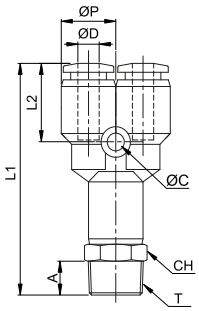

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRST04M5 | 4 | M5x0,8 | 11,1 | 3,8 | 22,3 | 18,5 | 10 | 10,8 |
| WTRST04M6 | | M6x1 | 11,1 | 4,5 | 23 | 18,5 | 10 | 11 |
| WTRST04G01 | | G 1/8" | 11,1 | 5 | 25 | 18,5 | 14 | 14,5 |
| WTRST04G02 | | G 1/4" | 11,1 | 5,8 | 26,3 | 18,5 | 17 | 20,6 |
| WTRST06M5 | 6 | M5x0,8 | 13 | 3,8 | 23,3 | 19,3 | 12 | 14,5 |
| WTRST06M6 | | M6x1 | 13 | 4,5 | 24 | 19,3 | 12 | 15,1 |
| WTRST06G01 | | G 1/8" | 13 | 5 | 25,5 | 19,3 | 14 | 17,7 |
| WTRST06G02 | | G 1/4" | 13 | 5,8 | 26,8 | 19,3 | 17 | 21 |
| WTRST06G03 | | G 3/8" | 13 | 6,8 | 28,3 | 19,3 | 20 | 27,5 |
| WTRST06G04 | | G 1/2" | 13 | 8 | 29,5 | 19,3 | 24 | 41,5 |
| WTRST08G01 | 8 | G 1/8" | 15,1 | 5 | 28,4 | 22,7 | 14 | 20,9 |
| WTRST08G02 | | G 1/4" | 15,1 | 5,8 | 29,7 | 22,7 | 17 | 23,9 |
| WTRST08G03 | | G 3/8" | 15,1 | 6,8 | 31,2 | 22,7 | 20 | 30 |
| WTRST08G04 | | G 1/2" | 15,1 | 8 | 32,4 | 22,7 | 24 | 40,2 |
| WTRST10G01 | 10 | G 1/8" | 18,8 | 5 | 34 | 27 | 17 | 38,8 |
| WTRST10G02 | | G 1/4" | 18,8 | 5,8 | 34,8 | 27 | 17 | 38,1 |
| WTRST10G03 | | G 3/8" | 18,8 | 6,8 | 36,3 | 27 | 20 | 42,2 |
| WTRST10G04 | | G 1/2" | 18,8 | 8 | 38,5 | 27 | 24 | 54,9 |
| WTRST12G02 | 12 | G 1/4" | 21,5 | 5,8 | 36,8 | 29,6 | 21 | 53,2 |
| WTRST12G03 | | G 3/8" | 21,5 | 6,8 | 37,8 | 29,6 | 21 | 53,8 |
| WTRST12G04 | | G 1/2" | 21,5 | 8 | 39,5 | 29,6 | 24 | 61,1 |

*drawings and technical data are not binding & can be changed without notice*

## WTRWT-R

Swivel male Y BSPT thread nickel-plated



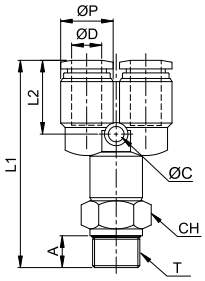



| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRWT04R01 | 4 | R 1/8" | 11,1 | 3,2 | 7 | 41,5 | 14 | 10 | 10,7 |
| WTRWT04R02 | | R 1/4" | 11,1 | 3,2 | 9,5 | 45 | 14 | 14 | 16,6 |
| WTRWT06R01 | 6 | R 1/8" | 13 | 3,2 | 7 | 43,3 | 14,8 | 12 | 14,6 |
| WTRWT06R02 | | R 1/4" | 13 | 3,2 | 9,5 | 46,3 | 14,8 | 14 | 19,6 |
| WTRWT06R03 | | R 3/8" | 13 | 3,2 | 10,5 | 47,8 | 14,8 | 17 | 25,8 |
| WTRWT06R04 | | R 1/2" | 13 | 3,2 | 13,5 | 51,3 | 14,8 | 21 | 39 |
| WTRWT08R01 | 8 | R 1/8" | 15,1 | 3,2 | 7 | 46,6 | 18,2 | 14 | 21 |
| WTRWT08R02 | | R 1/4" | 15,1 | 3,2 | 9,5 | 49,1 | 18,2 | 14 | 21,1 |
| WTRWT08R03 | | R 3/8" | 15,1 | 3,2 | 10,5 | 50,6 | 18,2 | 17 | 28,7 |
| WTRWT08R04 | | R 1/2" | 15,1 | 3,2 | 13,5 | 54,1 | 18,2 | 21 | 41,6 |
| WTRWT10R01 | 10 | R 1/8" | 18,8 | 4,2 | 7 | 54,6 | 19,5 | 17 | 38,3 |
| WTRWT10R02 | | R 1/4" | 18,8 | 4,2 | 9,5 | 57,1 | 19,5 | 17 | 39 |
| WTRWT10R03 | | R 3/8" | 18,8 | 4,2 | 10,5 | 58,1 | 19,5 | 17 | 38,4 |
| WTRWT10R04 | | R 1/2" | 18,8 | 4,2 | 13,5 | 61,6 | 19,5 | 21 | 54,9 |
| WTRWT12R02 | 12 | R 1/4" | 21,5 | 4,3 | 9,5 | 62,1 | 21,6 | 21 | 53,6 |
| WTRWT12R03 | | R 3/8" | 21,5 | 4,3 | 10,5 | 63,1 | 21,6 | 21 | 46 |
| WTRWT12R04 | | R 1/2" | 21,5 | 4,3 | 13,5 | 66,1 | 21,6 | 21 | 60,5 |

## WTRWT-G

Swivel male Y BSPP & metric thread nickel-plated





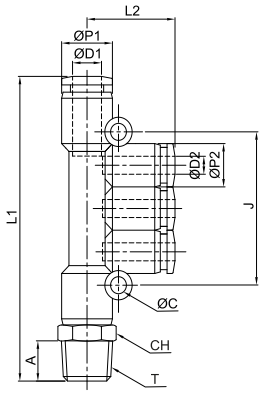

| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRWT04M5 | 4 | M5x0,8 | 11,1 | 3,2 | 3,8 | 39,3 | 14 | 10 | 10,8 |
| WTRWT04M6 | | M6x1 | 11,1 | 3,2 | 4,5 | 40 | 14 | 10 | 11 |
| WTRWT04G01 | | G 1/8" | 11,1 | 3,2 | 5 | 42 | 14 | 14 | 14,5 |
| WTRWT04G02 | | G 1/4" | 11,1 | 3,2 | 5,8 | 43,3 | 14 | 17 | 20,6 |
| WTRWT06M5 | 6 | M5x0,8 | 13 | 3,2 | 3,8 | 41,1 | 14,8 | 12 | 14,5 |
| WTRWT06M6 | | M6x1 | 13 | 3,2 | 4,5 | 41,8 | 14,8 | 12 | 15,1 |
| WTRWT06G01 | | G 1/8" | 13 | 3,2 | 5 | 43,3 | 14,8 | 14 | 17,7 |
| WTRWT06G02 | | G 1/4" | 13 | 3,2 | 5,8 | 44,6 | 14,8 | 17 | 21 |
| WTRWT06G03 | | G 3/8" | 13 | 3,2 | 6,8 | 46,1 | 14,8 | 20 | 27,5 |
| WTRWT06G04 | | G 1/2" | 13 | 3,2 | 8 | 47,3 | 14,8 | 24 | 41,5 |
| WTRWT08G01 | 8 | G 1/8" | 15,1 | 3,2 | 5 | 46,1 | 18,2 | 14 | 20,9 |
| WTRWT08G02 | | G 1/4" | 15,1 | 3,2 | 5,8 | 47,4 | 18,2 | 17 | 23,9 |
| WTRWT08G03 | | G 3/8" | 15,1 | 3,2 | 6,8 | 48,9 | 18,2 | 20 | 30 |
| WTRWT08G04 | | G 1/2" | 15,1 | 3,2 | 8 | 50,1 | 18,2 | 24 | 40,2 |
| WTRWT10G01 | 10 | G 1/8" | 18,8 | 4,2 | 5 | 54,1 | 19,5 | 17 | 38,8 |
| WTRWT10G02 | | G 1/4" | 18,8 | 4,2 | 5,8 | 54,9 | 19,5 | 17 | 38,1 |
| WTRWT10G03 | | G 3/8" | 18,8 | 4,2 | 6,8 | 56,4 | 19,5 | 20 | 42,2 |
| WTRWT10G04 | | G 1/2" | 18,8 | 4,2 | 8 | 58,6 | 19,5 | 24 | 54,9 |
| WTRWT12G02 | 12 | G 1/4" | 21,5 | 4,3 | 5,8 | 60,4 | 21,6 | 21 | 53,2 |
| WTRWT12G03 | | G 3/8" | 21,5 | 4,3 | 6,8 | 61,4 | 21,6 | 21 | 53,8 |
| WTRWT12G04 | | G 1/2" | 21,5 | 4,3 | 8 | 63,1 | 21,6 | 24 | 61,1 |

*drawings and technical data are not binding & can be changed without notice*

## WTRKD-R

Swivel multi-tee lateral male connector BSPT thread nickel-plated



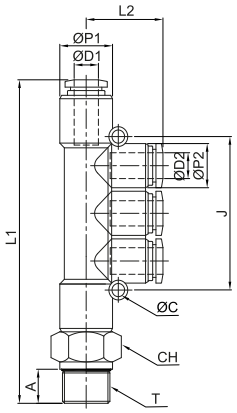



| CODE | ØD1 | ØD2 | T | ØP1 | ØP2 | ØC | A | L1 | L2 | J | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WTRKD0604R01 | 6 | 4 | R 1/8" | 13 | 11,1 | 3,2 | 7 | 63,8 | 19 | 36 | 12 | 17,4 |
| WTRKD0804R02 | 8 | 4 | R 1/4" | 15,1 | 11,1 | 3,2 | 9,5 | 71,3 | 20 | 42 | 14 | 23,1 |
| WTRKD0806R02 | 8 | 6 | R 1/4" | 15,1 | 13 | 3,2 | 9,5 | 71,3 | 20,3 | 42 | 14 | 24,2 |
| WTRKD1008R03 | 10 | 8 | R 3/8" | 18,8 | 15,1 | 4,2 | 10,5 | 91 | 24,3 | 48 | 17 | 40,2 |

## WTRKD-G

Swivel multi-tee lateral male connector BSPP thread nickel-plated

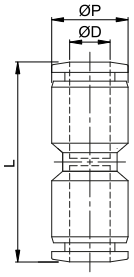





| CODE | ØD1 | ØD2 | T | ØP1 | ØP2 | ØC | A | L1 | L2 | J | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WTRKD0604G01 | 6 | 4 | G 1/8" | 13 | 11,1 | 3,2 | 5 | 63,8 | 19 | 36 | 14 | 20,5 |
| WTRKD0804G02 | 8 | 4 | G 1/4" | 15,1 | 11,1 | 3,2 | 5,8 | 69,6 | 20 | 42 | 17 | 26 |
| WTRKD0806G02 | 8 | 6 | G 1/4" | 15,1 | 15,1 | 3,2 | 5,8 | 69,6 | 20,3 | 42 | 17 | 27 |
| WTRKD1008G03 | 10 | 8 | G 3/8" | 18,8 | 15,1 | 4,2 | 6,8 | 89,3 | 24,3 | 48 | 20 | 44 |

## WTRUC — Union connector

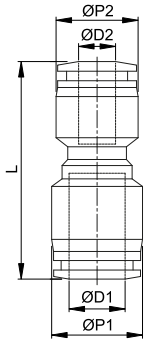





| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| WTRUC0400 | 4 | 11,1 | 33 | 4,2 |
| WTRUC0500 | 5 | 12,8 | 35,2 | 5 |
| WTRUC0600 | 6 | 13 | 35,2 | 5,2 |
| WTRUC0700 | 7 | 14,5 | 39,1 | 7 |
| WTRUC0800 | 8 | 15,1 | 39,1 | 6,8 |
| WTRUC0900 | 9 | 18,8 | 45,2 | 14 |
| WTRUC1000 | 10 | 18,8 | 48,4 | 14 |
| WTRUC1100 | 11 | 21,2 | 49,2 | 17 |
| WTRUC1200 | 12 | 21,5 | 49,2 | 16,4 |
| WTRUC1400 | 14 | 23,2 | 48,4 | 18 |
| WTRUC1500 | 15 | 25,8 | 51 | 25 |
| WTRUC1600 | 16 | 26 | 51 | 24,5 |

## WTRG — Reduced union connector

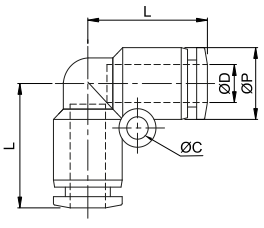





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | L | g |
|---|---|---|---|---|---|---|
| WTRG0604 | 6 | 4 | 13 | 11,1 | 33,6 | 5,2 |
| WTRG0804 | 8 | 4 | 15,1 | 11,1 | 34 | 5,8 |
| WTRG0805 | 8 | 5 | 15,1 | 12,8 | 35,5 | 6 |
| WTRG0806 | 8 | 6 | 15,1 | 13 | 36,1 | 6,8 |
| WTRG1007 | 10 | 7 | 18,8 | 14,5 | 41,8 | 10 |
| WTRG1008 | 10 | 8 | 18,8 | 15,1 | 41,8 | 12,7 |
| WTRG1207 | 12 | 7 | 21,5 | 14,5 | 46,9 | 13 |
| WTRG1208 | 12 | 8 | 21,5 | 15,1 | 46,9 | 14,1 |
| WTRG1210 | 12 | 10 | 21,5 | 18,8 | 47,7 | 16,6 |
| WTRG1410 | 14 | 10 | 23,2 | 18,8 | 48,3 | 17 |
| WTRG1412 | 14 | 12 | 23,2 | 21,5 | 48,3 | 17 |
| WTRG1610 | 16 | 10 | 26 | 18,8 | 48,5 | 24,3 |
| WTRG1612 | 16 | 12 | 26 | 21,5 | 50,1 | 26 |
| WTRG1614 | 16 | 14 | 26 | 23,2 | 50 | 28 |

## WTRUL — Union elbow

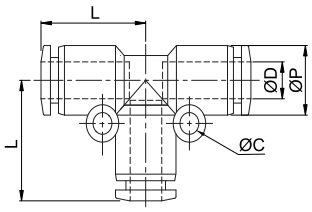





| CODE | ØD | ØP | ØC | L | g |
|---|---|---|---|---|---|
| WTRUL0400 | 4 | 11,1 | 3,2 | 17,5 | 4,2 |
| WTRUL0600 | 6 | 13 | 3,2 | 19 | 5,5 |
| WTRUL0800 | 8 | 15,1 | 3,2 | 22,8 | 7,3 |
| WTRUL1000 | 10 | 18,8 | 4,2 | 26,3 | 14,3 |
| WTRUL1200 | 12 | 21,5 | 4,3 | 29,6 | 18,2 |
| WTRUL1400 | 14 | 23,2 | 5,1 | 31,7 | 23 |
| WTRUL1600 | 16 | 26 | 5,1 | 33 | 27 |

## WTRUT — Union tee

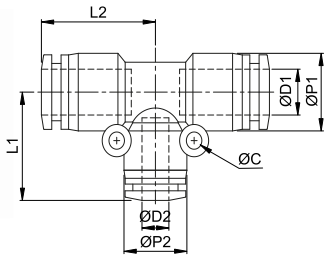





| CODE | ØD | ØP | ØC | L | g |
|---|---|---|---|---|---|
| WTRUT0400 | 4 | 11,1 | 3,2 | 18,5 | 6,5 |
| WTRUT0600 | 6 | 13 | 3,2 | 19,3 | 8,1 |
| WTRUT0800 | 8 | 15,1 | 3,2 | 22,7 | 10,6 |
| WTRUT1000 | 10 | 18,8 | 4,2 | 27 | 21,4 |
| WTRUT1200 | 12 | 21,5 | 4,3 | 29,6 | 26,7 |
| WTRUT1400 | 14 | 23,2 | 5,1 | 31,7 | 31 |
| WTRUT1600 | 16 | 26 | 5,1 | 33 | 39,7 |

## WTRGT — Reduced union tee

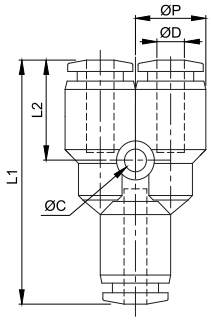





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| WTRGT0604 | 6 | 4 | 13 | 11,1 | 3,2 | 19,5 | 19,3 | 8,1 |
| WTRGT0804 | 8 | 4 | 15,1 | 11,1 | 3,2 | 19,8 | 22,8 | 9,8 |
| WTRGT0806 | 8 | 6 | 15,1 | 13 | 3,2 | 20,3 | 22,8 | 10,6 |
| WTRGT1008 | 10 | 8 | 18,8 | 15,1 | 4,2 | 24,8 | 27 | 20,2 |
| WTRGT1210 | 12 | 10 | 21,5 | 18,8 | 4,2 | 28,5 | 29,6 | 26,9 |
| WTRGT1612 | 16 | 12 | 26 | 21,5 | 5,1 | 32,1 | 33 | 41,9 |

## WTRY — Union Y

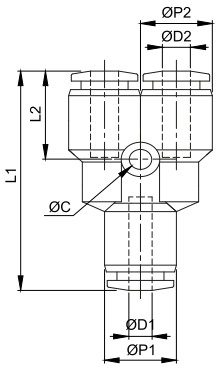





| CODE | ØD | ØP | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|
| WTRY0400 | 4 | 11,1 | 3,2 | 35,5 | 14 | 6,8 |
| WTRY0600 | 6 | 13 | 3,2 | 37,1 | 14,8 | 8,6 |
| WTRY0800 | 8 | 15,1 | 3,2 | 40,4 | 18,2 | 10,7 |
| WTRY1000 | 10 | 18,8 | 4,2 | 47,1 | 19,5 | 21,8 |
| WTRY1200 | 12 | 21,5 | 4,2 | 53,2 | 21,6 | 27,5 |
| WTRY1600 | 16 | 26 | 5,1 | 61 | 23,5 | 33,5 |

## WTRW — Reduced union Y



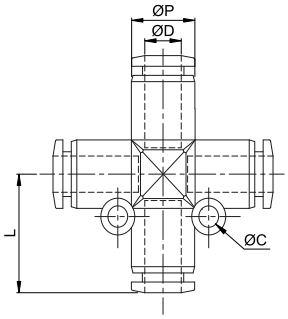



| CODE | ØD1 | ØD2 | ØP1 | ØP2 | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| WTRW0604 | 6 | 4 | 13 | 11,1 | 3,2 | 36,8 | 14,5 | 9,2 |
| WTRW0806 | 8 | 6 | 15,1 | 13 | 3,2 | 39,9 | 17,7 | 11,4 |
| WTRW1008 | 10 | 8 | 18,8 | 15,1 | 4,2 | 47,9 | 20,3 | 21,8 |
| WTRW1210 | 12 | 10 | 21,5 | 18,8 | 4,2 | 51,6 | 20 | 29,3 |

*drawings and technical data are not binding & can be changed without notice*

## WTRZA — Union cross

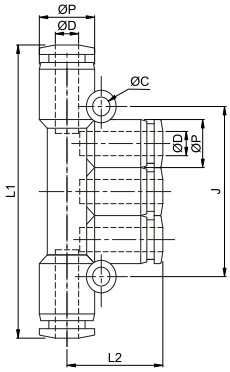





| CODE | ØD | ØP | ØC | L | g |
|---|---|---|---|---|---|
| WTRZA0400 | 4 | 11,1 | 3,2 | 17,5 | 8 |
| WTRZA0600 | 6 | 13 | 3,2 | 19,3 | 10,2 |
| WTRZA0800 | 8 | 15,1 | 3,2 | 22,7 | 13,6 |
| WTRZA1000 | 10 | 18,8 | 4,2 | 27 | 28,2 |
| WTRZA1200 | 12 | 21,5 | 4,3 | 29,6 | 34,2 |

## WTRK — Union multi-tee

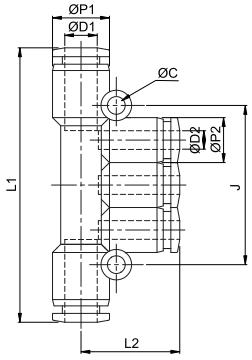





| CODE | ØD | ØP | ØC | L1 | L2 | J | g |
|---|---|---|---|---|---|---|---|
| WTRK04 | 4 | 11,1 | 3,2 | 57 | 19 | 36 | 13 |
| WTRK06 | 6 | 13 | 3,2 | 61,6 | 20,3 | 42 | 17 |
| WTRK08 | 8 | 15,1 | 3,2 | 81,6 | 24,3 | 48 | 22 |

## WTRKG — Union multi-tee

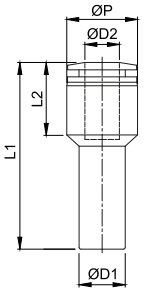





| CODE | ØD1 | OD2 | ØP1 | ØP2 | ØC | L1 | L2 | J | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRKG0604 | 6 | 4 | 13 | 11,1 | 3,2 | 57,6 | 19 | 36 | 13 |
| WTRKG0804 | 8 | 4 | 15,1 | 11,1 | 3,2 | 62,6 | 20 | 42 | 16 |
| WTRKG0806 | 8 | 6 | 15,1 | 13 | 3,2 | 62,6 | 20,3 | 42 | 16,6 |
| WTRKG1006 | 10 | 6 | 18,8 | 13 | 4,2 | 80 | 23,8 | 48 | 28 |
| WTRKG1008 | 10 | 8 | 18,8 | 15,1 | 4,2 | 80 | 24,3 | 48 | 30,8 |

## WTRGJ — Stem reduction



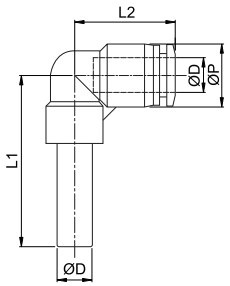



| CODE | ØD1 | ØD2 | ØP | L1 | L2 | g |
|---|---|---|---|---|---|---|
| WTRGJ0604 | 6 | 4 | 11,1 | 39,5 | 14 | 1,4 |
| WTRGJ0804 | 8 | 4 | 11,1 | 41,5 | 14 | 2,7 |
| WTRGJ0806 | 8 | 6 | 13 | 41,8 | 14,3 | 2 |
| WTRGJ1006 | 10 | 6 | 13 | 46,8 | 17,3 | 3,8 |
| WTRGJ1008 | 10 | 8 | 15,1 | 47,3 | 17,8 | 2,8 |
| WTRGJ1206 | 12 | 6 | 13 | 51,8 | 19,3 | 7,7 |
| WTRGJ1208 | 12 | 8 | 15,1 | 52,3 | 19,8 | 6,4 |
| WTRGJ1210 | 12 | 10 | 18,8 | 51,5 | 19 | 4,2 |

*drawings and technical data are not binding & can be changed without notice*

## WTRLJ — Elbow with stem

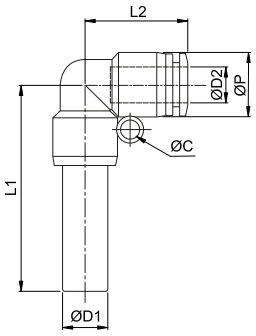





| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| WTRLJ0400 | 4 | 11,1 | 33,7 | 17,5 | 6,5 |
| WTRLJ0600 | 6 | 13 | 34,9 | 19 | 8,1 |
| WTRLJ0800 | 8 | 15,1 | 39,1 | 22,8 | 10,6 |
| WTRLJ1000 | 10 | 18,8 | 46,1 | 26,3 | 21,4 |
| WTRLJ1200 | 12 | 21,5 | 52,2 | 29,6 | 26,7 |

## WTRLGJ — Reduced elbow with stem

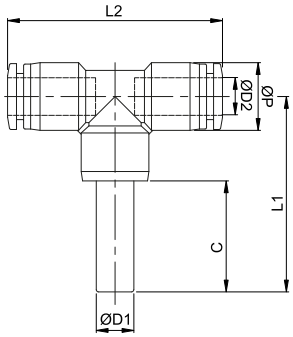





| CODE | ØD1 | ØD2 | ØP | ØP2 | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| WTRLGJ0604 | 6 | 4 | 13 | 11,1 | 3,2 | 33,7 | 17,5 | 8,7 |
| WTRLGJ0806 | 8 | 6 | 15,1 | 13 | 3,2 | 38,3 | 19 | 13,7 |
| WTRLGJ1008 | 10 | 8 | 18,8 | 15,1 | 4,2 | 46,1 | 22,8 | 19,4 |
| WTRLGJ1210 | 12 | 10 | 21,5 | 18,8 | 4,2 | 53,5 | 26,3 | 34,6 |
| ENLARGED ELBOW WITH STEM | | | | | | | | |
| WTRLGJ0406 | 4 | 6 | 11,1 | 13 | 3,2 | 33,7 | 19 | 8,7 |

## WTRTJ — Tee with stem

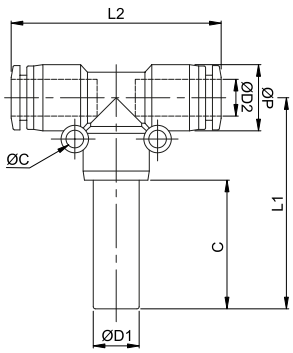





| CODE | ØD1 | ØD2 | ØP | L1 | L2 | C | g |
|---|---|---|---|---|---|---|---|
| WTRTJ04 | 4 | 4 | 11,1 | 34,7 | 37 | 20,2 | - |
| WTRTJ06 | 6 | 6 | 13 | 35,2 | 38,6 | 20,2 | - |
| WTRTJ08 | 8 | 8 | 15,1 | 41,6 | 45,7 | 23,6 | - |
| WTRTJ10 | 10 | 10 | 18,8 | 51,1 | 57,6 | 28,1 | - |
| WTRTJ12 | 12 | 12 | 21,5 | 55,2 | 58,8 | 31,2 | - |

## WTRTGJ — Reduced tee with stem



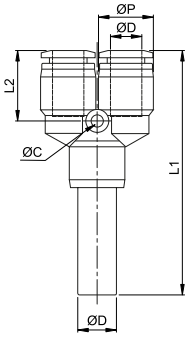



| CODE | ØD1 | ØD2 | ØP | ØC | L1 | L2 | C | g |
|---|---|---|---|---|---|---|---|---|
| WTRTGJ0604 | 6 | 4 | 11,1 | 3,2 | 34,7 | 37 | 20,2 | - |
| WTRTGJ0806 | 8 | 6 | 13 | 3,2 | 38,6 | 38,6 | 23,6 | - |
| WTRTGJ1008 | 10 | 8 | 15,1 | 3,2 | 46,1 | 45,7 | 28,1 | - |
| WTRTGJ1210 | 12 | 10 | 18,8 | 4,2 | 54,2 | 57,6 | 31,2 | - |

*drawings and technical data are not binding & can be changed without notice*

## WTRYJ — Union Y with stem

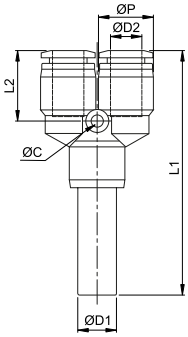





| CODE | ØD | ØP | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|
| WTRYJ0400 | 4 | 11,1 | 3,2 | 51,7 | 14 | 10,2 |
| WTRYJ0600 | 6 | 13 | 3,2 | 53 | 14,8 | 14,4 |
| WTRYJ0800 | 8 | 15,1 | 3,2 | 59,3 | 18,3 | 20,4 |
| WTRYJ1000 | 10 | 18,8 | 4,2 | 73 | 21,3 | 38,1 |
| WTRYJ1200 | 12 | 21,5 | 4,2 | 78,6 | 21,4 | 49,9 |

## WTRWJ — Reduced union Y with stem

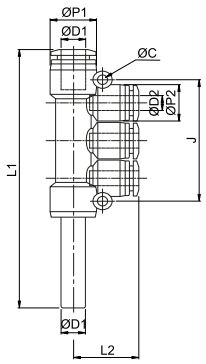





| CODE | ØD1 | ØD2 | ØP | ØC | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| WTRWJ0604 | 6 | 4 | 11,1 | 3,2 | 51,7 | 14 | 14,5 |
| WTRWJ0806 | 8 | 6 | 13 | 3,2 | 53 | 14,8 | 20,4 |
| WTRWJ1008 | 10 | 8 | 15,1 | 4,2 | 59,3 | 18,3 | 35,5 |
| WTRWJ1210 | 12 | 10 | 18,8 | 4,2 | 73 | 21,3 | 50,5 |

## WTRKJ — Multi-tee union with lateral stem

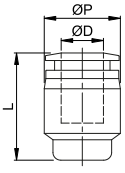





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | ØC | L1 | L2 | J | g |
|---|---|---|---|---|---|---|---|---|---|
| WTRKJ0604 | 6 | 4 | 13 | 11,1 | 3,2 | 73,5 | 19 | 36 | 4,2 |
| WTRKJ0804 | 8 | 4 | 15,1 | 11,1 | 3,2 | 81,5 | 20 | 42 | 5,5 |
| WTRKJ0806 | 8 | 6 | 15,1 | 13 | 3,2 | 81,5 | 20,3 | 42 | 7,3 |
| WTRKJ1006 | 10 | 6 | 18,8 | 13 | 4,2 | 104,5 | 23,8 | 48 | 14,3 |
| WTRKJ1008 | 10 | 8 | 18,8 | 15,1 | 4,2 | 105,9 | 24,3 | 48 | 18,2 |

## WTRPF — Female plug



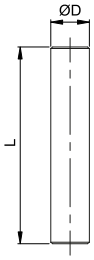



| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| WTRPF04 | 4 | 11,1 | 17 | 2,6 |
| WTRPF05 | 5 | 12,8 | 17,3 | 3,1 |
| WTRPF06 | 6 | 13 | 17,3 | 3,7 |
| WTRPF07 | 7 | 14,5 | 20,8 | 3,8 |
| WTRPF08 | 8 | 15,1 | 20,8 | 4,2 |
| WTRPF10 | 10 | 18,8 | 25,3 | 5,5 |
| WTRPF12 | 12 | 21,5 | 25,6 | 9,3 |
| WTRPF14 | 14 | 23,2 | 25,7 | 12,4 |
| WTRPF15 | 15 | 25,8 | 27 | 15,3 |
| WTRPF16 | 16 | 26 | 27 | 17,1 |

*drawings and technical data are not binding & can be changed without notice*

## WTRIJ — Junction

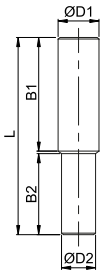





| CODE | ØD | L | g |
|---|---|---|---|
| WTRIJ04 | 4 | 35 | 0,4 |
| WTRIJ06 | 6 | 37 | 0,8 |
| WTRIJ08 | 8 | 41 | 1,2 |
| WTRIJ10 | 10 | 51 | 2,7 |
| WTRIJ12 | 12 | 54 | 3,5 |
| WTRIJ16 | 16 | 58 | 5,3 |

## WTRIG — Reduced junction

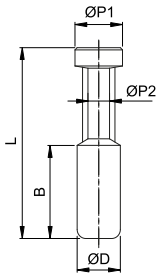





| CODE | ØD1 | ØD2 | B1 | B2 | L | g |
|---|---|---|---|---|---|---|
| WTRIG0604 | 6 | 4 | 18 | 17 | 36 | 0,6 |
| WTRIG0806 | 8 | 6 | 20 | 18 | 39 | 1 |
| WTRIG1008 | 10 | 8 | 25 | 20 | 46 | 1,9 |
| WTRIG1210 | 12 | 10 | 27 | 26 | 54 | 3,2 |
| WTRIG1612 | 16 | 12 | 28 | 28 | 56 | 4,8 |

## WTRP — Male plug

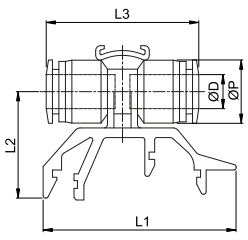





| CODE | ØD | ØP1 | ØP2 | B | L | g |
|---|---|---|---|---|---|---|
| WTRP04 | 4 | 5 | 3 | 15 | 28 | 0,4 |
| WTRP06 | 6 | 7 | 3 | 17 | 33 | 0,8 |
| WTRP07 | 7 | 8 | 3,5 | 18 | 37 | 1,1 |
| WTRP08 | 8 | 9 | 4 | 18 | 37 | 1,3 |
| WTRP10 | 10 | 11 | 5 | 20,5 | 42 | 2,2 |
| WTRP12 | 12 | 13 | 6 | 23 | 44 | 3,1 |
| WTRP14 | 14 | 15 | 7 | 24 | 45 | 5 |
| WTRP16 | 16 | 15 | 8 | 24,5 | 46 | 7 |

## WTRUC-PRD — Union connector for DIN profile



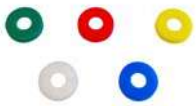


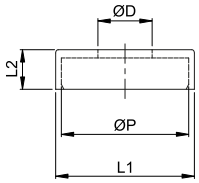

| CODE | ØD | ØP | L1 | L2 | L3 | g |
|---|---|---|---|---|---|---|
| WTRUC-PRD04 | 4 | 11,1 | 45 | 22 | 34,6 | 8 |
| WTRUC-PRD06 | 6 | 13 | 45 | 22 | 35,2 | 8 |
| WTRUC-PRD08 | 8 | 15,1 | 45 | 22,7 | 39,1 | 10 |
| WTRUC-PRD10 | 10 | 18,8 | 45 | 24,7 | 45,2 | 17 |

*drawings and technical data are not binding & can be changed without notice*

## WTRCV

Applicable sleeve






| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| WTRCV04 | 4,3 | 10,1 | 11 | 2,4 | 0,1 |
| WTRCV06 | 6,3 | 12,1 | 13 | 2,6 | 0,14 |

| ØD | BLUE | RED | WHITE | YELLOW | GREEN |
|---|---|---|---|---|---|
| 4 | WTRCV04BL | WTRCV04RO | WTRCV04BO | WTRCV04GL | WTRCV04VD |
| 6 | WTRCV06BL | WTRCV06RO | WTRCV06BO | WTRCV06GL | WTRCV06VD |



# PUSH-IN FITTINGS
# COMPACT CDC PNEUMATICS

## PLUS

**REDUCED DIMENSIONS** to be easily used in confined spaces

**ALSO AVAILABLE FOR TUBING Ø3mm**

**OVAL LOCKING COLLET** to improve disconnection

**STATIC GRIPPING SYSTEM** in order to stop all movement of the tube when inserted, granting a leak-proof connection

**MADE WITH TOP QUALITY TECNOPOLYMERS** to guarantee long-lasting components



p. 35 / **PC-C-R**



p. 35 / **PC-C-G**



p. 35 / **POC-C-R**



p. 36 / **POC-C-M**



p. 36 / **PCF-C-M**



p. 36 / **PMM-C**



p. 37 / **PL-C-R**



p. 37 / **PL-C-G**



p. 37 / **PLL-C-R**



p. 38 / **PLL-C-M**



p. 38 / **PT-C-R**



p. 38 / **PT-C-M**



p. 39 / **PST-C-R**



p. 39 / **PST-C-M**



p. 39 / **PUC-C**



p. 40 / **PG-C**



p. 40 / **PUL-C**



p. 40 / **PUT-C**



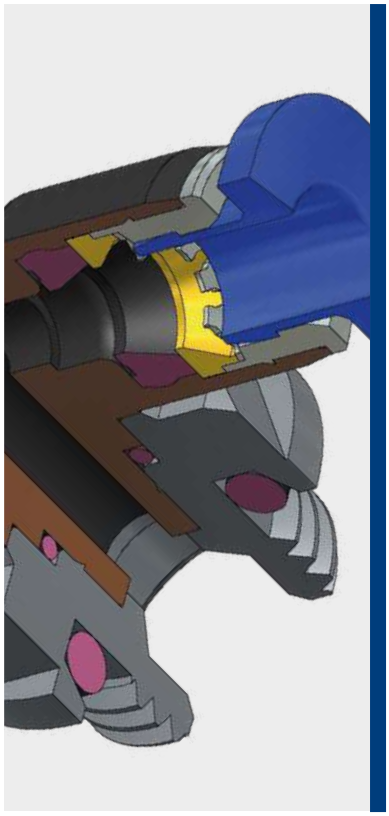
p. 41 / **PY-C**



p. 41 / **PW-C**



p. 41 / **PGJ-C**



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air & Vacuum
(do not use in water application)

- Taper gas BSPT ISO 7
  R1/8"
- Parallel gas BSPP ISO 228
  G1/8"
- Metric ISO 262
  M3, M5 and M6

Polyamide PA,
Polyurethane PU,
Polypropylene PE

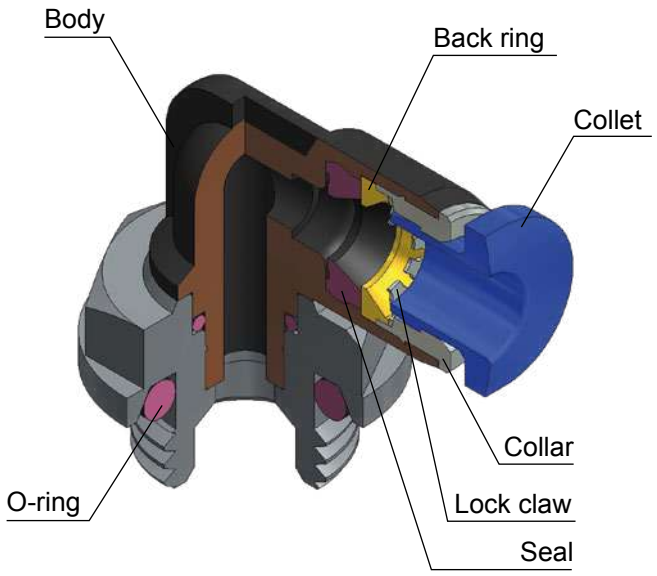
**Body:** PBT and nickel-plated brass
**Collar:** Nickel-plated brass
**Collet:** POM
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR silicone free
**O-ring:** NBR silicone free

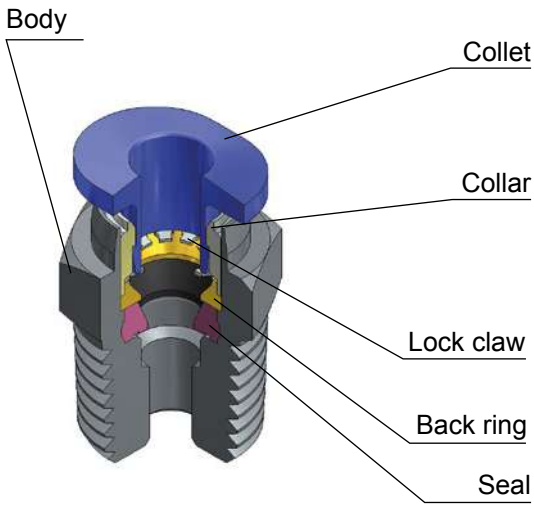
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" |
|---|---|
| Nm | 7 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M3x0,5 | M5x0,8 | M6x1,0 | 1/8" |
|---|---|---|---|---|
| Nm | 0,7 | 1,5 | 2,3 | 10 |

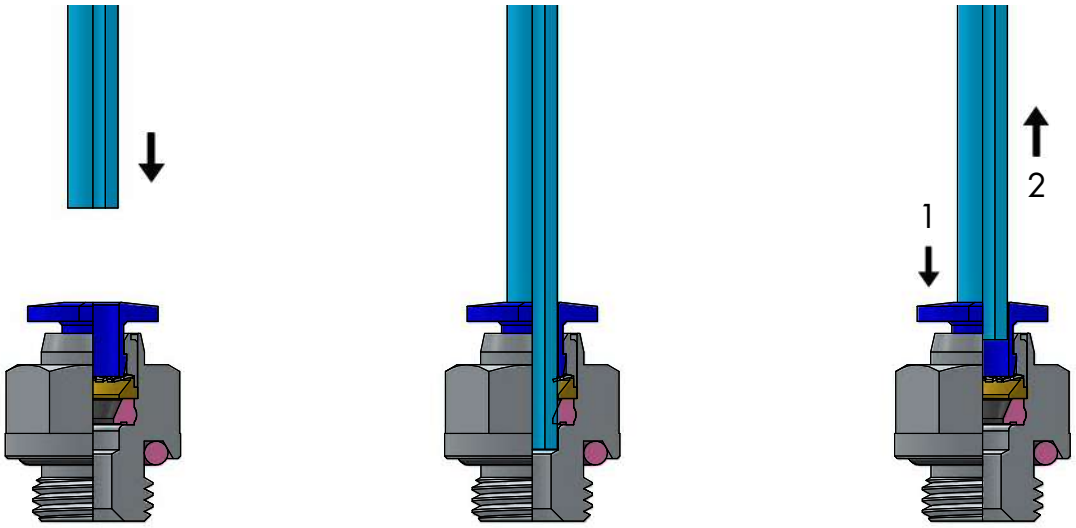
*drawings and technical data are not binding & can be changed without notice*

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 3 | 4 | 6 |
|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 |

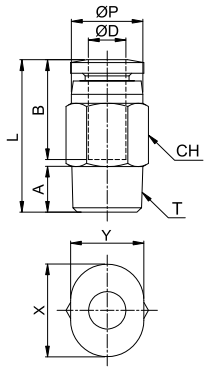
## INSERTION DEPTH - METRIC TUBE

| Ø TUBE (mm) | 3 | 4 | 6 |
|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 11,3 | 11,8 | 12,9 |

## PC-C-R

Compact male connector BSPT thread nickel-plated



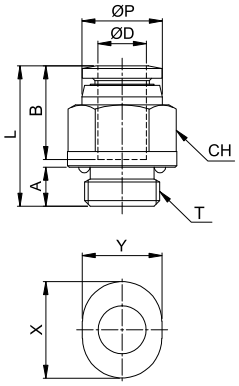



| CODE | ØD | T | ØP | A | B | L | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PC-C04R01 | 4 | R1/8" | 8,0 | 8,0 | 11,7 | 16,7 | 10 | 10,4 | 8,2 | 3,0 | 6,0 |
| PC-C06R01 | 6 | R1/8" | 10,0 | 8,0 | 12,7 | 18,9 | 10 | 12,4 | 10,2 | 5,0 | 7,0 |

## PC-C-G

Compact male connector BSPP & metric thread nickel-plated



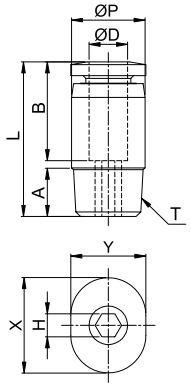



| CODE | ØD | T | ØP | A | B | L | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PC-C03M3 | 3 | M3x0,5P | 7,0 | 3,0 | 11,2 | 16,1 | 7 | 9,2 | 7,2 | 1,5 | 3,0 |
| PC-C03M5 | | M5x0,8P | 7,2 | 3,6 | 11,2 | 16,3 | 8 | 9,2 | 7,2 | 2,0 | 4,0 |
| PC-C03M6 | | M6x1,0P | 7,2 | 4,1 | 11,2 | 16,3 | 8 | 9,2 | 7,2 | 2,0 | 4,0 |
| PC-C04M3 | 4 | M3x0,5P | 8,0 | 3,0 | 11,7 | 16,8 | 8 | 10,4 | 8,2 | 1,5 | 4,0 |
| PC-C04M5 | | M5x0,8P | 8,0 | 3,6 | 11,7 | 17,1 | 8 | 10,4 | 8,2 | 2,5 | 4,0 |
| PC-C04M6 | | M6x1,0P | 8,0 | 4,1 | 11,7 | 17,7 | 8 | 10,4 | 8,2 | 3,0 | 4,0 |
| PC-C04G01 | | G 1/8" | 8,3 | 5,0 | 11,7 | 17,4 | 12 | 10,4 | 8,2 | 3,0 | 8,0 |
| PC-C06M5 | 6 | M5x0,8P | 10,0 | 3,6 | 12,7 | 18,6 | 10 | 12,4 | 10,2 | 2,5 | 5,0 |
| PC-C06M6 | | M6x1,0P | 10,0 | 4,1 | 12,7 | 18,9 | 10 | 12,4 | 10,2 | 3,0 | 6,0 |
| PC-C06G01 | | G 1/8" | 10,3 | 5,0 | 12,7 | 17,9 | 12 | 12,4 | 10,2 | 5,0 | 9,0 |

## POC-C-R

Compact male connector round body with internal hexagon BSPT thread nickel-plated



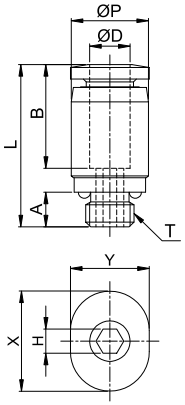



| CODE | ØD | T | ØP | A | B | L | H | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| POC-C04R01 | 4 | R 1/8" | 10 | 8,0 | 11,7 | 15,7 | 3 | 10,4 | 8,2 | 3,0 | 5,0 |
| POC-C06R01 | 6 | R 1/8" | 10 | 8,0 | 12,7 | 18,9 | 4 | 12,4 | 10,2 | 4,0 | 6,0 |

## POC-C-M

Compact male connector round body with internal hexagon metric thread nickel-plated



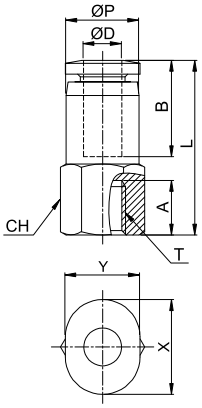



| CODE | ØD | T | ØP | A | B | L | H | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| POC-C03M3 | 3 | M3x0,5P | 7 | 3,0 | 11,2 | 16,1 | 1,5 | 9,2 | 7,2 | 1,5 | 2,0 |
| POC-C03M5 | | M5x0,8P | 7 | 3,6 | 11,2 | 16,3 | 2,0 | 9,2 | 7,2 | 2,0 | 2,0 |
| POC-C03M6 | | M6x1,0P | 8 | 4,1 | 11,2 | 16,7 | 2,0 | 9,2 | 7,2 | 2,0 | 4,0 |
| POC-C04M3 | 4 | M3x0,5P | 8 | 3,0 | 11,7 | 16,8 | 1,5 | 10,4 | 8,2 | 1,5 | 3,0 |
| POC-C04M5 | | M5x0,8P | 8 | 3,6 | 11,7 | 16,9 | 2,5 | 10,4 | 8,2 | 2,5 | 4,0 |
| POC-C04M6 | | M6x1,0P | 8 | 4,1 | 11,7 | 17,2 | 3,0 | 10,4 | 8,2 | 3,0 | 4,0 |
| POC-C06M5 | 6 | M5x0,8P | 10 | 3,6 | 12,7 | 18,6 | 2,5 | 12,4 | 10,2 | 2,5 | 5,0 |
| POC-C06M6 | | M6x1,0P | 10 | 4,1 | 12,7 | 18,6 | 3,0 | 12,4 | 10,2 | 3,0 | 5,0 |

## PCF-C-M

Compact female connector metric thread nickel-plated



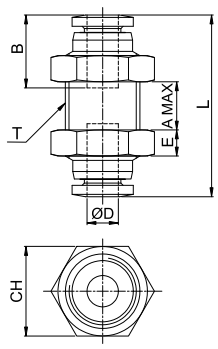



| CODE | ØD | T | ØP | A | B | L | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCF-C03M3 | 3 | M3x0,5P | 7,5 | 4,0 | 11,2 | 16,2 | 8 | 9,2 | 7,2 | 2,5 | 2,0 |
| PCF-C03M5 | | M5x0,8P | 7,5 | 6,0 | 11,2 | 18,7 | 8 | 9,2 | 7,2 | 2,5 | 2,0 |
| PCF-C03M6 | | M6x1,0P | 7,5 | 6,0 | 11,2 | 18,7 | 8 | 9,2 | 7,2 | 2,5 | 2,4 |
| PCF-C04M3 | 4 | M3x0,5P | 8,0 | 4,0 | 11,7 | 17,7 | 8 | 10,4 | 8,2 | 2,5 | 3,0 |
| PCF-C04M5 | | M5x0,8P | 8,0 | 6,0 | 11,7 | 19,2 | 8 | 10,4 | 8,2 | 3,0 | 4,0 |
| PCF-C04M6 | | M6x1,0P | 8,0 | 6,0 | 11,7 | 19,2 | 8 | 10,4 | 8,2 | 3,0 | 4,0 |
| PCF-C06M5 | 6 | M5x0,8P | 10,0 | 6,0 | 12,7 | 19,7 | 10 | 12,4 | 10,2 | 4,0 | 5,0 |
| PCF-C06M6 | | M6x1,0P | 10,0 | 6,0 | 12,7 | 19,7 | 10 | 12,4 | 10,2 | 4,0 | 5,0 |

## PMM-C

Compact bulkhead connector nickel-plated



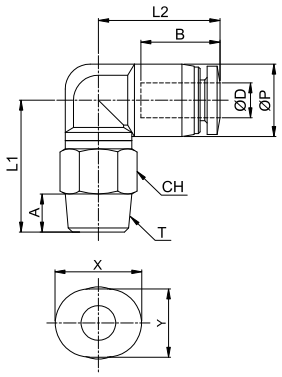



| CODE | ØD | T | B | A MAX | L | E | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|
| PMM-C03 | 3 | M8x0,75P | 11,2 | 7,1 | 23,4 | 3,0 | 10 | 2,0 | 6,0 |
| PMM-C04 | 4 | M10x1,0P | 11,7 | 6,5 | 24,3 | 3,5 | 12 | 3,0 | 10,0 |
| PMM-C06 | 6 | M12x1,0P | 12,7 | 8,0 | 26,9 | 4,0 | 14 | 5,0 | 14,0 |

## PL-C-R

Compact swivel male elbow BSPT thread nickel-plated



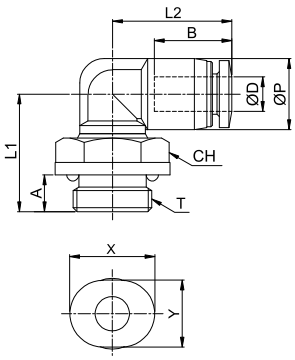



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PL-C04R01 | 4 | R 1/8" | 8,7 | 8,0 | 11,8 | 16,4 | 14,6 | 10 | 10,4 | 8,2 | 3,0 | 7,0 |
| PL-C06R01 | 6 | R 1/8" | 10,8 | 8,0 | 12,8 | 17,4 | 15,5 | 10 | 12,4 | 10,2 | 3,0 | 7,0 |

## PL-C-G

Compact swivel male elbow BSPP & metric thread nickel-plated



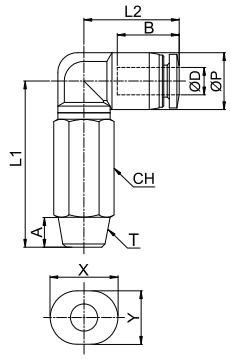



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PL-C03M3 | 3 | M3x0,5P | 7,6 | 3,0 | 11,3 | 14,7 | 13,5 | 8 | 9,2 | 7,2 | 1,5 | 4,0 |
| PL-C03M5 | | M5x0,8P | 7,6 | 3,6 | 11,3 | 15,3 | 13,5 | 8 | 9,2 | 7,2 | 2,5 | 4,0 |
| PL-C03M6 | | M6x1,0P | 7,6 | 4,1 | 11,3 | 15,8 | 13,5 | 8 | 9,2 | 7,2 | 2,5 | 4,0 |
| PL-C04M3 | 4 | M3x0,5P | 8,7 | 3,0 | 11,8 | 15,3 | 14,6 | 8 | 10,4 | 8,2 | 1,5 | 4,0 |
| PL-C04M5 | | M5x0,8P | 8,7 | 3,6 | 11,8 | 15,9 | 14,6 | 8 | 10,4 | 8,2 | 2,5 | 4,0 |
| PL-C04M6 | | M6x1,0P | 8,7 | 4,1 | 11,8 | 16,4 | 14,6 | 8 | 10,4 | 8,2 | 3,0 | 4,0 |
| PL-C04G01 | | G 1/8" | 8,7 | 4,5 | 11,8 | 14,4 | 14,6 | 14 | 10,4 | 8,2 | 3,0 | 7,0 |
| PL-C06M5 | 6 | M5x0,8P | 10,8 | 3,6 | 12,9 | 16,9 | 15,5 | 8 | 12,4 | 10,2 | 2,5 | 4,0 |
| PL-C06M6 | | M6x1,0P | 10,8 | 4,1 | 12,9 | 17,4 | 15,5 | 8 | 12,4 | 10,2 | 3,0 | 5,0 |
| PL-C06G01 | | G 1/8" | 10,8 | 4,5 | 12,9 | 15,4 | 15,5 | 14 | 12,4 | 10,2 | 3,0 | 6,0 |

## PLL-C-R

Compact long swivel male elbow BSPT thread nickel-plated



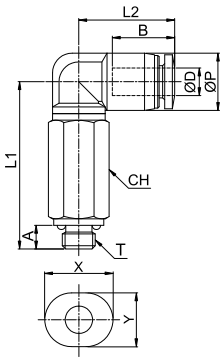



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLL-C04R01 | 4 | R 1/8" | 8,7 | 8,0 | 11,8 | 29,4 | 14,6 | 10 | 10,4 | 8,2 | 3,0 | 13,0 |
| PLL-C06R01 | 6 | R 1/8" | 10,8 | 8,0 | 12,8 | 32,4 | 15,5 | 10 | 12,4 | 10,2 | 3,0 | 14,0 |

## PLL-C-M

Compact long swivel male elbow metric thread nickel-plated



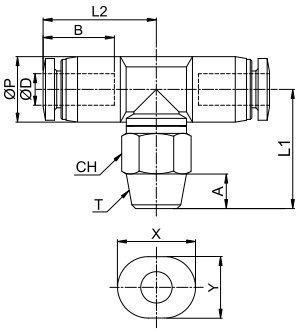



| CODE | ØD | T | ØP | A | B | L1 | L2 | H | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLL-C03M3 | 3 | M3x0,5P | 7,5 | 3,0 | 11,3 | 21,8 | 13,5 | 8 | 9,2 | 7,2 | 1,5 | 6,0 |
| PLL-C03M5 | | M5x0,8P | 7,5 | 3,6 | 11,3 | 23,9 | 13,5 | 8 | 9,2 | 7,2 | 2,5 | 7,0 |
| PLL-C03M6 | | M6x1,0P | 7,5 | 4,1 | 11,3 | 24,4 | 13,5 | 8 | 9,2 | 7,2 | 2,5 | 7,0 |
| PLL-C04M3 | 4 | M3x0,5P | 8,7 | 3,0 | 11,8 | 24,9 | 14,6 | 8 | 10,4 | 8,2 | 1,5 | 8,0 |
| PLL-C04M5 | | M5x0,8P | 8,7 | 3,6 | 11,8 | 25,5 | 14,6 | 8 | 10,4 | 8,2 | 2,5 | 8,0 |
| PLL-C04M6 | | M6x1,0P | 8,7 | 4,1 | 11,8 | 26,0 | 14,6 | 8 | 10,4 | 8,2 | 2,5 | 8,0 |
| PLL-C06M5 | 6 | M5x0,8P | 10,8 | 3,6 | 12,8 | 28,4 | 15,5 | 8 | 12,4 | 10,2 | 2,5 | 9,0 |
| PLL-C06M6 | | M6x1,0P | 10,8 | 4,1 | 12,8 | 28,9 | 15,5 | 8 | 12,4 | 10,2 | 2,5 | 9,0 |

## PT-C-R

Compact swivel male central tee BSPT thread nickel-plated



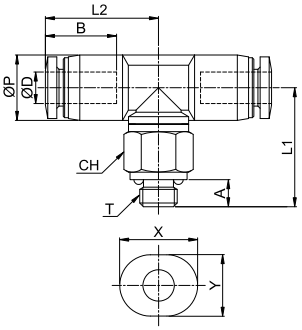



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PT-C04R01 | 4 | R 1/8" | 8,7 | 8,0 | 11,8 | 16,4 | 15,1 | 10 | 10,4 | 8,2 | 3,0 | 7,0 |
| PT-C06R01 | 6 | R 1/8" | 10,8 | 8,0 | 12,8 | 17,4 | 16,0 | 10 | 12,4 | 10,2 | 3,0 | 9,0 |

## PT-C-M

Compact swivel male central tee metric thread nickel-plated



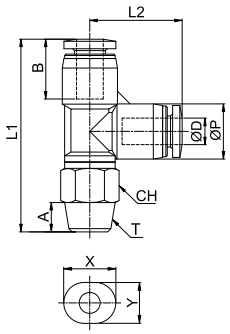



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PT-C03M3 | 3 | M3x0,5P | 7,6 | 3,0 | 11,3 | 14,7 | 14,5 | 8 | 9,2 | 7,2 | 1,5 | 4,0 |
| PT-C03M5 | | M5x0,8P | 7,6 | 3,6 | 11,3 | 15,3 | 14,5 | 8 | 9,2 | 7,2 | 2,5 | 5,0 |
| PT-C03M6 | | M6x1,0P | 7,6 | 4,1 | 11,3 | 15,8 | 14,5 | 8 | 9,2 | 7,2 | 2,5 | 5,0 |
| PT-C04M3 | 4 | M3x0,5P | 8,7 | 3,0 | 11,8 | 15,3 | 15,1 | 8 | 10,4 | 8,2 | 1,5 | 5,0 |
| PT-C04M5 | | M5x0,8P | 8,7 | 3,6 | 11,8 | 15,9 | 15,1 | 8 | 10,4 | 8,2 | 2,5 | 5,0 |
| PT-C04M6 | | M6x1,0P | 8,7 | 4,1 | 11,8 | 16,4 | 15,1 | 8 | 10,4 | 8,2 | 3,0 | 6,0 |
| PT-C06M5 | 6 | M5x0,8P | 10,8 | 3,6 | 12,8 | 16,9 | 16,0 | 8 | 12,4 | 10,2 | 2,5 | 7,0 |
| PT-C06M6 | | M6x1,0P | 10,8 | 4,1 | 12,8 | 17,4 | 16,0 | 8 | 12,4 | 10,2 | 3,0 | 7,0 |

## PST-C-R

Compact swivel lateral male tee BSPT thread nickel-plated



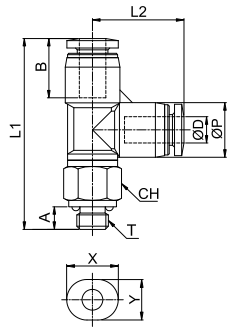



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PST-C04R01 | 4 | R 1/8" | 8,7 | 8,0 | 11,8 | 30,9 | 14,6 | 10 | 10,4 | 8,2 | 3,0 | 9,0 |
| PST-C06R01 | 6 | R 1/8" | 10,8 | 8,0 | 12,8 | 33,9 | 16,5 | 10 | 12,4 | 10,2 | 3,0 | 10,0 |

## PST-C-M

Compact swivel lateral male tee metric thread nickel-plated



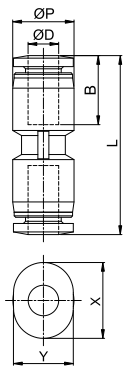



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PST-C03M3 | 3 | M3x0,5P | 7,6 | 3,0 | 11,3 | 28,3 | 13,6 | 8 | 9,2 | 7,2 | 1,5 | 4,0 |
| PST-C03M5 | | M5x0,8P | 7,6 | 3,6 | 11,3 | 28,9 | 13,6 | 8 | 9,2 | 7,2 | 2,5 | 5,0 |
| PST-C03M6 | | M6x1,0P | 7,6 | 4,1 | 11,3 | 29,4 | 13,6 | 8 | 9,2 | 7,2 | 2,5 | 5,0 |
| PST-C04M3 | 4 | M3x0,5P | 8,7 | 3,0 | 11,8 | 29,8 | 14,6 | 8 | 10,4 | 8,2 | 1,5 | 5,0 |
| PST-C04M5 | | M5x0,8P | 8,7 | 3,6 | 11,8 | 30,4 | 14,6 | 8 | 10,4 | 8,2 | 2,5 | 6,0 |
| PST-C04M6 | | M6x1,0P | 8,7 | 4,1 | 11,8 | 30,9 | 14,6 | 8 | 10,4 | 8,2 | 3,0 | 6,0 |
| PST-C06M5 | 6 | M5x0,8P | 10,8 | 3,6 | 12,8 | 33,4 | 16,5 | 8 | 12,4 | 10,2 | 2,5 | 7,0 |
| PST-C06M6 | | M6x1,0P | 10,8 | 4,1 | 12,8 | 33,9 | 16,5 | 8 | 12,4 | 10,2 | 3,0 | 7,0 |

## PUC-C

Compact union connector



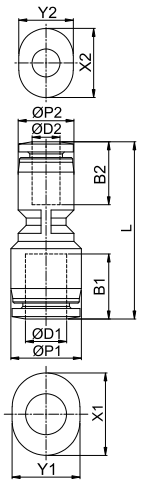



| CODE | ØD | ØP | B | L | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|
| PUC-C03 | 3 | 7,5 | 11,4 | 23,8 | 9,2 | 7,2 | 2,4 | 3,0 |
| PUC-C04 | 4 | 8,4 | 11,8 | 24,5 | 10,4 | 8,2 | 3,0 | 3,0 |
| PUC-C06 | 6 | 10,6 | 12,9 | 26,8 | 12,4 | 10,2 | 4,0 | 3,0 |

## PG-C

Compact reduced union connector



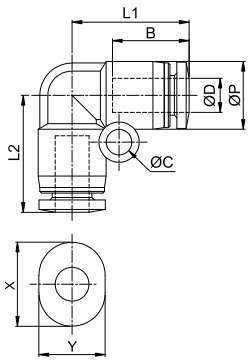



| CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L | X1 | Y1 | X2 | Y2 | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PG-C0403 | 4 | 3 | 8,4 | 7,5 | 11,8 | 11,4 | 24,2 | 10,4 | 8,2 | 9,2 | 7,2 | 2,4 | 3,0 |
| PG-C0603 | 6 | 3 | 10,6 | 7,5 | 12,9 | 11,4 | 26,3 | 12,4 | 10,2 | 9,2 | 7,2 | 2,5 | 3,0 |
| PG-C0604 | 6 | 4 | 10,6 | 8,4 | 12,9 | 11,8 | 26,6 | 12,4 | 10,2 | 10,4 | 8,2 | 3,0 | 3,0 |

## PUL-C

Compact union elbow



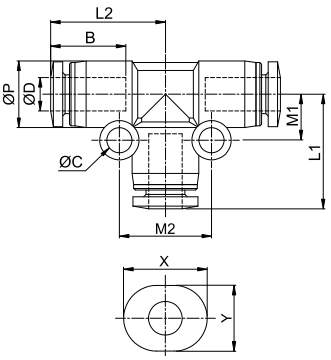



| CODE | ØD | ØP | ØC | B | L1 | L2 | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| PUL-C03 | 3 | 7,5 | 3,2 | 11,4 | 17,3 | 17,3 | 9,2 | 7,2 | 2,4 | 2,0 |
| PUL-C04 | 4 | 8,4 | 3,2 | 11,8 | 18,7 | 18,7 | 10,4 | 8,2 | 3,0 | 3,0 |
| PUL-C06 | 6 | 10,6 | 3,2 | 12,9 | 21,9 | 21,9 | 12,4 | 10,2 | 4,0 | 3,0 |

## PUT-C

Compact union tee





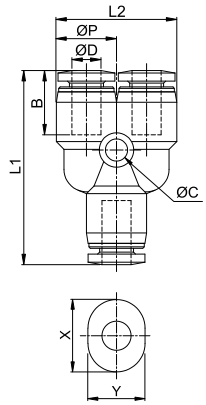

| CODE | ØD | ØP | ØC | B | L1 | L2 | M1 | M2 | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PUT-C03 | 3 | 7,5 | 3,2 | 11,4 | 17,3 | 27,2 | 5,3 | 10,7 | 9,2 | 7,2 | 2,4 | 3,0 |
| PUT-C04 | 4 | 8,4 | 3,2 | 11,8 | 18,7 | 28,9 | 5,8 | 11,6 | 10,4 | 8,2 | 3,0 | 3,0 |
| PUT-C06 | 6 | 10,6 | 3,2 | 12,9 | 21,9 | 33,2 | 6,9 | 13,8 | 12,4 | 10,2 | 4,0 | 6,0 |

*drawings and technical data are not binding & can be changed without notice*

## PY-C

Compact union Y



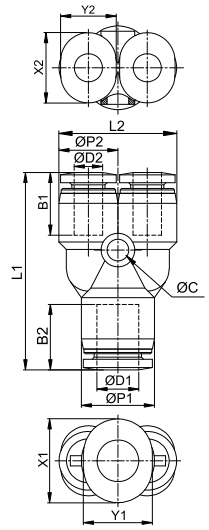



| CODE | ØD | ØP | ØC | B | L1 | L2 | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| PY-C03 | 3 | 7,6 | 3,2 | 11,4 | 27,0 | 15,2 | 9,2 | 7,2 | 2,4 | 3,0 |
| PY-C04 | 4 | 8,7 | 3,2 | 11,8 | 28,0 | 17,4 | 10,4 | 8,2 | 3,0 | 5,0 |
| PY-C06 | 6 | 10,8 | 3,2 | 12,9 | 30,8 | 21,6 | 12,4 | 10,2 | 4,0 | 6,0 |

## PW-C

Compact reduced union Y



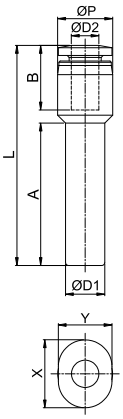



| CODE | ØD1 | ØD2 | ØP1 | ØP2 | ØC | B1 | B2 | L1 | L2 | X1 | X2 | Y1 | Y2 | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PW-C0403 | 4 | 3 | 8,7 | 7,6 | 3,2 | 11,8 | 11,4 | 27,6 | 15,2 | 10,4 | 8,2 | 9,2 | 7,2 | 2,0 | 3,0 |
| PW-C0603 | 6 | 3 | 10,8 | 7,6 | 3,2 | 12,9 | 11,4 | 28,8 | 15,2 | 12,4 | 10,2 | 9,2 | 7,2 | 2,4 | 4,0 |
| PW-C0604 | 6 | 4 | 10,8 | 8,7 | 3,2 | 12,9 | 11,8 | 29,1 | 17,4 | 12,4 | 10,2 | 10,4 | 8,2 | 3,0 | 5,0 |

## PGJ-C

Compact reduced






| CODE | ØD1 | ØD2 | ØP | A | B | L | X | Y | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| PGJ-C0403 | 4 | 3 | 7,6 | 18,0 | 11,4 | 30,5 | 9,2 | 7,2 | 2,4 | 1,0 |
| PGJ-C0603 | 6 | 3 | 7,6 | 21,6 | 11,4 | 32,1 | 9,2 | 7,2 | 2,4 | 2,0 |
| PGJ-C0604 | 6 | 4 | 8,4 | 21,8 | 11,8 | 33,7 | 10,4 | 8,2 | 3,0 | 3,0 |



# PUSH-IN FITTINGS M SERIES

## PLUS

**COMPACT AND EXTREMELY LIGHTWEIGHT**

**EXCELLENT RESISTANCE TO VACUUM**

**CAN BE USED WITH WATER FOR INDUSTRIAL APPLICATIONS**

Available in parallel **BSPP THREAD** & metric with sealing O-ring and taper **BSPT THREAD** with teflon pre-coated thread

**AVAILABLE SMP FITTING SERIES IN STAINLESS STEEL AISI 303**

**WIDE RANGE OF DIAMETERS AVAILABLE** with optimization of flow rates

Working pressure up to **20 BAR** and temperature range **-20°C ÷ 80°C**



p. 47 / **MPC-R**



p. 47 / **MPC-G**



p. 48 / **MPL-R**



p. 48 / **MPL-G**



p. 49 / **MPT-R**



p. 49 / **MPT-G**



p. 50 / **MPUC**



p. 50 / **MPG**



p. 50 / **MPUL**



p. 51 / **MPUT**



p. 51 / **MPY**



p. 51 / **SCPW**

## **SMP SERIES /** STAINLESS STEEL AISI 303 & PA66



p. 52 / **SMPC-R**



p. 52 / **SMPL-R**

## **QUICK EXHAUST VALVES /** PA66



p. 53 / **MEVU**



p. 54 / **MEVS**

## **BANJO FLOW REGULATORS /** NICKEL-PLATED BRASS & PA66



p. 57 / **MSC-R**

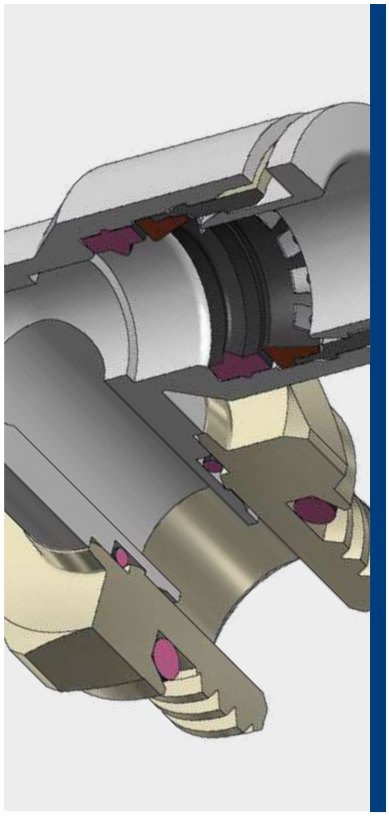


p. 57 / **MSC-G**

## **FLAT FLOW REGULATORS /** NICKEL-PLATED BRASS & PA66



p. 58 / **MSF**



**-20°C ÷ 80°C** dry air
**1°C ÷ 80°C** air, vacuum, and water for industrial applications

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 99 kPa)
Pressure peaks do not exceed the max working pressure

Compressed air, vacuum and industrial water

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2" with OR
- Metric ISO 262
  M5 and M6 with OR

Polyamide PA, polyurethane PU, polyethylene PE, FEP, PTFE

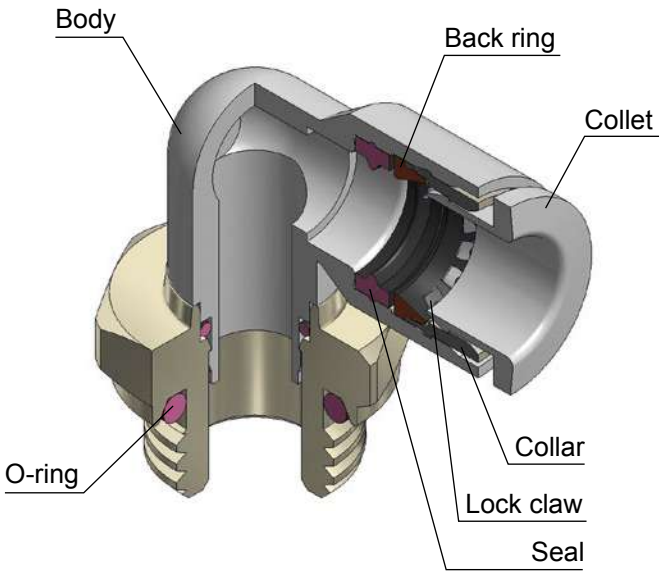
**Body:** Nickel-plated brass and PA66
Stainless steel AISI 303 (SMP Series)
**O-Ring:** NBR
**Back ring:** PA66
POM (MPC - MPC-G)
POM (SMP Series)
**Seal:** NBR
**Lock claw:** Stainless steel AISI 301
**Collar:** PA66
**Collet:** PA66

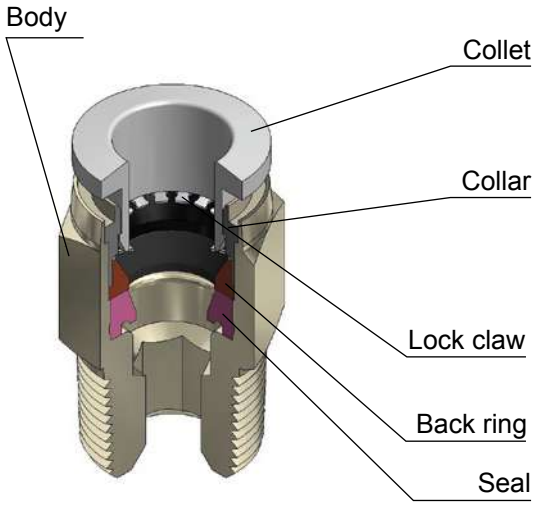
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

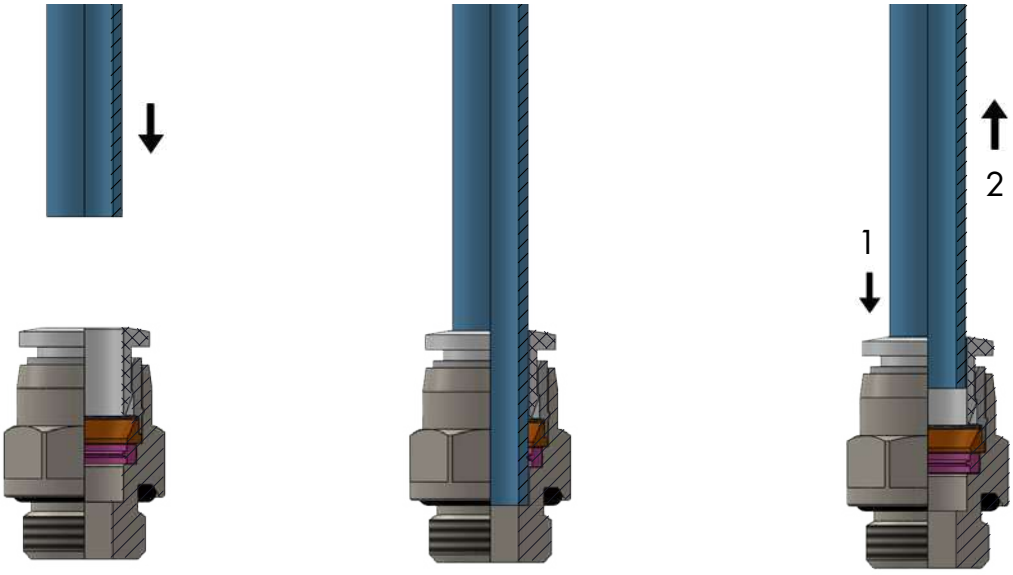
| THREAD | M5x0,8 | M6x1,0 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1,5 | 2,3 | 10 | 15 | 25 | 40 |

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 |

## INSERTION DEPTH - METRIC TUBE

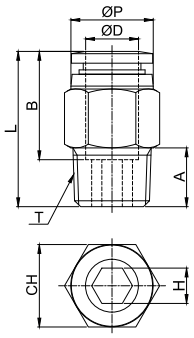
| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 12 | 14,5 | 16,5 | 19 | 21 |

*drawings and technical data are not binding & can be changed without notice*

## MPC-R

Male connector BSPT thread



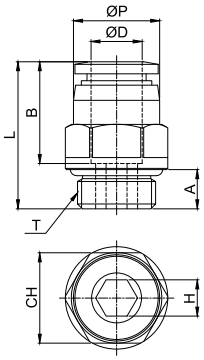



| CODE | ØD | T | ØP | A | B | L | CH | H | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPC04R01W | 4 | R 1/8" | 10 | 8 | 14,8 | 22,0 | 10 | 3 | 3 | 9,0 |
| MPC04R02W | | R 1/4" | 10 | 10 | 14,8 | 21,0 | 14 | 3 | 3 | 16,0 |
| MPC04R03W | | R 3/8" | 10 | 11 | 14,8 | 22,0 | 17 | 3 | 3 | 28,0 |
| MPC06R01W | 6 | R 1/8" | 12 | 8 | 16,4 | 23,4 | 12 | 4 | 4 | 10,0 |
| MPC06R02W | | R 1/4" | 12 | 10 | 16,4 | 21,9 | 14 | 5 | 5 | 14,0 |
| MPC06R03W | | R 3/8" | 12 | 11 | 16,4 | 22,9 | 17 | 5 | 5 | 25,0 |
| MPC06R04W | | R 1/2" | 12 | 14 | 16,4 | 29,2 | 19 | 5 | 5 | 53,0 |
| MPC08R01W | 8 | R 1/8" | 14 | 8 | 18,4 | 28,4 | 14 | 5 | 5 | 15,0 |
| MPC08R02W | | R 1/4" | 14 | 10 | 18,4 | 26,4 | 14 | 6 | 6 | 16,0 |
| MPC08R03W | | R 3/8" | 14 | 11 | 18,4 | 23,9 | 17 | 6 | 6 | 24,0 |
| MPC08R04W | | R 1/2" | 14 | 14 | 18,4 | 29,4 | 19 | 6 | 6 | 49,0 |
| MPC10R01W | 10 | R 1/8" | 16,1 | 8 | 19,7 | 29,9 | 17 | 5 | 5 | 21,0 |
| MPC10R02W | | R 1/4" | 16,1 | 10 | 19,7 | 31,4 | 17 | 6 | 6 | 24,0 |
| MPC10R03W | | R 3/8" | 16,1 | 11 | 19,7 | 27,5 | 17 | 8 | 8 | 24,0 |
| MPC10R04W | | R 1/2" | 16,1 | 14 | 19,7 | 29,9 | 19 | 8 | 8 | 45,0 |
| MPC12R01W | 12 | R 1/8" | 19 | 8 | 21,9 | 33,2 | 19 | 5 | 5 | 30,0 |
| MPC12R02W | | R 1/4" | 19 | 10 | 21,9 | 33,7 | 19 | 6 | 6 | 30,0 |
| MPC12R03W | | R 3/8" | 19 | 11 | 21,9 | 30,7 | 19 | 8 | 8 | 29,0 |
| MPC12R04W | | R 1/2" | 19 | 14 | 21,9 | 30,2 | 19 | 8 | 8 | 38,0 |

## MPC-G

Male connector BSPP & metric thread



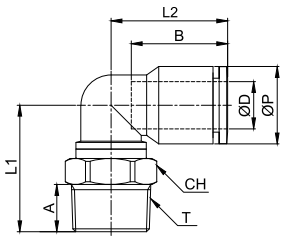



| CODE | ØD | T | ØP | A | B | L | CH | H | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPC04M5W | 4 | M5x0,8p | 10,0 | 4,0 | 14,8 | 20,9 | 10 | - | 2,5 | 7,0 |
| MPC04M6W | | M6x1,0p | 10,0 | 4,1 | 14,8 | 20,9 | 10 | - | 3 | 8,0 |
| MPC04G01W | | G 1/8" | 10,3 | 5,0 | 14,8 | 20,0 | 13 | 3 | 3 | 11,0 |
| MPC04G02W | | G 1/4" | 10,3 | 6,5 | 14,8 | 21,5 | 15 | 3 | 3 | 19,0 |
| MPC04G03W | | G 3/8" | 10,3 | 6,5 | 14,8 | 21,5 | 17 | 3 | 3 | 28,0 |
| MPC06M5W | 6 | M5x0,8p | 12,0 | 4,0 | 16,4 | 23,1 | 12 | - | 2,5 | 10,0 |
| MPC06M6W | | M6x1,0p | 12,0 | 4,1 | 16,4 | 23,0 | 12 | - | 3 | 10,0 |
| MPC06G01W | | G 1/8" | 12,3 | 5,0 | 16,4 | 21,2 | 13 | 4 | 4 | 10,0 |
| MPC06G02W | | G 1/4" | 12,3 | 6,5 | 16,4 | 23,2 | 15 | 5 | 5 | 17,0 |
| MPC06G03W | | G 3/8" | 12,3 | 6,5 | 16,4 | 22,2 | 17 | 5 | 5 | 23,0 |
| MPC08G01W | 8 | G 1/8" | 14,3 | 5,0 | 18,4 | 26,9 | 15 | 5 | 5 | 17,0 |
| MPC08G02W | | G 1/4" | 14,3 | 6,5 | 18,4 | 24,4 | 15 | 6 | 6 | 16,0 |
| MPC08G03W | | G 3/8" | 14,3 | 6,5 | 18,4 | 23,4 | 17 | 6 | 6 | 24,0 |
| MPC08G04W | | G 1/2" | 14,3 | 8,0 | 18,4 | 23,9 | 21 | 6 | 6 | 38,0 |
| MPC10G01W | 10 | G 1/8" | 16,5 | 5,0 | 19,7 | 28,9 | 17 | 5 | 5 | 22,0 |
| MPC10G02W | | G 1/4" | 16,5 | 6,5 | 19,7 | 28,9 | 17 | 6 | 6 | 23,0 |
| MPC10G03W | | G 3/8" | 16,5 | 6,5 | 19,7 | 25,4 | 17 | 8 | 8 | 20,0 |
| MPC10G04W | | G 1/2" | 16,5 | 8,0 | 19,7 | 25,9 | 21 | 8 | 8 | 39,0 |
| MPC12G02W | 12 | G 1/4" | 19,0 | 6,5 | 21,9 | 31,7 | 19 | 6 | 6 | 29,0 |
| MPC12G03W | | G 3/8" | 19,0 | 6,5 | 21,9 | 27,2 | 19 | 8 | 8 | 23,0 |
| MPC12G04W | | G 1/2" | 19,0 | 8,0 | 21,9 | 28,2 | 21 | 8 | 8 | 36,0 |

## MPL-R

Swivel male elbow BSPT thread



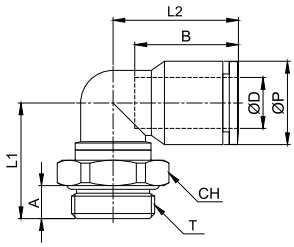



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPL04R01W | 4 | R 1/8" | 9,3 | 7 | 13,0 | 18,7 | 15,6 | 10 | 3,5 | 6,7 |
| MPL04R02W | | R 1/4" | 9,3 | 10 | 13,0 | 21,7 | 15,6 | 14 | 3,5 | 12,6 |
| MPL04R03W | | R 3/8" | 9,3 | 10 | 13,0 | 21,7 | 15,6 | 17 | 3,5 | 19,1 |
| MPL06R01W | 6 | R 1/8" | 11,5 | 7 | 15,0 | 20,0 | 17,3 | 10 | 3,5 | 7,2 |
| MPL06R02W | | R 1/4" | 11,5 | 10 | 15,0 | 23,0 | 17,3 | 14 | 3,5 | 13,2 |
| MPL06R03W | | R 3/8" | 11,5 | 10 | 15,0 | 23,0 | 17,3 | 17 | 3,5 | 19,6 |
| MPL08R01W | 8 | R 1/8" | 13,6 | 7 | 16,9 | 21,8 | 21,2 | 10 | 4 | 6,3 |
| MPL08R02W | | R 1/4" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 14 | 4 | 13,1 |
| MPL08R03W | | R 3/8" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 17 | 4 | 19,6 |
| MPL08R04W | | R 1/2" | 13,6 | 13 | 16,9 | 27,3 | 21,2 | 21 | 4 | 34,6 |
| MPL10R02W | 10 | R 1/4" | 16,4 | 10 | 18,9 | 26,8 | 24,6 | 15 | 9 | 14,0 |
| MPL10R03W | | R 3/8" | 16,4 | 10 | 18,9 | 26,8 | 24,6 | 17 | 9 | 19,5 |
| MPL10R04W | | R 1/2" | 16,4 | 13 | 18,9 | 29,8 | 24,6 | 21 | 9 | 33,4 |
| MPL12R02W | 12 | R 1/4" | 19,5 | 10 | 21,4 | 28,5 | 28,7 | 15 | 9,8 | 16,1 |
| MPL12R03W | | R 3/8" | 19,5 | 10 | 21,4 | 28,5 | 28,7 | 17 | 9,8 | 21,6 |
| MPL12R04W | | R 1/2" | 19,5 | 13 | 21,4 | 31,5 | 28,7 | 21 | 9,8 | 35,5 |

## MPL-G

Swivel male elbow BSPP & metric thread





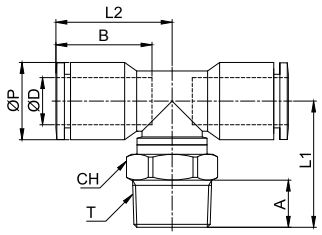

| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPL04M5W | 4 | M5x0,8p | 9,3 | 4 | 13,0 | 16,2 | 15,6 | 9 | 2,2 | 3,5 |
| MPL04M6W | | M6x1,0p | 9,3 | 4 | 13,0 | 16,2 | 15,6 | 9 | 3 | 3,7 |
| MPL04G01W | | G 1/8" | 9,3 | 5 | 13,0 | 16,7 | 15,6 | 14 | 3,5 | 8,2 |
| MPL04G02W | | G 1/4" | 9,3 | 6,5 | 13,0 | 18,7 | 15,6 | 17 | 3,5 | 13,4 |
| MPL04G03W | | G 3/8" | 9,3 | 6,5 | 13,0 | 18,2 | 15,6 | 20 | 3,5 | 19,1 |
| MPL04G04W | | G 1/2" | 9,3 | 8 | 13,0 | 19,7 | 15,6 | 24 | 3,5 | 31,7 |
| MPL06M5W | 6 | M5x0,8p | 11,5 | 4 | 15,0 | 17,5 | 17,3 | 9 | 2,2 | 4,0 |
| MPL06M6W | | M6x1,0p | 11,5 | 4 | 15,0 | 17,5 | 17,3 | 9 | 3 | 4,2 |
| MPL06G01W | | G 1/8" | 11,5 | 5 | 15,0 | 18,0 | 17,3 | 14 | 4 | 8,7 |
| MPL06G02W | | G 1/4" | 11,5 | 6,5 | 15,0 | 20,0 | 17,3 | 17 | 4 | 14,0 |
| MPL06G03W | | G 3/8" | 11,5 | 6,5 | 15,0 | 19,5 | 17,3 | 20 | 4 | 19,7 |
| MPL06G04W | | G 1/2" | 11,5 | 8 | 15,0 | 21,0 | 17,3 | 24 | 4 | 32,3 |
| MPL08G01W | 8 | G 1/8" | 13,6 | 5 | 16,9 | 21,8 | 21,2 | 14 | 6 | 10,3 |
| MPL08G02W | | G 1/4" | 13,6 | 6,5 | 16,9 | 21,8 | 21,2 | 17 | 6 | 14,4 |
| MPL08G03W | | G 3/8" | 13,6 | 6,5 | 16,9 | 21,3 | 21,2 | 20 | 6 | 19,4 |
| MPL08G04W | | G 1/2" | 13,6 | 8 | 16,9 | 22,8 | 21,2 | 24 | 6 | 31,6 |
| MPL10G01W | 10 | G 1/8" | 16,4 | 5 | 18,9 | 23,3 | 24,6 | 17 | 9 | 13,9 |
| MPL10G02W | | G 1/4" | 16,4 | 6,5 | 18,9 | 24,7 | 24,6 | 17 | 9 | 16,5 |
| MPL10G03W | | G 3/8" | 16,4 | 6,5 | 18,9 | 22,8 | 24,6 | 20 | 9 | 20,0 |
| MPL10G04W | | G 1/2" | 16,4 | 8 | 18,9 | 24,3 | 24,6 | 24 | 9 | 30,5 |
| MPL12G01W | 12 | G 1/8" | 19,5 | 5 | 21,4 | 25,0 | 28,7 | 17 | 9,6 | 15,5 |
| MPL12G02W | | G 1/4" | 19,5 | 6,5 | 21,4 | 26,4 | 28,7 | 17 | 9,6 | 18,1 |
| MPL12G03W | | G 3/8" | 19,5 | 6,5 | 21,4 | 24,5 | 28,7 | 20 | 9,6 | 21,6 |
| MPL12G04W | | G 1/2" | 19,5 | 8 | 21,4 | 26,0 | 28,7 | 24 | 9,6 | 32,1 |

*drawings and technical data are not binding & can be changed without notice*

## MPT-R

Swivel male central Tee BSPT thread



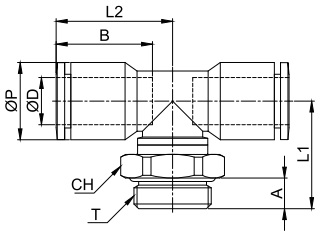



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPT04R01W | 4 | R 1/8" | 9,3 | 7 | 13,0 | 18,7 | 15,6 | 10 | 3,5 | 7,4 |
| MPT04R02W | | R 1/4" | 9,3 | 10 | 13,0 | 21,7 | 15,6 | 14 | 3,5 | 13,3 |
| MPT04R03W | | R 3/8" | 9,3 | 10 | 13,0 | 21,7 | 15,6 | 17 | 3,5 | 19,8 |
| MPT06R01W | 6 | R 1/8" | 11,5 | 7 | 15,0 | 20,0 | 17,3 | 10 | 3,5 | 8,4 |
| MPT06R02W | | R 1/4" | 11,5 | 10 | 15,0 | 23,0 | 17,3 | 14 | 3,5 | 14,4 |
| MPT06R03W | | R 3/8" | 11,5 | 10 | 15,0 | 23,0 | 17,3 | 17 | 3,5 | 20,8 |
| MPT08R01W | 8 | R 1/8" | 13,6 | 7 | 16,9 | 21,8 | 21,2 | 10 | 4 | 7,9 |
| MPT08R02W | | R 1/4" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 14 | 4 | 14,7 |
| MPT08R03W | | R 3/8" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 17 | 4 | 21,2 |
| MPT08R04W | | R 1/2" | 13,6 | 13 | 16,9 | 27,3 | 21,2 | 21 | 4 | 36,1 |
| MPT10R02W | 10 | R 1/4" | 16,4 | 10 | 18,9 | 26,8 | 24,6 | 15 | 9 | 16,4 |
| MPT10R03W | | R 3/8" | 16,4 | 10 | 18,9 | 26,8 | 24,6 | 17 | 9 | 22,0 |
| MPT10R04W | | R 1/2" | 16,4 | 13 | 18,9 | 29,8 | 24,6 | 21 | 9 | 35,9 |
| MPT12R02W | 12 | R 1/4" | 19,5 | 10 | 21,4 | 28,5 | 28,7 | 15 | 9,8 | 20,2 |
| MPT12R03W | | R 3/8" | 19,5 | 10 | 21,4 | 28,5 | 28,7 | 17 | 9,8 | 25,8 |
| MPT12R04W | | R 1/2" | 19,5 | 13 | 21,4 | 31,5 | 28,7 | 21 | 9,8 | 39,7 |

## MPT-G

Swivel male central Tee BSPP & metric thread

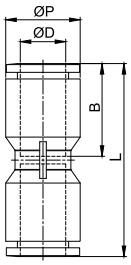





| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MPT04M5W | 4 | M5x0,8p | 9,3 | 4 | 13,0 | 16,2 | 15,5 | 9 | 2,2 | 4,2 |
| MPT04G01W | | G 1/8" | 9,3 | 5 | 13,0 | 16,7 | 15,6 | 14 | 3,5 | 8,9 |
| MPT04G02W | | G 1/4" | 9,3 | 6,5 | 13,0 | 18,7 | 15,6 | 17 | 3,5 | 14,1 |
| MPT04G03W | | G 3/8" | 9,3 | 6,5 | 13,0 | 18,2 | 15,6 | 20 | 3,5 | 19,8 |
| MPT04G04W | | G 1/2" | 9,3 | 8 | 13,0 | 19,7 | 15,6 | 24 | 3,5 | 32,4 |
| MPT06M5W | 6 | M5x0,8p | 11,5 | 4 | 15,0 | 17,5 | 17,3 | 9 | 2,2 | 5,1 |
| MPT06G01W | | G 1/8" | 11,5 | 5 | 15,0 | 18,0 | 17,3 | 14 | 4,0 | 9,9 |
| MPT06G02W | | G 1/4" | 11,5 | 6,5 | 15,0 | 20,0 | 17,3 | 17 | 4,0 | 15,2 |
| MPT06G03W | | G 3/8" | 11,5 | 6,5 | 15,0 | 19,5 | 17,3 | 20 | 4,0 | 20,9 |
| MPT06G04W | | G 1/2" | 11,5 | 8 | 15,0 | 21,0 | 17,3 | 24 | 4,0 | 33,5 |
| MPT08G01W | 8 | G 1/8" | 13,6 | 5 | 16,9 | 21,8 | 21,2 | 14 | 6,0 | 11,9 |
| MPT08G02W | | G 1/4" | 13,6 | 6,5 | 16,9 | 21,8 | 21,2 | 17 | 6,0 | 16,0 |
| MPT08G03W | | G 3/8" | 13,6 | 6,5 | 16,9 | 21,3 | 21,2 | 20 | 6,0 | 21,0 |
| MPT08G04W | | G 1/2" | 13,6 | 8 | 16,9 | 22,8 | 21,2 | 24 | 6,0 | 33,2 |
| MPT10G01W | 10 | G 1/8" | 16,4 | 5 | 18,9 | 23,3 | 24,6 | 17 | 9,0 | 16,4 |
| MPT10G02W | | G 1/4" | 16,4 | 6,5 | 18,9 | 24,7 | 24,6 | 17 | 9,0 | 19,0 |
| MPT10G03W | | G 3/8" | 16,4 | 6,5 | 18,9 | 22,8 | 24,6 | 20 | 9,0 | 22,5 |
| MPT10G04W | | G 1/2" | 16,4 | 8 | 18,9 | 24,3 | 24,6 | 24 | 9,0 | 33,0 |
| MPT12G01W | 12 | G 1/8" | 19,5 | 5 | 21,4 | 25,0 | 28,7 | 17 | 9,6 | 19,5 |
| MPT12G02W | | G 1/4" | 19,5 | 6,5 | 21,4 | 26,4 | 28,7 | 17 | 9,6 | 22,1 |
| MPT12G03W | | G 3/8" | 19,5 | 6,5 | 21,4 | 24,5 | 28,7 | 20 | 9,6 | 25,6 |
| MPT12G04W | | G 1/2" | 19,5 | 8 | 21,4 | 26,0 | 28,7 | 24 | 9,6 | 36,1 |

## MPUC — Union connector

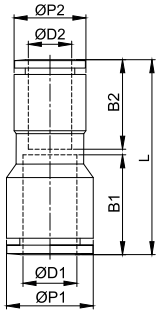





| CODE | ØD | ØP | B | L | DN | g |
|---|---|---|---|---|---|---|
| MPUC04W | 4 | 9,3 | 13,0 | 27,0 | 3,5 | 1,5 |
| MPUC06W | 6 | 11,5 | 15,0 | 31,2 | 5 | 2,4 |
| MPUC08W | 8 | 13,6 | 16,9 | 35,3 | 7 | 3,4 |
| MPUC10W | 10 | 16,4 | 18,9 | 39,6 | 9 | 5,4 |
| MPUC12W | 12 | 19,5 | 21,4 | 44,6 | 11 | 8,6 |

## MPG — Reduced union connector

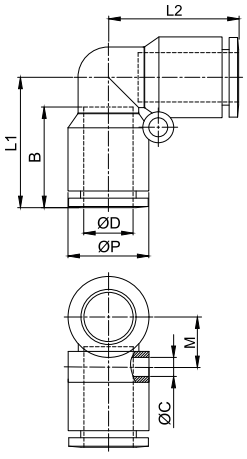





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L | DN | g |
|---|---|---|---|---|---|---|---|---|---|
| MPG0604W | 6 | 4 | 11,5 | 9,3 | 15,0 | 13,0 | 29,1 | 3,5 | 1,8 |
| MPG0804W | 8 | 4 | 13,6 | 9,3 | 16,9 | 13,0 | 32,4 | 3,5 | 2,3 |
| MPG0806W | 8 | 6 | 13,6 | 11,5 | 16,9 | 15,0 | 32,9 | 5 | 2,7 |
| MPG1006W | 10 | 6 | 16,4 | 11,5 | 19,8 | 15,0 | 35,0 | 5 | 3,7 |
| MPG1008W | 10 | 8 | 16,4 | 13,6 | 19,8 | 16,9 | 36,9 | 7 | 4,1 |
| MPG1208W | 12 | 8 | 19,5 | 13,6 | 21,4 | 16,9 | 40,1 | 7 | 5,7 |
| MPG1210W | 12 | 10 | 19,5 | 16,4 | 21,4 | 19,8 | 40,4 | 9 | 6,5 |

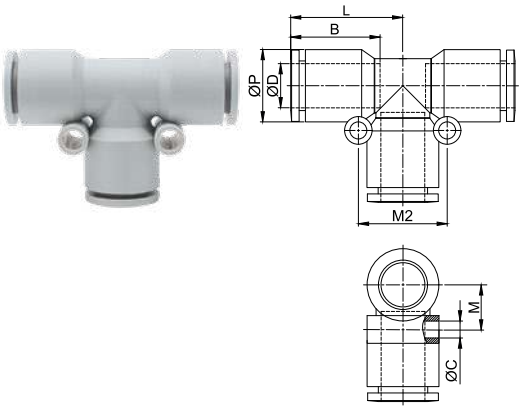
## MPUL — Union elbow





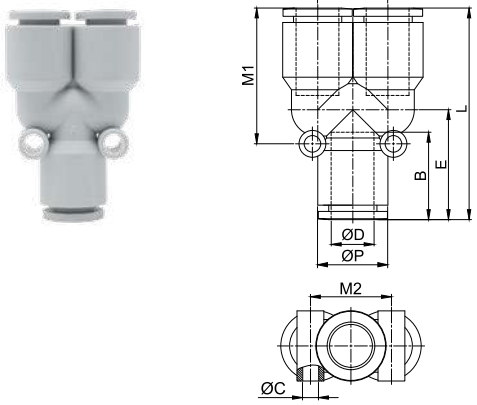

| CODE | ØD | ØP | ØC | B | M | L1 | L2 | DN | g |
|---|---|---|---|---|---|---|---|---|---|
| MPUL04W | 4 | 9,3 | 3,2 | 13,0 | 6,3 | 15,5 | 15,5 | 3,5 | 1,7 |
| MPUL06W | 6 | 11,5 | 3,2 | 15,0 | 7,4 | 18,9 | 18,9 | 5 | 2,8 |
| MPUL08W | 8 | 13,6 | 3,2 | 16,9 | 8,4 | 21,9 | 21,9 | 7 | 4,2 |
| MPUL10W | 10 | 16,4 | 4,2 | 19,8 | 10,3 | 25,1 | 25,1 | 9 | 6,5 |
| MPUL12W | 12 | 19,5 | 4,2 | 21,4 | 11,9 | 28,8 | 28,8 | 11 | 10,4 |

## MPUT — Union Tee




| CODE | ØD | ØP | ØC | B | M1 | M2 | L | DN | g |
|---|---|---|---|---|---|---|---|---|---|
| MPUT04W | 4 | 9,3 | 3,2 | 13,0 | 6,3 | 12,6 | 15,5 | 3,5 | 2,6 |
| MPUT06W | 6 | 11,5 | 3,2 | 15,0 | 7,4 | 14,8 | 18,9 | 5 | 4,2 |
| MPUT08W | 8 | 13,6 | 3,2 | 16,9 | 8,4 | 16,8 | 21,9 | 7 | 5,8 |
| MPUT10W | 10 | 16,4 | 4,2 | 18,9 | 10,3 | 20,6 | 25,1 | 9 | 9,5 |
| MPUT12W | 12 | 19,5 | 4,2 | 21,4 | 11,9 | 23,8 | 28,8 | 11 | 14,9 |

## MPY — Union Y




| CODE | ØD | ØP | ØC | B | E | M1 | M2 | J | L | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MPY04W | 4 | 9,3 | 3,2 | 13,0 | 16,1 | 19,6 | 11,7 | 9,3 | 31,0 | 3,5 | 2,6 |
| MPY06W | 6 | 11,5 | 3,2 | 15,0 | 18,9 | 22,8 | 13,6 | 11,5 | 36,2 | 5 | 4,3 |
| MPY08W | 8 | 13,6 | 3,2 | 16,9 | 21,3 | 26,3 | 15,7 | 13,6 | 41,0 | 7 | 6,2 |
| MPY10W | 10 | 16,4 | 4,2 | 18,9 | 23,9 | 31 | 20,1 | 16,4 | 46,6 | 9 | 10,3 |
| MPY12W | 12 | 19,5 | 4,2 | 21,4 | 25,5 | 36 | 22,4 | 19,5 | 55,0 | 11 | 15,8 |

## SCPW — Anti-spark cover

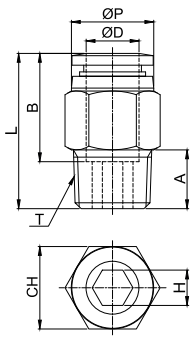



| CODE | ØD1 TUBO | ØD2 | ØP1 | ØP2 | L | g |
|---|---|---|---|---|---|---|
| SCPW08 | 10 | 13,4 | 12,6 | 16 | 29,0 | 2,2 |
| SCPW10 | 12 | 16,2 | 14,6 | 18,8 | 31,5 | 3,0 |

## SMPC-R

Male connector BSPT & metric thread, stainless steel AISI 303



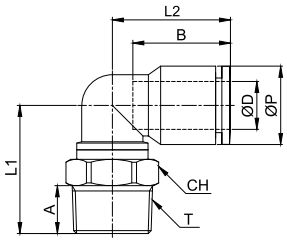



| CODE | ØD | T | ØP | A | B | L | CH | H | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| SMPC04M5W | 4 | M5x0,8p | 10 | 4 | 14,8 | 20,9 | 10 | - | 2,5 | 5,3 |
| SMPC04R01W | | R 1/8" | 10 | 8 | 14,8 | 22,0 | 10 | 3 | 3 | 7,0 |
| SMPC06M5W | 6 | M5x0,8p | 12 | 4 | 16,4 | 23,1 | 12 | - | 2,5 | 7,2 |
| SMPC06R01W | | R 1/8" | 12 | 8 | 16,4 | 23,4 | 12 | 4 | 4 | 7,8 |
| SMPC06R02W | | R 1/4" | 12 | 10 | 16,4 | 21,9 | 14 | 5 | 5 | 11,6 |
| SMPC06R03W | | R 3/8" | 12 | 11 | 16,4 | 22,9 | 17 | 5 | 5 | 26,6 |
| SMPC08R01W | 8 | R 1/8" | 14 | 8 | 18,4 | 28,4 | 14 | 5 | 5 | 11,7 |
| SMPC08R02W | | R 1/4" | 14 | 10 | 18,4 | 26,4 | 14 | 6 | 6 | 12,0 |
| SMPC08R03W | | R 3/8" | 14 | 11 | 18,4 | 23,9 | 17 | 6 | 6 | 19,9 |
| SMPC08R04W | | R 1/2" | 14 | 14 | 18,4 | 29,4 | 19 | 6 | 6 | 49,3 |
| SMPC10R02W | 10 | R 1/4" | 16,1 | 10 | 19,7 | 31,4 | 17 | 6 | 6 | 19,3 |
| SMPC10R03W | | R 3/8" | 16,1 | 11 | 19,7 | 27,5 | 17 | 8 | 8 | 20,1 |
| SMPC10R04W | | R 1/2" | 16,1 | 14 | 19,7 | 29,9 | 19 | 8 | 8 | 39,0 |
| SMPC12R02W | 12 | R 1/4" | 19 | 10 | 21,9 | 33,7 | 19 | 6 | 6 | 24,6 |
| SMPC12R03W | | R 3/8" | 19 | 11 | 21,9 | 30,7 | 19 | 8 | 8 | 21,9 |
| SMPC12R04W | | R 1/2" | 19 | 14 | 21,9 | 30,2 | 19 | 8 | 8 | 30,2 |

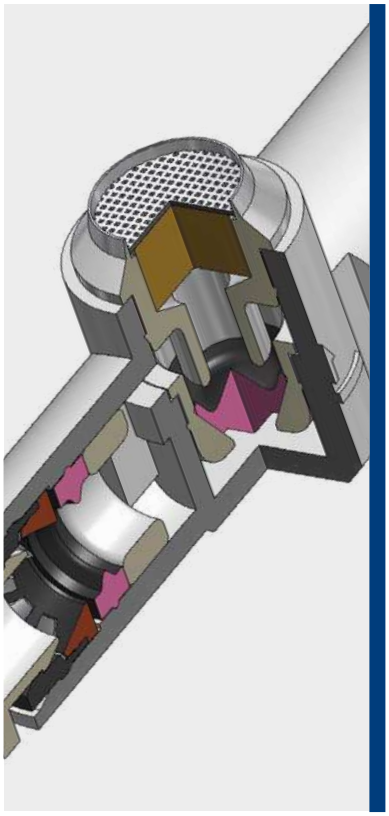
## SMPL-R

Swivel male elbow BSPT & metric thread, PA66 and stainless steel AISI 303 thread






| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | DN | g |
|---|---|---|---|---|---|---|---|---|---|---|
| SMPL04M5W | 4 | M5x0,8p | 9,3 | 4 | 13 | 16,2 | 15,5 | 9 | 2,2 | 3,3 |
| SMPL04R01W | | R 1/8" | 9,3 | 7 | 13 | 18,7 | 15,5 | 10 | 3,5 | 6,3 |
| SMPL06M5W | 6 | M5x0,8p | 11,5 | 4 | 15 | 17,5 | 17,3 | 9 | 2,2 | 3,8 |
| SMPL06R01W | | R 1/8" | 11,5 | 7 | 15 | 20,0 | 17,3 | 10 | 3,5 | 6,8 |
| SMPL06R02W | | R 1/4" | 11,5 | 10 | 15 | 23,0 | 17,3 | 14 | 3,5 | 12,2 |
| SMPL06R03W | | R 3/8" | 11,5 | 10 | 15 | 23,0 | 17,3 | 17 | 3,5 | 18,5 |
| SMPL08R01W | 8 | R 1/8" | 13,6 | 7 | 16,9 | 21,8 | 21,2 | 10 | 4 | 6,1 |
| SMPL08R02W | | R 1/4" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 14 | 4 | 12,2 |
| SMPL08R03W | | R 3/8" | 13,6 | 10 | 16,9 | 24,8 | 21,2 | 17 | 4 | 18,7 |
| SMPL08R04W | | R 1/2" | 13,6 | 13 | 16,9 | 27,8 | 21,2 | 21 | 4 | 32,7 |
| SMPL10R02W | 10 | R 1/4" | 16,4 | 10 | 18,9 | 26,8 | 24,7 | 15 | 9 | 13,4 |
| SMPL10R03W | | R 3/8" | 16,4 | 10 | 18,9 | 26,8 | 24,7 | 17 | 9 | 18,7 |
| SMPL10R04W | | R 1/2" | 16,4 | 13 | 18,9 | 29,8 | 24,7 | 21 | 9 | 31,4 |
| SMPL12R02W | 12 | R 1/4" | 19,5 | 10 | 21,4 | 28,5 | 28,3 | 15 | 9,8 | 15,5 |
| SMPL12R03W | | R 3/8" | 19,5 | 10 | 21,4 | 28,5 | 28,3 | 17 | 9,8 | 20,8 |
| SMPL12R04W | | R 1/2" | 19,5 | 13 | 21,4 | 31,5 | 28,3 | 21 | 9,8 | 33,5 |



-5°C ÷ 60°C

**Working pressure:**
10 Bar

**Min. working pressure:**
1 Bar

Pressure peaks do not exceed the max working pressure

Compressed air

Polyamide PA, polyurethane PU, polyethylene PE

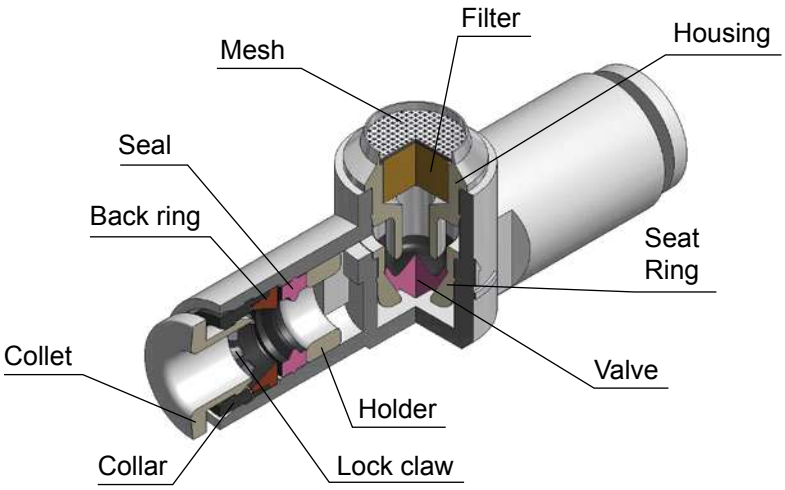
**Body:** PA66
**Mesh:** Stainless steel AISI 301
**Back ring:** PA66
**Seal:** NBR
**Lock claw:** Stainless steel AISI 301
**Collar:** PA66
**Seat ring:** Brass
**Holder:** POM
**Collet:** PA66
**Filter:** PE
**Housing:** Ottone
**Valve:** NBR

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### PLUS - MEVU

Silenced exhaust to the atmosphere through the incorporated silencer.

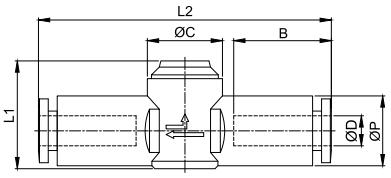
Easy assembly thanks to push-in fittings incorporated.

Suitable for multiple applications thanks to light weight and compact size.

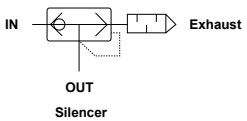
## MEVU

Quick exhaust valve with silencer





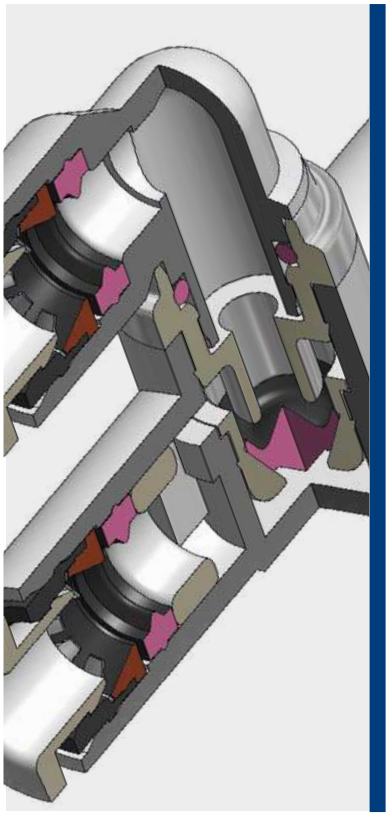

| CODE | ØD | ØP | ØC | B | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| MEVU04W | 4 | 9,3 | 10 | 13,0 | 14,4 | 39,0 | 4,5 |
| MEVU06W | 6 | 11,5 | 10 | 14,5 | 15,9 | 41,7 | 5,5 |




Section in mm²

| CODE | Ø TUBE (mm) | IN - OUT | OUT - EXHAUST |
|---|---|---|---|
| MEVU04W | 4 | 1,7 | 2,5 |
| MEVU06W | 6 | 2,4 | 2,7 |

*drawings and technical data are not binding & can be changed without notice*



-5°C ÷ 60°C

**Working pressure:**
10 Bar

**Min. working pressure:**
1 Bar

Pressure peaks do not exceed the max working pressure

Compressed air

Polyamide PA, polyurethane PU, polyethylene PE

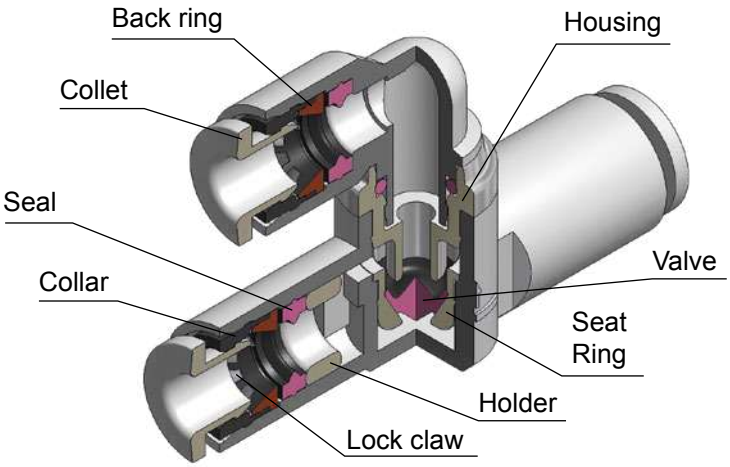
**Body:** PA66
**Back ring:** PA66
**Seal:** NBR
**Lock claw:** Stainless steel AISI 301
**Collar:** PA66
**Seat ring:** Brass
**Holder:** POM
**Collet:** PA66
**Housing:** Brass
**Valve:** NBR

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### PLUS - MEVS

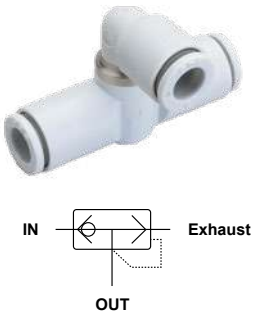
Connection exhaust to be conveyed.

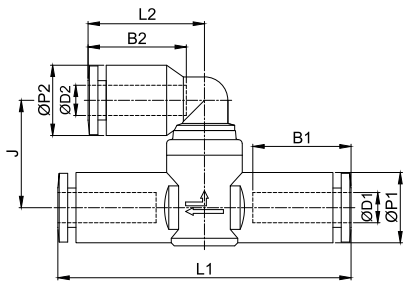
Easy assembly thanks to push-in fittings incorporated.

Suitable for multiple applications thanks to the light weight and compact size.

## MEVS

Quick exhaust valve with push-in fittings



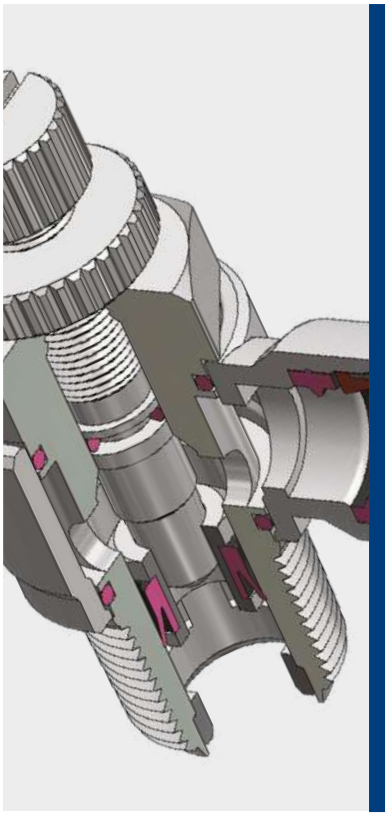




| CODE | ØD1 | ØD2 | B1 | B2 | ØP1 | ØP2 | L1 | L2 | J | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MEVS04W | 4 | 4 | 13,0 | 13,0 | 9,3 | 9,3 | 39,0 | 15,4 | 14,2 | 5,9 |
| MEVS06W | 6 | 6 | 14,5 | 14,5 | 11,5 | 11,5 | 41,7 | 17,3 | 15,6 | 7,5 |

Section in mm²

| CODE | Ø TUBE (mm) | IN - OUT | OUT - EXHAUST |
|---|---|---|---|
| MEVS04W | 4 | 1,7 | 2,5 |
| MEVS06W | 6 | 2,4 | 2,7 |

*drawings and technical data are not binding & can be changed without notice*



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Pressure peaks do not exceed the max working pressure

Compressed air & vacuum
(do not use with water)

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  with OR from G1/8" to G1/2"
- Metric ISO 262
  M5

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow adjustment and screwdriver

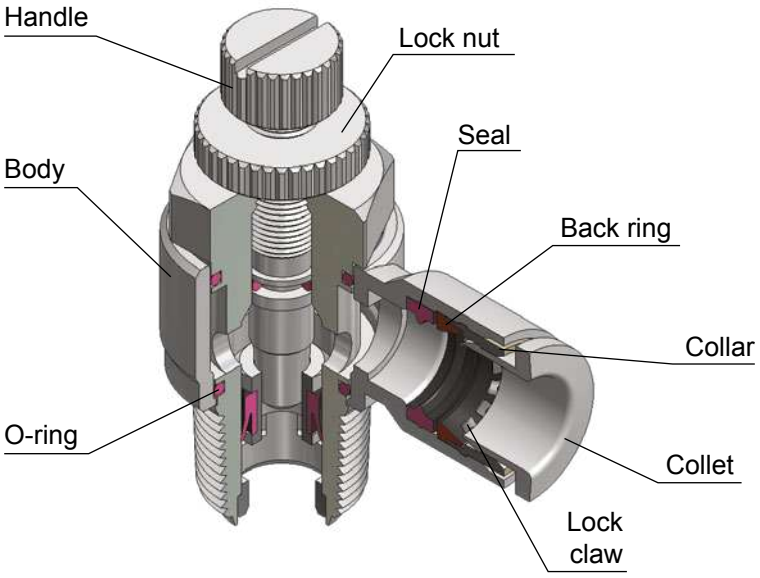
**Body:** Nickel-plated brass and PA66
**Collet:** PA66
**Collar:** PA66
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

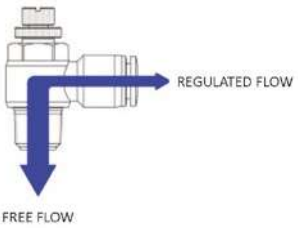
REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### EXHAUST (FOR CYLINDERS)




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

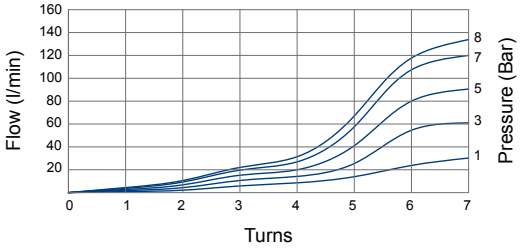
### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| Nm | 1,5 | 10 | 15 | 25 | 40 |

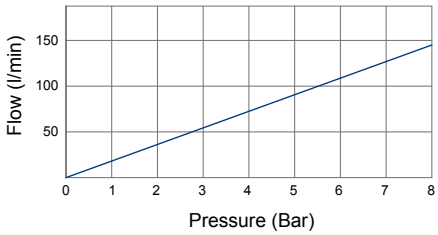
*drawings and technical data are not binding & can be changed without notice*

**MSC04M5**
**MSC06M5**

Flow Control

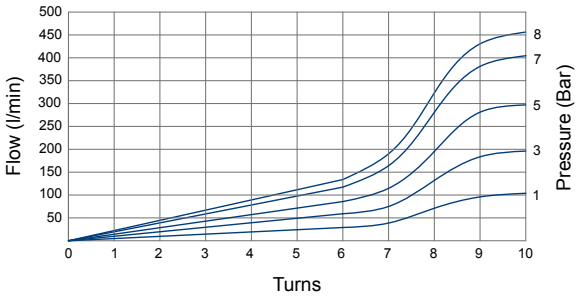



Free Flow

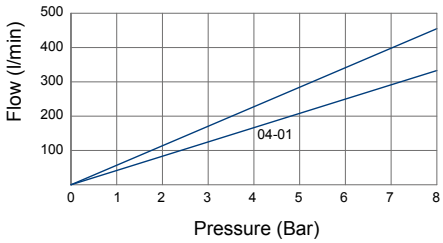



**MSC0401**
**MSC0601**
**MSC0801**
**MSC1001**

Flow Control

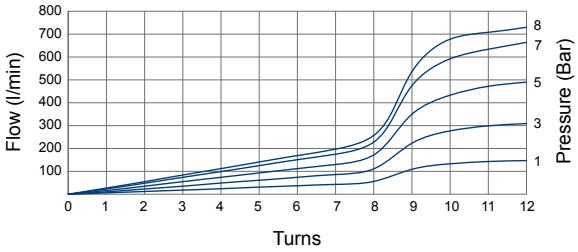



Free Flow

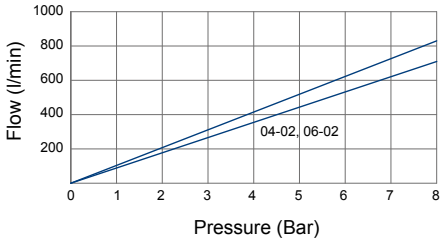



**MSC0402**
**MSC0602**
**MSC0802**
**MSC1002**
**MSC1202**

Flow Control

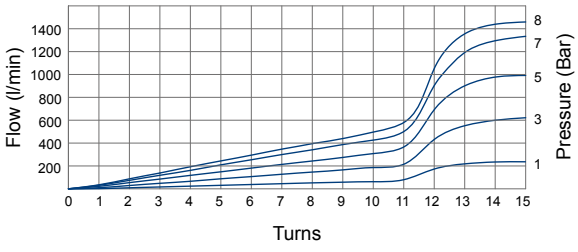



Free Flow

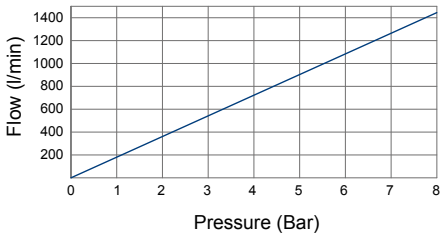



**MSC0603**
**MSC0803**
**MSC1003**
**MSC1203**

Flow Control

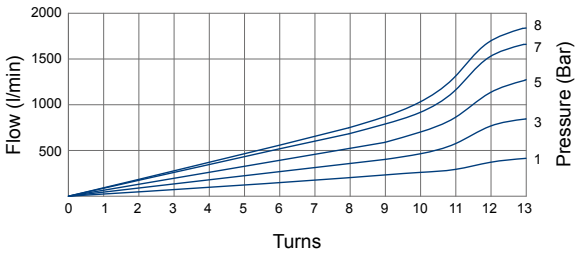



Free Flow

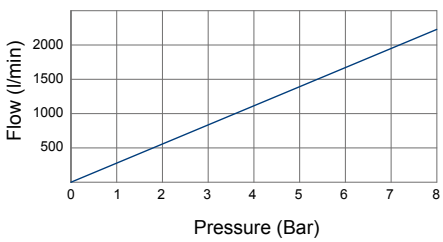



**MSC0604**
**MSC0804**
**MSC1004**
**MSC1204**

Flow Control




Free Flow

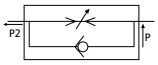


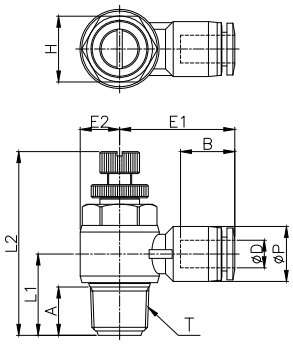

*drawings and technical data are not binding & can be changed without notice*

## MSC-R

Banjo male elbow flow regulator unidirectional, for cylinders, adjustable BSPT thread with handle regulation





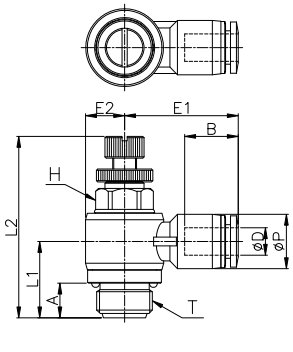

| CODE | ØD | T | ØP | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSC04R01W | 4 | R 1/8" | 9,3 | 15,0 | 35,5 | 40.7 | 20,0 | 7.0 | 8.2 | 13,0 | 11 |
| MSC04R02W | | R 1/4" | 9,3 | 18,5 | 40,3 | 46.6 | 22,0 | 9.0 | 11.0 | 13,0 | 15 |
| MSC06R01W | 6 | R 1/8" | 11,5 | 15,1 | 35,5 | 40,7 | 22,1 | 7,0 | 8,2 | 15,0 | 11 |
| MSC06R02W | | R 1/4" | 11,5 | 18,3 | 40,3 | 46,5 | 24,0 | 9,0 | 11,0 | 15,0 | 15 |
| MSC06R03W | | R 3/8" | 11,5 | 21,7 | 46,9 | 55,0 | 26,1 | 11,0 | 12,2 | 15,0 | 19 |
| MSC06R04W | | R 1/2" | 11,5 | 26,4 | 54,0 | 60,1 | 28,8 | 13,8 | 16,5 | 15,0 | 24 |
| MSC08R01W | 8 | R 1/8" | 13,6 | 16,2 | 35,5 | 40,7 | 24,2 | 7,1 | 8,2 | 17,1 | 11 |
| MSC08R02W | | R 1/4" | 13,6 | 19,2 | 40,3 | 46,6 | 26,1 | 9,0 | 11,0 | 17,1 | 15 |
| MSC08R03W | | R 3/8" | 13,6 | 21,7 | 46,9 | 54,9 | 28,2 | 11,1 | 12,2 | 17,1 | 19 |
| MSC08R04W | | R 1/2" | 13,6 | 26,4 | 54,0 | 60,1 | 30,9 | 13,8 | 16,5 | 17,1 | 24 |
| MSC10R01W | 10 | R 1/8" | 16,4 | 17,6 | 35,5 | 40,7 | 26,8 | 7,1 | 8,2 | 18,4 | 11 |
| MSC10R02W | | R 1/4" | 16,4 | 20,6 | 40,3 | 46,6 | 28,6 | 9,0 | 11,0 | 18,4 | 15 |
| MSC10R03W | | R 3/8" | 16,4 | 23,0 | 46,9 | 54,9 | 29,5 | 11,1 | 12,2 | 18,4 | 19 |
| MSC10R04W | | R 1/2" | 16,4 | 26,4 | 54,0 | 60,1 | 32,2 | 13,8 | 16,5 | 18,4 | 24 |
| MSC12R02W | 12 | R 1/4" | 19,5 | 22,1 | 40,3 | 46,6 | 30,9 | 9,0 | 11,0 | 20,4 | 15 |
| MSC12R03W | | R 3/8" | 19,5 | 23,8 | 46,9 | 54,9 | 32,7 | 11,1 | 12,2 | 20,4 | 19 |
| MSC12R04W | | R 1/2" | 19,5 | 27,9 | 54,0 | 60,1 | 35,2 | 13,8 | 16,5 | 21,4 | 24 |

## MSC-G

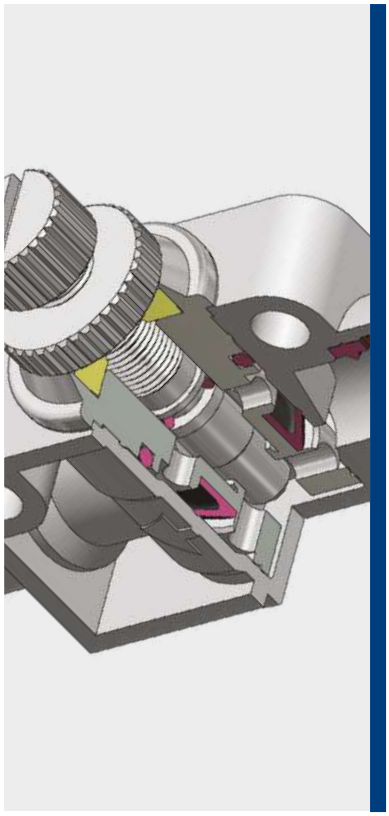
Banjo male swivel elbow flow regulator unidirectional, for cylinders, BSPP & metric thread with handle regulation






| CODE | ØD | T | ØP | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSC04M5W | 4 | M5x0.8P | 9,3 | 10,2 | 27,1 | 29,1 | 17,8 | 4,9 | 3,6 | 12,9 | 8 |
| MSC04G01W | | G 1/8" | 9,3 | 15,2 | 34,6 | 39,8 | 20,0 | 7,1 | 6,0 | 12,9 | 8 |
| MSC04G02W | | G 1/4" | 9,3 | 18,2 | 39,8 | 46,1 | 21,9 | 9,0 | 8,0 | 12,9 | 12 |
| MSC06M5W | 6 | M5x0.8P | 11,5 | 11,3 | 27,1 | 29,1 | 20,9 | 4,9 | 3,6 | 15,0 | 8 |
| MSC06G01W | | G 1/8" | 11,5 | 15,2 | 34,6 | 39,8 | 22,1 | 7,1 | 6,0 | 15,0 | 8 |
| MSC06G02W | | G 1/4" | 11,5 | 18,3 | 39,8 | 46,1 | 24,0 | 9,0 | 8,0 | 15,0 | 12 |
| MSC06G03W | | G 3/8" | 11,5 | 21,2 | 47,7 | 54,9 | 26,1 | 11,1 | 8,0 | 15,0 | 14 |
| MSC06G04W | | G 1/2" | 11,5 | 23,0 | 54,5 | 61,7 | 28,8 | 13,8 | 9,0 | 15,0 | 17 |
| MSC08G01W | 8 | G 1/8" | 13,6 | 13,9 | 34,6 | 39,8 | 24,2 | 7,1 | 6,0 | 17,1 | 8 |
| MSC08G02W | | G 1/4" | 13,6 | 17,4 | 39,8 | 46,1 | 26,1 | 9,0 | 8,0 | 17,1 | 12 |
| MSC08G03W | | G 3/8" | 13,6 | 21,2 | 47,7 | 54,9 | 28,2 | 11,1 | 8,0 | 17,1 | 14 |
| MSC08G04W | | G 1/2" | 13,6 | 23,0 | 54,5 | 61,7 | 30,9 | 13,8 | 9,0 | 17,1 | 17 |
| MSC10G01W | 10 | G 1/8" | 16,4 | 17,8 | 34,6 | 39,8 | 25,5 | 7,1 | 6,0 | 18,4 | 8 |
| MSC10G02W | | G 1/4" | 16,4 | 19,8 | 39,8 | 46,1 | 27,4 | 9,0 | 8,0 | 18,4 | 12 |
| MSC10G03W | | G 3/8" | 16,4 | 19,9 | 47,7 | 54,9 | 29,5 | 11,1 | 8,0 | 18,4 | 14 |
| MSC10G04W | | G 1/2" | 16,4 | 23,0 | 54,5 | 61,7 | 32,2 | 13,8 | 9,0 | 18,4 | 17 |
| MSC12G02W | 12 | G 1/4" | 29,5 | 21,3 | 34,6 | 39,8 | 29,4 | 9,0 | 8,0 | 20,4 | 12 |
| MSC12G03W | | G 3/8" | 29,5 | 19,1 | 47,7 | 54,9 | 32,7 | 11,1 | 8,0 | 20,4 | 14 |
| MSC12G04W | | G 1/2" | 29,5 | 21,4 | 54,5 | 61,7 | 35,2 | 13,8 | 9,0 | 21,4 | 17 |



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Pressure peaks do not exceed the max working pressure

Compressed air & vacuum (do not use with water)

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow adjustment and screwdriver

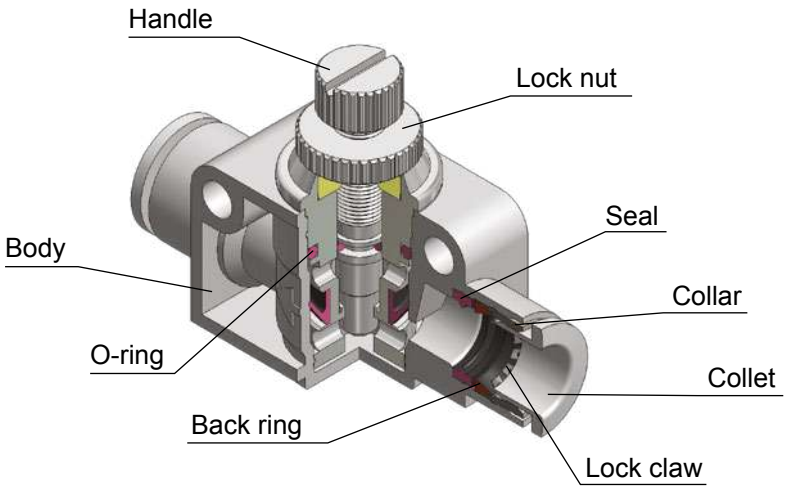
**Body:** PA66 & Nickel-plated brass
**Collet:** PA66
**Collar:** PA66
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

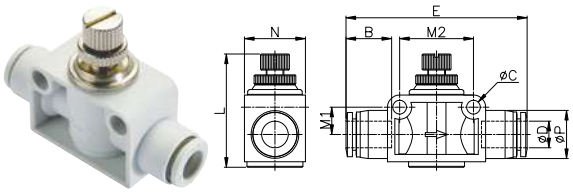
Products in compliance with the directive EU 2015/863

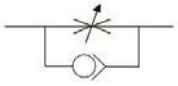
## CONSTRUCTION DETAILS




## MSF

Unidirectional flat flow regulator, in technopolymer, with handle regulation



| CODE | ØD | ØP | L MIN | L MAX | E | N | ØC | B | M1 | M2 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSF04W | 4 | 9,5 | 26,4 | 28,9 | 38,8 | 11,0 | 3,2 | 13,4 | 5,4 | 15,4 |
| MSF06W | 6 | 11,5 | 33,5 | 37,9 | 46,5 | 15,0 | 4,3 | 15,0 | 7,8 | 20,4 |
| MSF08W | 8 | 13,6 | 35,5 | 41,5 | 53,1 | 18,0 | 4,3 | 17,1 | 8,5 | 23,0 |
| MSF10W | 10 | 16,4 | 40,7 | 48,7 | 60,4 | 22,5 | 4,3 | 18,9 | 10,6 | 27,6 |
| MSF12W | 12 | 19,5 | 45,0 | 53,5 | 70,8 | 26,5 | 4,3 | 21,4 | 11,9 | 32,4 |

*drawings and technical data are not binding & can be changed without notice*

# PUSH-IN FITTINGS OTR SERIES

## PLUS

**HIGH PERFORMANCE FITTINGS,** easy to use

**STRONG** but **COMPACT** in order to ensure the maximum assembling flexibility

**COMPLETE RANGE** suitable to be used with different kinds of tubing

**ELECTROLYTIC NICKEL PLATING** to ensure the maximum duration over time

**STATIC GRIPPING SYSTEM** in order to stop all movement of the tube when inserted, granting a **A LEAK-PROOF CONNECTION**

Every fitting is **DESIGNED TO GUARANTEE THE MAXIMUM POSSIBLE FLOW RATE** according to the diameter of the tube and of the thread

**PRODUCTS CAN BE TAILOR-MADE TO SPECIFIC CUSTOMER NEEDS**

M A D E I N I T A L Y



p. 63 / **OTRC-R**



p. 63 / **OTRC-G**



p. 64 / **OTRC-N**



p. 64 / **OTROC-G**



p. 64 / **OTROC-N**



p. 65 / **OTRCF-G**



p. 65 / **OTRMM**



p. 65 / **OTRME**



p. 66 / **OTRL-R**



p. 66 / **OTRL-G**



p. 67 / **OTRL-N**



p. 67 / **OTRLF-G**



p. 67 / **OTRT-R**



p. 68 / **OTRT-G**



p. 68 / **OTRT-N**



p. 69 / **OTRST-R**



p. 69 / **OTRST-G**



p. 70 / **OTRA-G**



p. 70 / **OTRUC**



p. 71 / **OTRUL**



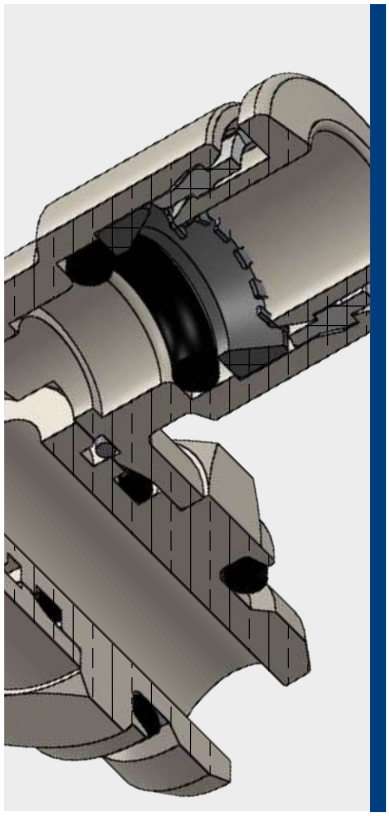
p. 71 / **OTRUT**



p. 72 / **OTRY**



p. 72 / **OTRGJ**



-20°C ÷ 80°C

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air & Vacuum

- Taper gas BSPT ISO 7
  from R1/8" to R1/2"
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"
- Metric ISO 262
  M5 and M7
- NPT ANSI B 1.20.1
  from N1/8" to N1/2"
- UNF ANSI B 1.1
  10-32 UF

Polyamide PA,
Polyurethane PU,
Polyethylene PE

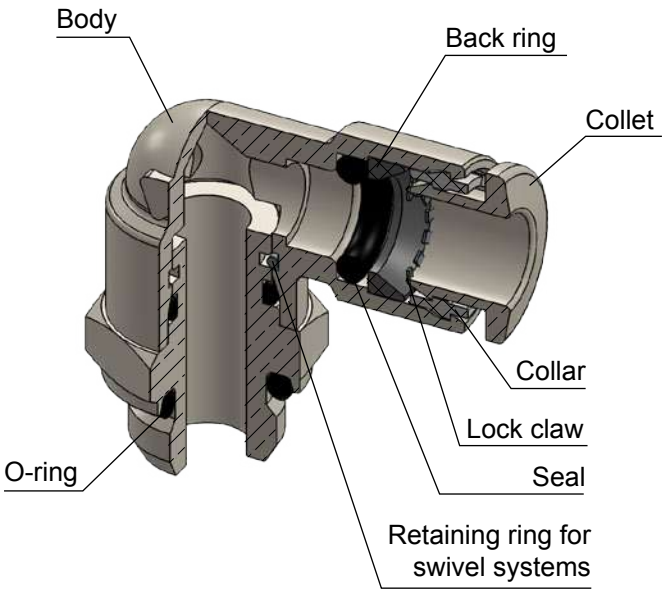
**Body:** Nickel-plated brass
Turning: UNI EN 12164 CW614N
Hot forging & machining:
UNI EN 12164 CW617N
**Collar:** POM
**Collet:** Nickel-plated brass
UNI EN 12164 CW614N
**Lock claw:** Stainless steel AISI 301
**Back ring:** PBT
**O-ring:** NBR silicone free
**Seal:** NBR silicone free
**Retaining ring for swivel systems:**
Stainless steel AISI 302

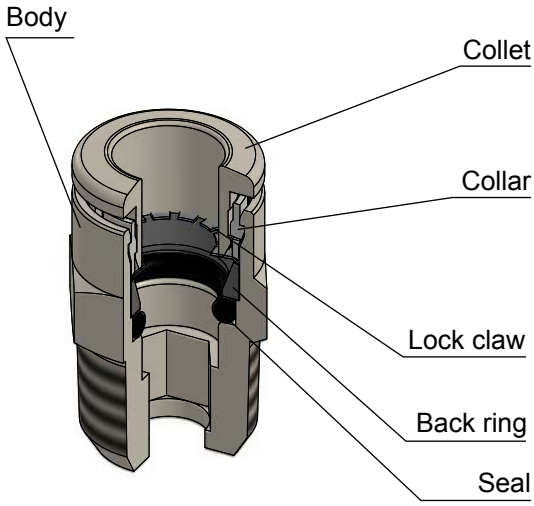
SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7 & NPT ANSI B 1.20.1

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 1/8" NPT | 1/4" NPT | 3/8" NPT | 1/2" NPT |
|---|---|---|---|---|---|---|---|---|
| Nm | 10-12 | 14-16 | 16-18 | 18-20 | 3,5 | 4,5 | 7 | 12 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | M7x1,0 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1 ± 20% | 3 ± 20% | 6 ± 20% | 7,5 ± 20% | 9 ± 20% | 9 ± 20% |

*drawings and technical data are not binding & can be changed without notice*

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 | ± 0,15 |

## INSERTION DEPTH - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 14 | 15,5 | 17,5 | 19 | 21 |

## TOLERANCES - INCH TUBE

| Ø TUBE (inch) | 5/32" | 1/4" | 5/16" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ±0,1 | ±0,1 | ±0,1 | ± 0,15 | ± 0,15 |

## INSERTION DEPTH - INCH TUBE

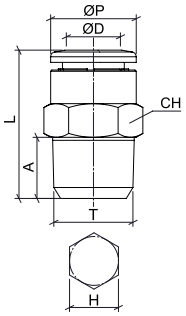
| Ø TUBE (inch) | 5/32" | 1/4" | 5/16" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 14 | 16 | 17,5 | 18,5 | 21,5 |

*drawings and technical data are not binding & can be changed without notice*

## OTRC-R

Male connector BSPT thread nickel-plated - metric tube



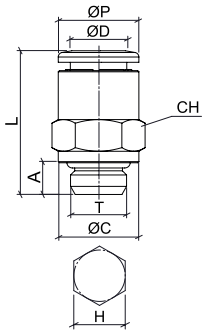



| CODE | ØD | T | ØP | A | L | CH | H | g |
|---|---|---|---|---|---|---|---|---|
| OTRC04R01 | 4 | R 1/8" | 10 | 8 | 18,5 | 10 | 3 | 7,0 |
| OTRC04R02 | | R 1/4" | 10 | 10 | 20,0 | 14 | 3 | 15,4 |
| OTRC06R01 | 6 | R 1/8" | 12 | 8 | 21,0 | 12 | 4 | 9,0 |
| OTRC06R02 | | R 1/4" | 12 | 10 | 20,5 | 14 | 4 | 14,0 |
| OTRC08R01 | 8 | R 1/8" | 14 | 8 | 26,0 | 14 | 5 | 15,0 |
| OTRC08R02 | | R 1/4" | 14 | 10 | 24,0 | 14 | 6 | 15,0 |
| OTRC08R03 | | R 3/8" | 14 | 11 | 22,0 | 17 | 6 | 24,0 |
| OTRC10R02 | 10 | R 1/4" | 16 | 10,5 | 30,0 | 16 | 7 | 22,0 |
| OTRC10R03 | | R 3/8" | 16 | 11 | 25,0 | 17 | 8 | 23,0 |
| OTRC10R04 | | R 1/2" | 16 | 14 | 25,5 | 22 | 8 | 45,0 |
| OTRC12R02 | 12 | R 1/4" | 19 | 10 | 33,0 | 19 | 6 | 21,0 |
| OTRC12R03 | | R 3/8" | 19 | 11 | 29,5 | 19 | 10 | 27,0 |
| OTRC12R04 | | R 1/2" | 19 | 14 | 27,0 | 22 | 10 | 44,5 |

## OTRC-G

Male connector BSPP & metric thread nickel-plated - metric tube






| CODE | ØD | T | ØP | ØC | A | L | CH | H | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRC04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 19,0 | 9 | 2,5 | 5,0 |
| OTRC04G01 | | G 1/8" | 10 | 14 | 5,5 | 18,0 | 10 | 3 | 8,0 |
| OTRC04G02 | | G 1/4" | 10 | 16 | 6,5 | 18,0 | 10 | 3 | 11,0 |
| OTRC06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 21,0 | 11 | 2,5 | 8,0 |
| OTRC06G01 | | G 1/8" | 12 | 14 | 5,5 | 19,5 | 12 | 4 | 9,0 |
| OTRC06G02 | | G 1/4" | 12 | 16 | 6,5 | 19,5 | 12 | 4 | 12,0 |
| OTRC08G01 | 8 | G 1/8" | 14 | 14 | 5,5 | 24,5 | 14 | 5 | 14,0 |
| OTRC08G02 | | G 1/4" | 14 | 16 | 6,5 | 21,5 | 14 | 6 | 13,5 |
| OTRC08G03 | | G 3/8" | 14 | 20 | 7,5 | 21,5 | 14 | 6 | 20,0 |
| OTRC10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 27,5 | 16 | 7 | 19,0 |
| OTRC10G03 | | G 3/8" | 16 | 20 | 7,5 | 25,0 | 16 | 8 | 22,0 |
| OTRC10G04 | | G 1/2" | 16 | 25 | 9 | 25,0 | 16 | 8 | 33,0 |
| OTRC12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 30,0 | 19 | 6 | 28,0 |
| OTRC12G03 | | G 3/8" | 19 | 22 | 7,5 | 29,5 | 19 | 10 | 30,0 |
| OTRC12G04 | | G 1/2" | 19 | 25 | 9 | 28,0 | 19 | 10 | 37,0 |

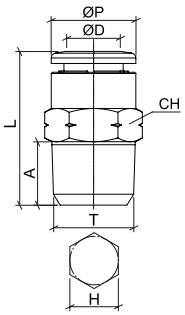
Male connector BSPP & metric thread nickel-plated - inch tube

| CODE | ØD | T | ØP | ØC | A | L | CH | H | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRC1-4M5 | 1/4" | M5x0,8 | 13 | 7 | 4 | 22,0 | 13 | 2,5 | 8,0 |
| OTRC1-4G01 | | G 1/8" | 13 | 13 | 5,5 | 20,0 | 13 | 4 | 9,0 |
| OTRC38G03 | 3/8" | G 3/8" | 16 | 20 | 7,5 | 25,0 | 16 | 8 | 22,0 |

## OTRC-N

Male connector NPT thread nickel-plated - inch tube



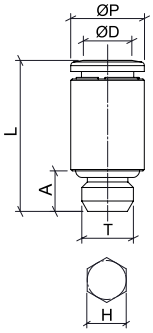



| CODE | ØD | T | ØP | A | L | CH | H | g |
|---|---|---|---|---|---|---|---|---|
| OTRC532N01 | 5/32" | N 1/8" | 10 | 8,5 | 19,0 | 7/16" | 1/8" | 9,0 |
| OTRC532N02 | | N 1/4" | 10 | 10,5 | 20,5 | 9/16" | 1/8" | 16,0 |
| OTRC1-4N01 | 1/4" | N 1/8" | 13 | 8,5 | 22,5 | 1/2" | 3/16" | 11,0 |
| OTRC1-4N02 | | N 1/4" | 13 | 10,5 | 22,5 | 9/16" | 3/16" | 15,0 |
| OTRC516N01 | 5/16" | N 1/8" | 14 | 8,5 | 27,0 | 9/16" | 3/16" | 15,5 |
| OTRC516N02 | | N 1/4" | 14 | 10,5 | 25,5 | 9/16" | 1/4" | 16,0 |
| OTRC516N03 | | N 3/8" | 14 | 11,5 | 23,5 | 11/16" | 1/4" | 25,0 |
| OTRC38N01 | 3/8" | N 1/8" | 16 | 8,5 | 29,0 | 11/16" | 3/16" | 21,5 |
| OTRC38N02 | | N 1/4" | 16 | 10,5 | 30,0 | 11/16" | 1/4" | 25,0 |
| OTRC38N03 | | N 3/8" | 16 | 11,5 | 26,0 | 11/16" | 5/16" | 24,0 |
| OTRC38N04 | | N 1/2" | 16 | 14,5 | 27,0 | 7/8" | 5/16" | 46,0 |
| OTRC1-2N02 | 1/2" | N 1/4" | 19 | 10,5 | 34,0 | 7/8" | 1/4" | 37,0 |
| OTRC1-2N03 | | N 3/8" | 19 | 11,5 | 34,5 | 7/8" | 3/8" | 39,0 |
| OTRC1-2N04 | | N 1/2" | 19 | 14,5 | 30,5 | 7/8" | 3/8" | 43,0 |

## OTROC-G

Male connector round body metric thread nickel-plated - metric tube





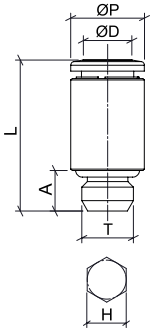

| CODE | ØD | T | ØP | A | L | H | g |
|---|---|---|---|---|---|---|---|
| OTROC04M5 | 4 | M5x0,8 | 10 | 4 | 19,0 | 2,5 | - |
| OTROC04M6 | 4 | M6x1 | 10 | 4,5 | 20,0 | 2,5 | - |
| OTROC04M7 | 4 | M7x1 | 10 | 5,5 | 20,5 | 2,5 | - |
| OTROC06M5 | 6 | M5x0,8 | 12 | 4 | 21,1 | 2,5 | - |
| * OTROC06M7C | 6 | M7x1 | 10 | 5,5 | 20,5 | 4 | - |

* compact version

## OTROC-N

Male connector round body UNF thread nickel-plated - inch tube



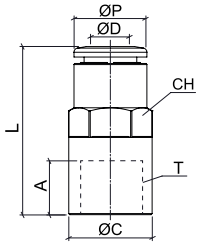



| CODE | ØD | T | ØP | A | L | H | g |
|---|---|---|---|---|---|---|---|
| OTROC532UF1032 | 5/32" | UNF 10-32 | 10 | 4 | 19,0 | 3/32" | 12,0 |
| OTROC1-4UF1032 | 1/4" | UNF 10-32 | 13 | 4 | 21,5 | 3/32" | 16,0 |

## OTRCF-G

Female connector BSPP thread nickel-plated - metric tube



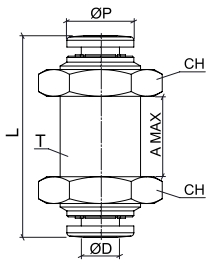



| CODE | ØD | T | ØP | ØC | A | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRCF04G01 | 4 | G 1/8" | 10 | 13 | 7,5 | 24,5 | 10 | - |
| OTRCF04G02 | | G 1/4" | 10 | 16 | 11 | 28,5 | 10 | - |
| OTRCF06G01 | 6 | G 1/8" | 12 | 13 | 7,5 | 26,1 | 12 | - |
| OTRCF06G02 | | G 1/4" | 12 | 16 | 11 | 29,6 | 12 | - |
| OTRCF08G01 | 8 | G 1/8" | 14 | 13 | 7,5 | 27,2 | 14 | - |
| OTRCF08G02 | | G 1/4" | 14 | 16 | 11 | 32,2 | 14 | - |

## OTRMM

Bulkhead connector nickel-plated - metric tube






| CODE | ØD | T | ØP | L | A MAX | CH | g |
|---|---|---|---|---|---|---|---|
| OTRMM04-532 | 4 | M12x1 | 10 | 30,0 | 12 | 16 | 23,0 |
| OTRMM0600 | 6 | M14x1 | 12 | 35,5 | 15 | 17 | 31,0 |
| OTRMM08-516 | 8 | M16x1 | 14 | 36,5 | 16 | 19 | 36,0 |
| OTRMM1000 | 10 | M20x1 | 16 | 43,0 | 19 | 24 | 70,0 |
| OTRMM1200 | 12 | M22x1,5 | 19 | 44,0 | 20 | 25 | 76,0 |

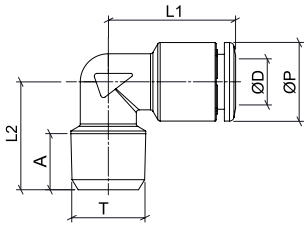
Bulkhead connector nickel-plated - inch tube

| CODE | ØD | T | ØP | L | A MAX | CH | g |
|---|---|---|---|---|---|---|---|
| OTRMM1-4 | 1/4" | M16x1 | 13 | 35,6 | 13 | 17 | 31,0 |
| OTRMM38 | 3/8" | M20x1 | 16 | 42,5 | 17 | 24 | 70,0 |

## OTRME

Male elbow BSPT thread nickel-plated - metric tube



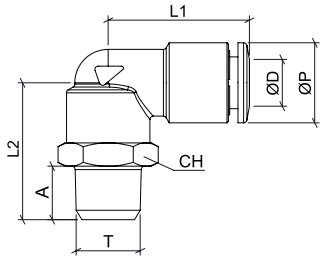



| CODE | ØD | T | ØP | A | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| OTRME04R01 | 4 | R 1/8" | 10 | 8 | 18,0 | 15,5 | 11,0 |
| OTRME06R01 | 6 | R 1/8" | 12 | 8 | 19,5 | 15,5 | 15,0 |
| OTRME06R02 | | R 1/4" | 12 | 10 | 20,5 | 19,0 | 20,0 |
| OTRME08R01 | 8 | R 1/8" | 14 | 8 | 22,5 | 16,5 | 20,0 |
| OTRME08R02 | | R 1/4" | 14 | 10 | 22,5 | 19,0 | 24,0 |

## OTRL-R

Swivel male elbow BSPT thread nickel-plated - metric tube



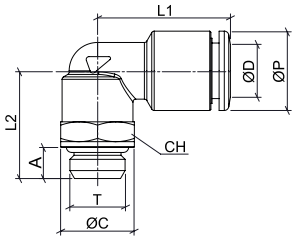



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRL04R01 | 4 | R 1/8" | 10 | 8 | 19,5 | 20,5 | 13 | 20,0 |
| OTRL04R02 | | R 1/4" | 10 | 10 | 19,5 | 23,0 | 14 | 23,0 |
| OTRL06R01 | 6 | R 1/8" | 12 | 8 | 21,0 | 20,5 | 13 | 20,0 |
| OTRL06R02 | | R 1/4" | 12 | 10 | 21,0 | 23,0 | 14 | 24,0 |
| OTRL08R01 | 8 | R 1/8" | 14 | 8 | 23,0 | 20,5 | 13 | 22,0 |
| OTRL08R02 | | R 1/4" | 14 | 10 | 23,0 | 23,0 | 14 | 26,0 |
| OTRL08R03 | | R 3/8" | 14 | 11 | 23,0 | 24,5 | 17 | 32,0 |
| OTRL10R02 | 10 | R 1/4" | 16 | 10 | 26,0 | 25,5 | 16 | 41,0 |
| OTRL10R03 | | R 3/8" | 16 | 11 | 26,0 | 27,0 | 17 | 45,0 |
| OTRL10R04 | | R 1/2" | 16 | 14 | 26,0 | 30,0 | 22 | 59,0 |
| OTRL12R02 | 12 | R 1/4" | 19 | 10 | 31,0 | 28,0 | 20 | 56,0 |
| OTRL12R03 | | R 3/8" | 19 | 11 | 31,0 | 28,5 | 20 | 59,0 |
| OTRL12R04 | | R 1/2" | 19 | 14 | 31,0 | 31,5 | 22 | 70,0 |

## OTRL-G

Swivel male elbow BSPP & metric thread nickel-plated - metric tube






| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRL04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 18,0 | 15,0 | 8 | 5,0 |
| OTRL04G01 | | G 1/8" | 10 | 13 | 5,5 | 19,5 | 19,0 | 13 | 19,0 |
| OTRL04G02 | | G 1/4" | 10 | 16 | 6,5 | 19,5 | 21,5 | 13 | 22,0 |
| OTRL06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 19,5 | 16,0 | 8 | 11,0 |
| OTRL06G01 | | G 1/8" | 12 | 13 | 5,5 | 21,0 | 19,0 | 13 | 20,0 |
| OTRL06G02 | | G 1/4" | 12 | 16 | 6,5 | 21,0 | 21,5 | 13 | 24,0 |
| OTRL08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 23,0 | 19,0 | 13 | 22,0 |
| OTRL08G02 | | G 1/4" | 14 | 16 | 6,5 | 23,0 | 21,5 | 13 | 24,0 |
| OTRL08G03 | | G 3/8" | 14 | 20 | 7,5 | 23,0 | 23,0 | 13 | 28,0 |
| OTRL10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 26,0 | 23,0 | 16 | 35,0 |
| OTRL10G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 26,0 | 16 | 43,5 |
| OTRL10G04 | | G 1/2" | 16 | 25 | 9 | 26,0 | 27,5 | 16 | 52,0 |
| OTRL12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 31,0 | 25,5 | 20 | 55,0 |
| OTRL12G03 | | G 3/8" | 19 | 20 | 7,5 | 31,0 | 26,5 | 20 | 55,0 |
| OTRL12G04 | | G 1/2" | 19 | 25 | 9 | 31,0 | 29,0 | 20 | 63,0 |

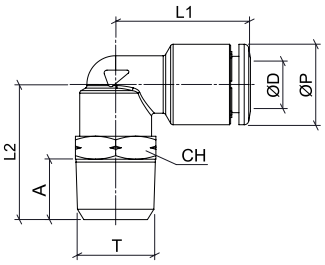
Swivel male elbow BSPP thread nickel-plated - inch tube

| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRL1-4G01 | 1/4" | G 1/8" | 13 | 13 | 5,5 | 22,0 | 19,0 | 13 | 20,0 |
| OTRL1-4G02 | | G 1/4" | 13 | 16 | 6,5 | 22,0 | 21,5 | 13 | 24,0 |
| OTRL38G02 | 3/8" | G 1/4" | 16 | 16 | 6,5 | 26,0 | 23,0 | 16 | 35,0 |
| OTRL38G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 26,0 | 16 | 43,5 |

## OTRL-N

Swivel male elbow NPT & UNF thread nickel-plated - inch tube



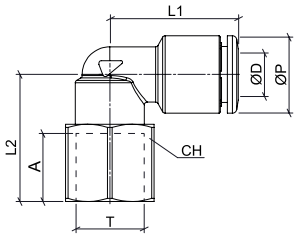



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRL532UF1032 | 5/32" | UNF 10/32" | 10 | 4 | 18,0 | 15,0 | 3/8" | 11,0 |
| OTRL532N01 | | N 1/8" | 10 | 8,5 | 19,5 | 21,0 | 9/16" | 20,5 |
| OTRL532N02 | | N 1/4" | 10 | 10,5 | 19,5 | 23,5 | 9/16" | 24,0 |
| OTRL1-4N01 | 1/4" | N 1/8" | 13 | 8,5 | 21,5 | 21,0 | 9/16" | 23,0 |
| OTRL1-4N02 | | N 1/4" | 13 | 10,5 | 21,5 | 23,5 | 9/16" | 26,0 |
| OTRL516N01 | 5/16" | N 1/8" | 14 | 8,5 | 23,5 | 21,0 | 9/16" | 23,0 |
| OTRL516N02 | | N 1/4" | 14 | 10,5 | 23,5 | 23,5 | 9/16" | 24,0 |
| OTRL516N03 | | N 3/8" | 14 | 11,5 | 23,5 | 25,0 | 11/16" | 34,0 |
| OTRL38N01 | 3/8" | N 1/8" | 16 | 8,5 | 26,0 | 24,0 | 11/16" | 40,0 |
| OTRL38N02 | | N 1/4" | 16 | 10,5 | 26,0 | 26,0 | 11/16" | 43,0 |
| OTRL38N03 | | N 3/8" | 16 | 11,5 | 26,0 | 27,5 | 11/16" | 47,0 |
| OTRL38N04 | | N 1/2" | 16 | 14,5 | 26,0 | 30,5 | 7/8" | 60,0 |
| OTRL1-2N02 | 1/2" | N 1/4" | 19 | 10,5 | 31,0 | 28,5 | 7/8" | 58,0 |
| OTRL1-2N03 | | N 3/8" | 19 | 11,5 | 31,0 | 29,5 | 7/8" | 61,0 |
| OTRL1-2N04 | | N 1/2" | 19 | 14,5 | 31,0 | 32,5 | 7/8" | 67,0 |

## OTRLF-G

Swivel female elbow BSPP thread nickel-plated - metric tube



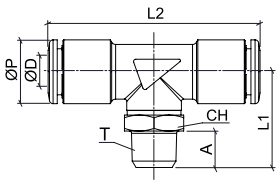



| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRLF04G01 | 4 | G 1/8" | 10 | 7,5 | 19,5 | 19,2 | 13 | - |
| OTRLF06G01 | 6 | G 1/8" | 12 | 7,5 | 21,1 | 19,0 | 13 | - |
| OTRLF06G02 | | G 1/4" | 12 | 11 | 21,1 | 23,0 | 16 | - |
| OTRLF08G01 | 8 | G 1/8" | 14 | 7,5 | 23,2 | 19,0 | 13 | - |
| OTRLF08G02 | | G 1/4" | 14 | 11 | 23,2 | 23,0 | 16 | - |

## OTRT-R

Swivel male tee BSPT thread nickel-plated - metric tube

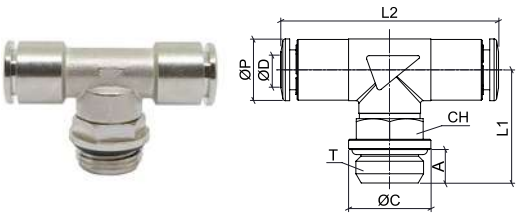





| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRT04R01 | 4 | R 1/8" | 10 | 8 | 21,0 | 39,0 | 13 | 27,0 |
| OTRT04R02 | | R 1/4" | 10 | 10 | 23,5 | 39,0 | 14 | 31,0 |
| OTRT06R01 | 6 | R 1/8" | 12 | 8 | 21,0 | 42,0 | 13 | 30,0 |
| OTRT06R02 | | R 1/4" | 12 | 10 | 23,5 | 42,0 | 14 | 34,0 |
| OTRT08R01 | 8 | R 1/8" | 14 | 8 | 21,0 | 46,5 | 13 | 34,0 |
| OTRT08R02 | | R 1/4" | 14 | 10 | 23,5 | 46,5 | 14 | 37,0 |
| OTRT08R03 | | R 3/8" | 14 | 11 | 24,0 | 46,5 | 17 | 44,0 |
| OTRT10R02 | 10 | R 1/4" | 16 | 10 | 25,5 | 52,0 | 16 | 55,0 |
| OTRT10R03 | | R 3/8" | 16 | 11 | 27,0 | 52,0 | 17 | 58,5 |
| OTRT10R04 | | R 1/2" | 16 | 14 | 30,0 | 52,0 | 22 | 73,0 |
| OTRT12R02 | 12 | R 1/4" | 19 | 10 | 28,0 | 62,0 | 20 | 77,0 |
| OTRT12R03 | | R 3/8" | 19 | 11 | 28,5 | 62,0 | 20 | 80,0 |
| OTRT12R04 | | R 1/2" | 19 | 14 | 31,5 | 62,0 | 22 | 81,0 |

## OTRT-G

Swivel male tee BSPP & metric thread nickel-plated - metric tube



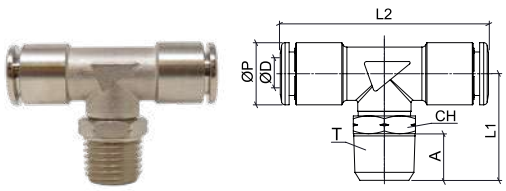

| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRT04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 17,0 | 32,0 | 8 | 17,0 |
| OTRT04G01 | | G 1/8" | 10 | 13 | 5,5 | 19,5 | 39,0 | 13 | 29,0 |
| OTRT04G02 | | G 1/4" | 10 | 16 | 6,5 | 22,0 | 39,0 | 13 | 29,0 |
| OTRT06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 17,0 | 40,0 | 8 | 21,0 |
| OTRT06G01 | | G 1/8" | 12 | 13 | 5,5 | 19,5 | 42,0 | 13 | 29,0 |
| OTRT06G02 | | G 1/4" | 12 | 16 | 6,5 | 22,0 | 42,0 | 13 | 32,0 |
| OTRT08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 19,5 | 46,5 | 13 | 33,0 |
| OTRT08G02 | | G 1/4" | 14 | 16 | 6,5 | 22,0 | 46,5 | 13 | 35,5 |
| OTRT08G03 | | G 3/8" | 14 | 20 | 7,5 | 23,5 | 46,5 | 13 | 39,0 |
| OTRT10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 23,0 | 52,0 | 16 | 52,0 |
| OTRT10G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 52,0 | 16 | 56,0 |
| OTRT10G04 | | G 1/2" | 16 | 25 | 9 | 27,5 | 52,0 | 16 | 64,5 |
| OTRT12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 25,5 | 62,0 | 20 | 75,0 |
| OTRT12G03 | | G 3/8" | 19 | 20 | 7,5 | 26,5 | 62,0 | 20 | 77,0 |
| OTRT12G04 | | G 1/2" | 19 | 25 | 9 | 29,0 | 62,0 | 20 | 82,0 |

Swivel male tee BSPP thread nickel-plated - inch tube

| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| OTRT1-4G01 | 1/4" | G 1/8" | 13 | 13 | 5,5 | 19,5 | 42,5 | 13 | 29,0 |
| OTRT1-4G02 | | G 1/4" | 13 | 16 | 6,5 | 22,0 | 42,5 | 13 | 32,0 |
| OTRT38G02 | 3/8" | G 1/4" | 16 | 16 | 6,5 | 23,0 | 51,5 | 16 | 52,0 |
| OTRT38G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 51,5 | 16 | 56,0 |

## OTRT-N

Swivel male tee NPT & UNF thread nickel-plated - inch tube



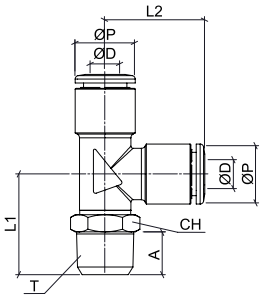

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| OTRT532UF1032 | 5/32" | UNF 10-32" | 10 | 4 | 17,0 | 32,0 | 3/8" | 17,0 |
| OTRT532N01 | | N 1/8" | 10 | 8,5 | 21,5 | 39,0 | 9/16" | 28,0 |
| OTRT532N02 | | N 1/4" | 10 | 10,5 | 24,0 | 39,0 | 9/16" | 31,0 |
| OTRT1-4N01 | 1/4" | N 1/8" | 13 | 8,5 | 21,5 | 42,5 | 9/16" | 33,0 |
| OTRT1-4N02 | | N 1/4" | 13 | 10,5 | 24,0 | 42,5 | 9/16" | 36,0 |
| OTRT516N01 | 5/16" | N 1/8" | 14 | 8,5 | 21,5 | 47,0 | 9/16" | 34,0 |
| OTRT516N02 | | N 1/4" | 14 | 10,5 | 24,0 | 47,0 | 9/16" | 37,0 |
| OTRT38N02 | 3/8" | N 1/4" | 16 | 10,5 | 26,0 | 51,5 | 11/16" | 58,0 |
| OTRT38N03 | | N 3/8" | 16 | 11,5 | 27,5 | 51,5 | 11/16" | 61,0 |
| OTRT1-2N02 | 1/2" | N 1/4" | 19 | 10,5 | 28,5 | 62,5 | 7/8" | 75,0 |
| OTRT1-2N03 | | N 3/8" | 19 | 11,5 | 29,5 | 62,5 | 7/8" | 78,0 |

*drawings and technical data are not binding & can be changed without notice*

## OTRST-R

Swivel male lateral tee BSPT thread nickel-plated - metric tube



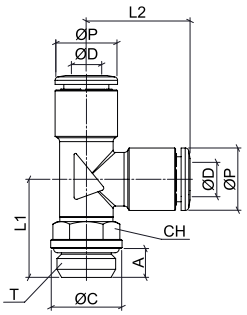



| CODE | ØD | T | ØP | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|
| OTRST04R01 | 4 | R 1/8" | 10 | 8 | 21,0 | 19,5 | 13 |
| OTRST04R02 | | R 1/4" | 10 | 10 | 23,5 | 19,5 | 14 |
| OTRST06R01 | 6 | R 1/8" | 12 | 8 | 21,0 | 21,0 | 13 |
| OTRST06R02 | | R 1/4" | 12 | 10 | 23,5 | 21,0 | 14 |
| OTRST08R01 | 8 | R 1/8" | 14 | 8 | 21,0 | 23,0 | 13 |
| OTRST08R02 | | R 1/4" | 14 | 10 | 23,5 | 23,0 | 14 |
| OTRST10R02 | 10 | R 1/4" | 16 | 10 | 25,5 | 26,0 | 16 |
| OTRST10R03 | | R 3/8" | 16 | 11 | 27,0 | 26,0 | 17 |
| OTRST12R03 | 12 | R 3/8" | 19 | 11 | 37,0 | 29,0 | 20 |
| OTRST12R04 | | R 1/2" | 19 | 14 | 40,0 | 29,0 | 22 |

## OTRST-G

Swivel male lateral tee BSPP thread nickel-plated - metric tube



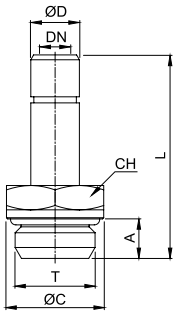



| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| OTRST04G01 | 4 | G 1/8" | 10 | 13 | 5,5 | 19,5 | 19,5 | 13 |
| OTRST04G02 | | G 1/4" | 10 | 16 | 6,5 | 22,0 | 19,5 | 13 |
| OTRST06G01 | 6 | G 1/8" | 12 | 13 | 5,5 | 19,5 | 21,0 | 13 |
| OTRST06G02 | | G 1/4" | 12 | 16 | 6,5 | 22,0 | 21,0 | 13 |
| OTRST08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 19,5 | 23,0 | 13 |
| OTRST08G02 | | G 1/4" | 14 | 16 | 6,5 | 22,0 | 23,0 | 13 |
| OTRST10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 23,0 | 26,0 | 16 |
| OTRST10G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 26,0 | 16 |
| OTRST12G03 | 12 | G 3/8" | 19 | 20 | 7,5 | 35,0 | 29,0 | 20 |
| OTRST12G04 | | G 1/2" | 19 | 25 | 9 | 37,0 | 29,0 | 20 |

## OTRA-G

Stem adapter BSPP & metric thread nickel-plated - metric tube



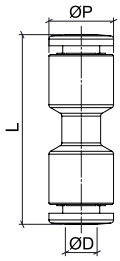



| CODE | ØD | T | ØC | A | L | CH | DN | g |
|---|---|---|---|---|---|---|---|---|
| OTRA04M5 | 4 | M5x0,8 | 7 | 4 | 24,5 | 8 | 2,0 | 3,0 |
| OTRA04M7 | | M7x1 | 10 | 5,5 | 27,0 | 10 | 2,0 | 5,0 |
| OTRA04G01 | | G 1/8" | 13 | 5,5 | 27,0 | 13 | 2,0 | 10,0 |
| OTRA04G02 | | G 1/4" | 16 | 6,5 | 29,5 | 13 | 2,0 | 11,0 |
| OTRA06M5 | 6 | M5x0,8 | 7 | 4 | 25,5 | 8 | 2,5 | 5,0 |
| OTRA06M7 | | M7x1 | 10 | 5,5 | 27,0 | 10 | 4,0 | 7,0 |
| OTRA06G01 | | G 1/8" | 13 | 5,5 | 28,0 | 13 | 4,0 | 9,0 |
| OTRA06G02 | | G 1/4" | 16 | 6,5 | 30,5 | 13 | 4,0 | 13,0 |
| OTRA08G01 | 8 | G 1/8" | 13 | 5,5 | 29,5 | 13 | 6,0 | 10,0 |
| OTRA08G02 | | G 1/4" | 16 | 6,5 | 32,0 | 13 | 6,0 | 13,0 |
| OTRA08G03 | | G 3/8" | 20 | 7,5 | 33,5 | 13 | 6,0 | 21,0 |
| OTRA10G01 | 10 | G 1/8" | 13 | 5,5 | 34,0 | 13 | 8,0 | 17,0 |
| OTRA10G02 | | G 1/4" | 16 | 6,5 | 36,5 | 13 | 8,0 | 15,0 |
| OTRA10G03 | | G 3/8" | 20 | 7,5 | 37,5 | 16 | 8,0 | 26,0 |
| OTRA12G02 | 12 | G 1/4" | 16 | 6,5 | 37,5 | 13 | 8,5 | 22,0 |
| OTRA12G03 | | G 3/8" | 20 | 7,5 | 41,5 | 16 | 10,0 | 22,0 |
| OTRA12G04 | | G 1/2" | 25 | 9 | 43,0 | 20 | 10,0 | 35,0 |

## OTRUC

Union connector nickel-plated - metric tube






| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| OTRUC04-532 | 4 | 10 | 29,0 | 9,0 |
| OTRUC0600 | 6 | 12 | 32,0 | 12,0 |
| OTRUC08-516 | 8 | 14 | 36,0 | 16,0 |
| OTRUC1000 | 10 | 16 | 39,0 | 21,0 |
| OTRUC1200 | 12 | 19 | 44,5 | 37,0 |

Union connector nickel-plated - inch tube

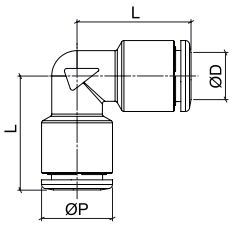
| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| OTRUC04-532 | 5/32" | 10 | 29,0 | 9,0 |
| OTRUC1-4 | 1/4" | 13 | 33,0 | 14,0 |
| OTRUC08-516 | 5/16" | 14 | 35,5 | 16,0 |
| OTRUC38 | 3/8" | 16 | 38,5 | 21,0 |
| OTRUC1-2 | 1/2" | 19 | 44,5 | 37,0 |

*drawings and technical data are not binding & can be changed without notice*

## OTRUL

Union elbow nickel-plated - metric tube






| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| OTRUL04-532 | 4 | 10 | 18,0 | 12,0 |
| OTRUL0600 | 6 | 12 | 19,5 | 14,0 |
| OTRUL08-516 | 8 | 14 | 22,5 | 20,0 |
| OTRUL1000 | 10 | 16 | 25,5 | 26,0 |
| OTRUL1200 | 12 | 19 | 29,0 | 49,0 |

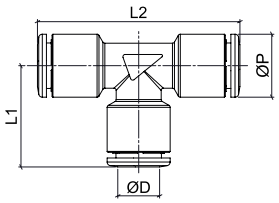
Union elbow nickel-plated - inch tube

| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| OTRUL04-532 | 5/32" | 10 | 18,0 | 12,0 |
| OTRUL1-4 | 1/4" | 13 | 21,0 | 19,0 |
| OTRUL08-516 | 5/16" | 14 | 22,5 | 20,0 |
| OTRUL38 | 3/8" | 16 | 25,0 | 28,0 |
| OTRUL1-2 | 1/2" | 19 | 29,0 | 49,0 |

## OTRUT

Union tee nickel-plated - metric tube






| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| OTRUT04-532 | 4 | 10 | 18,0 | 36,0 | 17,0 |
| OTRUT0600 | 6 | 12 | 19,5 | 39,0 | 20,0 |
| OTRUT08-516 | 8 | 14 | 22,5 | 45,5 | 30,0 |
| OTRUT1000 | 10 | 16 | 25,5 | 50,5 | 37,0 |
| OTRUT1200 | 12 | 19 | 29,0 | 58,5 | 68,0 |

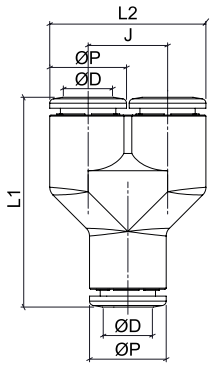
Union tee nickel-plated - inch tube

| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| OTRUT04-532 | 5/32" | 10 | 18,0 | 36,0 | 17,0 |
| OTRUT1-4 | 1/4" | 13 | 21,0 | 42,0 | 27,0 |
| OTRUT08-516 | 5/16" | 14 | 22,5 | 45,5 | 30,0 |
| OTRUT38 | 3/8" | 16 | 25,0 | 50,5 | 38,0 |
| OTRUT1-2 | 1/2" | 19 | 29,0 | 58,0 | 59,0 |

## OTRY

Union Y nickel-plated - metric tube



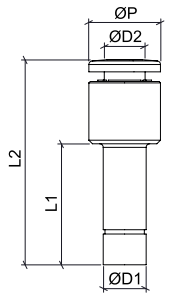



| CODE | ØD | ØP | J | L1 | L2 | g |
|---|---|---|---|---|---|---|
| OTRY04 | 4 | 10 | 10,5 | 32,0 | 20,5 | |
| OTRY06 | 6 | 12 | 12,5 | 35,5 | 24,5 | |
| OTRY08 | 8 | 14 | 14,5 | 38,5 | 28,5 | |
| OTRY10 | 10 | 16 | 17,0 | 45,5 | 33,0 | |
| OTRY12 | 12 | 19 | 20,0 | 52,5 | 39,0 | |

## OTRGJ

Stem reduction nickel-plated - metric tube






| CODE | ØD1 | ØD2 | ØP | L1 | L2 | g |
|---|---|---|---|---|---|---|
| OTRGJ0604 | 6 | 4 | 10 | 18,0 | 30,0 | 6,0 |
| OTRGJ0804 | 8 | 4 | 10 | 19,5 | 32,0 | |
| OTRGJ0806 | 8 | 6 | 12 | 19,5 | 32,5 | 10,0 |
| OTRGJ1006 | 10 | 6 | 12 | 24,0 | 37,0 | |
| OTRGJ1008 | 10 | 8 | 14 | 24,0 | 38,0 | 13,0 |
| OTRGJ1208 | 12 | 8 | 14 | 25,0 | 39,0 | |
| OTRGJ1210 | 12 | 10 | 16 | 25,0 | 41,0 | 18,0 |

*drawings and technical data are not binding & can be changed without notice*

# PUSH-IN FITTINGS FOOD GRADE HFR SERIES

## PLUS

**TEA⁺ SURFACE TREATMENT ABLE TO GUARANTEES A HIGH RESISTANCE TO CORROSION AND CHEMICALS**

**RELIABILITY** and **HIGH MECHANICAL EFFICIENCY** are key features for high performances

**COMPLETE RANGE** for a wide array of applications

Suitable for **FOOD & BEVERAGE AND COFFEE MACHINES**

**PRODUCTS CAN BE TAILOR-MADE TO SPECIFIC CUSTOMER NEEDS**

M A D E I N I T A L Y



p. 77 / **HFRC-G**



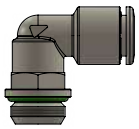
p. 77 / **HFROC**



p. 77 / **HFRCF-G**



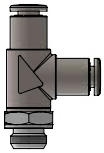
p. 78 / **HFRMM**



p. 78 / **HFRL-G**



p. 78 / **HFRT-G**



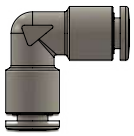
p. 79 / **HFRST-G**



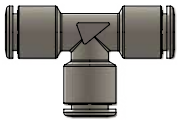
p. 79 / **HFRA-G**



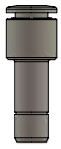
p. 79 / **HFRUC**



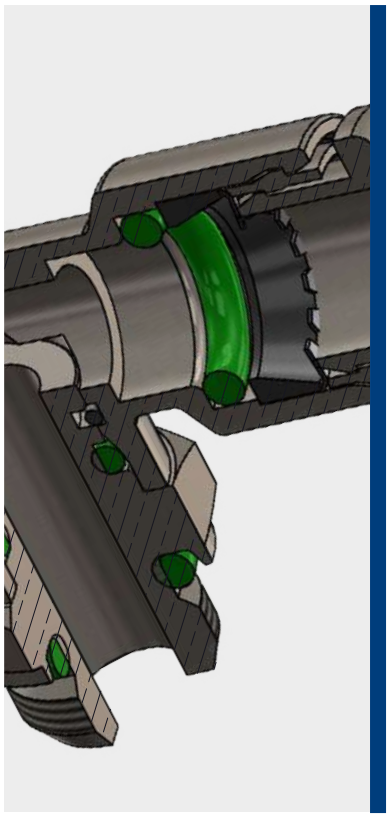
p. 80 / **HFRUL**



p. 80 / **HFRUT**



p. 80 / **HFRGJ**



-20°C ÷ 150°C

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air, vacuum, water and fluids suitable with the construction materials

- Parallel gas BSPP ISO 228 from G1/8" to G1/2"
- Metric ISO 262 M5 and M7

Polyamide PA, Polyethylene PE, FEP and PTFE

**TEA⁺**

**HIGHLY CORROSION RESISTANT** in strong acidic or alkaline enviroments:
- thicknesses of 2 - 4 µm withstand
- ASS 96h and CASS 48h salt spray tests

**EN 16058** rig test ( 26 weeks)
**NSF 61** section 8- pH5 Commercial hot (82°C) for taps, sanitary fittings, HVAC
**EN 16889** for professional coffee machines and other "food zone" devices.

**Body:** TEA⁺ plated brass
**Collet:** TEA⁺ plated brass
**Collar:** PVDF-UHM FDA compliant
**Lock claw:** Stainless steel AISI 301
**Back ring:** PVDF-UHM FDA compliant
**O-ring:** FKM NSF/ANSI 61 certified and FDA compliant
**Retaining ring for swivel system:** Stainless steel AISI 302

NSF/ANSI 169

Food contact materials EC 1935/2004

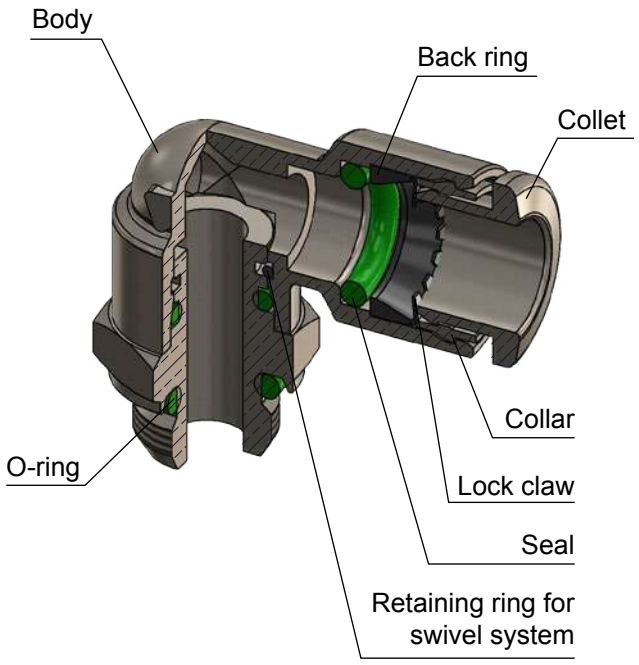
ICIM certified product food contact materials

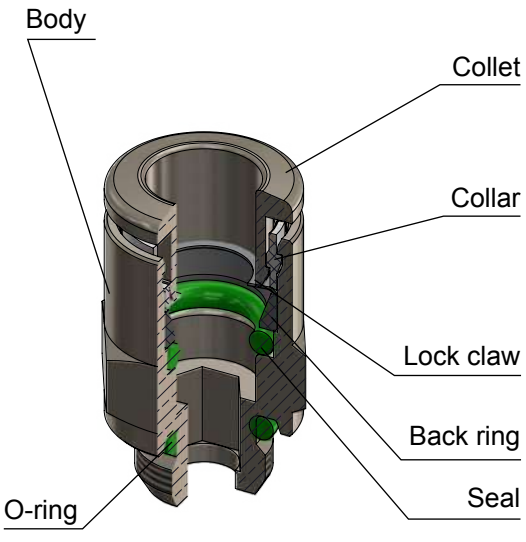
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



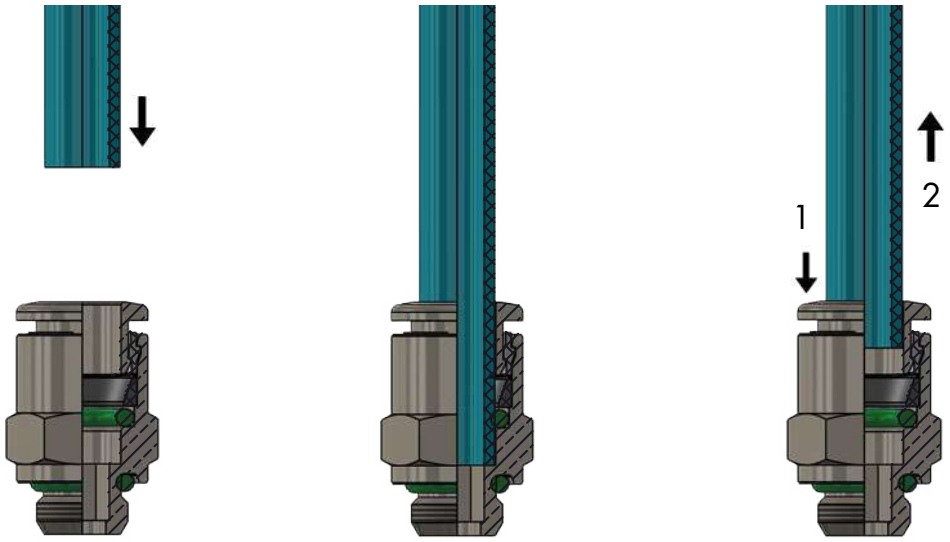

*drawings and technical data are not binding & can be changed without notice*

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 | ± 0,15 |

## INSERTION DEPTH - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 14 | 15,5 | 17,5 | 19 | 21 |

## TIGHTENING TORQUE

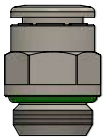
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

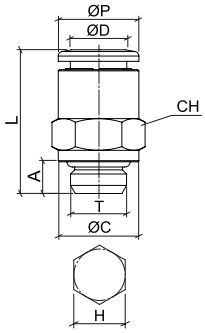
| THREAD | M5x0,8 | M7x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1 ± 20% | 3 ± 20% | 6 ± 20% | 7,5 ± 20% | 9 ± 20% | 9 ± 20% |

*drawings and technical data are not binding & can be changed without notice*

## HFRC-G

Male connector BSPP & metric thread



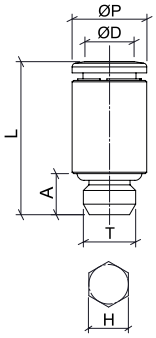



| CODE | ØD | T | ØP | ØC | A | L | CH | H |
|---|---|---|---|---|---|---|---|---|
| HFRC04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 19,0 | 9 | 2,5 |
| HFRC04G01 | | G 1/8" | 10 | 14 | 5,5 | 18,0 | 10 | 3 |
| HFRC04G02 | | G 1/4" | 10 | 16 | 6,5 | 18,0 | 10 | 3 |
| HFRC06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 21,0 | 11 | 2,5 |
| HFRC06G01 | | G 1/8" | 12 | 14 | 5,5 | 19,5 | 12 | 4 |
| HFRC06G02 | | G 1/4" | 12 | 16 | 6,5 | 19,5 | 12 | 4 |
| HFRC08G01 | 8 | G 1/8" | 14 | 14 | 5,5 | 24,5 | 14 | 5 |
| HFRC08G02 | | G 1/4" | 14 | 16 | 6,5 | 21,5 | 14 | 6 |
| HFRC08G03 | | G 3/8" | 14 | 20 | 7,5 | 21,5 | 14 | 6 |
| HFRC10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 27,5 | 16 | 7 |
| HFRC10G03 | | G 3/8" | 16 | 20 | 7,5 | 25,0 | 16 | 8 |
| HFRC12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 30,0 | 19 | 7 |
| HFRC12G03 | | G 3/8" | 19 | 22 | 7,5 | 29,5 | 19 | 10 |
| HFRC12G04 | | G 1/2" | 19 | 25 | 9 | 28,0 | 19 | 10 |

## HFROC

Male connector round body metric thread





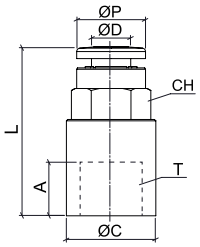

| CODE | ØD | T | ØP | A | L | H |
|---|---|---|---|---|---|---|
| HFROC04M7 | 4 | M7x1 | 10 | 6 | 20,5 | 2,5 |
| * HFROC06M7C | 6 | M7x1 | 10 | 5,5 | 20,5 | 4 |

* compact version

## HFRCF-G

Female connector BSPP thread

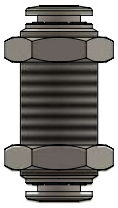


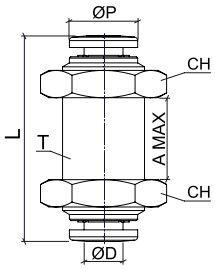



| CODE | ØD | T | ØP | ØC | A | L | CH |
|---|---|---|---|---|---|---|---|
| HFRCF04G01 | 4 | G 1/8" | 10 | 13 | 7,5 | 24,5 | 13 |
| HFRCF04G02 | | G 1/4" | 10 | 16 | 11 | 27,0 | 10 |
| HFRCF06G01 | 6 | G 1/8" | 12 | 13 | 7,5 | 26,0 | 12 |
| HFRCF06G02 | | G 1/4" | 12 | 16 | 11 | 29,0 | 12 |
| HFRCF08G01 | 8 | G 1/8" | 14 | 13 | 7,5 | 27,0 | 14 |
| HFRCF08G02 | | G 1/4" | 14 | 16 | 11 | 30,0 | 14 |

## HFRMM

Bulkhead connector

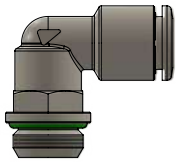


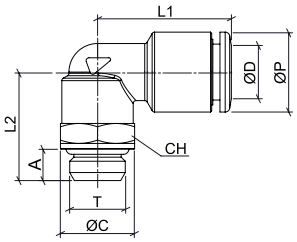



| CODE | ØD | T | ØP | L | A MAX | CH |
|---|---|---|---|---|---|---|
| HFRMM04 | 4 | M12x1 | 10 | 34,0 | 15 | 16 |
| HFRMM06 | 6 | M14x1 | 12 | 32,0 | 12 | 17 |
| HFRMM08 | 8 | M16x1 | 14 | 36,5 | 16 | 19 |
| HFRMM10 | 10 | M20x1 | 16 | 43,0 | 19 | 24 |
| HFRMM12 | 12 | M22x1,5 | 19 | 44,0 | 20 | 25 |

## HFRL-G

Swivel male elbow BSPP & metric



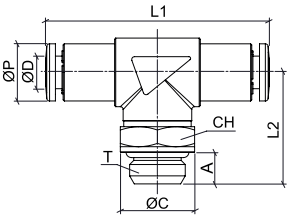



| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| HFRL04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 18,0 | 15,0 | 8 |
| HFRL04G01 | | G 1/8" | 10 | 13 | 5,5 | 19,5 | 19,0 | 13 |
| HFRL04G02 | | G 1/4" | 10 | 16 | 6,5 | 19,5 | 21,5 | 13 |
| HFRL06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 19,5 | 16,0 | 8 |
| HFRL06G01 | | G 1/8" | 12 | 13 | 5,5 | 21,0 | 19,0 | 13 |
| HFRL06G02 | | G 1/4" | 12 | 16 | 6,5 | 21,0 | 21,5 | 13 |
| HFRL08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 23,0 | 19,0 | 13 |
| HFRL08G02 | | G 1/4" | 14 | 16 | 6,5 | 23,0 | 21,5 | 13 |
| HFRL08G03 | | G 3/8" | 14 | 20 | 7,5 | 23,0 | 23,0 | 13 |
| HFRL10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 26,0 | 23,0 | 16 |
| HFRL10G03 | | G 3/8" | 16 | 20 | 7,5 | 26,0 | 26,0 | 16 |
| HFRL12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 31,0 | 25,5 | 20 |
| HFRL12G03 | | G 3/8" | 19 | 20 | 7,5 | 31,0 | 26,5 | 20 |
| HFRL12G04 | | G 1/2" | 19 | 25 | 9 | 31,0 | 29,0 | 20 |

## HFRT-G

Swivel male tee BSPP thread

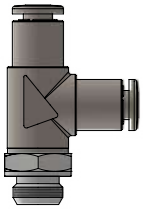


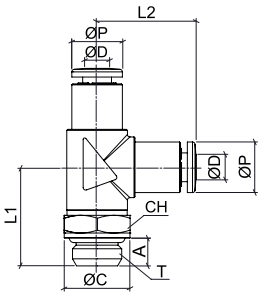



| CODE | ØD | T | ØP | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|
| HFRT04G01 | 4 | G 1/8" | 10 | 5,5 | 39,0 | 19,5 | 13 |
| HFRT06G01 | 6 | G 1/8" | 12 | 5,5 | 42,0 | 19,5 | 13 |
| HFRT06G02 | | G 1/4" | 12 | 6,5 | 42,0 | 22,0 | 13 |
| HFRT08G01 | 8 | G 1/8" | 14 | 5,5 | 46,5 | 19,5 | 13 |
| HFRT08G02 | | G 1/4" | 14 | 6,5 | 46,5 | 22,0 | 13 |

## HFRST-G

Swivel male lateral tee BSPP thread



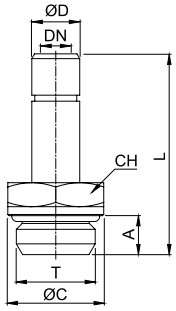



| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| HFRST04G01 | 4 | G 1/8" | 10 | 13 | 5,5 | 19,5 | 19,5 | 13 |

## HFRA-G

Stem adapter BSPP thread

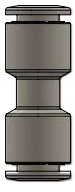


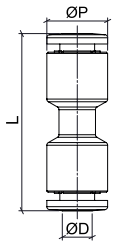



| CODE | ØD | T | ØC | A | L | DN | CH |
|---|---|---|---|---|---|---|---|
| HFRA04G01 | 4 | G 1/8" | 13 | 5,5 | 28,0 | 2,0 | 13 |
| HFRA06G01 | 6 | G 1/8" | 13 | 5,5 | 29,0 | 4,0 | 13 |
| HFRA06G02 | | G 1/4" | 16 | 6,5 | 30,5 | 4,0 | 13 |
| HFRA08G01 | 8 | G 1/8" | 13 | 5,5 | 30,0 | 6,0 | 13 |
| HFRA08G02 | | G 1/4" | 16 | 6,5 | 32,0 | 6,0 | 13 |
| HFRA10G01 | 10 | G 1/8" | 13 | 5,5 | 35,0 | 6,0 | 13 |
| HFRA10G02 | | G 1/4" | 16 | 6,5 | 36,5 | 8,0 | 13 |
| HFRA12G02 | 12 | G 1/4" | 16 | 6,5 | 37,5 | 8,0 | 13 |

## HFRUC

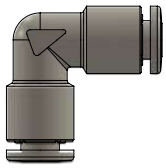
Union connector

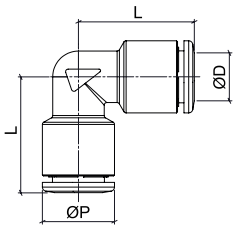





| CODE | ØD | ØP | L |
|---|---|---|---|
| HFRUC04 | 4 | 10 | 29,0 |
| HFRUC06 | 6 | 12 | 32,0 |
| HFRUC08 | 8 | 14 | 35,5 |
| HFRUC10 | 10 | 16 | 39,5 |
| HFRUC12 | 12 | 19 | 44,0 |

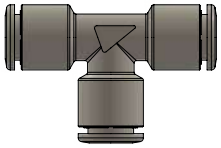
## HFRUL — Union elbow

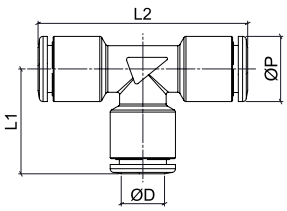





| CODE | ØD | ØP | L |
|---|---|---|---|
| HFRUL04 | 4 | 10 | 18,0 |
| HFRUL06 | 6 | 12 | 19,5 |
| HFRUL08 | 8 | 14 | 22,5 |
| HFRUL10 | 10 | 16 | 25,5 |
| HFRUL12 | 12 | 19 | 29,0 |

## HFRUT — Union tee

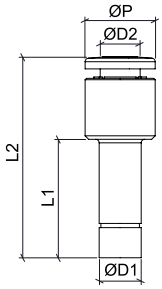





| CODE | ØD | ØP | L1 | L2 |
|---|---|---|---|---|
| HFRUT04 | 4 | 10 | 18,0 | 36,0 |
| HFRUT06 | 6 | 12 | 19,5 | 39,0 |
| HFRUT08 | 8 | 14 | 22,5 | 45,0 |
| HFRUT10 | 10 | 16 | 25,5 | 51,0 |
| HFRUT12 | 12 | 19 | 29,0 | 58,0 |

## HFRGJ — Stem reduction






| CODE | ØD1 | ØD2 | ØP | L1 | L2 |
|---|---|---|---|---|---|
| HFRGJ0604 | 6 | 4 | 10 | 17,0 | 28,5 |
| HFRGJ0806 | 8 | 6 | 12 | 19,5 | 34,5 |
| HFRGJ1008 | 10 | 8 | 14 | 24,0 | 37,5 |
| HFRGJ1210 | 12 | 10 | 16 | 25,0 | 40,0 |

*drawings and technical data are not binding & can be changed without notice*

# PUSH-IN FITTINGS Fluidfit

## PLUS

**SUITABLE FOR CONTACT WITH POTABLE WATER AND FOOD** for osmosis, vending and water treatment plants in food sectors

**DESIGNED TO ENSURE A COMPLETE PASSAGE** and to keep the characteristics of the fluids unchanged

**DYNAMIC GRIPPING SYSTEM** to be used with food fluids

**EPDM SEALING** in order to guarantee a long duration over time

**GREAT CHEMICAL AND MECHANICAL RESISTANCE** even at high temperatures

**CAN BE USED WITH AIR EVEN AT VERY LOW TEMPERATURES**

**SAFETY CLIP TO AVOID ACCIDENTAL DISCONNECTIONS** guaranteeing perfect functionally even in case of extreme applications

**A FULL RANGE OF DIAMETERS AND SHAPES** allows them to be used in various industrial sectors



p. 87 / **HPC-R**



p. 87 / **HPC-G**



p. 88 / **HCF-G**



p. 88 / **HPL-R**



p. 88 / **HMM**



p. 89 / **HGJ**



p. 89 / **HCJ-R**



p. 89 / **HCJ-G**



p. 90 / **HLJ**



p. 90 / **HSJ**



p. 90 / **HCBB**



p. 91 / **HUC**



p. 91 / **HUL**



p. 92 / **HUT**



p. 92 / **HUY**



p. 92 / **HCJB**



p. 92 / **HLJB**



p. 93 / **HPP**



p. 93 / **HPF**



p. 93 / **HZA**



p. 94 / **HRPL-R**



p. 94 / **HRPL-G**



p. 94 / **HRPT-R**



p. 95 / **HRPT-G**



p. 95 / **HRST-R**



p. 95 / **HRST-G**



p. 96 / **HRWT-R**



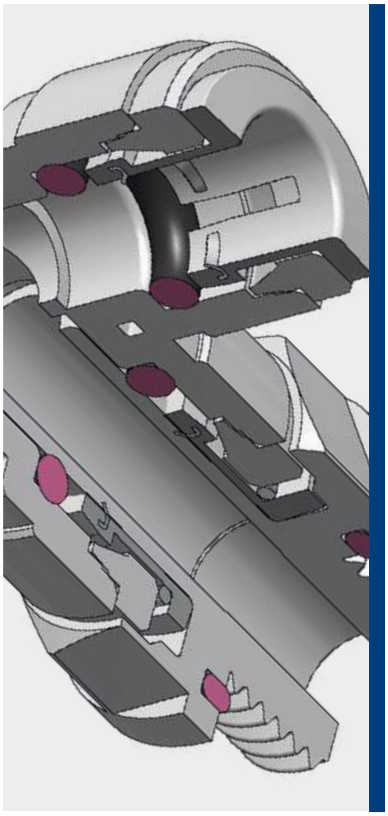
p. 96 / **HRWT-G**



p. 97 / **HUFF**



p. 97 / **HCP**



**Dry air:** -20°C ÷ 98°C
**Air & Fluids:** 1°C ÷ 98°C
(see the table)

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)
Data depend on tube and temperature

Water, beverages, vacuum, compressed air, gases & liquids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"

Polyethylene PE, polyamide PA, polyurethane PU, PTFE, FEP
**Tubes made of light metals:** Brass, copper and mild steel
**Tubes made of hard materials:** See table for use of tubes made of hard materials

**Body:** POM
**Collet:** POM
**Lock claw:** Stainless steel AISI 301
**Seal:** EPDM suitable for food contact
**O-ring:** EPDM suitable for food contact

Food contact materials EC 1935/2004

D.M. 174/2004

ICIM certified product food contact materials

ICIM certified product water contact materials

ACS

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

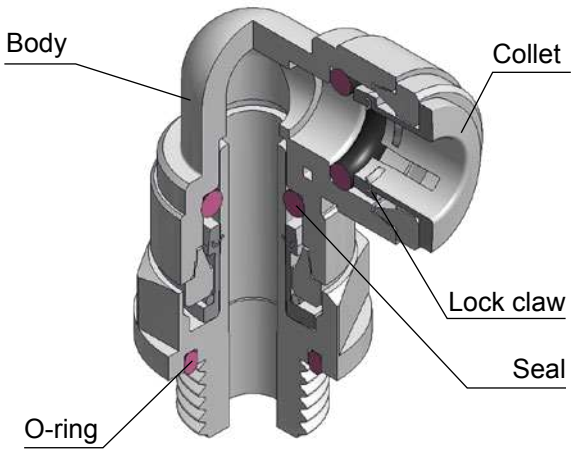
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## WORKING PRESSURE AND TEMPERATURE

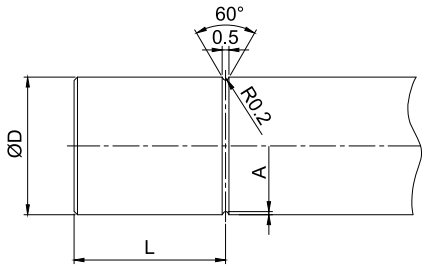
| Ø (mm) | -20°C | 1°C | 25°C | 70°C | 98°C |
|---|---|---|---|---|---|
| 4 | 0-8 Bar only with dry air | 20 Bar | 20 Bar | 16 Bar | 10 Bar |
| 6 | | 20 Bar | 20 Bar | 16 Bar | 10 Bar |
| 8 | | 20 Bar | 20 Bar | 16 Bar | 10 Bar |
| 10 | | 16 Bar | 16 Bar | 14 Bar | 10 Bar |
| 12 | | 14 Bar | 14 Bar | 8 Bar | 6 Bar |

## CONSTRUCTION DETAILS



## PIPE GROOVE - HARD MATERIALS TUBE

When using metallic tubes, please deburr the tubes ends to avoid potential cutting or other damages to the O-ring.




| ØD (mm) | L | A |
|---|---|---|
| 4 | 7,6 | 0,23 |
| 6 | 8,0 | 0,23 |
| 8 | 9,0 | 0,23 |
| 10 | 11,0 | 0,23 |
| 12 | 12,7 | 0,23 |

## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,08 | ± 0,08 | ± 0,08 | ± 0,08 | ± 0,10 |

## INSERTION DEPTH - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 14,7 | 16,1 | 17,5 | 20,1 | 24,7 |

## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 1/8" | 1/2" |
|---|---|---|---|---|
| Nm | 1,5 | 1,5 | 3,0 | 3,0 |

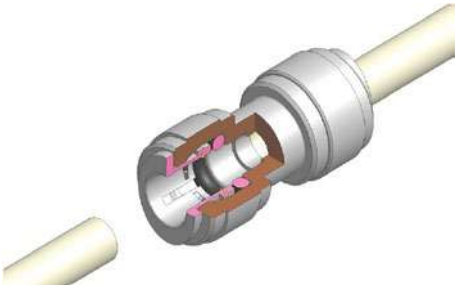
## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 1,5 | 1,5 | 3,0 | 3,0 |

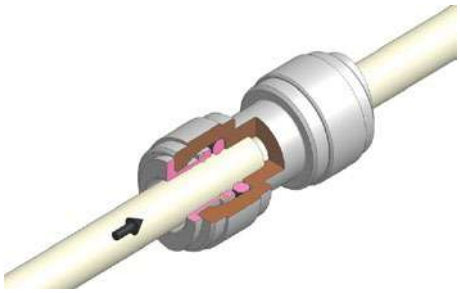
## INSTRUCTIONS FOR CONNECTING AND DISCONNECTING THE TUBE FROM THE FITTING

We recommend to read and follow all the instructions, precautions and warnings contained in this catalogue before using the products in pressurized systems. Failure to follow all instructions, precautions and warnings may result in bodily harm or property damages. CDC Fluidtech Europe disclaims any responsibility in case of damages for wrong use of the products.

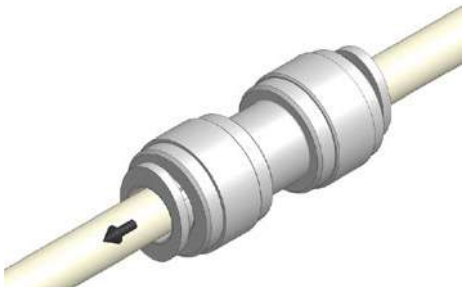
## CONNECTION OF THE TUBE TO THE FITTING



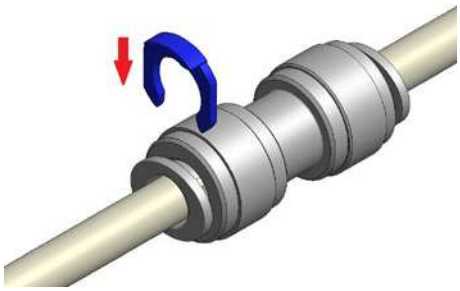
Make sure that the tube size and the push-in system size of the fittings are the same.
Cut square (90° angle) the part of the tube that has to be inserted into the fittings using the proper tube cutter.
Make sure that the tube used is clean and does not present any scratch, crack, cut or deformity.
Before inserting the tube, please remove any possible obstuction inside the fitting.



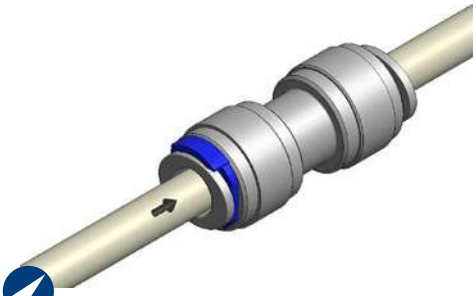
Make sure that the tube is correctly and fully inserted.
Inserting the tube into the fitting requires a moderate strain. The tube and the fitting should not be scratched or damaged during the insertion, otherwise there may be leaks or further wrong functions.
Please connect the tube by hands, without using any kind of tool, whether dedicated or not.



To make sure that the fitting is properly connected to the tube, please pull it once without releasing the collet.

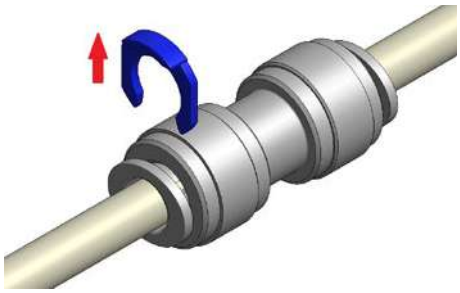


After pulling, insert a locking clip of the right dimension between the fitting body and the collet.

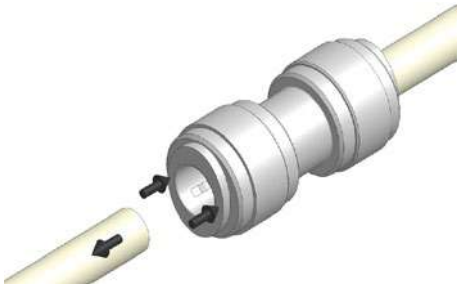


Push once more the tube into the fitting for a complete insertion.
The use of our locking clips avoids accidental disconnections of the tube and eliminates any play between the tube and the fitting. All the performance limits indicated in this catalogue are related to the systems assembled with locking clips installed.

## DISCONNECTION OF THE TUBE TO THE FITTING



Make sure that the pressure has been completely eliminated from the system before disassembling the tube.
In order to disconnect the tube, remove the locking clip first.



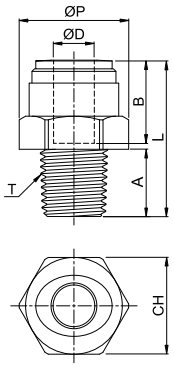
Push the collet in the direction of the body of the fitting and pull the tube keeping the collet pushed in order to disconnect the tube from the fitting.

Fittings and tubes can be reused providing that they are not ruined and correctly working. It is possible to reuse them only in case of maintenance and only using the same fluid used before. The reuse refers to the push-in system only, being not guaranteed for the threaded part of the fittings. In case of reuse of a tube, the part previously inserted into the fitting has to be cut and the whole tube has to be verified.

## HPC-R

Male connector BSPT thread



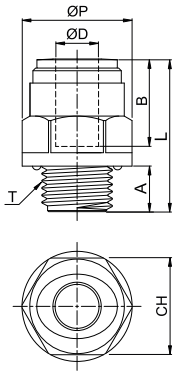



| CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| HPC04R01W | 4 | R 1/8" | 18,5 | 9,1 | 14,7 | 26,0 | 17 | 4,1 |
| HPC06R01W | 6 | R 1/8" | 18,5 | 9,1 | 16,1 | 26,2 | 17 | 3,9 |
| HPC06R02W | | R 1/4" | 18,5 | 13,1 | 16,1 | 26,7 | 17 | 4,2 |
| HPC06R03W | | R 3/8" | 21,0 | 13,5 | 16,1 | 26,6 | 19 | 5,9 |
| HPC08R01W | 8 | R 1/8" | 21,0 | 9,1 | 17,5 | 28,1 | 19 | 5,2 |
| HPC08R02W | | R 1/4" | 21,0 | 13,1 | 17,5 | 30,6 | 19 | 5,8 |
| HPC08R03W | | R 3/8" | 21,0 | 13,5 | 17,5 | 27,0 | 19 | 5,7 |
| HPC10R03W | 10 | R 3/8" | 23,2 | 13,5 | 20,1 | 28,8 | 21 | 6,7 |
| HPC10R04W | | R 1/2" | 24,4 | 16,3 | 20,1 | 32,1 | 22 | 9,6 |
| HPC12R03W | 12 | R 3/8" | 26,5 | 13,5 | 24,7 | 32,2 | 24 | 8,9 |
| HPC12R04W | | R 1/2" | 26,5 | 16,3 | 24,7 | 34,3 | 24 | 11,0 |

## HPC-G

Male connector BSPP thread



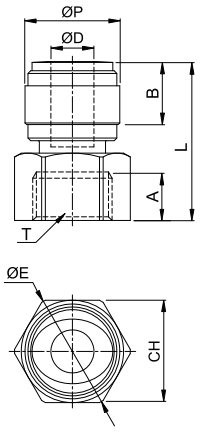



| CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| HPC04G01W | 4 | G 1/8" | 16,6 | 6,0 | 14,7 | 21,9 | 15 | 3,3 |
| HPC04G02W | | G 1/4" | 20,5 | 8,5 | 14,7 | 23,9 | 18 | 4,9 |
| HPC06G01W | 6 | G 1/8" | 16,6 | 6,0 | 16,1 | 24,1 | 15 | 3,3 |
| HPC06G02W | | G 1/4" | 20,5 | 8,5 | 16,1 | 24,1 | 18 | 4,8 |
| HPC08G01W | 8 | G 1/8" | 18,5 | 6,0 | 17,5 | 27,0 | 17 | 5,2 |
| HPC08G02W | | G 1/4" | 20,5 | 8,5 | 17,5 | 28,5 | 18 | 6,1 |
| HPC08G03W | | G 3/8" | 24,0 | 9,0 | 17,5 | 26,5 | 21 | 7,0 |
| HPC08G04W | | G 1/2" | 28,5 | 12,5 | 17,5 | 29,5 | 26 | 11,9 |
| HPC10G02W | 10 | G 1/4" | 21,1 | 8,5 | 20,1 | 30,8 | 19 | 7,2 |
| HPC10G03W | | G 3/8" | 24,2 | 9,0 | 20,1 | 26,3 | 21 | 7,0 |
| HPC10G04W | | G 1/2" | 28,5 | 12,5 | 20,1 | 29,8 | 26 | 11,3 |
| HPC12G03W | 12 | G 3/8" | 27,0 | 9,0 | 24,7 | 34,2 | 24 | 11,6 |
| HPC12G04W | | G 1/2" | 28,5 | 12,5 | 24,7 | 32,7 | 26 | 12,4 |

## HCF-G

Female adapter BSPP thread with internal flat seal





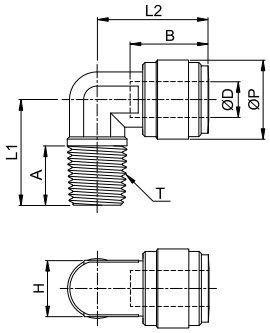

| | CODE | ØD | T | ØP | A | B | ØE | L | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| | HCF04G01W | 4 | G 1/8" | 17,6 | 6,0 | 14,7 | 19,2 | 26,9 | 17 | 6,0 |
| | HCF06G01W | 6 | G 1/8" | 17,6 | 6,0 | 16,1 | 19,2 | 27,1 | 17 | 6,1 |
| | HCF06G02W | | G 1/4" | 17,6 | 8,5 | 16,1 | 21,5 | 29,1 | 19 | 7,0 |
| | HCF06G03W | | G 3/8" | 17,6 | 9,0 | 16,1 | 27,3 | 30,6 | 24 | 9,9 |
| | HCF08G01W | 8 | G 1/8" | 17,6 | 6,0 | 17,5 | 19,2 | 27,5 | 17 | 6,0 |
| | HCF08G02W | | G 1/4" | 17,6 | 8,5 | 17,5 | 21,5 | 29,5 | 19 | 6,7 |
| | HCF08G03W | | G 3/8" | 17,6 | 9,0 | 17,5 | 27,3 | 31,0 | 24 | 9,7 |
| | HCF08G04W | | G 1/2" | 20,0 | 12,5 | 17,5 | 30,0 | 38,0 | 27 | 13,8 |
| * | HCF08G06W | | G 3/4" | 20,0 | 10,0 | 17,5 | 41,6 | 36,6 | 36,7 | 39,2 |
| | HCF10G02W | 10 | G 1/4" | 23,0 | 8,5 | 20,1 | 21,5 | 34,5 | 19 | 10,8 |
| | HCF10G03W | | G 3/8" | 23,0 | 9,0 | 20,1 | 27,3 | 37,0 | 24 | 13,7 |
| | HCF10G04W | | G 1/2" | 20,0 | 12,5 | 20,1 | 30,0 | 38,3 | 27 | 13,3 |
| * | HCF10G06W | | G 3/4" | 20,0 | 10,0 | 20,1 | 41,6 | 36,9 | 36,7 | 38,6 |
| | HCF12G02W | 12 | G 1/4" | 23,0 | 9,0 | 24,7 | 27,3 | 37,7 | 24 | 13,0 |
| | HCF12G03W | | G 3/8" | 23,0 | 9,0 | 24,7 | 27,3 | 37,7 | 24 | 13,0 |
| | HCF12G04W | | G 1/2" | 23,0 | 12,5 | 24,7 | 30,0 | 41,7 | 27 | 15,4 |

* HCF08G06W & HCF10G06W: brass thread

## HPL-R

Male elbow BSPT thread



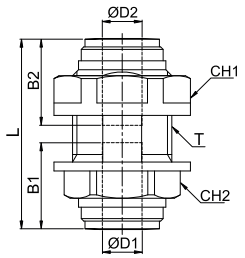



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| HPL04R01W | 4 | R 1/8" | 15,0 | 9,1 | 14,7 | 25,6 | 25,2 | 10 | 4,2 |
| HPL04R02W | | R 1/4" | 15,0 | 13,1 | 14,7 | 30,6 | 26,8 | 10 | 5,6 |
| HPL06R01W | 6 | R 1/8" | 15,0 | 9,1 | 16,1 | 25,6 | 25,4 | 10 | 4,1 |
| HPL06R02W | | R 1/4" | 15,0 | 13,1 | 16,1 | 30,6 | 27,0 | 10 | 5,1 |
| HPL06R03W | | R 3/8" | 17,6 | 13,5 | 16,1 | 32,6 | 33,1 | 13 | 8,4 |
| HPL08R02W | 8 | R 1/4" | 17,6 | 13,1 | 17,5 | 32,2 | 31,5 | 13 | 7,0 |
| HPL08R03W | | R 3/8" | 17,6 | 13,5 | 17,5 | 32,6 | 33,5 | 13 | 8,0 |
| HPL10R02W | 10 | R 1/4" | 23,6 | 13,1 | 20,1 | 38,3 | 37,5 | 17 | 14,1 |
| HPL10R03W | | R 3/8" | 20,0 | 13,5 | 20,1 | 35,7 | 33,9 | 14 | 9,2 |
| HPL12R02W | 12 | R 1/4" | 23,6 | 13,1 | 24,7 | 38,3 | 38,2 | 17 | 13,1 |
| HPL12R03W | | R 3/8" | 23,0 | 13,5 | 24,7 | 38,3 | 38,4 | 17,0 | 13,2 |
| HPL12R04W | | R 1/2" | 23,0 | 16,3 | 24,7 | 41,4 | 40,7 | 17,7 | 15,6 |

## HMM

Bulkhead connector with seal



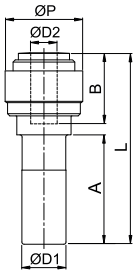



| CODE | ØD1 | ØD2 | T | B1 | B2 | L | CH1 | CH2 (FIXED) | g |
|---|---|---|---|---|---|---|---|---|---|
| HMM0404W | 4 | 4 | M15x1,5P | 14,7 | 14,7 | 32,4 | 17 | 18 | 6,9 |
| HMM0606W | 6 | 6 | M17x1,5P | 16,1 | 16,1 | 35,7 | 19 | 21 | 9,6 |
| HMM0808W | 8 | 8 | M20x1,75P | 17,5 | 17,5 | 38,5 | 21 | 25,5 | 14,0 |
| HMM1010W | 10 | 10 | M24x1,75P | 20,1 | 20,1 | 42,2 | 24 | 28,5 | 19,5 |
| HMM1212W | 12 | 12 | M27x2,0P | 24,7 | 24,7 | 51,4 | 27 | 31 | 28,2 |
| REDUCED BULKHEAD CONNECTOR WITH SEAL | | | | | | | | | |
| HMM0604W | 6 | 4 | M17x1,5P | 16,1 | 14,7 | 35,5 | 19 | 21 | 9,8 |
| HMM0806W | 8 | 6 | M20x1,75P | 17,5 | 16,1 | 38,1 | 21 | 25,5 | 14,3 |

## HGJ

Stem reduction



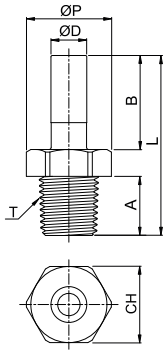



| CODE | ØD1 | ØD2 | ØP | A | B | L | g |
|---|---|---|---|---|---|---|---|
| HGJ0604W | 6 | 4 | 13,2 | 21,0 | 14,7 | 36,7 | 2,4 |
| HGJ0804W | 8 | 4 | 15,5 | 22,5 | 14,7 | 40,4 | 3,7 |
| HGJ0806W | 8 | 6 | 15,5 | 22,5 | 16,1 | 40,6 | 3,5 |
| HGJ1006W | 10 | 6 | 17,6 | 24,8 | 16,1 | 43,4 | 5,2 |
| HGJ1008W | 10 | 8 | 17,6 | 24,8 | 17,5 | 43,8 | 5,1 |
| HGJ1208W | 12 | 8 | 20,0 | 29,5 | 17,5 | 51,3 | 7,3 |
| HGJ1210W | 12 | 10 | 20,0 | 29,5 | 20,1 | 51,6 | 6,9 |
| STEM ENLARGER | | | | | | | |
| HGJ0405W | 4 | 5 | 13,8 | 18,0 | 15,0 | 35,0 | 2,4 |
| HGJ0810W | 8 | 10 | 20,0 | 22,5 | 20,1 | 44,9 | 5,4 |

## HCJ-R

Stem adapter BSPT thread



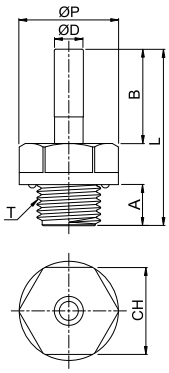



| CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| HCJ04R01W | 4 | R 1/8" | 14,4 | 9,1 | 18,0 | 33,1 | 13 | 1,8 |
| HCJ04R02W | | R 1/4" | 18,5 | 13,1 | 18,0 | 37,1 | 17 | 3,5 |
| HCJ06R01W | 6 | R 1/8" | 14,4 | 9,1 | 19,5 | 34,6 | 13 | 2,0 |
| HCJ06R02W | | R 1/4" | 18,5 | 13,1 | 19,5 | 38,6 | 17 | 3,7 |
| HCJ08R01W | 8 | R 1/8" | 14,4 | 9,1 | 21,0 | 36,1 | 13 | 2,2 |
| HCJ08R02W | | R 1/4" | 18,5 | 13,1 | 21,0 | 40,1 | 17 | 3,8 |
| HCJ08R03W | | R 3/8" | 23,0 | 13,5 | 21,0 | 40,5 | 21 | 5,3 |
| HCJ10R02W | 10 | R 1/4" | 18,5 | 13,1 | 24,0 | 43,1 | 17 | 4,5 |
| HCJ10R03W | | R 3/8" | 23,0 | 13,5 | 24,0 | 44,0 | 21 | 6,1 |
| HCJ10R04W | | R 1/2" | 26,5 | 16,5 | 24,0 | 47,0 | 24 | 9,7 |
| HCJ12R03W | 12 | R 3/8" | 23,0 | 13,5 | 28,0 | 48,0 | 21 | 6,8 |
| HCJ12R04W | | R 1/2" | 26,5 | 16,5 | 28,0 | 51,0 | 24 | 10,2 |

## HCJ-G

Stem adapter BSPP thread





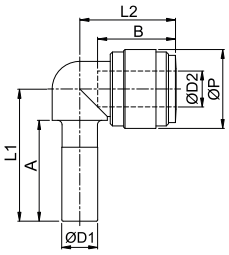

| CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| HCJ04G01W | 4 | G 1/8" | 16,6 | 6,0 | 18,0 | 32,5 | 15 | 2,7 |
| HCJ04G02W | | G 1/4" | 20,5 | 8,5 | 18,0 | 35,0 | 18 | 4,2 |
| HCJ06G01W | 6 | G 1/8" | 16,6 | 6,0 | 19,5 | 34,0 | 15 | 2,8 |
| HCJ06G02W | | G 1/4" | 20,5 | 8,5 | 19,5 | 36,5 | 18 | 4,3 |
| HCJ08G01W | 8 | G 1/8" | 16,6 | 6,0 | 21,0 | 35,5 | 15 | 3,0 |
| HCJ08G02W | | G 1/4" | 20,5 | 8,5 | 21,0 | 38,0 | 18 | 4,6 |
| HCJ08G03W | | G 3/8" | 24,2 | 9,0 | 21,0 | 38,5 | 22 | 6,2 |
| HCJ10G02W | 10 | G 1/4" | 20,5 | 8,5 | 24,0 | 41,0 | 18 | 5,2 |
| HCJ10G03W | | G 3/8" | 24,2 | 9,0 | 24,0 | 41,5 | 22 | 6,8 |
| HCJ10G04W | | G 1/2" | 28,5 | 12,5 | 24,0 | 45,0 | 26 | 10,7 |
| HCJ12G03W | 12 | G 3/8" | 24,2 | 9,0 | 28,0 | 45,5 | 22 | 7,3 |
| HCJ12G04W | | G 1/2" | 28,5 | 12,5 | 28,0 | 49,0 | 26 | 11,2 |

*drawings and technical data are not binding & can be changed without notice*

## HLJ

Union elbow tube with stem



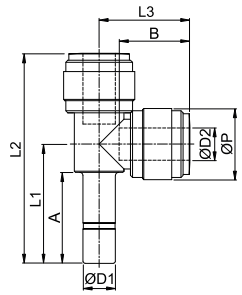



| CODE | ØD1 | ØD2 | ØP | A | B | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| HLJ0404W | 4 | 4 | 13,2 | 18,0 | 14,7 | 30,1 | 21,9 | 2,5 |
| HLJ0606W | 6 | 6 | 15,5 | 21,0 | 16,1 | 34,8 | 25,1 | 3,7 |
| HLJ0808W | 8 | 8 | 17,6 | 22,5 | 17,5 | 38,3 | 27,7 | 5,3 |
| HLJ1010W | 10 | 10 | 20,0 | 24,8 | 20,1 | 43,2 | 31,3 | 7,4 |
| HLJ1212W | 12 | 12 | 23,6 | 29,5 | 24,7 | 51,2 | 39,0 | 12,6 |
| REDUCTION UNION ELBOW TUBE WITH STEM | | | | | | | | |
| HLJ1006W | 10 | 6 | 20,0 | 24,8 | 16,1 | 43,2 | 30,6 | 7,8 |
| HLJ1008W | 10 | 8 | 20,0 | 24,8 | 17,5 | 43,2 | 31,0 | 8,2 |
| ENLARGER UNION ELBOW TUBE WITH STEM | | | | | | | | |
| HLJ0608W | 6 | 8 | 17,6 | 21,0 | 17,5 | 36,8 | 26,0 | 4,7 |

## HSJ

Male lateral tee with stem



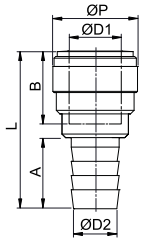



| CODE | ØD1 | ØD2 | ØP | A | B | L1 | L2 | L3 | g |
|---|---|---|---|---|---|---|---|---|---|
| HSJ0404W | 4 | 4 | 13,2 | 18,0 | 14,7 | 23,5 | 41,2 | 17,7 | 4,5 |
| HSJ0606W | 6 | 6 | 15,0 | 21,0 | 16,1 | 27,0 | 47,1 | 20,1 | 5,9 |
| HSJ0808W | 8 | 8 | 17,6 | 22,5 | 17,5 | 29,5 | 52,0 | 22,5 | 9,1 |
| HSJ1010W | 10 | 10 | 20,0 | 24,8 | 20,1 | 33,2 | 59,3 | 26,1 | 12,5 |
| HSJ1212W | 12 | 12 | 23,0 | 29,4 | 24,7 | 39,4 | 71,1 | 31,7 | 19,6 |

## HCBB

Barb connector

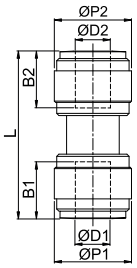





| CODE | ØD1 | ØD2 | BARB | ØP | A | B | L | g |
|---|---|---|---|---|---|---|---|---|
| HCBB1210W | 12 | 10 | 10,0 | 23,0 | 20,0 | 24,7 | 46,9 | 8,5 |

## HUC Union connector

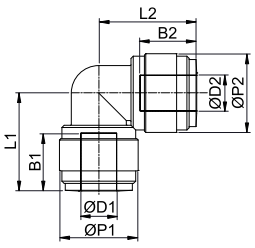





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L | g |
|---|---|---|---|---|---|---|---|---|
| HUC0404W | 4 | 4 | 13,2 | 13,2 | 14,7 | 14,7 | 31,8 | 3,8 |
| HUC0606W | 6 | 6 | 15,0 | 15,0 | 16,1 | 16,1 | 35,2 | 4,7 |
| HUC0808W | 8 | 8 | 17,6 | 17,6 | 17,5 | 17,5 | 38,2 | 6,9 |
| HUC1010W | 10 | 10 | 20,0 | 20,0 | 20,1 | 20,1 | 42,7 | 9,2 |
| HUC1212W | 12 | 12 | 23,0 | 23,0 | 24,7 | 24,7 | 52,4 | 14,4 |
| REDUCED UNION CONNECTOR | | | | | | | | |
| HUC0604W | 6 | 4 | 15,0 | 15,0 | 16,1 | 14,7 | 35,0 | 5,0 |
| HUC0605W | 6 | 5 | 15,0 | 15,0 | 16,1 | 14,9 | 35,1 | 4,9 |
| HUC0804W | 8 | 4 | 17,6 | 17,6 | 17,5 | 14,7 | 36,6 | 6,5 |
| HUC0806W | 8 | 6 | 17,6 | 17,6 | 17,5 | 16,1 | 37,8 | 7,1 |
| HUC1006W | 10 | 6 | 20,0 | 15,5 | 20,1 | 16,1 | 42,0 | 9,8 |
| HUC1008W | 10 | 8 | 20,0 | 20,0 | 20,1 | 17,5 | 42,4 | 9,6 |
| HUC1208W | 12 | 8 | 23,6 | 17,6 | 24,7 | 17,5 | 44,4 | 11,5 |
| HUC1210W | 12 | 10 | 23,0 | 23,0 | 24,7 | 20,1 | 51,7 | 15,0 |

## HUL Union elbow

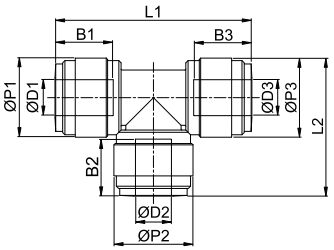





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|
| HUL0404W | 4 | 4 | 13,2 | 13,2 | 14,7 | 14,7 | 24,5 | 24,5 | 3,9 |
| HUL0606W | 6 | 6 | 15,0 | 15,0 | 16,1 | 16,1 | 27,6 | 27,6 | 5,1 |
| HUL0808W | 8 | 8 | 17,6 | 17,6 | 17,5 | 17,5 | 30,7 | 30,7 | 7,6 |
| HUL1010W | 10 | 10 | 20,0 | 20,0 | 20,1 | 20,1 | 35,8 | 35,8 | 10,2 |
| HUL1212W | 12 | 12 | 23,0 | 23,0 | 24,7 | 24,7 | 43,2 | 43,2 | 16,4 |
| REDUCED UNION ELBOW | | | | | | | | | |
| HUL0804W | 8 | 4 | 17,6 | 13,2 | 17,5 | 14,7 | 28,3 | 29,7 | 5,9 |
| HUL0806W | 8 | 6 | 17,6 | 17,6 | 17,5 | 16,1 | 30,7 | 30,3 | 7,7 |
| HUL1006W | 10 | 6 | 23,0 | 17,6 | 20,1 | 16,1 | 37,8 | 36,1 | 12,6 |
| HUL1008W | 10 | 8 | 20,0 | 20,0 | 20,1 | 17,5 | 35,8 | 35,5 | 10,2 |
| HUL1206W | 12 | 6 | 23,0 | 17,6 | 24,7 | 16,1 | 38,5 | 36,1 | 12,0 |
| HUL1208W | 12 | 8 | 23,0 | 17,6 | 24,7 | 17,5 | 38,5 | 36,5 | 11,9 |
| HUL1210W | 12 | 10 | 23,0 | 23,0 | 24,7 | 20,1 | 43,2 | 42,5 | 17,3 |

## HUT — Union tee

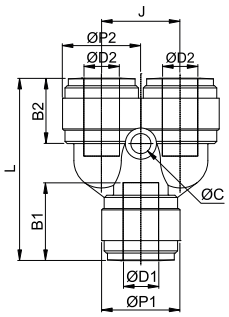





| CODE | ØD1 | ØD2 | ØD3 | ØP1 | ØP2 | ØP3 | B1 | B2 | B3 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HUT0404W | 4 | 4 | 4 | 13,2 | 13,2 | 13,2 | 14,7 | 14,7 | 14,7 | 24,5 | 35,8 | 5,8 |
| HUT0606W | 6 | 6 | 6 | 15,0 | 15,0 | 15,0 | 16,1 | 16,1 | 16,1 | 27,6 | 40,2 | 7,3 |
| HUT0808W | 8 | 8 | 8 | 17,6 | 17,6 | 17,6 | 17,5 | 17,5 | 17,5 | 30,7 | 43,8 | 10,6 |
| HUT1010W | 10 | 10 | 10 | 20,0 | 20,0 | 20,0 | 20,1 | 20,1 | 20,1 | 35,8 | 51,6 | 14,6 |
| HUT1212W | 12 | 12 | 12 | 23,0 | 23,0 | 23,0 | 24,7 | 24,7 | 24,7 | 43,2 | 63,4 | 23,2 |
| REDUCED UNION TEE | | | | | | | | | | | | |
| HUT100608W | 10 | 6 | 8 | 20,0 | 15,0 | 20,0 | 20,1 | 16,1 | 17,5 | 32,1 | 48,6 | 15,6 |
| HUT100610W | 10 | 6 | 10 | 20,0 | 15,0 | 20,0 | 20,1 | 16,1 | 20,1 | 32,1 | 48,7 | 12,0 |
| HUT121012W | 12 | 10 | 12 | 23,0 | 23,0 | 23,0 | 24,7 | 20,1 | 24,7 | 42,5 | 63,4 | 24,2 |

## HUY — Union Y

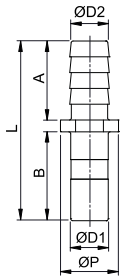





| CODE | ØD1 | ØD2 | ØP1 | ØP2 | ØC | B1 | B2 | J | L | g |
|---|---|---|---|---|---|---|---|---|---|---|
| HUY0404W | 4 | 4 | 13,8 | 13,8 | 3,3 | 14,7 | 14,7 | 13,5 | 33,7 | 6,7 |
| HUY0606W | 6 | 6 | 15,5 | 15,5 | 3,3 | 16,1 | 16,1 | 15,5 | 38,8 | 9,2 |
| HUY0808W | 8 | 8 | 17,6 | 17,6 | 4,5 | 17,5 | 17,5 | 17,6 | 41,0 | 11,6 |
| HUY1010W | 10 | 10 | 20,0 | 20,0 | 4,5 | 20,1 | 20,1 | 20,0 | 46,2 | 16,0 |
| HUY1212W | 12 | 12 | 23,0 | 23,0 | 4,5 | 24,7 | 24,7 | 23,0 | 56,4 | 26,3 |
| REDUCED UNION Y | | | | | | | | | | |
| HUY1008W | 10 | 8 | 20,0 | 20,0 | 4,5 | 20,1 | 17,5 | 20,0 | 45,9 | 16,8 |

## HCJB — Tube barb connector

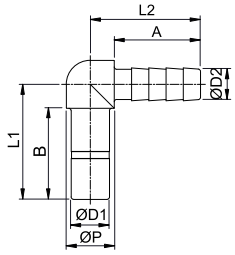





| CODE | ØD1 | ØD2 | BARB | ØP | A | B | L | g |
|---|---|---|---|---|---|---|---|---|
| HCJB0604W | 6 | 4 | 4,5 | 11,4 | 18,0 | 17,2 | 38,2 | 1,0 |
| HCJB0606W | 6 | 6 | 6,5 | 11,4 | 18,0 | 17,2 | 38,2 | 1,1 |
| HCJB0806W | 8 | 6 | 6,5 | 12,2 | 18,0 | 19,0 | 40,0 | 1,7 |
| HCJB1006W | 10 | 6 | 6,5 | 14,7 | 18,0 | 22,5 | 43,5 | 2,3 |
| HCJB1008W | 10 | 8 | 8,6 | 14,7 | 18,0 | 22,5 | 43,5 | 2,7 |
| HCJB1010W | 10 | 10 | 10,6 | 14,7 | 20,0 | 22,5 | 45,5 | 3,0 |
| HCJB1210W | 12 | 10 | 10,6 | 18,5 | 20,0 | 27,5 | 50,5 | 4,3 |

## HLJB — Elbow tube barb connector



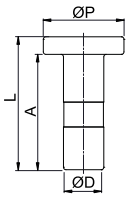



| CODE | ØD1 | ØD2 | BARB | ØP | A | B | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|
| HLJB1006W | 10 | 6 | 6,5 | 12,0 | 18,0 | 22,5 | 28,5 | 24,0 | 3,0 |
| HLJB1008W | 10 | 8 | 8,6 | 12,0 | 18,0 | 22,5 | 28,5 | 24,0 | 3,4 |

*drawings and technical data are not binding & can be changed without notice*

## HPP — Male plug

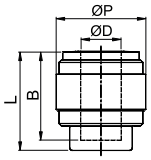





| CODE | ØD | ØP | A | L | g |
|---|---|---|---|---|---|
| HPP04W | 4 | 13 | 19,0 | 22,5 | 0,8 |
| HPP06W | 6 | 13 | 21,0 | 24,5 | 1,1 |
| HPP08W | 8 | 16 | 23,0 | 26,5 | 1,8 |
| HPP10W | 10 | 18 | 26,0 | 30,0 | 2,7 |
| HPP12W | 12 | 21 | 30,0 | 34,0 | 4,0 |

## HPF — Female plug

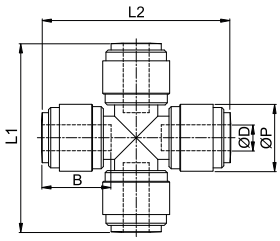





| CODE | ØD | ØP | B | L | g |
|---|---|---|---|---|---|
| HPF06W | 6 | 15,5 | 16,1 | 18,9 | 2,8 |
| HPF08W | 8 | 17,6 | 17,5 | 19,5 | 3,6 |
| HPF10W | 10 | 20,0 | 20,1 | 22,1 | 4,7 |
| HPF12W | 12 | 23,0 | 24,7 | 26,7 | 7,3 |

## HZA — Cross junction



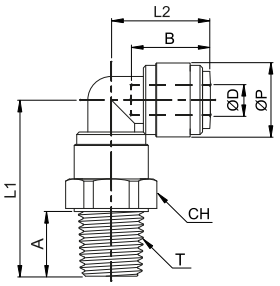



| CODE | ØD | ØP | B | L1 | L2 | g |
|---|---|---|---|---|---|---|
| HZA0606W | 6 | 15,5 | 16,1 | 43,8 | 43,8 | 9,7 |
| HZA0808W | 8 | 17,6 | 17,5 | 47,3 | 47,3 | 15,0 |

## HRPL-R

Swivel male elbow BSPT thread



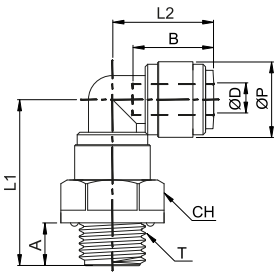



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| HRPL04R01W | 4 | R 1/8" | 13,2 | 9,1 | 14,7 | 29,7 | 17,9 | 15 | 5,9 |
| HRPL04R02W | | R 1/4" | 13,2 | 13,1 | 14,7 | 33,7 | 17,9 | 17 | 7,3 |
| HRPL06R01W | 6 | R 1/8" | 15,0 | 9,1 | 16,1 | 31,7 | 20,1 | 17 | 7,2 |
| HRPL06R02W | | R 1/4" | 15,0 | 13,1 | 16,1 | 35,7 | 20,1 | 17 | 8,0 |
| HRPL08R01W | 8 | R 1/8" | 17,6 | 9,1 | 17,5 | 33,4 | 21,9 | 19 | 9,9 |
| HRPL08R02W | | R 1/4" | 17,6 | 13,1 | 17,5 | 37,4 | 21,9 | 19 | 10,7 |
| HRPL08R03W | | R 3/8" | 17,6 | 13,5 | 17,5 | 37,8 | 21,9 | 19 | 11,4 |
| HRPL10R02W | 10 | R 1/4" | 20,0 | 13,1 | 20,1 | 41,4 | 25,8 | 21 | 15,1 |
| HRPL10R03W | | R 3/8" | 20,0 | 13,5 | 20,1 | 41,8 | 25,8 | 21 | 15,2 |
| HRPL10R04W | | R 1/2" | 20,0 | 16,5 | 20,1 | 44,8 | 25,8 | 24 | 19,5 |
| HRPL12R03W | 12 | R 3/8" | 23,0 | 13,5 | 24,7 | 48,2 | 31,7 | 24 | 23,4 |
| HRPL12R04W | | R 1/2" | 23,0 | 16,5 | 24,7 | 51,2 | 31,7 | 24 | 25,9 |

## HRPL-G

Swivel male elbow BSPP thread



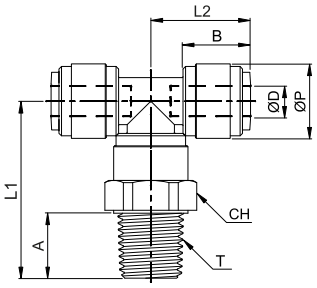



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| HRPL04G01W | 4 | G 1/8" | 13,2 | 6,0 | 14,7 | 28,5 | 17,9 | 15,0 | 6,0 |
| HRPL04G02W | | G 1/4" | 13,2 | 8,5 | 14,7 | 31,0 | 17,9 | 18,0 | 7,7 |
| HRPL06G01W | 6 | G 1/8" | 15,0 | 6,0 | 16,1 | 30,5 | 20,1 | 17,0 | 7,7 |
| HRPL06G02W | | G 1/4" | 15,0 | 8,5 | 16,1 | 33,0 | 20,1 | 18,0 | 8,7 |
| HRPL08G01W | 8 | G 1/8" | 17,6 | 6,0 | 17,5 | 31,9 | 21,9 | 18,0 | 10,4 |
| HRPL08G02W | | G 1/4" | 17,6 | 8,5 | 17,5 | 34,4 | 21,9 | 18,0 | 11,0 |
| HRPL08G03W | | G 3/8" | 17,6 | 9,0 | 17,5 | 34,9 | 21,9 | 22,0 | 12,8 |
| HRPL10G02W | 10 | G 1/4" | 20,0 | 8,5 | 20,1 | 38,0 | 25,8 | 22,0 | 15,4 |
| HRPL10G03W | | G 3/8" | 20,0 | 9,0 | 20,1 | 38,5 | 25,8 | 22,0 | 15,8 |
| HRPL10G04W | | G 1/2" | 20,0 | 12,5 | 20,1 | 42,0 | 25,8 | 26,0 | 19,1 |
| HRPL12G03W | 12 | G 3/8" | 23,0 | 9,0 | 24,7 | 43,7 | 31,7 | 26,0 | 23,2 |
| HRPL12G04W | | G 1/2" | 23,0 | 12,5 | 24,7 | 47,2 | 31,7 | 26,0 | 25,2 |

## HRPT-R

Swivel male tee BSPT thread





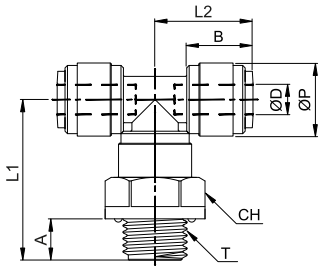

| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| HRPT04R01W | 4 | R 1/8" | 13,2 | 9,1 | 14,7 | 29,7 | 17,9 | 15,0 | 7,8 |
| HRPT04R02W | | R 1/4" | 13,2 | 13,1 | 14,7 | 33,7 | 17,9 | 17,0 | 9,2 |
| HRPT06R01W | 6 | R 1/8" | 15,0 | 9,1 | 16,1 | 31,7 | 20,1 | 17,0 | 9,3 |
| HRPT06R02W | | R 1/4" | 15,0 | 13,1 | 16,1 | 35,7 | 20,1 | 17,0 | 10,3 |
| HRPT08R01W | 8 | R 1/8" | 17,6 | 9,1 | 17,5 | 33,4 | 21,9 | 19,0 | 13,1 |
| HRPT08R02W | | R 1/4" | 17,6 | 13,1 | 17,5 | 37,4 | 21,9 | 19,0 | 14,0 |
| HRPT08R03W | | R 3/8" | 17,6 | 13,5 | 17,5 | 37,8 | 21,9 | 19,0 | 14,6 |
| HRPT10R02W | 10 | R 1/4" | 20,0 | 13,1 | 20,1 | 41,4 | 25,8 | 21,0 | 19,5 |
| HRPT10R03W | | R 3/8" | 20,0 | 13,5 | 20,1 | 41,8 | 25,8 | 21,0 | 19,6 |
| HRPT10R04W | | R 1/2" | 20,0 | 16,5 | 20,1 | 44,8 | 25,8 | 21,0 | 23,9 |
| HRPT12R03W | 12 | R 3/8" | 23,0 | 13,5 | 24,7 | 42,8 | 31,7 | 24,0 | 30,2 |
| HRPT12R04W | | R 1/2" | 23,0 | 16,5 | 24,7 | 51,2 | 31,7 | 24,0 | 32,7 |

*drawings and technical data are not binding & can be changed without notice*

## HRPT-G

Swivel male tee BSPP thread



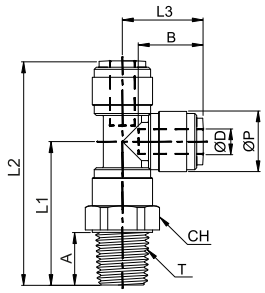



| CODE | ØD | T | ØP | A | B | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| HRPT04G01W | 4 | G 1/8" | 13,2 | 6,0 | 14,7 | 28,5 | 17,9 | 15 | 7,9 |
| HRPT04G02W | | G 1/4" | 13,2 | 8,5 | 14,7 | 31,0 | 17,9 | 18 | 9,6 |
| HRPT06G01W | 6 | G 1/8" | 15,0 | 6,0 | 16,1 | 30,5 | 20,1 | 17 | 10,0 |
| HRPT06G02W | | G 1/4" | 15,0 | 8,5 | 16,1 | 33,0 | 20,1 | 18 | 11,0 |
| HRPT08G01W | 8 | G 1/8" | 17,6 | 6,0 | 17,5 | 31,9 | 21,9 | 18 | 13,4 |
| HRPT08G02W | | G 1/4" | 17,6 | 8,5 | 17,5 | 34,4 | 21,9 | 18 | 14,0 |
| HRPT08G03W | | G 3/8" | 17,6 | 9,0 | 17,5 | 34,9 | 21,9 | 22 | 15,8 |
| HRPT10G02W | 10 | G 1/4" | 20,0 | 8,5 | 20,1 | 38,0 | 25,8 | 22 | 19,8 |
| HRPT10G03W | | G 3/8" | 20,0 | 9,0 | 20,1 | 38,5 | 25,8 | 22 | 20,2 |
| HRPT10G04W | | G 1/2" | 20,0 | 12,5 | 20,1 | 42,0 | 25,8 | 26 | 23,5 |
| HRPT12G03W | 12 | G 3/8" | 23,0 | 9,0 | 24,7 | 43,7 | 31,7 | 26 | 30,0 |
| HRPT12G04W | | G 1/2" | 23,0 | 12,5 | 24,7 | 47,2 | 31,7 | 26 | 32,0 |

## HRST-R

Swivel male lateral tee BSPT thread



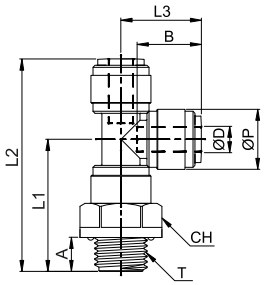



| CODE | ØD | T | ØP | A | B | L1 | L2 | L3 | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| HRST04R01W | 4 | R 1/8" | 13,2 | 9,1 | 14,7 | 29,7 | 47,6 | 17,9 | 15 | 7,8 |
| HRST04R02W | | R 1/4" | 13,2 | 13,1 | 14,7 | 33,7 | 51,6 | 17,9 | 17 | 9,2 |
| HRST06R01W | 6 | R 1/8" | 15,0 | 9,1 | 16,1 | 31,7 | 51,8 | 20,1 | 17 | 9,3 |
| HRST06R02W | | R 1/4" | 15,0 | 13,1 | 16,1 | 35,7 | 55,8 | 20,1 | 17 | 10,3 |
| HRST08R01W | 8 | R 1/8" | 17,6 | 9,1 | 17,5 | 33,4 | 55,3 | 21,9 | 19 | 13,1 |
| HRST08R02W | | R 1/4" | 17,6 | 13,1 | 17,5 | 37,4 | 59,3 | 21,9 | 19 | 14,0 |
| HRST08R03W | | R 3/8" | 17,6 | 13,5 | 17,5 | 37,8 | 59,7 | 21,9 | 19 | 14,6 |
| HRST10R02W | 10 | R 1/4" | 20,0 | 13,1 | 20,1 | 41,4 | 67,2 | 25,8 | 21 | 19,5 |
| HRST10R03W | | R 3/8" | 20,0 | 13,5 | 20,1 | 41,8 | 67,6 | 25,8 | 21 | 19,6 |
| HRST10R04W | | R 1/2" | 20,0 | 16,5 | 20,1 | 44,8 | 70,6 | 25,8 | 24 | 23,9 |
| HRST12R03W | 12 | R 3/8" | 23,0 | 13,5 | 24,7 | 48,2 | 79,9 | 31,7 | 24 | 30,2 |
| HRST12R04W | | R 1/2" | 23,0 | 16,5 | 24,7 | 51,2 | 82,9 | 31,7 | 24 | 32,7 |

## HRST-G

Swivel male lateral tee BSPP thread





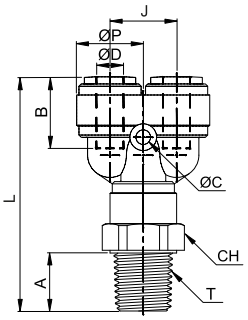

| CODE | ØD | T | ØP | A | B | L1 | L2 | L3 | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| HRST04G01W | 4 | G 1/8" | 13,2 | 6,0 | 14,7 | 28,5 | 46,4 | 17,9 | 15,0 | 7,9 |
| HRST04G02W | | G 1/4" | 13,2 | 8,5 | 14,7 | 31,0 | 48,9 | 17,9 | 18,0 | 9,6 |
| HRST06G01W | 6 | G 1/8" | 15,0 | 6,0 | 16,1 | 30,5 | 50,6 | 20,1 | 17,0 | 10,0 |
| HRST06G02W | | G 1/4" | 15,0 | 8,5 | 16,1 | 33,0 | 53,1 | 20,1 | 18,0 | 11,0 |
| HRST08G01W | 8 | G 1/8" | 17,6 | 6,0 | 17,5 | 31,9 | 53,8 | 21,9 | 18,0 | 13,4 |
| HRST08G02W | | G 1/4" | 17,6 | 8,5 | 17,5 | 34,4 | 56,3 | 21,9 | 18,0 | 14,0 |
| HRST08G03W | | G 3/8" | 17,6 | 9,0 | 17,5 | 34,9 | 56,8 | 21,9 | 22,0 | 15,8 |
| HRST10G02W | 10 | G 1/4" | 20,0 | 8,5 | 20,1 | 38,0 | 63,8 | 25,8 | 22,0 | 19,8 |
| HRST10G03W | | G 3/8" | 20,0 | 9,0 | 20,1 | 38,5 | 64,3 | 25,8 | 22,0 | 20,2 |
| HRST10G04W | | G 1/2" | 20,0 | 12,5 | 20,1 | 42,0 | 67,8 | 25,8 | 26,0 | 23,5 |
| HRST12G03W | 12 | G 3/8" | 23,0 | 9,0 | 24,7 | 43,7 | 75,4 | 31,7 | 26,0 | 30,0 |
| HRST12G04W | | G 1/2" | 23,0 | 12,5 | 24,7 | 47,2 | 78,9 | 31,7 | 26,0 | 32,0 |

*drawings and technical data are not binding & can be changed without notice*

## HRWT-R

Swivel male Y BSPT thread



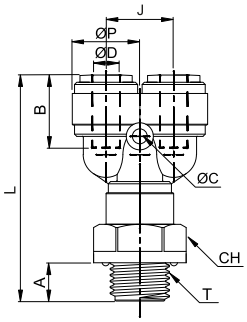



| CODE | ØD | T | ØP | ØC | A | B | J | L | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| HRWT04R01W | 4 | R 1/8" | 13,8 | 3,3 | 9,1 | 14,7 | 13,5 | 45,5 | 15,0 | 8,7 |
| HRWT04R02W | | R 1/4" | 13,8 | 3,3 | 13,1 | 14,7 | 13,5 | 49,5 | 17,0 | 10,1 |
| HRWT06R01W | 6 | R 1/8" | 15,5 | 3,3 | 9,1 | 16,1 | 15,5 | 50,4 | 17,0 | 11,6 |
| HRWT06R02W | | R 1/4" | 15,5 | 3,3 | 13,1 | 16,1 | 15,5 | 54,4 | 17,0 | 12,5 |
| HRWT08R01W | 8 | R 1/8" | 17,6 | 4,5 | 9,1 | 17,5 | 17,6 | 52,5 | 19,0 | 14,0 |
| HRWT08R02W | | R 1/4" | 17,6 | 4,5 | 13,1 | 17,5 | 17,6 | 56,5 | 19,0 | 14,9 |
| HRWT08R03W | | R 3/8" | 17,6 | 4,5 | 13,5 | 17,5 | 17,6 | 56,9 | 19,0 | 15,5 |
| HRWT10R02W | 10 | R 1/4" | 20,0 | 4,5 | 13,1 | 20,1 | 20,0 | 61,8 | 21,0 | 20,9 |
| HRWT10R03W | | R 3/8" | 20,0 | 4,5 | 13,5 | 20,1 | 20,0 | 62,2 | 21,0 | 21,0 |
| HRWT10R04W | | R 1/2" | 20,0 | 4,5 | 16,5 | 20,1 | 20,0 | 65,2 | 24,0 | 25,3 |
| HRWT12R03W | 12 | R 3/8" | 23,0 | 4,5 | 13,5 | 24,7 | 23,0 | 72,9 | 24,0 | 33,3 |
| HRWT12R04W | | R 1/2" | 23,0 | 4,5 | 16,5 | 24,7 | 23,0 | 75,9 | 24,0 | 35,8 |

## HRWT-G

Swivel male Y BSPP thread



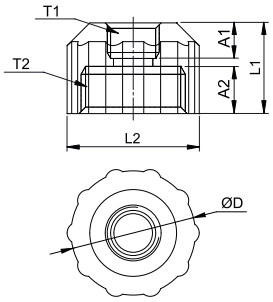



| CODE | ØD | T | ØP | ØC | A | B | J | L | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| HRWT04G01W | 4 | G 1/8" | 13,8 | 3,3 | 6,0 | 14,7 | 13,5 | 44,3 | 15,0 | 8,8 |
| HRWT04G02W | | G 1/4" | 13,8 | 3,3 | 8,5 | 14,7 | 13,5 | 46,8 | 18,0 | 10,5 |
| HRWT06G01W | 6 | G 1/8" | 15,5 | 3,3 | 6,0 | 16,1 | 15,5 | 49,2 | 17,0 | 11,9 |
| HRWT06G02W | | G 1/4" | 15,5 | 3,3 | 8,5 | 16,1 | 15,5 | 51,7 | 18,0 | 12,9 |
| HRWT08G01W | 8 | G 1/8" | 17,6 | 4,5 | 6,0 | 17,5 | 17,6 | 51,0 | 18,0 | 13,9 |
| HRWT08G02W | | G 1/4" | 17,6 | 4,5 | 8,5 | 17,5 | 17,6 | 53,5 | 18,0 | 15,1 |
| HRWT08G03W | | G 3/8" | 17,6 | 4,5 | 9,0 | 17,5 | 17,6 | 54,0 | 22,0 | 16,8 |
| HRWT10G02W | 10 | G 1/4" | 20,0 | 4,5 | 8,5 | 20,1 | 20,0 | 58,4 | 22,0 | 21,2 |
| HRWT10G03W | | G 3/8" | 20,0 | 4,5 | 9,0 | 20,1 | 20,0 | 58,9 | 22,0 | 21,6 |
| HRWT10G04W | | G 1/2" | 20,0 | 4,5 | 12,5 | 20,1 | 20,0 | 62,4 | 26,0 | 24,9 |
| HRWT12G03W | 12 | G 3/8" | 23,0 | 4,5 | 9,0 | 24,7 | 23,0 | 68,4 | 26,0 | 33,1 |
| HRWT12G04W | | G 1/2" | 23,0 | 4,5 | 12,5 | 24,7 | 23,0 | 71,9 | 26,0 | 35,1 |

## HUFF

Threaded reducer BSPP with internal flat seal



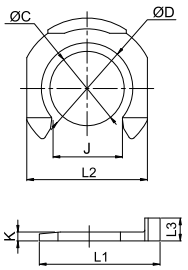



| CODE | T1 | T2 | ØD | A1 | A2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| HUFFG02-G06G | G 1/4" | G 3/4" | 31,5 | 9,5 | 12,0 | 23,0 | 33,5 | 15,6 |
| HUFFG03-G06G | G 3/8" | G 3/4" | 31,5 | 9,5 | 12,0 | 23,0 | 33,5 | 14,5 |

## HCP

Locking clip






| CODE | ØD | ØC | J | K | L1 | L2 | L3 | g |
|---|---|---|---|---|---|---|---|---|
| HCP04-5/32 | 04 - 5/32 | 6,2 | 4,3 | 1,1 | 11,0 | 10,2 | 2,8 | 0,09 |
| HCP05-3/16 | 05 - 3/16 | 6,2 | 4,3 | 1,1 | 11,0 | 10,2 | 2,8 | 0,09 |
| HCP06-1/4 | 06 - 1/4 | 8,0 | 6,4 | 1,3 | 11,6 | 11,6 | 3,1 | 0,12 |
| HCP08-5/16 | 08 - 5/16 | 9,6 | 7,3 | 1,4 | 13,9 | 13,5 | 3,3 | 0,16 |
| HCP10-3/8 | 10 - 3/8 | 11,8 | 9,2 | 1,4 | 16,4 | 16,0 | 3,4 | 0,23 |
| HCP12-1/2 | 12 - 1/2 | 14,4 | 11,1 | 1,4 | 19,0 | 19,0 | 3,6 | 0,30 |

| ØD | BLACK | GREY | RED | BLUE |
|---|---|---|---|---|
| 04 - 5/32 | HCP04-5/32BK | HCP04-5/32GR | HCP04-5/32RD | HCP04-5/32BL |
| 05 - 3/16 | HCP05-3/16BK | HCP05-3/16GR | HCP05-3/16RD | HCP05-3/16BL |
| 06 - 1/4 | HCP06-1/4BK | HCP06-1/4GR | HCP06-1/4RD | HCP06-1/4BL |
| 08 - 5/16 | HCP08-5/16BK | HCP08-5/16GR | HCP08-5/16RD | HCP08-5/16BL |
| 10 - 3/8 | HCP10-3/8BK | HCP10-3/8GR | HCP10-3/8RD | HCP10-3/8BL |
| 12 - 1/2 | HCP12-1/2BK | HCP12-1/2GR | HCP12-1/2RD | HCP12-1/2BL |



# PUSH-IN FITTINGS XVR SERIES

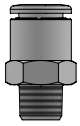
PLUS

Suitable for **USE IN AGGRESSIVE ENVIRONMENTS** and **IN CRITICAL CONDITIONS**

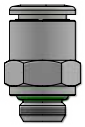
Suitable for **PERMANENT FOOD CONTACT APPLICATIONS**

**OPTIMIZED DESIGN WITH COMPACT DIMENSIONS**

**PRODUCTS CAN BE TAILOR-MADE TO SPECIFIC CUSTOMER NEEDS**



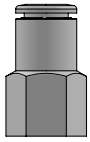
p. 103 / **XVRC-R**



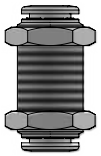
p. 103 / **XVRC-G**



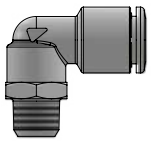
p. 103 / **XVROC-G**



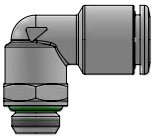
p. 104 / **XVRCF-G**



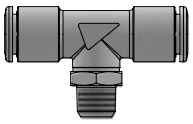
p. 104 / **XVRMM**



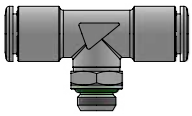
p. 104 / **XVRL-R**



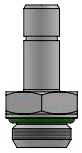
p. 105 / **XVRL-G**



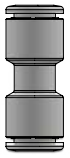
p. 105 / **XVRT-R**



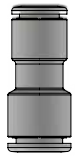
p. 105 / **XVRT-G**



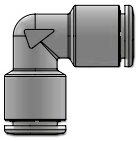
p. 106 / **XVRA-G**



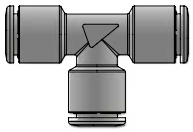
p. 106 / **XVRUC**



p. 106 / **XVRG**



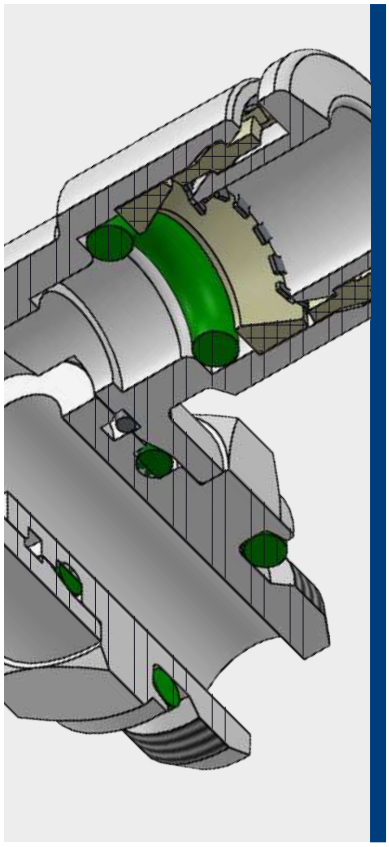
p. 107 / **XVRUL**



p. 107 / **XVRUT**



p. 107 / **XVRGJ**



-20°C ÷ 150°C

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air, vacuum, water and fluids suitable with the construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"
- Metric ISO 262 M5 and M7

Polyamide PA, polyethylene PE, FEP, PTFE and stainless steel tube with groove (see the table)

**Body:** Stainless steel AISI 316L
**Collet:** Stainless steel AISI 316L
**Back ring:** PVDF-UHM FDA compliant
**O-ring:** FKM NSF/ANSI 61 certified and FDA compliant
**Seal:** FKM NSF/ANSI 61 certified and FDA compliant
**Lock claw:** Stainless steel AISI 301
**Collar:** PVDF-UHM FDA compliant
**Retaining ring for swivel system:** Stainless steel AISI 302

NSF/ANSI 169

Food contact materials EC 1935/2004

D.M. 174/2004

ICIM certified product food contact materials

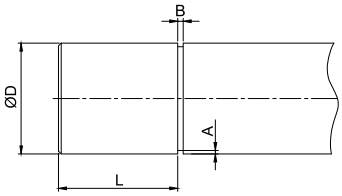
ICIM certified product water contact materials

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

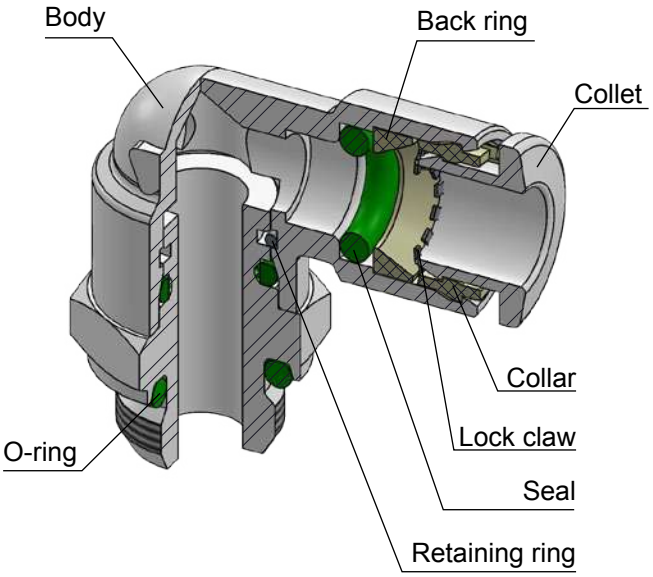
## PIPE GROOVE - HARD METALLIC TUBE




When using metallic tubes, please deburr the tubes ends to avoid potential cutting or other damages to the O-ring.

| ØD (mm) | L (mm) | B (mm) | A (mm) |
|---|---|---|---|
| 4 | 5,35 | 1 | 0,25 |
| 6 | 6 | 1 | 0,5 |
| 8 | 7 | 1 | 0,5 |
| 10 | 6,45 | 1 | 0,25 |
| 12 | 6,75 | 1 | 0,3 |

## CONSTRUCTION DETAILS



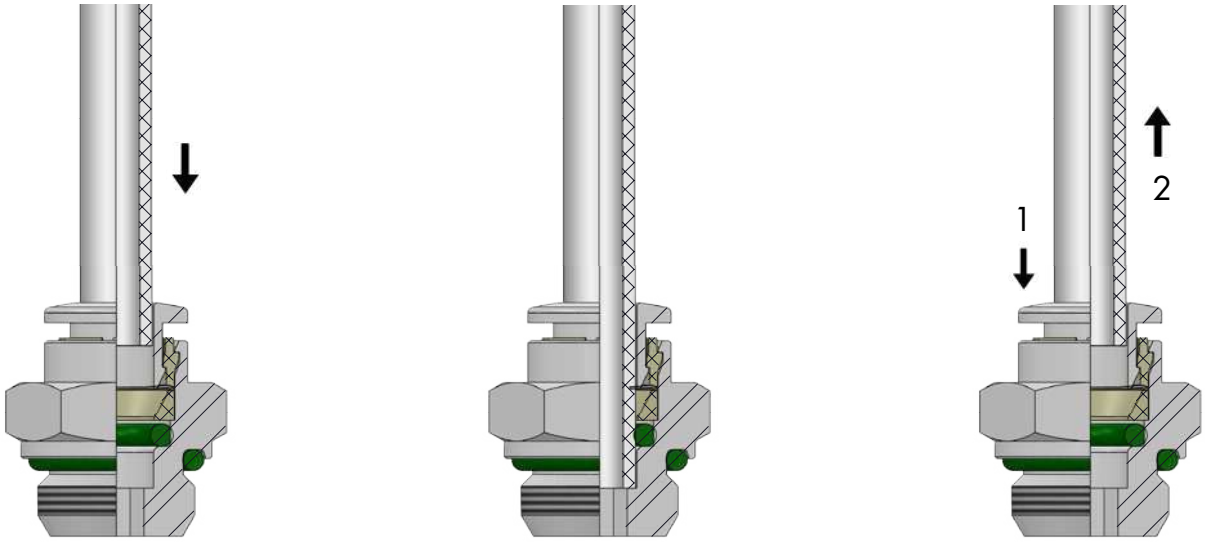

*drawings and technical data are not binding & can be changed without notice*

## INSERTION OF THE TUBE INTO THE FITTING

- Make sure the tube is fully inserted into the fitting.
- To insert the tube into the fitting cut the tube off square (90°), insert tube up to the fitting end stop, and pull back gently to make sure it is correctly connected.
- If there is any damage or scratches on the tube surface the tube is an oval shape, air leakage and tube release may occur. Check the tube condition carefully.
- The OD of polyurethane tube expands when pressure is applied. Reinsertion into the fitting may not always be possible. Check the OD of the tube and renew it the expansion is out of tolerance.

## DISCONNECTION OF THE TUBE FROM THE FITTING

- Make sure the pressure in the system is zero before releasing the tube from the fitting.
- To release the tube, press the release sleeve towards the fitting with one hand (1) and pull the tube away from the fitting with the other hand (2).
- Always remove the section of tube previously inserted into the fitting before reinserting the tube by cutting back the tube. Always use the correct tube cutter in order to cut the tube square and free of damage.




## TOLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 | ± 0,15 |

## INSERTION DEPTH - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TUBE INSERTION LENGHT (mm) | 14 | 15,5 | 17,5 | 19 | 21 |

## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 10-12 | 14-16 | 16-18 | 18-20 |

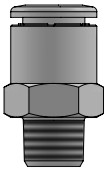
## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

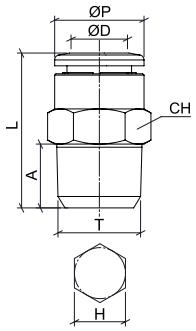
| THREAD | M5x0,8 | M7x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1 ± 20% | 3 ± 20% | 6 ± 20% | 7,5 ± 20% | 9 ± 20% | 9 ± 20% |

*drawings and technical data are not binding & can be changed without notice*

## XVRC-R

Male connector BSPT thread

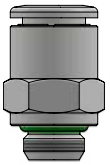


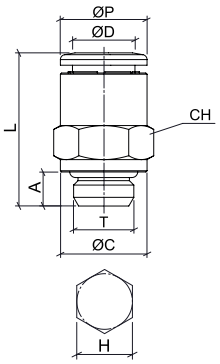



| CODE | ØD | T | ØP | A | L | CH | H |
|---|---|---|---|---|---|---|---|
| XVRC04R01 | 4 | R 1/8" | 10 | 8 | 18,5 | 10 | 3 |
| XVRC04R02 | | R 1/4" | 10 | 10 | 20 | 14 | 3 |
| XVRC06R01 | 6 | R 1/8" | 12 | 8 | 21 | 12 | 4 |
| XVRC06R02 | | R 1/4" | 12 | 10 | 20,5 | 14 | 4 |
| XVRC08R01 | 8 | R 1/8" | 14 | 8 | 26 | 14 | 5 |
| XVRC08R02 | | R 1/4" | 14 | 10 | 24 | 14 | 6 |
| XVRC08R03 | | R 3/8" | 14 | 11 | 22 | 17 | 6 |
| XVRC10R02 | 10 | R 1/4" | 16 | 10 | 31 | 16 | 7 |
| XVRC10R03 | | R 3/8" | 16 | 11 | 26 | 17 | 8 |
| XVRC12R02 | 12 | R 1/4" | 19 | 10 | 33 | 19 | 7 |
| XVRC12R03 | | R 3/8" | 19 | 11 | 29,5 | 19 | 10 |
| XVRC12R04 | | R 1/2" | 19 | 14 | 27 | 22 | 10 |

## XVRC-G

Male connector BSPP & metric thread



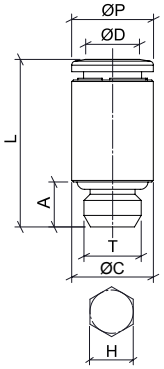



| CODE | ØD | T | ØP | ØC | A | L | CH | H |
|---|---|---|---|---|---|---|---|---|
| XVRC04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 19 | 10 | 2,5 |
| XVRC04G01 | | G 1/8" | 10 | 13 | 5,5 | 18 | 13 | 3 |
| XVRC04G02 | | G 1/4" | 10 | 16 | 6,5 | 18 | 16 | 3 |
| XVRC06M5 | 6 | M5x0,8 | 12 | 7 | 5 | 21 | 12 | 2,5 |
| XVRC06G01 | | G 1/8" | 12 | 13 | 5,5 | 19,5 | 13 | 4 |
| XVRC06G02 | | G 1/4" | 12 | 16 | 6,5 | 19,5 | 16 | 4 |
| XVRC08G01 | 8 | G 1/8" | 14 | 14 | 5,5 | 24,5 | 14 | 5 |
| XVRC08G02 | | G 1/4" | 14 | 16 | 6,5 | 21,5 | 16 | 6 |
| XVRC08G03 | | G 3/8" | 14 | 20 | 7,5 | 21,5 | 20 | 6 |
| XVRC10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 27,5 | 16 | 7 |
| XVRC10G03 | | G 3/8" | 16 | 20 | 7,5 | 25 | 20 | 8 |
| XVRC12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 30 | 19 | 7 |
| XVRC12G03 | | G 3/8" | 19 | 22 | 7,5 | 29,5 | 22 | 10 |
| XVRC12G04 | | G 1/2" | 19 | 25 | 9 | 28 | 25 | 10 |

## XVROC-G

Male connector round body BSPP & metric thread



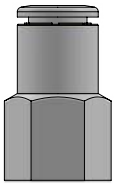


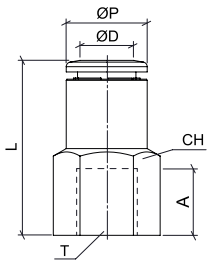

| CODE | ØD | T | ØP | ØC | A | L | H |
|---|---|---|---|---|---|---|---|
| XVROC04M5 | 4 | M5x0,8 | 10 | 10 | 4 | 19 | 2,5 |
| XVROC04M7 | | M7x1 | 10 | 10 | 5,5 | 20,5 | 2,5 |
| * XVROC06M7C | 6 | M7x1 | 10 | 10 | 5,5 | 20,5 | 4 |
| XVROC06G01 | | G 1/8" | 12 | 14 | 5,5 | 19,5 | 4 |
| XVROC08G01 | 8 | G 1/8" | 14 | 14 | 5,5 | 24,5 | 5 |

* compact version

## XVRCF-G

Female connector BSPP thread

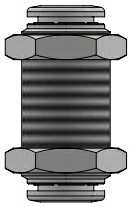


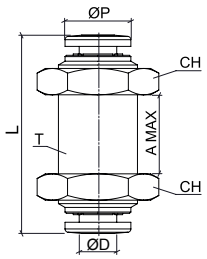



| CODE | ØD | T | ØP | A | L | CH |
|---|---|---|---|---|---|---|
| XVRCF04G01 | 4 | G 1/8" | 10 | 7,5 | 24,5 | 13 |
| XVRCF06G01 | 6 | G 1/8" | 12 | 7,5 | 27 | 13 |
| XVRCF08G02 | 8 | G 1/4" | 14 | 11 | 30 | 16 |

## XVRMM

Bulkhead connector

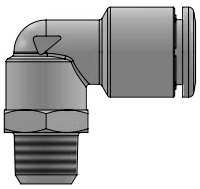


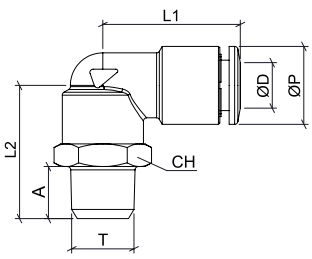



| CODE | ØD | T | ØP | A (MAX) | L | CH |
|---|---|---|---|---|---|---|
| XVRMM04 | 4 | M12x1 | 10 | 12 | 30 | 16 |
| XVRMM06 | 6 | M14x1 | 12 | 15 | 35,5 | 17 |
| XVRMM08 | 8 | M16x1 | 14 | 16 | 36,5 | 19 |
| XVRMM10 | 10 | M20x1 | 16 | 19 | 43 | 24 |
| XVRMM12 | 12 | M22x1,5 | 19 | 20 | 44 | 25 |

## XVRL-R

Swivel male elbow BSPT thread



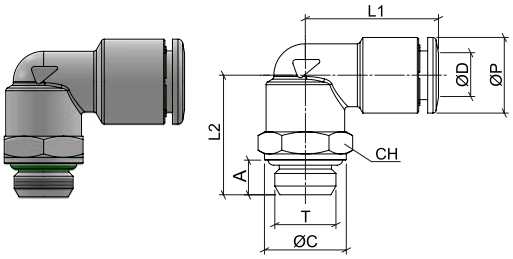



| CODE | ØD | T | ØP | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|
| XVRL04R01 | 4 | R 1/8" | 10 | 8 | 19,5 | 20,5 | 13 |
| XVRL04R02 | | R 1/4" | 10 | 10 | 19,5 | 23 | 14 |
| XVRL06R01 | 6 | R 1/8" | 12 | 8 | 21 | 20,5 | 13 |
| XVRL06R02 | | R 1/4" | 12 | 10 | 21 | 23 | 14 |
| XVRL08R01 | 8 | R 1/8" | 14 | 8 | 23 | 20,5 | 14 |
| XVRL08R02 | | R 1/4" | 14 | 10 | 23 | 23 | 14 |
| XVRL08R03 | | R 3/8" | 14 | 11 | 23 | 24,5 | 17 |
| XVRL10R02 | 10 | R 1/4" | 16 | 10 | 26 | 25,5 | 16 |
| XVRL10R03 | | R 3/8" | 16 | 11 | 26 | 27 | 17 |
| XVRL12R02 | 12 | R 1/4" | 19 | 10 | 31 | 28 | 20 |
| XVRL12R03 | | R 3/8" | 19 | 11 | 31 | 28,5 | 20 |
| XVRL12R04 | | R 1/2" | 19 | 14 | 31 | 31,5 | 22 |

*drawings and technical data are not binding & can be changed without notice*

## XVRL-G

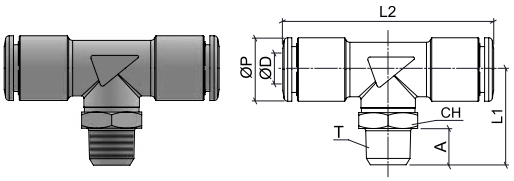
Swivel male elbow BSPP & metric thread




| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| XVRL04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 18 | 16,5 | 8 |
| XVRL04G01 | | G 1/8" | 10 | 13 | 5,5 | 19,5 | 19 | 13 |
| XVRL04G02 | | G 1/4" | 10 | 16 | 6,5 | 19,5 | 21,5 | 13 |
| XVRL06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 21 | 16,5 | 8 |
| XVRL06G01 | | G 1/8" | 12 | 13 | 5,5 | 21 | 19 | 13 |
| XVRL06G02 | | G 1/4" | 12 | 16 | 6,5 | 21 | 21 | 16 |
| XVRL08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 23 | 19 | 13 |
| XVRL08G02 | | G 1/4" | 14 | 16 | 6,5 | 23 | 21 | 16 |
| XVRL08G03 | | G 3/8" | 14 | 20 | 7,5 | 23 | 23 | 20 |
| XVRL10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 26 | 23 | 16 |
| XVRL10G03 | | G 3/8" | 16 | 20 | 7,5 | 26 | 26 | 20 |
| XVRL12G02 | 12 | G 1/4" | 19 | 16 | 6,5 | 31 | 25,5 | 20 |
| XVRL12G03 | | G 3/8" | 19 | 20 | 7,5 | 31 | 29 | 20 |
| XVRL12G04 | | G 1/2" | 19 | 25 | 9 | 31 | 29 | 25 |

## XVRT-R

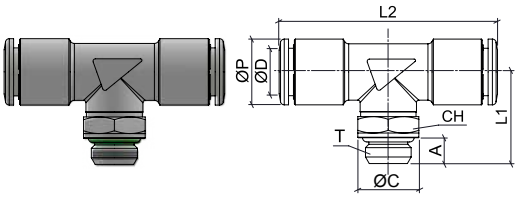
Swivel male tee BSPT thread




| CODE | ØD | T | ØP | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|
| XVRT04R01 | 4 | R 1/8" | 10 | 8 | 21 | 39 | 13 |
| XVRT06R01 | 6 | R 1/8" | 12 | 8 | 21 | 42 | 13 |
| XVRT06R02 | | R 1/4" | 12 | 10 | 23,5 | 42 | 14 |
| XVRT08R01 | 8 | R 1/8" | 14 | 8 | 21 | 46,5 | 13 |
| XVRT08R02 | | R 1/4" | 14 | 10 | 23,5 | 46,5 | 14 |

## XVRT-G

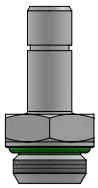
Swivel male tee BSPP & metric thread

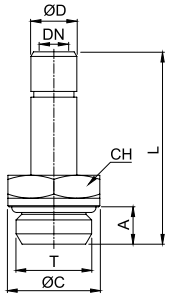



| CODE | ØD | T | ØP | ØC | A | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| XVRT04M5 | 4 | M5x0,8 | 10 | 7 | 4 | 17 | 32 | 8 |
| XVRT04G01 | | G 1/8" | 10 | 13 | 5,5 | 19,5 | 39 | 13 |
| XVRT06M5 | 6 | M5x0,8 | 12 | 7 | 4 | 17 | 40 | 8 |
| XVRT06G01 | | G 1/8" | 12 | 13 | 5,5 | 19,5 | 42 | 13 |
| XVRT06G02 | | G 1/4" | 12 | 16 | 6,5 | 22 | 42 | 16 |
| XVRT08G01 | 8 | G 1/8" | 14 | 13 | 5,5 | 19,5 | 46,5 | 13 |
| XVRT08G02 | | G 1/4" | 14 | 16 | 6,5 | 22 | 46,5 | 16 |
| XVRT10G02 | 10 | G 1/4" | 16 | 16 | 6,5 | 23 | 52 | 16 |
| XVRT10G03 | | G 3/8" | 16 | 20 | 7,5 | 26 | 52 | 20 |
| XVRT12G03 | 12 | G 3/8" | 19 | 20 | 7,5 | 26,5 | 62 | 20 |
| XVRT12G04 | | G 1/2" | 19 | 25 | 9 | 29 | 62 | 25 |

## XVRA-G

Stem adapter BSPP thread

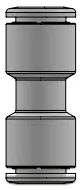


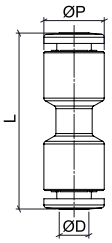



| CODE | ØD | T | ØC | A | L | DN | CH |
|---|---|---|---|---|---|---|---|
| XVRA04G01 | 4 | G 1/8" | 13 | 5,5 | 27,0 | 2 | 13 |
| XVRA06G01 | 6 | G 1/8" | 13 | 5,5 | 28,0 | 4 | 13 |
| XVRA06G02 | | G 1/4" | 16 | 6,5 | 30,5 | 4 | 16 |
| XVRA08G01 | 8 | G 1/8" | 13 | 5,5 | 29,5 | 6 | 13 |
| XVRA08G02 | | G 1/4" | 16 | 6,5 | 32,0 | 6 | 16 |
| XVRA10G02 | 10 | G 1/4" | 16 | 6,5 | 36,5 | 8 | 16 |
| XVRA12G03 | 12 | G 3/8" | 20 | 7,5 | 38,5 | 10 | 20 |

## XVRUC

Union connector

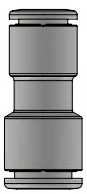


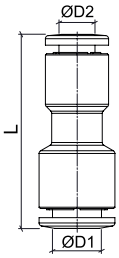



| CODE | ØD | ØP | L |
|---|---|---|---|
| XVRUC04 | 4 | 10 | 29 |
| XVRUC06 | 6 | 12 | 32 |
| XVRUC08 | 8 | 14 | 35,5 |
| XVRUC10 | 10 | 16 | 39,5 |
| XVRUC12 | 12 | 19 | 44 |

## XVRG

Reduced union connector

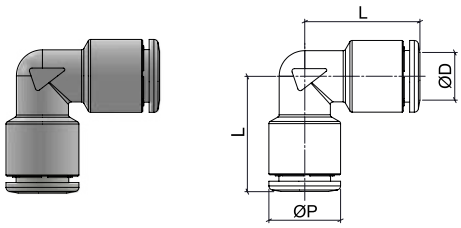





| CODE | ØD1 | ØD2 | L |
|---|---|---|---|
| XVRG0604 | 6 | 4 | 30,5 |
| XVRG0806 | 8 | 6 | 34 |
| XVRG1008 | 10 | 8 | 37 |
| XVRG1210 | 12 | 10 | 41,5 |

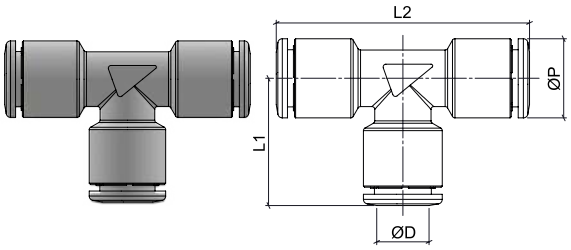
*drawings and technical data are not binding & can be changed without notice*

## XVRUL — Union elbow



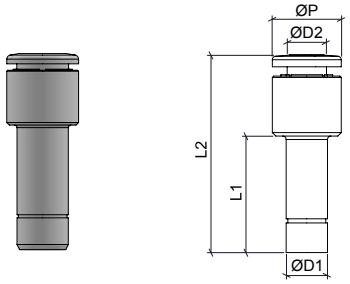

| CODE | ØD | ØP | L |
|---|---|---|---|
| XVRUL04 | 4 | 10 | 16,5 |
| XVRUL06 | 6 | 12 | 20,5 |
| XVRUL08 | 8 | 14 | 22,5 |
| XVRUL10 | 10 | 16 | 25 |
| XVRUL12 | 12 | 19 | 29 |

## XVRUT — Union tee




| CODE | ØD | ØP | L1 | L2 |
|---|---|---|---|---|
| XVRUT04 | 4 | 10 | 16,5 | 33 |
| XVRUT06 | 6 | 12 | 20,5 | 41 |
| XVRUT08 | 8 | 14 | 22,5 | 45 |
| XVRUT10 | 10 | 16 | 25 | 50,5 |
| XVRUT12 | 12 | 19 | 29 | 58 |

## XVRGJ — Stem reduction




| CODE | ØD1 | ØD2 | ØP | L1 | L2 |
|---|---|---|---|---|---|
| XVRGJ0604 | 6 | 4 | 10 | 17 | 28,5 |
| XVRGJ0806 | 8 | 6 | 12 | 19,5 | 32,5 |
| XVRGJ1006 | 10 | 6 | 10 | 24 | 37 |
| XVRGJ1008 | 10 | 8 | 14 | 24 | 38 |

*drawings and technical data are not binding & can be changed without notice*



# PUSH-IN FITTINGS
CDC
PNEUMATICS
CARTRIDGES

## PLUS

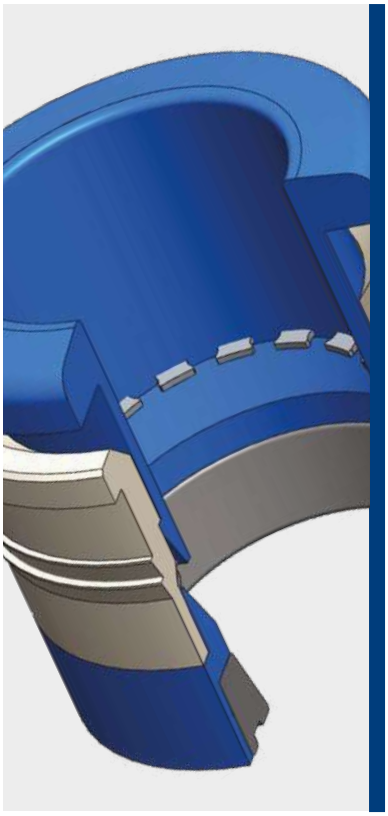
Savings in assembly time thanks to the **DEDICATED SLOT**

**IMMEDIATE CONNECTION TO THE TUBE**

**FULL PASSAGE**



p. 112 / **CAS**



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Compressed air & Vacuum
(do not use with water)

Polyamide PA,
Polyurethane PU,
Polyethylene PE

**Collet:** POM
**Collar:** Nickel-plated brass
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR

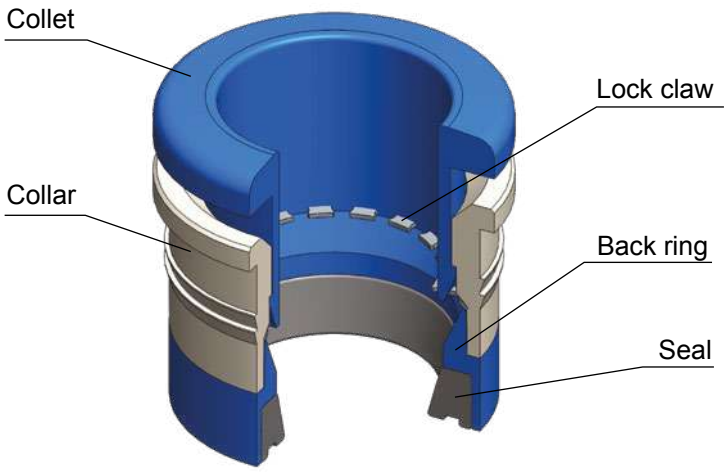
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

RoHS3

Products in compliance with the directive EU 2015/863

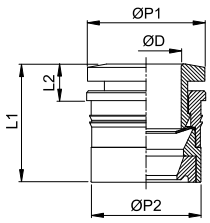
## CONSTRUCTION DETAILS



## CAS

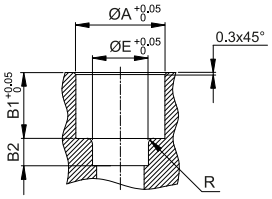
Cartridge






| CODE | ØD | ØP1 | ØP2 | L1 | L2 | g |
|---|---|---|---|---|---|---|
| CAS04N | 4 | 10 | 9 | 11,25 | 3,55 | 1,0 |
| CAS06N | 6 | 12 | 11,15 | 12,45 | 3,95 | 3,0 |
| CAS08N | 8 | 14 | 13,25 | 13,9 | 4,3 | 4,0 |
| CAS10N | 10 | 16 | 15,5 | 15,15 | 4,85 | 5,0 |
| CAS12N | 12 | 19 | 17,8 | 17,4 | 5 | 7,0 |

### Sizes to produce cartridge seat




| CODE | ØA | ØE | B1 | B2 | R |
|---|---|---|---|---|---|
| CAS04N | 8,8 | 4,25 | 7,8 | 3,0 | 0,8 |
| CAS06N | 10,9 | 6,25 | 8,6 | 3,5 | 0,8 |
| CAS08N | 13 | 8,25 | 9,7 | 4,0 | 0,8 |
| CAS10N | 15,2 | 10,25 | 10,45 | 4,5 | 1,0 |
| CAS12N | 17,5 | 12,25 | 12,5 | 5,0 | 1,0 |

# PUSH-IN FITTINGS Fluidfit CARTRIDGE

## PLUS

Time saving assembly process thanks to the **DEDICATED SLOT**

**IMMEDIATE CONNECTION TO THE TUBE**

**FULL PASSAGE**

**SUITABLE WITH ALL COMPATIBLE FLUIDS**



p. 116 / **HCAS-P**



p. 116 / **HCAS-H**



p. 116 / **HCAS-F**



**Dry air:** -20°C ÷ 98°C
**Ari & Fluids:** 1°C ÷ 98°C

**Working pressure:**
20 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Water, beverages, vacuum, compressed air, gases & liquids suitable with construction materials

Polyethylene, polyamide, polyurethane, PTFE, FEP

**Body:** Brass (HCAS-H e HCAS-F) and POM (HCAS-P)
**Collet:** POM
**Lock claw:** POM
**Seal:** EPDM suitable for food contact

Food contact materials
EC 1935/2004

D.M. 174/2004

ICIM certified product
food contact materials

ICIM certified product
water contact materials

ACS

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

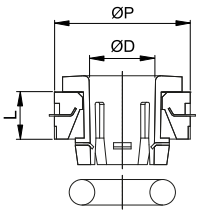
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

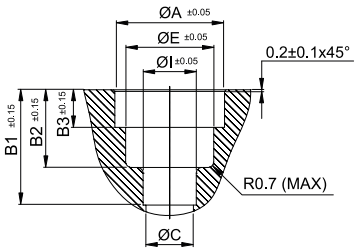
## HCAS-P

Acetal resin cartridge






| CODE | ØD | ØP | L | g |
|---|---|---|---|---|
| HCAS-P04 | 4 | 11,85 | 5,0 | 0,8 |
| HCAS-P06 | 6 | 13,3 | 4,6 | 0,9 |
| HCAS-P08 | 8 | 13,7 | 5,6 | 1,1 |
| HCAS-P10 | 10 | 15,9 | 6,9 | 1,4 |
| HCAS-P12 | 12 | 19,6 | 7,9 | 2,6 |



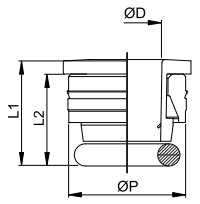

Sizes to produce cartridge seat

| CODE | ØA | ØE | ØI | ØC | B1 | B2 | B3 |
|---|---|---|---|---|---|---|---|
| HCAS-P04 | 12 | 8,3 | 4,15 | 3,3 | 12,8 | 8,9 | 4,9 |
| HCAS-P06 | 13,4 | 10 | 6,15 | 5,3 | 14 | 9,8 | 4,6 |
| HCAS-P08 | 13,8 | 11,95 | 8,15 | 7,4 | 15 | 10,15 | 5,5 |
| HCAS-P10 | 16 | 14 | 10,15 | 9,2 | 18,2 | 11,8 | 6,9 |
| HCAS-P12 | 19,75 | 16,55 | 12,15 | 11,2 | 23,9 | 15,9 | 7,75 |

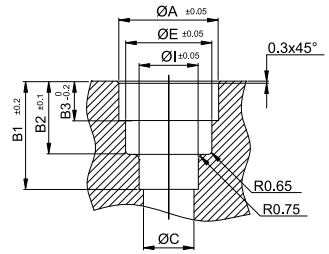
## HCAS-H

Brass cartridge HALF BODY






| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| HCAS-H04 | 4 | 12,7 | 6,8 | 5,3 | 4,2 |
| HCAS-H06 | 6 | 13,6 | 6,6 | 5,0 | 3,9 |
| HCAS-H08 | 8 | 14 | 7,4 | 5,7 | 3,5 |
| HCAS-H10 | 10 | 16,3 | 8,8 | 7,0 | 5,0 |
| HCAS-H12 | 12 | 19,35 | 10,8 | 8,8 | 9,0 |



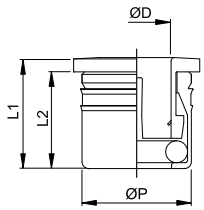

Sizes to produce cartridge seat

| CODE | ØA | ØE | ØI | ØC | B1 | B2 | B3 |
|---|---|---|---|---|---|---|---|
| HCAS-H04 | 12,5 | 8,3 | 4,2 | 3,3 | 12,8 | 8,9 | 4,9 |
| HCAS-H06 | 13,4 | 10 | 6,2 | 5 | 14 | 9,8 | 4,6 |
| HCAS-H08 | 13,8 | 12 | 8,2 | 7 | 15 | 10,15 | 5,46 |
| HCAS-H10 | 16 | 14 | 10,2 | 9 | 18,2 | 11,8 | 6,86 |
| HCAS-H12 | 19 | 16,55 | 12,2 | 11 | 23,5 | 15,5 | 8,65 |

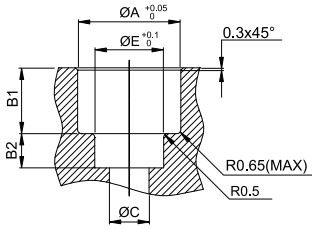
## HCAS-F

Brass cartridge FULL BODY






| CODE | ØD | ØP | L1 | L2 | g |
|---|---|---|---|---|---|
| HCAS-F04 | 4 | 10,2 | 12,0 | 10,5 | 3,8 |
| HCAS-F06 | 6 | 11,25 | 12,6 | 11,0 | 3,2 |
| HCAS-F08 | 8 | 13,25 | 13,2 | 11,5 | 3,9 |
| HCAS-F10 | 10 | 15,25 | 14,3 | 12,5 | 4,7 |
| HCAS-F12 | 12 | 17,8 | 16,9 | 14,8 | 7,2 |

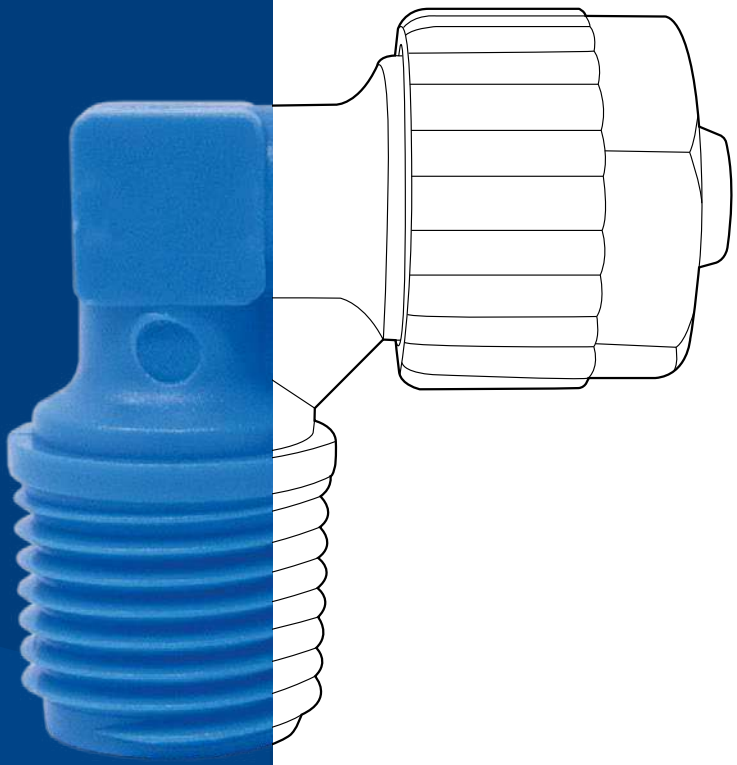



Sizes to produce cartridge seat

| CODE | ØA | ØE | ØC | B1 | B2 |
|---|---|---|---|---|---|
| HCAS-F04 | 10 | 4,15 | 3,2 | 10,3 | 3,2 |
| HCAS-F06 | 11 | 6,15 | 5,2 | 10,8 | 3,7 |
| HCAS-F08 | 13 | 8,15 | 7,2 | 11,3 | 4,8 |
| HCAS-F10 | 15 | 10,15 | 9,2 | 12,2 | 5,4 |
| HCAS-F12 | 17,5 | 12,15 | 11,2 | 14,1 | 7,3 |

*drawings and technical data are not binding & can be changed without notice*

# PUSH-ON FITTINGS



# TECHNICAL INDEX



p. 119

**ACETAL RESIN**

**Materials:** Acetal resin
**Pressure:** 10 Bar
**Temperature:** from 0°C to 60°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"



p. 125

**BRASS**

**Materials:** Nickel-plated brass
**Pressure:** 18 Bar
**Temperature:** from -20°C to 100°C
**Range:** Ø4 - Ø15 / R1/8" to R1/2"
Ø4 - Ø15 / M5 to G1/2"



p. 139

**POLYPROPYLENE**

**Materials:** Reinforced polypropylene
**Pressure:** 14 Bar
**Temperature:** from 4°C to 90°C
**Range:** Ø4 - Ø12 / R1/8" to R1/2"



p. 149

**PVDF**

**Materials:** PVDF & polypropylene (lock nut)
**Pressure:** 14 Bar
**Temperature:** from -20°C to 120°C
**Range:** Ø6 - Ø12 / R1/8" to R1/2"
Ø6 - Ø10 / G1/8" to G1/4"




p. 157

**STAINLESS STEEL AISI 316L**

**Materials:** Stainless steel AISI 316L
**Pressure:** 25 Bar
**Temperature:** from -40°C to 140°C
**Range:** Ø6 - Ø12 / R1/8" to R1/2"
Ø6 - Ø12 / G1/8" to G1/2"

# PUSH-ON FITTINGS ACETAL RESIN

## PLUS

**EASY TO USE AND GUARANTEES AN EXCELLENT CLAMPING OF TUBE**

**DESIGNED FOR COMPRESSED AIR AND VACUUM**

**EXTREMELY LIGHT AND SUITABLE FOR APPLICATIONS IN PNEUMATIC AUTOMATION**



p. 122 / **CK**



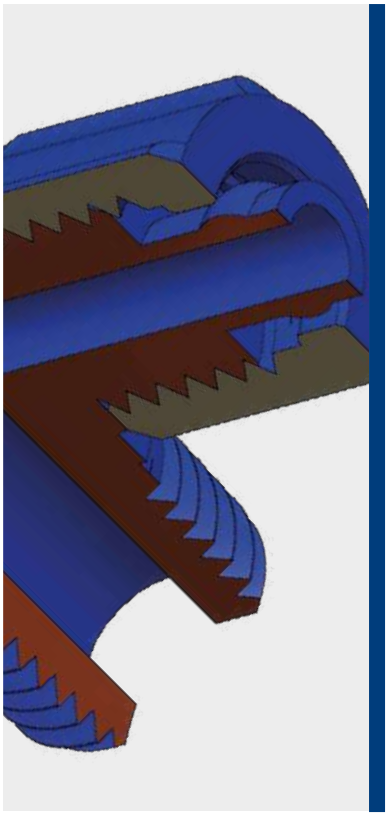
p. 122 / **GCK**



p. 122 / **FCK**



p. 123 / **PUES**



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 99 Kpa)

Compressed air & Vacuum
(do not use in water application)

Taper gas BSPT ISO 7
from R1/8" to R1/2"

Polyurethane

**Body:** Resina acetalica
**Lock nut:** Resina acetalica

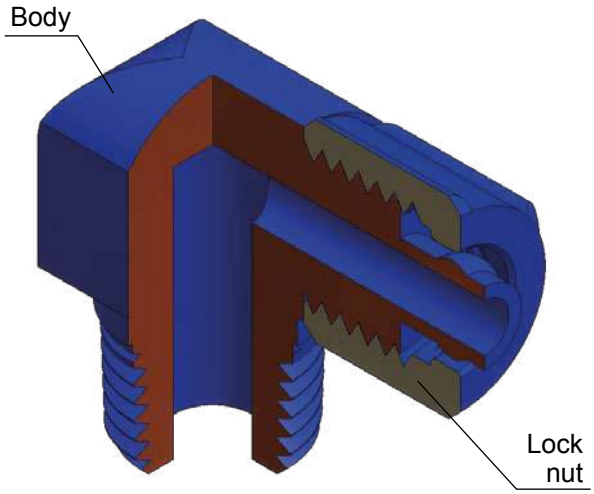
**PRECAUTIONS:**

- The fittings in this series have a plastic thread and therefore it is recommended that no excessive force is used when screwing them in and that the thread is teflon-coated before use to prevent leakage.
- It is advisable to insert the tube into the stop and tighten the nut well before use.
- Cut the part of the tube attached to the fitting for reuse.
- Not suitable for use with water.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



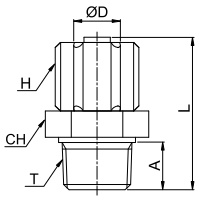

## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 1,5 | 1,5 | 3,0 | 3,0 |

## CK

Male connector BSPT thread



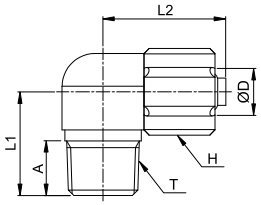



| CODE | ØD | T | A | L | H | CH | g |
|---|---|---|---|---|---|---|---|
| CK04R01 | 4/2,5 | R 1/8" | 8 | 24,5 | 10 | 12 | 2,0 |
| CK06R01 | 6/4 | R 1/8" | 7 | 28,5 | 12 | 13 | 3,0 |
| CK06R02 | | R 1/4" | 9 | 30,5 | 12 | 15 | 4,0 |
| CK08R01 | 8/5,5 | R 1/8" | 9 | 30,0 | 14 | 14 | 5,0 |
| CK08R02 | | R 1/4" | 9 | 29,0 | 14 | 17 | 5,0 |
| CK08R03 | | R 3/8" | 10,2 | 31,7 | 14 | 19 | 6,0 |
| CK10R02 | 10/6,5 | R 1/4" | 9,2 | 33,4 | 17 | 17 | 7,0 |
| CK10R03 | | R 3/8" | 10,2 | 34,9 | 17 | 19 | 7,0 |
| CK12R02 | 12/8 | R 1/4" | 9,2 | 39,0 | 19 | 17 | 9,0 |
| CK12R03 | | R 3/8" | 10,2 | 41,2 | 19 | 19 | 9,0 |
| CK12R04 | | R 1/2" | 15 | 45,0 | 19 | 22 | 13,0 |

## GCK

Male elbow BSPT thread



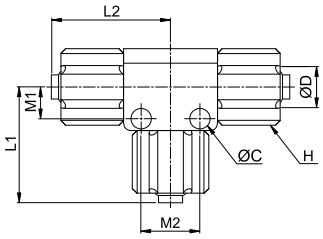



| CODE | ØD | T | A | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|
| GCK04R01 | 4/2,5 | R 1/8" | 8 | 21,0 | 21,0 | 12 | 3,0 |
| GCK06R01 | 6/4 | R 1/8" | 8,5 | 24,5 | 27,0 | 12 | 5,0 |
| GCK06R02 | | R 1/4" | 9 | 25,3 | 31,0 | 12 | 7,0 |
| GCK08R01 | 8/5,5 | R 1/8" | 8 | 24,0 | 27,0 | 14 | 6,0 |
| GCK08R02 | | R 1/4" | 10 | 26,0 | 30,0 | 14 | 8,0 |
| GCK08R03 | | R 3/8" | 10,2 | 27,5 | 32,5 | 14 | 10,0 |
| GCK10R02 | 10/6,5 | R 1/4" | 12 | 30,0 | 32,0 | 17 | 10,0 |
| GCK10R03 | | R 3/8" | 12 | 31,0 | 37,9 | 17 | 12,0 |
| GCK12R02 | 12/8 | R 1/4" | 11 | 32,0 | 41,5 | 19 | 14,0 |
| GCK12R03 | | R 3/8" | 12 | 34,0 | 41,5 | 19 | 16,0 |
| GCK12R04 | | R 1/2" | 15 | 39,0 | 45,0 | 19 | 19,0 |

## FCK

Union tee






| CODE | ØD | ØC | M1 | M2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| FCK0400 | 4/2,5 | 2,6 | 5,6 | 9,0 | 22,5 | 36,0 | 10 | 4,0 |
| FCK0600 | 6/4 | 4,3 | 5,7 | 11,2 | 31,1 | 48,3 | 12 | 11,0 |
| FCK0800 | 8/5,5 | 4,3 | 6,6 | 12,2 | 32,0 | 49,5 | 14 | 14,0 |
| FCK1000 | 10/6,5 | 4,3 | 8,3 | 13,4 | 40,0 | 54,0 | 17 | 24,0 |
| FCK1200 | 12/8 | 4,3 | 9,3 | 13,7 | 47,7 | 68,0 | 19 | 26,0 |

*drawings and technical data are not binding & can be changed without notice*

## PUES

Polyurethane tube on polyester basis



| CODE | Ø ODxID | TOLERANCE ØOD | THICKNESS (mm) | MIN. BENDING RADIUS AT 23°C (mm) | WORKING PRESSURE AT 23°C (Bar) | BURSTING PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (m) |
|---|---|---|---|---|---|---|---|---|
| PUES0425 | 4x2,5 | ±0,1 | 0,75 | 12 | 10 | 30 | 13 | 100 |
| PUES0604 | 6x4 | ±0,1 | 1 | 15 | 10 | 25 | 25,5 | 100 |
| PUES0855 | 8x5,5 | ±0,1 | 1,25 | 20 | 10 | 25 | 37,5 | 100 |
| PUES1065 | 10x6,5 | ±0,15 | 1,75 | 25 | 10 | 25 | 65,2 | 100 |
| PUES1208 | 12x8 | ±0,15 | 2 | 35 | 10 | 25 | 80,8 | 100 |

| Sizes ODxID | Light blue | Black | Red | Yellow | Green | Silver | Transparent | Transparent light blue |
|---|---|---|---|---|---|---|---|---|
| 4X2,5 | PUES0425AZ | PUES0425NE | PUES0425RO | PUES0425GL | PUES0425VD | PUES0425SL | PUES0425TR | PUES0425AZTR |
| 6X4 | PUES0604AZ | PUES0604NE | PUES0604RO | PUES0604GL | PUES0604VD | PUES0604SL | PUES0604TR | PUES0604AZTR |
| 8X5,5 | PUES0855AZ | PUES0855NE | PUES0855RO | PUES0855GL | PUES0855VD | PUES0855SL | PUES0855TR | PUES0855AZTR |
| 10X6,5 | PUES1065AZ | | | PUES1065GL | | | | |
| 12X8 | PUES1208AZ | PUES1208NE | | PUES1208GL | | | PUES1208TR | |

Full data sheet available on page 691



# PUSH-ON FITTINGS BRASS

## PLUS

- GREAT GRIPPING SYSTEM WITH THE LOCKING NUT
- SUITABLE FOR USE WITH AIR AND DIFFERENT FLUIDS
- EASY TO USE AND EXTREMELY STRONG
- GREAT MECHANICAL RESISTANCE



p. 128 / **2500**



p. 128 / **2502**



p. 129 / **2503**



p. 129 / **2505**



p. 129 / **2506**



p. 130 / **2510**



p. 130 / **2511**



p. 130 / **2512**



p. 131 / **2513**



p. 131 / **2515**



p. 113 / **2520**



p. 131 / **2530**



p. 132 / **2535**



p. 132 / **2540**



p. 132 / **2541**



p. 133 / **2542**



p. 133 / **2543**



p. 133 / **2548**



p. 134 / **2550**



p. 134 / **2552**



p. 134 / **2553**



p. 135 / **2555**



p. 135 / **2560**



p. 136 / **2565**



p. 136 / **2570**



p. 136 / **2575**



p. 136 / **2580**



p. 137 / **251V**



p. 137 / **252V**



p. 137 / **2630**



p. 137 / **2610**



p. 138 / **2612**



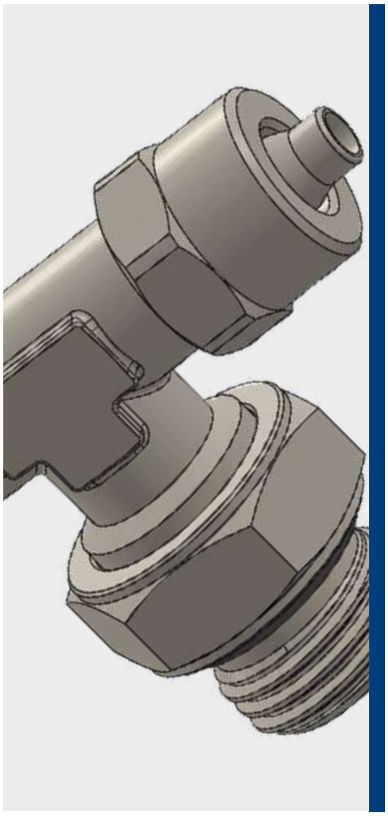
p. 138 / **2615**



p. 138 / **2620**



p. 138 / **2625**



-20°C ÷ 100°C with o-ring in NBR
-15°C ÷ 200°C with o-ring in Viton
The working temperature depends on the features of the tube used.

**Working pressure:**
18 Bar
The working temperature depends on the features of the tube used.

Compressed air, water, oil and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"
- Metric ISO 262 M5, M6 and M12

Polyurethane, polyethylene, polyamide, PTFE, FEP

**Body:** Nickel-plated brass
Turning: UNI EN 12164 CW 614N
Hot forging & machining:
UNI EN 12165 CW 617N
**Lock nut:** Nickel-plated brass
UNI EN 12164 CW 614N
**O-ring:** NBR 70

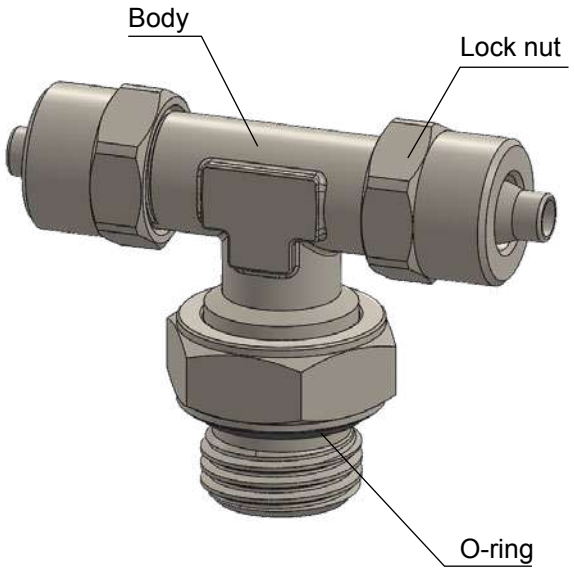
**AVAILABILITY:**
- Available on request and with a minimum yellow brass quantity
- Available on request with o-ring in viton

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




**TIGHTENING TORQUE**
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 8 | 12 | 14 | 16 |

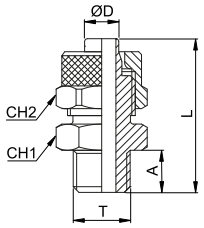
**TIGHTENING TORQUE**
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | M6x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 0,8 | 0,8 | 1,2 | 1,5 | 2,5 | 3,5 |

*drawings and technical data are not binding & can be changed without notice*

## 2500 Male connector BSPP thread

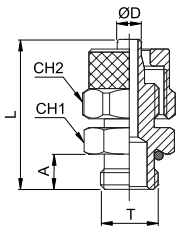





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2500TR1853 | 5/3 | G 1/8" | 6 | 23,0 | 14 | 8 | 10,0 |
| 2500TR1864 | 6/4 | G 1/8" | 6 | 25,5 | 14 | 12 | 16,0 |
| 2500TR1464 | | G 1/4" | 8 | 28,0 | 17 | 12 | 24,0 |
| 2500TR3864 | | G 3/8" | 9 | 29,0 | 19 | 12 | 28,0 |
| 2500TR1886 | 8/6 | G 1/8" | 6 | 25,5 | 14 | 14 | 18,0 |
| 2500TR1486 | | G 1/4" | 8 | 28,0 | 17 | 14 | 26,0 |
| 2500TR3886 | | G 3/8" | 9 | 29,0 | 19 | 14 | 28,0 |
| 2500TR18108 | 10/8 | G 1/8" | 6 | 27,5 | 14 | 16 | 24,0 |
| 2500TR14108 | | G 1/4" | 8 | 29,5 | 17 | 16 | 30,0 |
| 2500TR38108 | | G 3/8" | 9 | 30,5 | 19 | 16 | 34,0 |
| 2500TR12108 | | G 1/2" | 10 | 32,0 | 24 | 16 | 44,0 |
| 2500TR381210 | 12/10 | G 3/8" | 9 | 32,0 | 19 | 18 | 38,0 |
| 2500TR121210 | | G 1/2" | 10 | 33,5 | 24 | 18 | 48,0 |
| 2500TR1215125 | 15/12,5 | G 1/2" | 10 | 33,5 | 24 | 22 | 60,0 |

## 2502 Male connector BSPP thread with o-ring

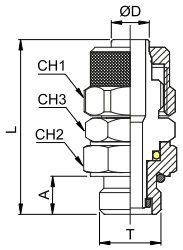





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2502TR18427 | 4/2,7 | G 1/8" | 6 | 21,8 | 13 | 8 | 10,0 |
| 2502TR1853 | 5/3 | G 1/8" | 6 | 23,0 | 13 | 8 | 11,0 |
| 2502TR1864 | 6/4 | G 1/8" | 6 | 25,5 | 13 | 12 | 16,0 |
| 2502TR1464 | | G 1/4" | 8 | 28,0 | 16 | 12 | 21,0 |
| 2502TR3864 | | G 3/8" | 9 | 29,0 | 19 | 12 | 26,0 |
| 2502TR1264 | | G 1/2" | 10 | 30,5 | 24 | 12 | 45,0 |
| 2502TR1886 | 8/6 | G 1/8" | 6 | 26,0 | 14 | 14 | 18,0 |
| 2502TR1486 | | G 1/4" | 8 | 28,0 | 16 | 14 | 22,0 |
| 2502TR3886 | | G 3/8" | 9 | 29,0 | 19 | 14 | 31,0 |
| 2502TR1286 | | G 1/2" | 10 | 30,5 | 24 | 14 | 38,0 |
| 2502TR18108 | 10/8 | G 1/8" | 6 | 28,0 | 14 | 16 | 24,0 |
| 2502TR14108 | | G 1/4" | 8 | 29,5 | 16 | 16 | 28,0 |
| 2502TR38108 | | G 3/8" | 9 | 30,5 | 19 | 16 | 32,0 |
| 2502TR12108 | | G 1/2" | 10 | 32,0 | 24 | 16 | 51,0 |
| 2502TR381210 | 12/10 | G 3/8" | 9 | 32,0 | 19 | 18 | 36,0 |
| 2502TR121210 | | G 1/2" | 10 | 33,5 | 24 | 18 | 46,0 |
| 2502TR1215125 | 15/12,5 | G 1/2" | 10 | 35,5 | 24 | 22 | 52,0 |

## 2503 Swivel male connector BSPP thread with o-ring



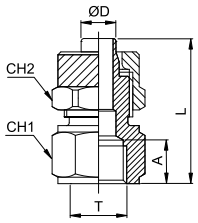



| | CODE | ØD | T | A | L | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| | 2503TR1864 | 6/4 | G 1/8" | 6 | 36,0 | 12 | 13 | 12 | 24,0 |
| | 2503TR1464 | | G 1/4" | 8 | 37,5 | 12 | 16 | 14 | 30,0 |
| * | 2503TR1885 | 8/5 | G 1/8" | 6 | 36,0 | 14 | 13 | 12 | 26,0 |
| * | 2503TR1485 | | G 1/4" | 8 | 37,5 | 14 | 16 | 14 | 32,0 |
| | 2503TR1886 | 8/6 | G 1/8" | 6 | 36,0 | 14 | 13 | 12 | 26,0 |
| | 2503TR1486 | | G 1/4" | 8 | 37,5 | 14 | 16 | 14 | 32,0 |
| * | 2503TR141065 | 10/6,5 | G 1/4" | 8 | 39,0 | 16 | 16 | 14 | 38,0 |
| | 2503TR14108 | 10/8 | G 1/4" | 8 | 39,0 | 16 | 16 | 14 | 38,0 |
| * | 2503TR38128 | 12/8 | G 3/8" | 9 | 42,0 | 18 | 19 | 17 | 50,0 |
| | 2503TR381210 | 12/10 | G 3/8" | 9 | 42,0 | 18 | 19 | 17 | 52,0 |

* Suitable for use with UCES coiled tubes on page 760

## 2505 Female connector BSPP thread

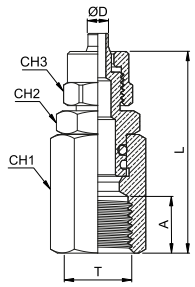





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2505TR18427 | 4/2,7 | G 1/8" | 8,0 | 21,3 | 14 | 8 | 11,0 |
| 2505TR1853 | 5/3 | G 1/8" | 8,0 | 22,5 | 14 | 8 | 12,0 |
| 2505TR1864 | 6/4 | G 1/8" | 8,0 | 25,0 | 14 | 12 | 18,0 |
| 2505TR1464 | | G 1/4" | 11,0 | 29,0 | 17 | 12 | 26,0 |
| 2505TR3864 | | G 3/8" | 11,5 | 29,5 | 20 | 12 | 30,0 |
| 2505TR1886 | 8/6 | G 1/8" | 8,0 | 25,0 | 14 | 14 | 20,0 |
| 2505TR1486 | | G 1/4" | 11,0 | 29,0 | 17 | 14 | 28,0 |
| 2505TR3886 | | G 3/8" | 11,5 | 29,5 | 20 | 14 | 32,0 |
| 2505TR1286 | | G 1/2" | 14 | 33,0 | 24 | 14 | 32,0 |
| 2505TR18108 | 10/8 | G 1/8" | 8,0 | 26,5 | 14 | 16 | 24,0 |
| 2505TR14108 | | G 1/4" | 11,0 | 30,5 | 17 | 16 | 32,0 |
| 2505TR38108 | | G 3/8" | 11,5 | 31,0 | 20 | 16 | 36,0 |
| 2505TR12108 | | G 1/2" | 14,0 | 34,5 | 24 | 16 | 50,0 |
| 2505TR381210 | 12/10 | G 3/8" | 11,5 | 32,5 | 20 | 18 | 40,0 |

## 2506 Swivel female connector BSPP thread



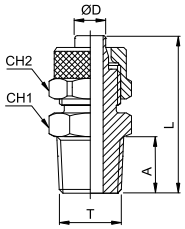



| | CODE | ØD | T | A | L | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| | 2506TR1464 | 6/4 | G 1/4" | 11,0 | 42,5 | 16 | 14 | 12 | - |
| * | 2506TR1485 | 8/5 | G 1/4" | 11,0 | 41,0 | 16 | 14 | 14 | - |
| | 2506TR1486 | 8/6 | G 1/4" | 11,0 | 42,5 | 16 | 14 | 14 | - |
| * | 2506TR141065 | 10/6,5 | G 1/4" | 11,0 | 44,0 | 16 | 14 | 16 | - |
| | 2506TR14108 | 10/8 | G 1/4" | 11,0 | 44,0 | 16 | 14 | 16 | - |

* Suitable for use with UCES coiled tubes on page 760

## 2510 Male connector BSPT thread

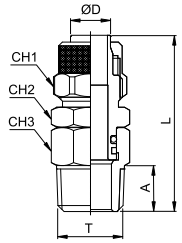





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2510TR18427 | 4/2,7 | R 1/8" | 8 | 23,8 | 12 | 8 | 10,0 |
| 2510TR1853 | 5/3 | R 1/8" | 8,0 | 25,0 | 12 | 8 | 10,0 |
| 2510TR1864 | 6/4 | R 1/8" | 8,0 | 27,5 | 12 | 12 | 16,0 |
| 2510TR1464 | | R 1/4" | 11,0 | 31,0 | 14 | 12 | 20,0 |
| 2510TR3864 | | R 3/8" | 11,5 | 31,5 | 17 | 12 | 26,0 |
| 2510TR1886 | 8/6 | R 1/8" | 8,0 | 27,5 | 12 | 14 | 18,0 |
| 2510TR1486 | | R 1/4" | 11,0 | 31,0 | 14 | 14 | 22,0 |
| 2510TR3886 | | R 3/8" | 11,5 | 31,5 | 17 | 14 | 28,0 |
| 2510TR1286 | | R 1/2" | 14,0 | 34,5 | 22 | 14 | 44,0 |
| 2510TR18108 | 10/8 | R 1/8" | 8,0 | 29,5 | 14 | 16 | 24,0 |
| 2510TR14108 | | R 1/4" | 11,0 | 32,5 | 14 | 16 | 28,0 |
| 2510TR38108 | | R 3/8" | 11,5 | 33,0 | 17 | 16 | 34,0 |
| 2510TR12108 | | R 1/2" | 14,0 | 36,0 | 22 | 16 | 46,0 |
| 2510TR381210 | 12/10 | R 3/8" | 11,5 | 34,5 | 17 | 18 | 38,0 |
| 2510TR121210 | | R 1/2" | 14,0 | 37,5 | 22 | 18 | 50,0 |
| 2510TR1215125 | 15/12,5 | R 1/2" | 14,0 | 39,5 | 22 | 22 | 62,0 |

## 2511 Swivel male connector BSPT thread



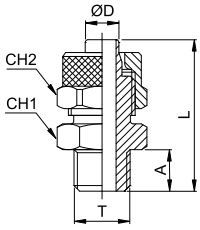



| | CODE | ØD | T | A | L | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| | 2511TR1864 | 6/4 | G 1/8" | 8 | 37,0 | 12 | 12 | 12 | 22,0 |
| | 2511TR1464 | | G 1/4" | 11 | 40,0 | 12 | 14 | 14 | 28,0 |
| * | 2511TR1885 | 8/5 | G 1/8" | 8 | 37,0 | 14 | 12 | 12 | 30,0 |
| * | 2511TR1485 | | G 1/4" | 11 | 40,0 | 14 | 14 | 14 | 32,0 |
| | 2511TR1886 | 8/6 | G 1/8" | 8 | 37,0 | 14 | 12 | 12 | 26,0 |
| | 2511TR1486 | | G 1/4" | 11 | 40,0 | 14 | 14 | 14 | 30,0 |
| * | 2511TR141065 | 10/6,5 | G 1/4" | 11 | 42,0 | 16 | 14 | 14 | 34,0 |
| | 2511TR14108 | 10/8 | G 1/4" | 11 | 42,0 | 16 | 14 | 14 | 34,0 |
| * | 2511TR38128 | 12/8 | G 3/8" | 11,5 | 44,0 | 18 | 17 | 17 | 50,0 |
| | 2511TR381210 | 12/10 | G 3/8" | 11,5 | 44,0 | 18 | 17 | 17 | 50,0 |

* Suitable for use with UCES coiled tubes on page 760

## 2512 Male connector metric thread



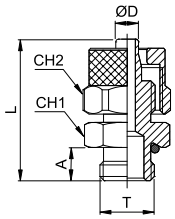



| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2512TRM553 | 5/3 | M5 | 4 | 20,0 | 8 | 8 | 4,0 |
| 2512TRM653 | | M6 | 5 | 21,0 | 8 | 8 | 6,0 |
| 2512TRM564 | 6/4 | M5 | 4 | 21,0 | 8 | 9 | 6,0 |
| 2512TRM664 | | M6 | 5 | 22,0 | 8 | 9 | 6,0 |
| 2512TRM1212564 | | M12x1,25 | 8 | 28,0 | 17 | 12 | 22,0 |
| 2512TRM121564 | | M12x1,5 | 8 | 28,0 | 17 | 12 | 22,0 |
| 2512TRM1212586 | 8/6 | M12x1,25 | 8 | 28,0 | 17 | 14 | 24,0 |
| 2512TRM121586 | | M12x1,5 | 8 | 28,0 | 17 | 14 | 24,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2513 Male connector metric thread with o-ring

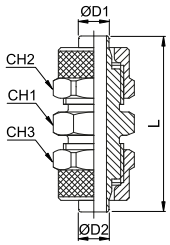





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2513TRM5427 | 4/2,7 | M5 | 4 | 20,0 | 8 | 8 | 6,0 |
| 2513TRM6427 | | M6 | 4 | 20,0 | 8 | 8 | 6,0 |
| 2513TRM553 | 5/3 | M5 | 4 | 20,5 | 8 | 8 | 6,0 |
| 2513TRM653 | | M6 | 4 | 20,5 | 8 | 8 | 6,0 |
| 2513TRM564 | 6/4 | M5 | 4 | 21,0 | 8 | 12 | 6,0 |
| 2513TRM664 | | M6 | 4 | 21,0 | 8 | 12 | 6,0 |
| 2513TRM12164 | | M12x1 | 8 | 28,0 | 15 | 12 | 20,0 |
| 2513TRM1212564 | | M12x1,25 | 8 | 28,0 | 15 | 12 | 20,0 |
| 2513TRM121564 | | M12x1,5 | 8 | 28,0 | 15 | 12 | 20,0 |
| 2513TRM1212586 | 8/6 | M12x1,25 | 8 | 28,0 | 17 | 14 | 17,0 |
| 2513TRM121586 | | M12x1,5 | 8 | 28,0 | 17 | 14 | 17,0 |

## 2515 Union connector

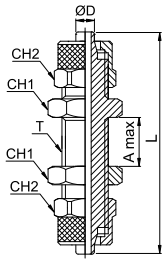





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|
| 2515TR427 | 4/2,7 | 4/2,7 | 26,0 | 8 | 8 | 8 | 8,0 |
| 2515TR53 | 5/3 | 5/3 | 28,5 | 8 | 8 | 8 | 8,0 |
| 2515TR64 | 6/4 | 6/4 | 34,5 | 12 | 12 | 12 | 22,0 |
| 2515TR86 | 8/6 | 8/6 | 35,0 | 14 | 14 | 14 | 28,0 |
| 2515TR8664 | | 6/4 | 35,0 | 14 | 14 | 12 | 26,0 |
| 2515TR108 | 10/8 | 10/8 | 38,0 | 14 | 16 | 16 | 36,0 |
| 2515TR1210 | 12/10 | 12/10 | 41,0 | 17 | 18 | 18 | 48,0 |
| 2515TR15125 | 15/12,5 | 15/12,5 | 45,5 | 22 | 22 | 22 | 78,0 |

## 2520 Bulkhead connector

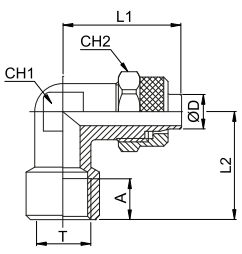





| CODE | ØD | T | A MAX | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2520TR427 | 4/2,7 | M6x0,5 | 8,5 | 36,7 | 9 | 8 | 10,0 |
| 2520TR53 | 5/3 | M7x0,75 | 8,5 | 40,0 | 9 | 8 | 12,0 |
| 2520TR64 | 6/4 | M10x1 | 10,5 | 48,0 | 14 | 12 | 34,0 |
| 2520TR86 | 8/6 | M12x1 | 10,5 | 48,0 | 16 | 14 | 42,0 |
| 2520TR108 | 10/8 | M14x1 | 8,5 | 50,0 | 17 | 16 | 54,0 |
| 2520TR1210 | 12/10 | M16x1 | 8,5 | 53,0 | 19 | 18 | 76,0 |
| 2520TR15125 | 15/12,5 | M20x1 | 8,5 | 58,0 | 24 | 22 | 110,0 |

## 2530 Female elbow BSPP thread



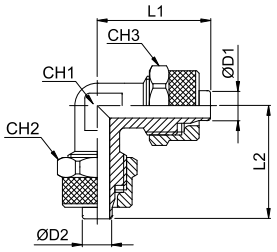



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2530TR1853 | 5/3 | G 1/8" | 8,0 | 21,5 | 19,0 | 10 | 8 | 16,0 |
| 2530TR1864 | 6/4 | G 1/8" | 8,0 | 22,7 | 19,0 | 10 | 12 | 22,0 |
| 2530TR1464 | | G 1/4" | 10,5 | 24,5 | 23,0 | 11 | 12 | 36,0 |
| 2530TR1886 | 8/6 | G 1/8" | 8,0 | 22,7 | 19,0 | 10 | 14 | 22,0 |
| 2530TR1486 | | G 1/4" | 10,5 | 25,0 | 23,0 | 11 | 14 | 32,0 |
| 2530TR14108 | 10/8 | G 1/4" | 11,0 | 26,0 | 23,5 | 13 | 16 | 38,0 |
| 2530TR381210 | 12/10 | G 3/8" | 11,5 | 30,5 | 28,0 | 17 | 18 | 60,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2535 Union elbow connector

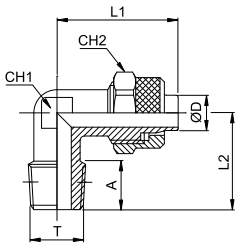





| CODE | ØD1 | ØD2 | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|
| 2535TR427 | 4/2,7 | 4/2,7 | 20,3 | 20,3 | 8 | 8 | 8 | 11,0 |
| 2535TR53 | 5/3 | 5/3 | 21,5 | 21,5 | 8 | 8 | 8 | 12,0 |
| 2535TR64 | 6/4 | 6/4 | 21,5 | 21,5 | 8 | 12 | 12 | 20,0 |
| 2535TR86 | 8/6 | 8/6 | 22,5 | 22,5 | 10 | 14 | 14 | 28,0 |
| 2535TR8664 | | 6/4 | 22,5 | 22,5 | 10 | 14 | 12 | 26,0 |
| 2535TR108 | 10/8 | 10/8 | 25,5 | 25,5 | 11 | 16 | 16 | 38,0 |
| 2535TR1210 | 12/10 | 12/10 | 30,0 | 30,0 | 14 | 18 | 18 | 56,0 |
| 2535TR15125 | 15/12,5 | 15/12,5 | 34,0 | 34,0 | 17 | 22 | 22 | 88,0 |

## 2540 Male elbow BSPT thread

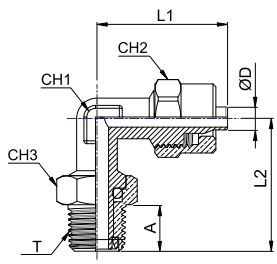





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2540TR18427 | 4/2,7 | R 1/8" | 8,0 | 19,5 | 17,0 | 8 | 8 | 10,0 |
| 2540TR1853 | 5/3 | R 1/8" | 8,0 | 21,5 | 17,0 | 8 | 8 | 10,0 |
| 2540TR1864 | 6/4 | R 1/8" | 8,0 | 22,5 | 17,0 | 8 | 12 | 16,0 |
| 2540TR1464 | | R 1/4" | 11,0 | 22,5 | 20,0 | 10 | 12 | 22,0 |
| 2540TR3864 | | R 3/8" | 11,5 | 23,5 | 22,5 | 11 | 12 | 30,0 |
| 2540TR1886 | 8/6 | R 1/8" | 8,0 | 22,5 | 17,0 | 10 | 14 | 20,0 |
| 2540TR1486 | | R 1/4" | 11,0 | 22,5 | 20,0 | 10 | 14 | 24,0 |
| 2540TR3886 | | R 3/8" | 11,5 | 24,0 | 22,5 | 11 | 14 | 32,0 |
| 2540TR1286 | | R 1/2" | 14 | 26,5 | 28,0 | 17 | 14 | 37,0 |
| 2540TR18108 | 10/8 | R 1/8" | 8,0 | 25,5 | 18,5 | 11 | 16 | 28,0 |
| 2540TR14108 | | R 1/4" | 11,0 | 25,5 | 21,5 | 11 | 16 | 32,0 |
| 2540TR38108 | | R 3/8" | 11,5 | 25,5 | 22,5 | 11 | 16 | 34,0 |
| 2540TR12108 | | R 1/2" | 14,0 | 28,0 | 28,0 | 17 | 16 | 56,0 |
| 2540TR141210 | 12/10 | R 1/4" | 11,0 | 30,0 | 24,0 | 14 | 18 | 42,0 |
| 2540TR381210 | | R 3/8" | 11,5 | 30,0 | 24,5 | 14 | 18 | 48,0 |
| 2540TR121210 | | R 1/2" | 14,0 | 30,5 | 28,0 | 17 | 18 | 60,0 |
| 2540TR1215125 | 15/12,5 | R 1/2" | 14,0 | 34,0 | 28,0 | 17 | 22 | 70,0 |

## 2541 Swivel male elbow BSPT thread



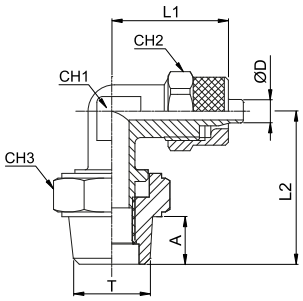



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2541TR18427 | 4/2,7 | R 1/8" | 8 | 20,5 | 23,0 | 8 | 8 | 12 | 18,0 |
| 2541TR1864 | 6/4 | R 1/8" | 8 | 22,5 | 23,0 | 8 | 12 | 12 | 22,0 |
| 2541TR1464 | | R 1/4" | 11 | 23,0 | 26,0 | 10 | 12 | 16 | 34,0 |
| 2541TR1886 | 8/6 | R 1/8" | 8 | 23,0 | 22,0 | 10 | 14 | 12 | 28,0 |
| 2541TR1486 | | R 1/4" | 11 | 23,0 | 26,0 | 10 | 14 | 16 | 36,0 |
| 2541TR14108 | 10/8 | R 1/4" | 11 | 25,5 | 27,0 | 11 | 16 | 16 | 42,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2542 Swivel male elbow BSPP thread

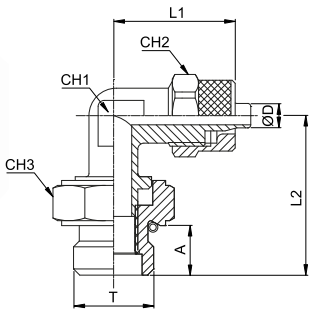





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2542TR18427 | 4/2,7 | G 1/8" | 6 | 20,5 | 23,0 | 8 | 12 | 14 | 18,0 |
| 2542TR1864 | 6/4 | G 1/8" | 6 | 22,5 | 23,0 | 8 | 12 | 14 | 22,0 |
| 2542TR1464 | | G 1/4" | 8 | 23,0 | 25,0 | 10 | 12 | 17 | 34,0 |
| 2542TR1886 | 8/6 | G 1/8" | 6 | 23,0 | 22,0 | 10 | 14 | 14 | 28,0 |
| 2542TR1486 | | G 1/4" | 8 | 23,0 | 25,0 | 10 | 14 | 17 | 36,0 |
| 2542TR14108 | 10/8 | G 1/4" | 8 | 25,5 | 26,0 | 11 | 16 | 17 | 42,0 |

## 2543 Swivel male elbow BSPP thread with o-ring

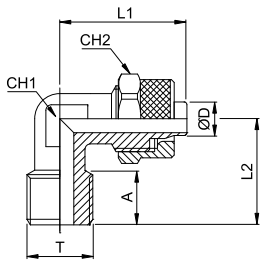





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2543TR18427 | 4/2,7 | G 1/8" | 6 | 20,5 | 23,0 | 8 | 12 | 14 | 19,0 |
| 2543TR1864 | 6/4 | G 1/8" | 6 | 22,5 | 23,0 | 8 | 12 | 14 | 23,0 |
| 2543TR1464 | | G 1/4" | 8 | 23,0 | 25,0 | 10 | 12 | 17 | 35,0 |
| 2543TR1886 | 8/6 | G 1/8" | 6 | 23,0 | 22,0 | 10 | 14 | 14 | 29,0 |
| 2543TR1486 | | G 1/4" | 8 | 23,0 | 25,0 | 10 | 14 | 17 | 37,0 |
| 2543TR14108 | 10/8 | G 1/4" | 8 | 25,5 | 26,0 | 11 | 14 | 17 | 43,0 |

## 2548 Male elbow metric thread

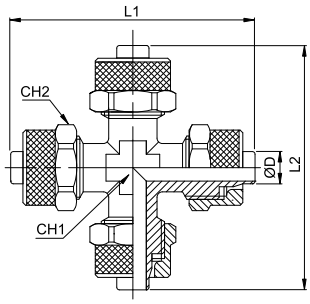





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2548TRM5427 | 4/2,7 | M5 | 4 | 19,5 | 15,0 | 8 | 8 | 10,0 |
| 2548TRM6427 | | M6 | 4 | 19,5 | 15,0 | 8 | 8 | 10,0 |
| 2548TRM553 | 5/3 | M5 | 4 | 21,5 | 15,0 | 8 | 8 | 10,0 |
| 2548TRM564 | 6/4 | M5 | 4 | 22,5 | 15,0 | 8 | 9 | 14,0 |
| 2548TRM1212564 | | M12x1,25 | 9 | 22,5 | 20,5 | 10 | 12 | 24,0 |
| 2548TRM121564 | | M12x1,5 | 9 | 22,5 | 20,5 | 10 | 12 | 22,0 |
| 2548TRM1212586 | 8/6 | M12x1,25 | 9 | 22,5 | 20,5 | 10 | 14 | 24,0 |
| 2548TRM121586 | | M12x1,5 | 9 | 22,5 | 20,5 | 10 | 14 | 24,0 |

## 2550 Cross junction connector

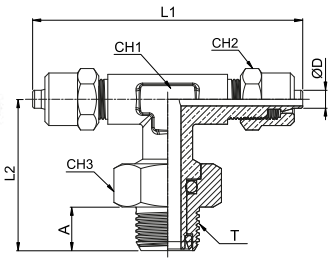





| CODE | ØD | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2550TR53 | 5/3 | 43,0 | 43,0 | 8 | 8 | 22,0 |
| 2550TR64 | 6/4 | 45,0 | 45,0 | 8 | 12 | 42,0 |
| 2550TR86 | 8/6 | 45,0 | 45,0 | 10 | 14 | 52,0 |
| 2550TR108 | 10/8 | 51,0 | 51,0 | 11 | 16 | 70,0 |

## 2552 Swivel male tee BSPP thread

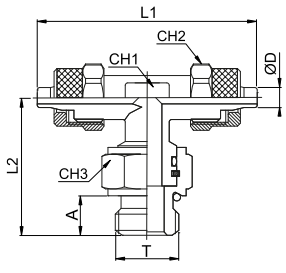





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2552TR18427 | 4/2,7 | G 1/8" | 6 | 40,5 | 23,0 | 8 | 8 | 13 | 19,0 |
| 2552TR1864 | 6/4 | G 1/8" | 6 | 45,0 | 23,0 | 8 | 12 | 13 | 23,0 |
| 2552TR1464 | | G 1/4" | 8 | 45,5 | 26,0 | 10 | 12 | 17 | 35,0 |
| 2552TR1886 | 8/6 | G 1/8" | 6 | 45,5 | 23,0 | 10 | 14 | 13 | 29,0 |
| 2552TR1486 | | G 1/4" | 8 | 45,5 | 26,0 | 10 | 14 | 17 | 37,0 |
| 2552TR14108 | 10/8 | G 1/4" | 8 | 51,0 | 27,0 | 11 | 16 | 17 | 43,0 |

## 2553 Swivel male tee BSPP thread with o-ring



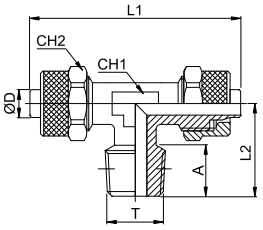



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2553TR18427 | 4/2,7 | G 1/8" | 6 | 40,5 | 23,0 | 8 | 8 | 13 | 19,0 |
| 2553TR1864 | 6/4 | G 1/8" | 6 | 45,0 | 23,0 | 8 | 12 | 13 | 23,0 |
| 2553TR1464 | | G 1/4" | 8 | 45,5 | 26,0 | 10 | 12 | 17 | 35,0 |
| 2553TR1886 | 8/6 | G 1/8" | 6 | 45,5 | 23,0 | 10 | 14 | 13 | 29,0 |
| 2553TR1486 | | G 1/4" | 8 | 45,5 | 26,0 | 10 | 14 | 17 | 37,0 |
| 2553TR14108 | 10/8 | G 1/4" | 8 | 51,0 | 27,0 | 11 | 16 | 17 | 43,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2555 Male tee BSPT thread

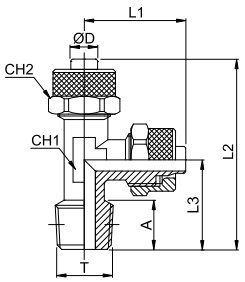





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2555TR18427 | 4/2,7 | R 1/8" | 8 | 40,6 | 17,0 | 8 | 8 | 16,0 |
| 2555TRM553 | 5/3 | M5 | 4 | 43,0 | 15,0 | 8 | 8 | 16,0 |
| 2555TR1853 | | R 1/8" | 8 | 43,0 | 17,0 | 8 | 8 | 16,0 |
| 2555TR1864 | 6/4 | R 1/8" | 8 | 45,0 | 17,0 | 8 | 12 | 26,0 |
| 2555TR1464 | | R 1/4" | 11 | 45,5 | 20,5 | 10 | 12 | 34,0 |
| 2555TR3864 | | R 3/8" | 11,5 | 48,0 | 22,5 | 11 | 12 | 42,0 |
| 2555TR1886 | 8/6 | R 1/8" | 8 | 45,5 | 17,5 | 10 | 14 | 34,0 |
| 2555TR1486 | | R 1/4" | 11 | 45,5 | 20,5 | 10 | 14 | 36,0 |
| 2555TR3886 | | R 3/8" | 11,5 | 48,0 | 22,5 | 11 | 14 | 44,0 |
| 2555TR18108 | 10/8 | R 1/8" | 8 | 51,0 | 18,5 | 11 | 16 | 44,0 |
| 2555TR14108 | | R 1/4" | 11 | 51,0 | 21,5 | 11 | 16 | 48,0 |
| 2555TR38108 | | R 3/8" | 11,5 | 51,0 | 22,5 | 11 | 16 | 50,0 |
| 2555TR12108 | | R 1/2" | 14 | 57,0 | 28,0 | 17 | 16 | 80,0 |
| 2555TR381210 | 12/10 | R 3/8" | 11,5 | 60,0 | 24,5 | 14 | 18 | 70,0 |
| 2555TR121210 | | R 1/2" | 14 | 61,0 | 28,0 | 17 | 18 | 86,0 |
| 2555TR1215125 | 15/12,5 | R 1/2" | 14 | 68,0 | 28,0 | 17 | 22 | 108,0 |

## 2560 Lateral male tee BSPT thread

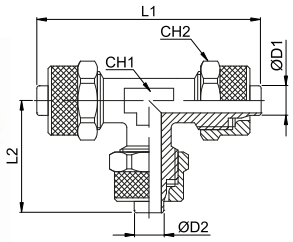





| CODE | ØD | T | A | L1 | L2 | L3 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2560TR18427 | 4/2,7 | R 1/8" | 8 | 21,5 | 38,0 | 17,0 | 8 | 8 | 16,0 |
| 2560TRM553 | 5/3 | M5 | 4 | 21,5 | 36,5 | 15,0 | 8 | 8 | 16,0 |
| 2560TR1853 | | R 1/8" | 8 | 21,5 | 38,5 | 17,0 | 8 | 8 | 16,0 |
| 2560TR1864 | 6/4 | R 1/8" | 8 | 22,5 | 39,5 | 17,0 | 8 | 12 | 26,0 |
| 2560TR1464 | | R 1/4" | 11 | 22,7 | 43,5 | 20,7 | 10 | 12 | 34,0 |
| 2560TR3864 | | R 3/8" | 11,5 | 24,0 | 46,5 | 22,5 | 11 | 12 | 42,0 |
| 2560TR1886 | 8/6 | R 1/8" | 8 | 22,7 | 40,5 | 17,7 | 10 | 14 | 34,0 |
| 2560TR1486 | | R 1/4" | 11 | 22,7 | 43,5 | 20,7 | 10 | 14 | 36,0 |
| 2560TR3886 | | R 3/8" | 11,5 | 24,0 | 46,5 | 22,5 | 11 | 14 | 44,0 |
| 2560TR18108 | 10/8 | R 1/8" | 8 | 25,5 | 44,0 | 18,5 | 11 | 16 | 44,0 |
| 2560TR14108 | | R 1/4" | 11 | 25,5 | 46,5 | 21,0 | 11 | 16 | 48,0 |
| 2560TR38108 | | R 3/8" | 11,5 | 25,5 | 48,0 | 22,5 | 11 | 16 | 50,0 |
| 2560TR12108 | | R 1/2" | 14 | 28,5 | 56,5 | 28,0 | 17 | 16 | 80,0 |
| 2560TR381210 | 12/10 | R 3/8" | 11,5 | 30,0 | 54,5 | 24,5 | 14 | 18 | 70,0 |
| 2560TR121210 | | R 1/2" | 14 | 30,5 | 58,5 | 28,0 | 17 | 18 | 86,0 |
| 2560TR1215125 | 15/12,5 | R 1/2" | 14 | 34,0 | 62,0 | 28,0 | 17 | 22 | 108,0 |

## 2565 Union tee connector

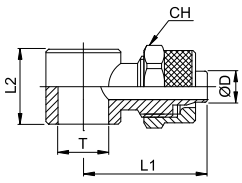





| CODE | ØD1 | ØD2 | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2565TR427 | 4/2,7 | 4/2,7 | 40,6 | 20,3 | 8 | 8 | 16,0 |
| 2565TR53 | 5/3 | 5/3 | 43,0 | 21,5 | 8 | 8 | 16,0 |
| 2565TR64 | 6/4 | 6/4 | 45,0 | 22,5 | 8 | 12 | 32,0 |
| 2565TR86 | 8/6 | 8/6 | 45,0 | 22,5 | 10 | 14 | 42,0 |
| 2565TR8664 | | 6/4 | 45,0 | 22,5 | 10 | 14 | 40,0 |
| 2565TR108 | 10/8 | 10/8 | 51,0 | 25,5 | 11 | 16 | 56,0 |
| 2565TR1210 | 12/10 | 12/10 | 60,0 | 30,0 | 14 | 18 | 78,0 |
| 2565TR15125 | 15/12,5 | 15/12,5 | 68,0 | 34,0 | 17 | 22 | 124,0 |

## 2570 Single banjo body



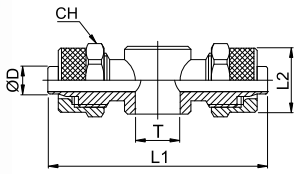



For use with 251V & 252V banjo stem

| CODE | ØD | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| 2570TRM5427 | 4/2,7 | M5 | 15,8 | 9,0 | 8 | 6,0 |
| 2570TRM6427 | | M6 | 15,8 | 9,0 | 8 | 6,0 |
| 2570TR18427 | | G 1/8" | 21,3 | 14,5 | 8 | 15,0 |
| 2570TRM553 | 5/3 | M5 | 17,0 | 9,0 | 8 | 8,0 |
| 2570TR1853 | | G 1/8" | 22,5 | 14,5 | 8 | 14,0 |
| 2570TRM564 | 6/4 | M5 | 18,0 | 9,0 | 9 | 8,0 |
| 2570TR1864 | | G 1/8" | 24,0 | 14,5 | 12 | 20,0 |
| 2570TR1464 | | G 1/4" | 26,0 | 14,5 | 12 | 24,0 |
| 2570TR1886 | 8/6 | G 1/8" | 24,0 | 14,5 | 14 | 22,0 |
| 2570TR1486 | | G 1/4" | 26,0 | 14,5 | 14 | 26,0 |
| 2570TR14108 | 10/8 | G 1/4" | 27,5 | 14,5 | 16 | 30,0 |

## 2575 Double banjo body



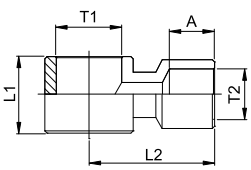



For use with 251V & 252V banjo stem

| CODE | ØD | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| 2575TR18427 | 4/2,7 | G 1/8" | 42,6 | 14,5 | 8 | 19,0 |
| 2575TR1853 | 5/3 | G 1/8" | 45,0 | 14,5 | 8 | 20,0 |
| 2575TR1864 | 6/4 | G 1/8" | 48,0 | 14,5 | 12 | 30,0 |
| 2575TR1464 | | G 1/4" | 52,0 | 14,5 | 12 | 34,0 |
| 2575TR1886 | 8/6 | G 1/8" | 48,0 | 14,5 | 14 | 32,0 |
| 2575TR1486 | | G 1/4" | 52,0 | 14,5 | 14 | 38,0 |
| 2575TR14108 | 10/8 | G 1/4" | 55,0 | 14,5 | 16 | 44,0 |

## 2580 Female single banjo body BSPP thread



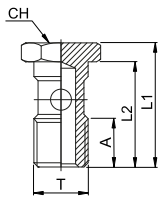



For use with 251V & 252V banjo stem

| CODE | T1 | T2 | A | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 2580TR18 | G 1/8" | G 1/8" | 8,0 | 14,5 | 20,0 | 22,0 |
| 2580TR14 | G 1/4" | G 1/4" | 10,0 | 17,5 | 25,0 | 41,0 |

## 251V — Single banjo stem

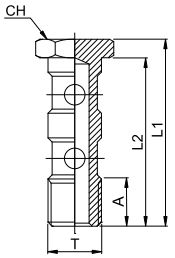





| CODE | T | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| 251VM5 | M5 | 6 | 18,0 | 14,5 | 8 | 4,0 |
| 251VM6 | M6 | 6 | 18,0 | 14,5 | 8 | 5,0 |
| 251V18 | G 1/8" | 8 | 27,0 | 23,0 | 14 | 14,0 |
| 251V14 | G1/4" | 11 | 29,5 | 25,0 | 17 | 24,0 |

## 252V — Double banjo stem

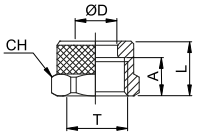





| CODE | T | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| 252V18 | G 1/8" | 8 | 43,0 | 39,0 | 14 | 18,0 |
| 252V14 | G 1/4" | 11 | 45,5 | 41,0 | 17 | 34,0 |

## 2630 — Locking nut

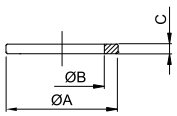





| CODE | ØD | T | A | L | CH | g |
|---|---|---|---|---|---|---|
| 2630TRM605427 | 4/2,7 | M6x0,5 | 6,0 | 8,1 | 8 | 1,50 |
| 2630TRM707553 | 5/3 | M7x0,75 | 6,0 | 8,5 | 8 | 1,34 |
| 2630TRM807564 | 6/4 | M8x0,75 | 6,5 | 9,0 | 9 | 1,51 |
| 2630TRM10164 | | M10x1 | 7,5 | 10,5 | 12 | 4,64 |
| 2630TRM12186 | 8/6 | M12x1 | 7,5 | 10,5 | 14 | 5,57 |
| 2630TRM141108 | 10/8 | M14x1 | 8,0 | 11,5 | 16 | 7,09 |
| 2630TRM1611210 | 12/10 | M16x1 | 10,0 | 13,0 | 18 | 9,36 |
| 2630TRM20115125 | 15/12,5 | M20x1 | 11,0 | 15,5 | 22 | 15,04 |

## 2610 — Nylon notched washer



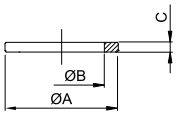



| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2610TRM5 | M5 | 8,0 | 5,2 | 1,0 | 2,0 |
| 2610TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 26,0 |
| 2610TR14 | G 1/4" | 18,0 | 13,5 | 1,5 | 42,0 |
| 2610TR38 | G 3/8" | 21,0 | 16,8 | 2,0 | 28,0 |
| 2610TR12 | G 1/2" | 26,0 | 21,1 | 2,0 | 38,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2612 PVC washer

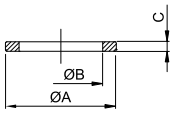





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2612TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 18,0 |
| 2612TR14 | G 1/4" | 17,5 | 13,5 | 1,5 | 18,0 |
| 2612TR38 | G 3/8" | 21,0 | 16,7 | 1,5 | 18,0 |
| 2612TR12 | G 1/2" | 26,0 | 21,3 | 1,5 | 18,0 |

## 2615 Nylon washer

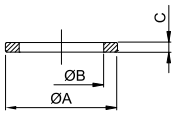





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2615TRM5 | M5 | 8,5 | 5,0 | 1,5 | 4,0 |
| 2615TR18 | G 1/8" | 14,0 | 9,8 | 1,5 | 24,0 |
| 2615TR14 | G 1/4" | 18,0 | 13,2 | 1,5 | 40,0 |
| 2615TR38 | G 3/8" | 21,0 | 16,7 | 1,5 | 20,0 |
| 2615TR12 | G 1/2" | 26,0 | 21,1 | 2,0 | 38,0 |
| 2615TR34 | G 3/4" | 32,0 | 26,7 | 2,5 | 62,0 |

## 2620 Aluminium washer

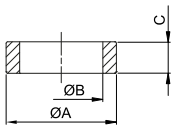





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2620TR18 | G1/8" | 14,0 | 10,0 | 1,5 | 58,0 |
| 2620TR14 | G1/4" | 17,3 | 13,3 | 1,5 | 76,0 |
| 2620TR38 | G3/8" | 21,0 | 16,9 | 1,5 | 46,0 |
| 2620TR12 | G1/2" | 26,0 | 21,1 | 1,5 | 70,0 |

## 2625 Nylon spacer






| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2625TR18 | 1/8" | 14,0 | 10,0 | 5,0 | 52,0 |
| 2625TR14 | 1/4" | 17,5 | 13,2 | 5,0 | 66,0 |

For use with 251V & 252V banjo stem

# PUSH-ON FITTINGS
## POLYPROPYLENE

D.M. 174

## PLUS

- GREAT GRIPPING SYSTEM WITH THE LOCKING NUT
- HIGH CHEMICAL RESISTANCE
- EASY TO USE AND SUITABLE FOR VARIOUS APPLICATIONS
- SUITABLE FOR FOOD AND WATER CONTACT
- WIDE RANGE FOR METRIC TUBES (BLUE) AND FOR INCH TUBES (GREY)



p. 142 / **2105**



p. 142 / **2110**



p. 142 / **2115**



p. 143 / **2130**



p. 143 / **2135**



p. 143 / **2140**



p. 143 / **2150**



p. 144 / **2155**



p. 144 / **2160**



p. 144 / **2165**



p. 144 / **2230**



p. 145 / **2105N**



p. 145 / **2110N**



p. 145 / **2115N**



p. 146 / **2135N**



p. 146 / **2140N**



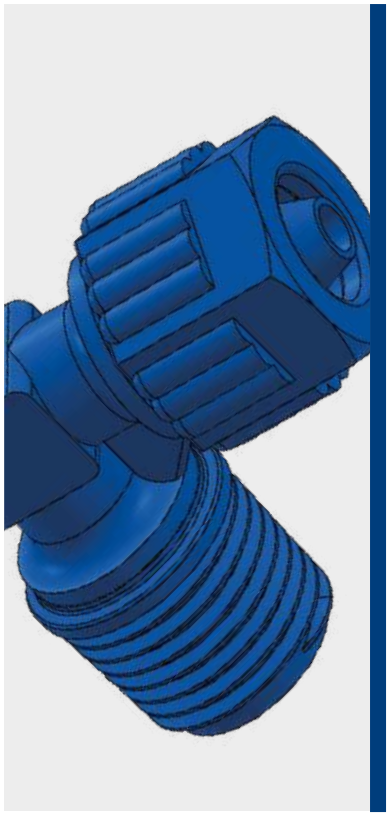
p. 146 / **2155N**



p. 147 / **2160N**



p. 147 / **2165N**



+4°C ÷ +90°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 form R1/8" to R3/4"
- NPT ANSI B 1.20.1 from N1/8" to N1/2"

Polyurethane, Polyethylene, Polyamide

**Body:** Fiber glass reinforced polypropylene
**Lock nut:** Fiber glass reinforced polypropylene

Food contact materials EC 1935/2004

D.M. 174/2004

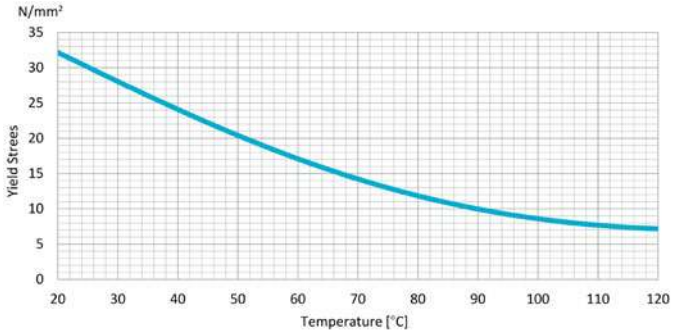
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

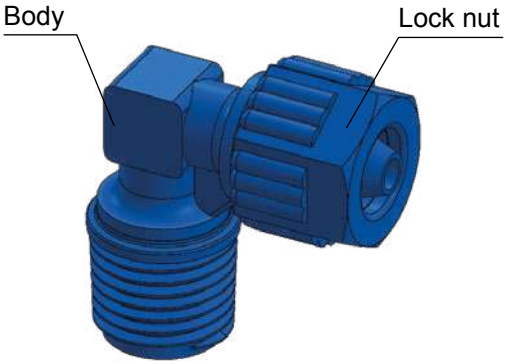
## FEATURES

- The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.
- It is reccomended to insert the tube to the end and tighten the nut before using.
- Cut the part of the tube attached to the fitting in order to reutilize it.

## YIELD STRESS OF POLYPROPYLENE




## CONSTRUCTION DETAILS



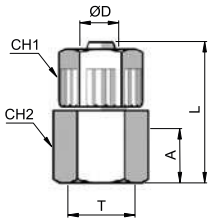

## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|
| Nm | 0,01 | 0,3 | 1,3 | 2,7 | 5,4 |

## 2105 Female connector BSPT thread

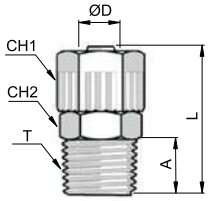





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2105TR186 | 6/4 | R 1/8" | 10,0 | 26,3 | 14 | 14 | 3,0 |
| 2105TR146 | | R 1/4" | 11,0 | 27,8 | 14 | 17 | 3,0 |
| 2105TR188 | 8/5,5 | R 1/8" | 9,5 | 26,3 | 14 | 14 | 3,0 |
| 2105TR148 | | R 1/4" | 11,0 | 28,0 | 14 | 17 | 4,0 |
| 2105TR388 | | R 3/8" | 11,2 | 30,6 | 14 | 22 | 5,0 |
| 2105TR128 | | R 1/2" | 13,5 | 32,5 | 14 | 26 | 6,0 |
| 2105TR1410 | 10/7 | R 1/4" | 10,0 | 31,7 | 17 | 17 | 6,0 |
| 2105TR3810 | | R 3/8" | 11,0 | 33,0 | 17 | 22 | 7,0 |
| 2105TR1210 | | R 1/2" | 13,8 | 35,4 | 17 | 26 | 7,0 |

## 2110 Male connector BSPT thread

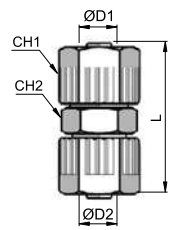





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2110TR186 | 6/4 | R 1/8" | 8,0 | 27,5 | 14 | 13 | 3,0 |
| 2110TR146 | | R 1/4" | 10,5 | 29,7 | 14 | 14 | 3,0 |
| 2110TR386 | | R 3/8" | 10,5 | 32,5 | 14 | 17 | 4,5 |
| 2110TR126 | | R 1/2" | 13,0 | 35,5 | 14 | 22 | 6,0 |
| 2110TR346 | | R 3/4" | 9,0 | 36,6 | 14 | 27 | 8,0 |
| 2110TR188 | 8/5,5 | R 1/8" | 8,0 | 27,6 | 14 | 13 | 3,0 |
| 2110TR148 | | R 1/4" | 10,5 | 29,5 | 14 | 14 | 3,0 |
| 2110TR388 | | R 3/8" | 10,5 | 31,4 | 14 | 17 | 4,0 |
| 2110TR128 | | R 1/2" | 13,0 | 36,1 | 14 | 22 | 5,0 |
| 2110TR348 | | R 3/4" | 9,0 | 36,6 | 14 | 27 | 8,0 |
| 2110TR1410 | 10/7 | R 1/4" | 10,5 | 35,8 | 17 | 17 | 4,0 |
| 2110TR3810 | | R 3/8" | 10,5 | 35,8 | 17 | 17 | 5,0 |
| 2110TR1210 | | R 1/2" | 12,0 | 38,9 | 17 | 22 | 6,0 |
| 2110TR3410 | | R 3/4" | 13,0 | 39,7 | 17 | 27 | 6,0 |
| 2110TR1412 | 12/9 | R 1/4" | 10,5 | 37,3 | 19 | 14 | 6,0 |
| 2110TR3812 | | R 3/8" | 10,5 | 37,3 | 19 | 17 | 7,0 |
| 2110TR1212 | | R 1/2" | 12,5 | 40,1 | 19 | 22 | 7,0 |
| 2110TR3412 | | R 3/4" | 13,0 | 40,1 | 19 | 27 | 8,0 |

## 2115 Union connector

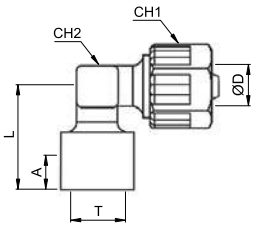





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2115TR6 | 6/4 | 6/4 | 32,7 | 14 | 14 | 4,0 |
| 2115TR8 | 8/5,5 | 8/5,5 | 32,7 | 14 | 14 | 4,0 |
| 2115TR12 | 12/9 | 12/9 | 40,6 | 19 | 19 | 8,0 |
| REDUCED UNION CONNECTOR | | | | | | |
| 2115TR86 | 8/5,5 | 6/4 | 32,7 | 14 | 14 | 4,0 |

## 2130 Female elbow BSPT thread

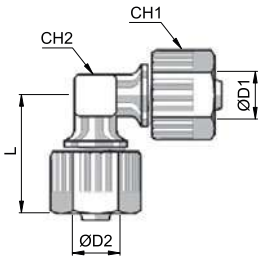





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2130TR186 | 6/4 | R 1/8" | 10,5 | 19,5 | 14 | 9 | 5,0 |
| 2130TR146 | | R 1/4" | 12,3 | 22,5 | 14 | 9 | 5,0 |
| 2130TR148 | 8/5,5 | R 1/4" | 12,3 | 22,5 | 14 | 9 | 6,0 |

## 2135 Union elbow

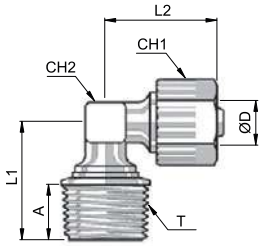





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2135TR6 | 6/4 | 6/4 | 23,3 | 14 | 8 | 4,0 |
| 2135TR8 | 8/5,5 | 8/5,5 | 23,5 | 14 | 8 | 4,0 |
| 2135TR12 | 12/9 | 12/9 | 32,0 | 19 | 15 | 10,0 |
| REDUCED UNION CONNECTOR | | | | | | |
| 2135TR86 | 8/5,5 | 6/4 | 23,3 | 14 | 8 | 4,4 |

## 2140 Male elbow BSPT thread

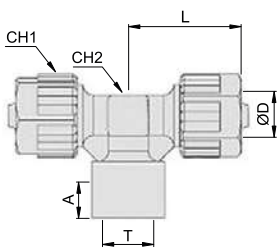





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2140TR186 | 6/4 | R 1/8" | 8,0 | 18,5 | 22,5 | 14 | 8 | 2,0 |
| 2140TR146 | | R 1/4" | 10,0 | 23,0 | 22,5 | 14 | 8 | 3,0 |
| 2140TR188 | 8/5,5 | R 1/8" | 8,5 | 18,5 | 23,0 | 14 | 8 | 3,0 |
| 2140TR148 | | R 1/4" | 11,0 | 23,0 | 23,0 | 14 | 8 | 3,0 |
| 2140TR388 | | R 3/8" | 11,0 | 23,5 | 23,0 | 14 | 8 | 5,0 |
| 2140TR1412 | 12/9 | R 1/4" | 10,0 | 24,0 | 33,0 | 19 | 15 | 7,0 |
| 2140TR3812 | | R 3/8" | 10,0 | 24,5 | 33,0 | 19 | 15 | 6,0 |
| 2140TR1212 | | R 1/2" | 13,0 | 28,5 | 33,0 | 19 | 15 | 9,0 |

## 2150 Female tee BSPT thread

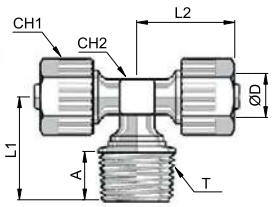





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2150TR186 | 6/4 | R 1/8" | 10,2 | 23,3 | 14 | 8 | 5,82 |
| 2150TR148 | 8/5,5 | R 1/4" | 12,5 | 23,4 | 14 | 8 | 5,82 |

## 2155 Male tee BSPT thread

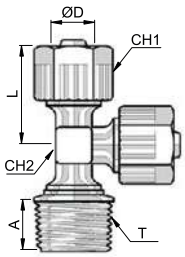





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2155TR186 | 6/4 | R 1/8" | 9,0 | 19,0 | 23,4 | 14 | 8 | 6,0 |
| 2155TR146 | | R 1/4" | 11,0 | 21,0 | 23,4 | 14 | 8 | 6,0 |
| 2155TR188 | 8/5,5 | R 1/8" | 9,0 | 19,0 | 23,4 | 14 | 8 | 5,0 |
| 2155TR148 | | R 1/4" | 11,0 | 21,0 | 23,4 | 14 | 8 | 6,0 |
| 2155TR388 | | R 3/8" | 11,0 | 21,0 | 23,6 | 14 | 8 | 7,0 |
| 2155TR1412 | 12/9 | R 1/4" | 11,0 | 21,0 | 33,5 | 14 | 8 | 12,0 |
| 2155TR3812 | | R 3/8" | 10,7 | 24,5 | 33,5 | 19 | 15 | 14,0 |
| 2155TR1212 | | R 1/2" | 15,0 | 28,5 | 33,5 | 19 | 15 | 15,0 |

## 2160 Lateral male tee BSPT thread

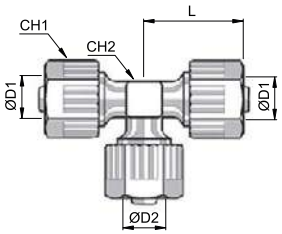





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2160TR186 | 6/4 | R 1/8" | 8,5 | 20,9 | 14 | 8 | 5,0 |
| 2160TR146 | | R 1/4" | 11,0 | 23,1 | 14 | 8 | 5,0 |
| 2160TR188 | 8/5,5 | R 1/8" | 8,5 | 20,9 | 14 | 8 | 5,0 |
| 2160TR148 | | R 1/4" | 11,0 | 23,1 | 14 | 8 | 5,0 |
| 2160TR388 | | R 3/8" | 10,0 | 29,4 | 14 | 8 | 7,0 |
| 2160TR1412 | 12/9 | R 1/4" | 10,0 | 28,8 | 19 | 15 | 12,0 |
| 2160TR3812 | | R 3/8" | 11,0 | 29,5 | 19 | 15 | 14,0 |
| 2160TR1212 | | R 1/2" | 15,0 | 31,3 | 19 | 15 | 15,0 |

## 2165 Union tee

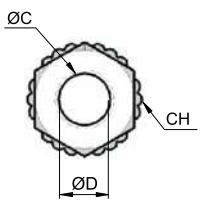





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2165TR6 | 6/4 | 6/4 | 23,4 | 14 | 8 | 7,0 |
| 2165TR8 | 8/5,5 | 8/5,5 | 23,4 | 14 | 8 | 5,0 |
| 2165TR12 | 12/9 | 12/9 | 33,55 | 19 | 14 | 14,0 |
| REDUCED UNION TEE | | | | | | |
| 2165TR68 | 6/4 | 8/5,5 | 46,8 | 14 | 8 | 6,48 |
| 2165TR86 | 8/5,5 | 6/4 | 46,8 | 14 | 8 | 6,41 |

## 2230 Locking nut





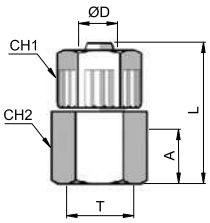

| CODE | ØD | ØC | CH | g |
|---|---|---|---|---|
| 2230TR6BL | 6/4 | 6,2 | 16 | 1,0 |
| 2230TR8BL | 8/5,5 | 8,1 | 16 | 2,0 |
| 2230TR10BL | 10/7 | 10,2 | 19 | 3,0 |
| 2230TR12BK | 12/9 | 12,8 | 22 | 4,0 |

**2230TR12BK:** Black locking nut

## 2105N

Female connector NPT thread



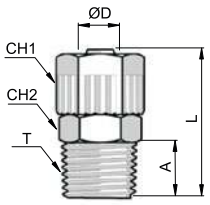



| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2105TRN1814 | 1/4 | N 1/8" | 13,0 | 26,3 | 16 | 14 | 3,0 |
| 2105TRN18516 | 5/16 | N 1/8" | - | 26,3 | 16 | 14 | - |
| 2105TRN14516 | | N 1/4" | - | 32,1 | 16 | 17 | - |
| 2105TRN38516 | | N 3/8" | - | 32,2 | 19 | 22 | - |
| 2105TRN12516 | | N 1/2" | - | 37,5 | 22 | 27 | - |
| 2105TRN1438 | 3/8 | N 1/4" | 16,5 | 34,5 | 19 | 17 | 5,0 |
| 2105TRN3838 | | N 3/8" | 16,7 | 34,5 | 19 | 22 | 6,5 |
| 2105TRN1238 | | N 1/2" | - | 38,0 | 19 | 27 | - |

## 2110N

Male connector NPT thread



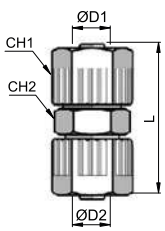



| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2110TRN1814 | 1/4 | N 1/8" | 8,5 | 29,4 | 14 | 11 | 2,56 |
| 2110TRN1414 | | N 1/4" | 13 | 34,0 | 14 | 14 | 3,33 |
| 2110TRN1214 | | N 1/2" | 18 | 40,2 | 14 | 22 | 6,76 |
| 2110TRN18516 | 5/16 | N 1/8" | 8,5 | 29,4 | 14 | 11 | 2,71 |
| 2110TRN14516 | | N 1/4" | 13 | 34,0 | 14 | 14 | 3,07 |
| 2110TRN38516 | | N 3/8" | 13 | 35,1 | 14 | 17 | 4,17 |
| 2110TRN1438 | 3/8 | N 1/4" | 13 | 37,6 | 17 | 14 | 4,39 |
| 2110TRN3838 | | N 3/8" | 13 | 38,6 | 17 | 17 | 5,55 |
| 2110TRN1238 | | N 1/2" | 18 | 43,7 | 17 | 22 | 7,63 |
| 2110TRN3438 | | N 3/4" | - | 44,4 | 17 | 27 | 10,12 |
| 2110TRN1412 | 1/2 | N 1/4" | 13 | 38,8 | 19 | 14 | 5,11 |
| 2110TRN3812 | | N 3/8" | 13 | 40 | 19 | 17 | 6,18 |
| 2110TRN1212 | | N 1/2" | 18 | 45 | 19 | 22 | 8,34 |

## 2115N

Union connector

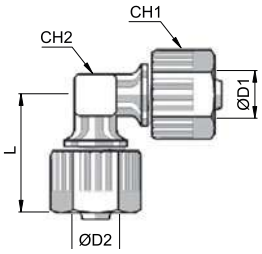





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2115TRN14 | 1/4 | 1/4 | 32,5 | 14 | 14 | 4,14 |
| 2115TRN516 | 5/16 | 5/16 | 32,6 | 14 | 14 | 4,09 |
| 2115TRN12 | 1/2 | 1/2 | 40,4 | 19 | 19 | 8,26 |

## 2135N — Union elbow connector

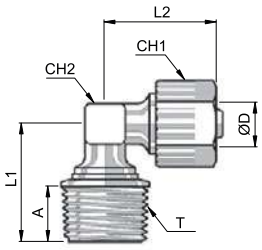





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2135TRN14 | 1/4 | 1/4 | 23,3 | 14 | 8 | 4,48 |
| 2135TRN516 | 5/16 | 5/16 | 23,5 | 14 | 8 | 4,35 |

## 2140N — Male elbow NPT thread

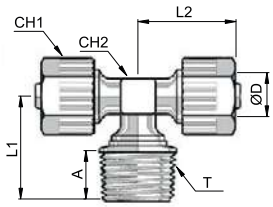





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2140TRN1814 | 1/4 | N 1/8" | 10 | 19,5 | 22,5 | 14 | 8 | 3,2 |
| 2140TRN1414 | | N 1/4" | 12,5 | 23,3 | 22,5 | 14 | 8 | 3,83 |
| 2140TRN18516 | 5/16 | N 1/8" | 12,5 | 23,5 | 22,5 | 14 | 8 | 3,13 |
| 2140TRN14516 | | N 1/4" | 10 | 19,5 | 22,5 | 14 | 8 | 3,81 |

## 2155N — Male tee NPT thread





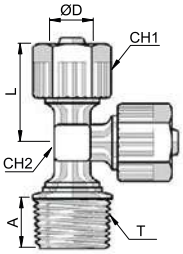

| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2155TRN1814 | 1/4 | N 1/8" | 10 | 20,3 | 23,4 | 14 | 8 | 5,25 |
| 2155TRN1414 | | N 1/4" | 12,5 | 25 | 23,4 | 14 | 8 | 5,74 |
| 2155TRN18516 | 5/16 | N 1/8" | 10 | 20,3 | 23,4 | 14 | 8 | 5,17 |
| 2155TRN14516 | | N 1/4" | 12,5 | 25 | 23,4 | 14 | 8 | 5,81 |
| 2155TRN3812 | 1/2 | N 3/8" | 14 | 30,2 | 33,5 | 19 | 15 | 13,06 |
| 2155TRN1212 | | N 1/2" | 17,5 | 33 | 33,5 | 19 | 15 | 13,79 |

*drawings and technical data are not binding & can be changed without notice*

## 2160N

Lateral male tee NPT thread



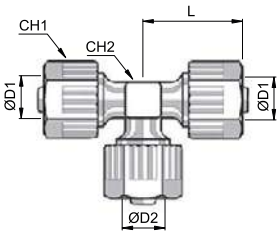



| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2160TRN1814 | 1/4 | N 1/8" | - | 21,7 | 14 | 8 | 5,28 |
| 2160TRN1414 | | N 1/4" | - | 24,1 | 14 | 8 | 5,88 |
| 2160TRN18516 | 5/16 | N 1/8" | 10 | 21,7 | 14 | 8 | 5,04 |
| 2160TRN14516 | | N 1/4" | 13,3 | 24,1 | 14 | 8 | 5,62 |

## 2165N

Union tee






| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2165TRN14 | 1/4 | 1/4 | 27,4 | 14 | - | 6,52 |
| 2165TRN516 | 5/16 | 5/16 | 27,4 | 14 | - | 6,29 |
| 2165TRN12 | 1/2 | 1/2 | 40,4 | 19 | 14 | 14,84 |



# PUSH-ON FITTINGS PVDF

D.M. 174

NSF

## PLUS

- EXCELLENT CLAMPING SYSTEM WITH THE CLOSING NUT THAT GUARANTEES AN EXCELLENT GRIP BETWEEN FITTING AND TUBE
- RESISTANT TO CONTACT WITH CHEMICALS AND CAN BE USED IN THE FOOD SECTOR
- EXTREMLY SIMPLE TO USE FOLLOWING TECHNICAL INFORMATION
- ENVIRONMENTALLY FRIENDLY AND NON-TOXIC
- RESISTANT TO COSTANT HIGH LEVEL TEMPERATURES
- OPTIMISATION OF INTERNAL STEPS WHICH GUARANTEE FULL FLUID PASSAGE



p. 152 / **2900**



p. 152 / **2905**



p. 152 / **2910**



p. 153 / **2915**



p. 153 / **2930**



p. 153 / **2935**



p. 153 / **2940**



p. 154 / **2943**



p. 154 / **2950**



p. 154 / **2955**



p. 154 / **2960**



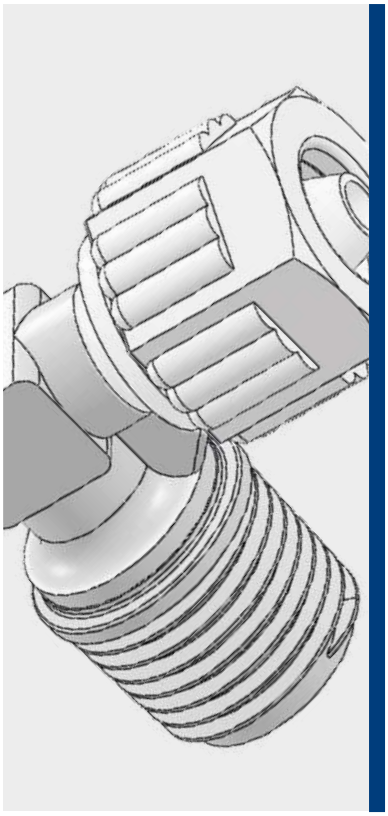
p. 155 / **2970**



p. 155 / **2965**



p. 155 / **2230**



-20°C ÷ +120°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R3/4"
- Parallel gas BSPP ISO 228 G1/8" and G 1/4"

Polyurethane, Polyethylene, Polyamide, PTFE, FEP

**Body:** Polyvinylidene fluoride (PVDF)
**Lock nut:** Polypropylene
**O-ring:** Silicone (2900)
Viton (2943)

**AVAILABILITY:**
NPT threads with inch tube available on demand

Food contact materials EC 1935/2004

D.M. 174/2004

NSF 61 / NSF 372
NSF certificate on behalf of Tefen Flow and Dosing Technologies Ltd.

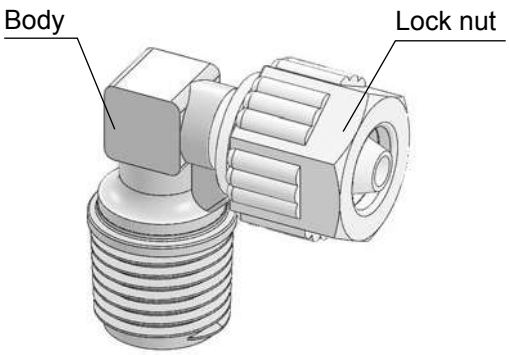
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## FEATURES

- The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.
- It is reccomended to insert the tube to the end and tighten the nut before using.
- Cut the part of the tube attached to the fitting in order to reutilize it.

## CONSTRUCTION DETAILS



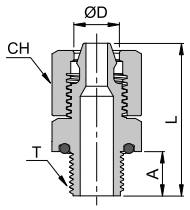

## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|
| Nm | 0,1 | 1 | 4 | 8 | 16 |

## 2900 Male connector BSPP thread with o-ring



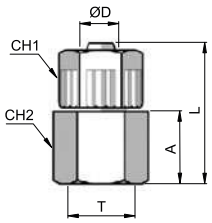



| CODE | ØD | T | A | L | CH | g |
|---|---|---|---|---|---|---|
| 2900TR186 | 6/4 | G 1/8" | 8,5 | 27,2 | 14 | 4,15 |
| 2900TR146 | | G 1/4" | 8 | 30,9 | 14 | 5,4 |
| 2900TR188 | 8/5,5 | G 1/8" | 8,5 | 27,3 | 14 | 4,1 |
| 2900TR148 | | G 1/4" | 8 | 31,1 | 14 | 6,0 |
| 2900TR1810 | 10/7 | G 1/8" | 8,5 | 27,2 | 17 | 6,0 |
| 2900TR1410 | | G 1/4" | 8 | 31,0 | 17 | 6,5 |

The 2900 fitting is not certified EC 1935/2004 (Food contact materials) and D.M. 174/2004

## 2905 Female connector BSPT thread

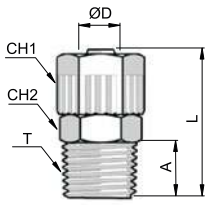





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2905TR186 | 6/4 | R 1/8" | 10 | 26,3 | 14 | 14 | 3,0 |
| 2905TR146 | | R 1/4" | 11 | 27,3 | 14 | 17 | 3,0 |
| 2905TR188 | 8/5,5 | R 1/8" | 9 | 26,3 | 14 | 14 | 3,0 |
| 2905TR148 | | R 1/4" | 11 | 28,0 | 14 | 17 | 4,0 |
| 2905TR388 | | R 3/8" | 11 | 30,6 | 14 | 22 | 5,0 |
| 2905TR128 | | R 1/2" | 13,5 | 32,5 | 14 | 26 | 6,0 |
| 2905TR1410 | 10/7 | R 1/4" | 10 | 31,7 | 17 | 17 | 6,0 |
| 2905TR3810 | | R 3/8" | 11 | 33,0 | 17 | 22 | 7,0 |
| 2905TR1210 | | R 1/2" | 14 | 35,1 | 17 | 26 | 7,0 |

## 2910 Male connector BSPT thread

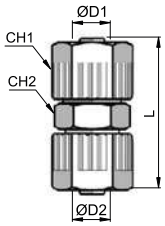





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2910TR186 | 6/4 | R 1/8" | 8 | 27,5 | 14 | 13 | 3,0 |
| 2910TR146 | | R 1/4" | 10,5 | 29,7 | 14 | 15 | 3,0 |
| 2910TR386 | | R 3/8" | 10,5 | 32,5 | 14 | 17 | 6,5 |
| 2910TR126 | | R 1/2" | 13 | 35,5 | 14 | 22 | 6,0 |
| 2910TR346 | | R 3/4" | 9 | 35,5 | 14 | 27 | 8,0 |
| 2910TR188 | 8/5,5 | R 1/8" | 8 | 27,6 | 14 | 13 | 3,0 |
| 2910TR148 | | R 1/4" | 10,5 | 29,5 | 14 | 15 | 3,0 |
| 2910TR388 | | R 3/8" | 10,5 | 31,4 | 14 | 18 | 4,0 |
| 2910TR128 | | R 1/2" | 13 | 36,1 | 14 | 22 | 5,0 |
| 2910TR348 | | R 3/4" | 9 | 26,1 | 14 | 27 | 8,0 |
| 2910TR1410 | 10/7 | R 1/4" | 10,5 | 36,1 | 17 | 17 | 4,0 |
| 2910TR3810 | | R 3/8" | 10,5 | 35,8 | 17 | 17 | 5,0 |
| 2910TR1210 | | R 1/2" | 12 | 38,9 | 17 | 22 | 6,0 |
| 2910TR3410 | | R 3/4" | 13 | 38,9 | 17 | 27 | 6,0 |
| 2910TR1412 | 12/9 | R 1/4" | 10,5 | 37,3 | 19 | 17 | 6,0 |
| 2910TR3812 | | R 3/8" | 10,5 | 37,3 | 19 | 17 | 7,0 |
| 2910TR1212 | | R 1/2" | 12,5 | 40,1 | 19 | 22 | 7,0 |
| 2910TR3412 | | R 3/4" | 13 | 40,1 | 19 | 27 | 15,65 |

## 2915 Union connector

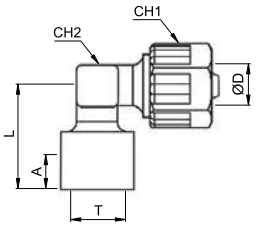





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2915TR6 | 6/4 | 6/4 | 32,7 | 14 | 14 | 4,0 |
| 2915TR8 | 8/5,5 | 8/5,5 | 32,7 | 14 | 14 | 4,0 |
| 2915TR12 | 12/9 | 12/9 | 40,6 | 19 | 18 | 8,0 |
| REDUCED UNION CONNECTOR | | | | | | |
| 2915TR86 | 8/5,5 | 6/4 | 32,7 | 14 | 14 | 4,0 |

## 2930 Female elbow BSPT thread

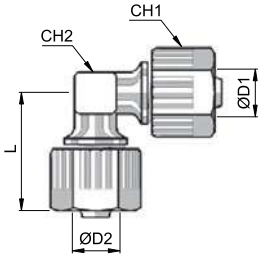





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2930TR186 | 6/4 | R 1/8" | 10,5 | 19,5 | 14 | 9 | 5,0 |
| 2930TR146 | | R 1/4" | 12,3 | 22,5 | 14 | 9 | 5,0 |
| 2930TR148 | 8/5,5 | R 1/4" | 12,3 | 22,5 | 14 | 9 | 6,0 |

## 2935 Union elbow

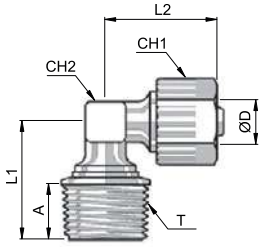





| CODE | ØD | L | CH1 | CH2 | g |
|---|---|---|---|---|---|
| 2935TR6 | 6/4 | 23,3 | 14 | 8 | 4,0 |
| 2935TR8 | 8/5,5 | 23,5 | 14 | 8 | 4,0 |
| 2935TR12 | 12/9 | 32,0 | 19 | 15 | 10,0 |

## 2940 Male elbow BSPT thread

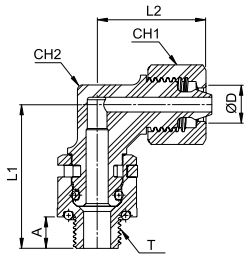





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2940TR186 | 6/4 | R 1/8" | 8 | 18,5 | 22,5 | 14 | 8 | 2,0 |
| 2940TR146 | | R 1/4" | 10 | 23,0 | 22,5 | 14 | 8 | 3,0 |
| 2940TR188 | 8/5,5 | R 1/8" | 8,5 | 18,5 | 23,0 | 14 | 8 | 3,0 |
| 2940TR148 | | R 1/4" | 11 | 23,0 | 23,0 | 14 | 8 | 3,0 |
| 2940TR388 | | R 3/8" | 11 | 23,5 | 23,0 | 14 | 8 | 5,0 |
| 2940TR1412 | 12/9 | R 1/4" | 10 | 24,0 | 33,0 | 19 | 15 | 7,0 |
| 2940TR3812 | | R 3/8" | 10 | 24,5 | 33,0 | 19 | 15 | 6,0 |
| 2940TR1212 | | R 1/2" | 13 | 28,5 | 33,0 | 19 | 15 | 9,0 |

## 2943 Swivel male elbow BSPP thread with o-ring



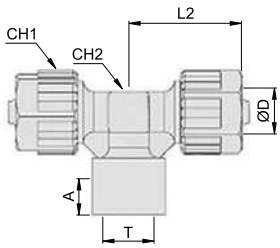



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2943TR188 | 8/5,5 | G 1/8" | 8,5 | 33,2 | 27,3 | 16 | 8 | 9,5 |
| 2943TR148 | | G 1/4" | 8 | 33,2 | 27,3 | 16 | 8 | 10,0 |

The 2943 fitting is not certified EC 1935/2004 (Food contact materials) and D.M. 174/2004

## 2950 Female tee BSPT thread

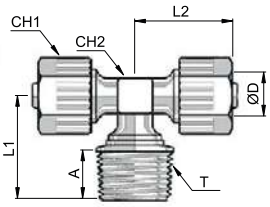





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2950TR186 | 6/4 | R 1/8" | 10,2 | 23,3 | 14 | 8 | 8,15 |
| 2950TR148 | 8/5,5 | R 1/4" | 12,5 | 23,4 | 14 | 8 | 8,7 |

## 2955 Male tee BSPT thread

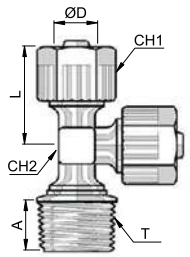





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2955TR186 | 6/4 | R 1/8" | 9 | 19,0 | 23,4 | 14 | 8 | 6,0 |
| 2955TR146 | | R 1/4" | 11 | 21,0 | 23,4 | 14 | 8 | 6,0 |
| 2955TR188 | 8/5,5 | R 1/8" | 9 | 19,0 | 23,4 | 14 | 8 | 5,0 |
| 2955TR148 | | R 1/4" | 11 | 21,0 | 23,4 | 14 | 8 | 6,0 |
| 2955TR388 | | R 3/8" | 11 | 21,0 | 23,6 | 14 | 8 | 7,0 |
| 2955TR1412 | 12/9 | R 1/4" | 11 | 21,0 | 33,5 | 14 | 8 | 12,0 |
| 2955TR3812 | | R 3/8" | 10,7 | 24,5 | 33,5 | 19 | 15 | 14,0 |
| 2955TR1212 | | R 1/2" | 15 | 28,5 | 33,5 | 19 | 15 | 15,0 |

## 2960 Lateral male tee BSPT thread

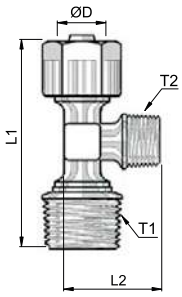





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2960TR186 | 6/4 | R 1/8" | 8,5 | 20,9 | 14 | 8 | 5,0 |
| 2960TR146 | | R 1/4" | 11 | 23,1 | 14 | 8 | 5,0 |
| 2960TR188 | 8/5,5 | R 1/8" | 8,5 | 20,9 | 14 | 8 | 5,0 |
| 2960TR148 | | R 1/4" | 11 | 23,1 | 14 | 8 | 5,0 |
| 2960TR388 | | R 3/8" | 10 | 29,4 | 14 | 8 | 7,0 |
| 2960TR1412 | 12/9 | R 1/4" | 10 | 28,8 | 19 | 15 | 12,0 |
| 2960TR3812 | | R 3/8" | 11 | 31,2 | 19 | 15 | 14,0 |
| 2960TR1212 | | R 1/2" | 15 | 31,3 | 19 | 15 | 15,0 |

## 2970 Lateral male tee BSPT thread

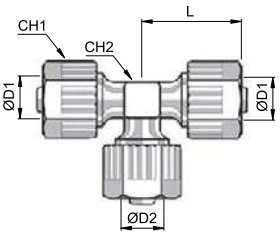





| CODE | ØD | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 2970TR148 | 8/5,5 | R 1/4" | R 1/8" | 46,2 | 22,6 | 7,15 |

## 2965 Union tee

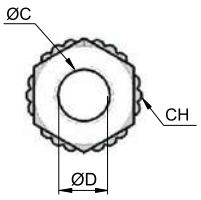





| CODE | ØD1 | ØD2 | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 2965TR6 | 6/4 | 6/4 | 23,4 | 14 | 8 | 7,0 |
| 2965TR8 | 8/5,5 | 8/5,5 | 23,4 | 14 | 8 | 5,0 |
| 2965TR12 | 12/9 | 12/9 | 33,2 | 19 | 14 | 14,0 |
| REDUCED UNION TEE | | | | | | |
| 2965TR68 | 8/5,5 | 6/4 | 23,4 | 14 | 8 | 9,0 |
| 2965TR86 | 6/4 | 8/5,5 | 23,4 | 14 | 8 | 8,7 |

## 2230 Locking nut






| CODE | ØD | ØC | CH | g |
|---|---|---|---|---|
| 2230TR6W | 6/4 | 6 | 14 | 1,0 |
| 2230TR8W | 8/5,5 | 8 | 14 | 2,0 |



# PUSH-ON FITTINGS
## STAINLESS STEEL AISI 316L

D.M. 174

## PLUS

**GREAT GRIPPING SYSTEM WITH THE LOCKING NUT AND WITHOUT SEALING ELEMENTS (EXCLUDING SWIVEL FITTINGS)**

**SUITABLE FOR POTABLE WATER AND FOOD FLUIDS CONTACT**

**EASY TO USE AND EXTREMELY RESISTANT IN CORROSIVE ENVIRONMENTS**

**FULL STAINLESS STEEL AISI 316L SUITABLE FOR THE CHEMICAL INDUSTRY**

**THANKS TO THE CONICAL GUIDE THEY ARE PARTICULARY SUITABLE TO RESIST WITH EXTREME OPERATIONAL CONDITIONS**



p. 160 / **2700**



p. 160 / **2710**



p. 160 / **2720**



p. 161 / **2725**



p. 161 / **2730**



p. 161 / **2740**



p. 162 / **2745**



p. 162 / **2750**



p. 162 / **2760**



p. 162 / **2770**



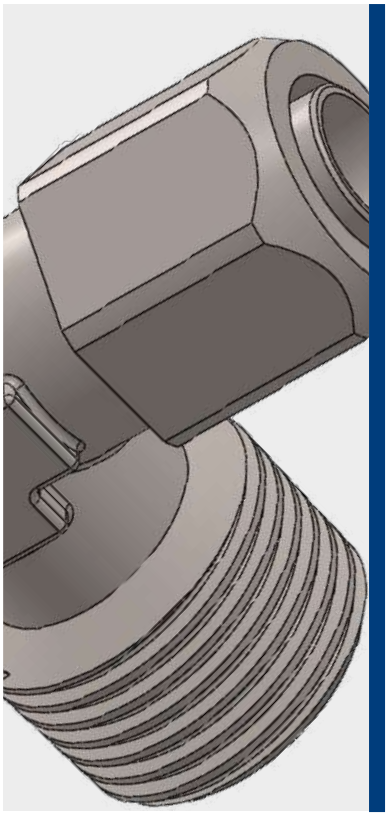
p. 163 / **2780**



p. 163 / **2790**



p. 163 / **2612**



- 40°C ÷ +140°C
0°C ÷ +140°C swivel fittings

**Working pressure:**
25 Bar (at 20°C)
16 Bar (at 20°C) swivel fittings

Compressed air, potable water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G 1/2"

Polyethylene PE, PTFE, FEP

**Body:** Stainless steel AISI 316L
**Lock nut:** Stainless steel AISI 316L
**O-ring:** FKM (swivel fittings)
FDA compliant

Food contact materials EC 1935/2004

D.M. 174/2004

SILICONE FREE

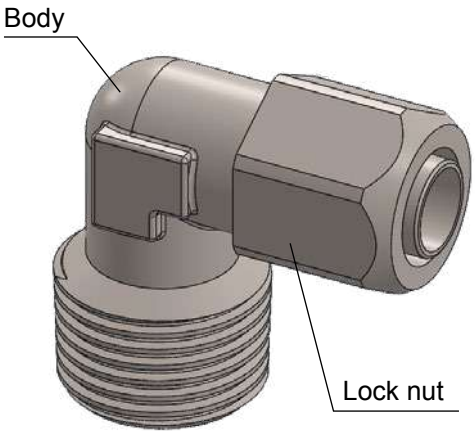
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## TOLLERANCES - METRIC TUBE

| Ø TUBE (mm) | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|
| TOLLERANCE (mm) | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,1 | ± 0,15 |

## CONSTRUCTION DETAILS




## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 6-9 | 12-15 | 16-20 | 18-22 |

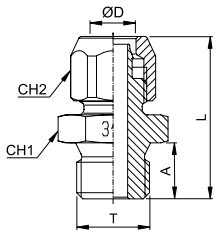
## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 4-6 | 7-9 | 8-10 | 12-15 |

*drawings and technical data are not binding & can be changed without notice*

## 2700 Male connector BSPP thread

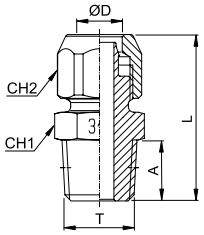





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2700TR1864 | 6/4 | G 1/8" | 8,0 | 18,5 | 13 | 12 | 15,0 |
| 2700TR1464 | | G 1/4" | 10,0 | 19,0 | 17 | 12 | 24,0 |
| 2700TR1886 | 8/6 | G 1/8" | 8,0 | 18,5 | 13 | 14 | 18,0 |
| 2700TR1486 | | G 1/4" | 10,0 | 19,0 | 17 | 14 | 27,0 |
| 2700TR18108 | 10/8 | G 1/8" | 8,0 | 20,0 | 14 | 17 | 28,0 |
| 2700TR14108 | | G 1/4" | 10,0 | 20,5 | 17 | 17 | 33,0 |
| 2700TR38108 | | G 3/8" | 10,0 | 20,5 | 19 | 17 | 40,5 |
| 2700TR381210 | 12/10 | G 3/8" | 10,0 | 22,0 | 19 | 19 | 44,0 |
| 2700TR121210 | | G 1/2" | 12,0 | 22,5 | 24 | 19 | 47,0 |

## 2710 Male connector BSPT thread

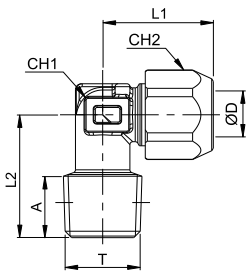





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 2710TR1864 | 6/4 | R 1/8" | 7,5 | 26,0 | 12 | 12 | 19,0 |
| 2710TR1464 | | R 1/4" | 11,0 | 30,0 | 14 | 12 | 22,0 |
| 2710TR1886 | 8/6 | R 1/8" | 7,5 | 26,0 | 12 | 14 | 17,0 |
| 2710TR1486 | | R 1/4" | 11,0 | 30,0 | 14 | 14 | 25,0 |
| 2710TR18108 | 10/8 | R 1/8" | 7,5 | 27,5 | 14 | 17 | 28,0 |
| 2710TR14108 | | R 1/4" | 11,0 | 31,5 | 14 | 17 | 30,5 |
| 2710TR38108 | | R 3/8" | 11,5 | 32,0 | 17 | 17 | 41,0 |
| 2710TR381210 | 12/10 | R 3/8" | 11,5 | 33,5 | 17 | 19 | 44,0 |
| 2710TR121210 | | R 1/2" | 14,0 | 36,5 | 22 | 19 | 44,0 |

## 2720 Male elbow BSPT thread



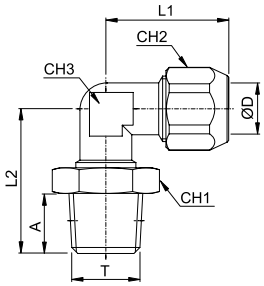



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2720TR1864 | 6/4 | R 1/8" | 7,5 | 17,5 | 17,0 | 8 | 12 | 15,0 |
| 2720TR1464 | | R 1/4" | 10,5 | 17,5 | 20,0 | 9 | 12 | 20,0 |
| 2720TR1886 | 8/6 | R 1/8" | 7,5 | 18,5 | 18,0 | 9 | 14 | 19,0 |
| 2720TR1486 | | R 1/4" | 10,5 | 18,5 | 21,0 | 10 | 14 | 24,0 |
| 2720TR3886 | | R 3/8" | 11 | 26,5 | 24,5 | 13 | 14 | 41,5 |
| 2720TR18108 | 10/8 | R 1/8" | 9,0 | 24,5 | 18,5 | 10 | 17 | 27,0 |
| 2720TR14108 | | R 1/4" | 10,5 | 24,5 | 21,0 | 10 | 17 | 30,5 |
| 2720TR38108 | | R 3/8" | 11,0 | 27,0 | 24,5 | 13 | 17 | 46,0 |
| 2720TR381210 | 12/10 | R 3/8" | 11,5 | 29,0 | 25,0 | 13 | 19 | 48,5 |
| 2720TR121210 | | R 1/2" | 14,0 | 30,5 | 29,0 | 17 | 19 | 66,0 |

*drawings and technical data are not binding & can be changed without notice*

## 2725 Swivel male elbow BSPT thread

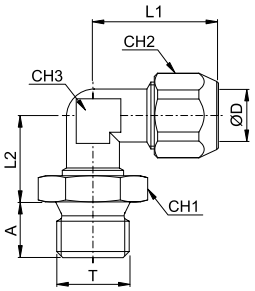





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2725TR1864 | 6/4 | R 1/8" | 7,5 | 22,5 | 21,5 | 13 | 12 | 10 | 24,0 |
| 2725TR1464 | | R 1/4" | 11,0 | 22,5 | 25,5 | 17 | 12 | 10 | 28,0 |
| 2725TR1886 | 8/6 | R 1/8" | 7,5 | 22,5 | 21,5 | 13 | 14 | 10 | 25,0 |
| 2725TR1486 | | R 1/4" | 11,0 | 22,5 | 25,5 | 17 | 14 | 10 | 30,0 |
| 2725TR14108 | 10/8 | R 1/4" | 11,0 | 24,0 | 25,5 | 17 | 17 | 10 | 35,5 |

## 2730 Swivel male elbow BSPP thread

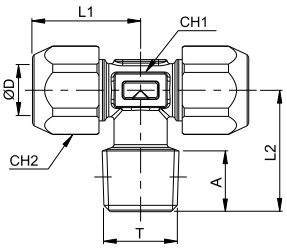





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2730TR1864 | 6/4 | G 1/8" | 8,0 | 22,5 | 14,0 | 13 | 12 | 10 | 25,0 |
| 2730TR1464 | | G 1/4" | 10,0 | 22,5 | 14,5 | 17 | 12 | 10 | 28,0 |
| 2730TR1886 | 8/6 | G 1/8" | 8,0 | 22,5 | 14,0 | 13 | 14 | 10 | 25,5 |
| 2730TR1486 | | G 1/4" | 10,0 | 22,5 | 14,5 | 17 | 14 | 10 | 29,5 |
| 2730TR14108 | 10/8 | G 1/4" | 10,0 | 24,0 | 14,5 | 17 | 17 | 10 | 36,0 |

## 2740 Male tee BSPT thread

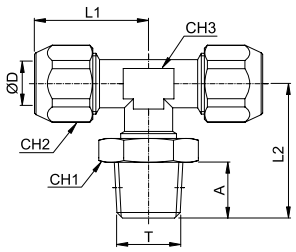





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 2740TR1864 | 6/4 | R 1/8" | 7,5 | 17,5 | 17,0 | 8 | 12 | 24,0 |
| 2740TR1464 | | R 1/4" | 10,5 | 17,5 | 20,0 | 9 | 12 | 29,0 |
| 2740TR1886 | 8/6 | R 1/8" | 7,5 | 18,5 | 18,0 | 9 | 14 | 30,0 |
| 2740TR1486 | | R 1/4" | 10,5 | 18,5 | 21,0 | 10 | 14 | 36,0 |
| 2740TR18108 | 10/8 | R 1/8" | 9,0 | 25,0 | 18,5 | 10 | 17 | 47,0 |
| 2740TR14108 | | R 1/4" | 10,5 | 25,0 | 21,0 | 10 | 17 | 51,0 |
| 2740TR38108 | | R 3/8" | 11,5 | 27,0 | 25,0 | 13 | 17 | 69,5 |
| 2740TR381210 | 12/10 | R 3/8" | 11,5 | 29,0 | 25,0 | 13 | 19 | 74,0 |
| 2740TR121210 | | R 1/2" | 14,0 | 30,5 | 29,0 | 17 | 19 | 106,0 |

## 2745 Swivel male tee BSPT thread

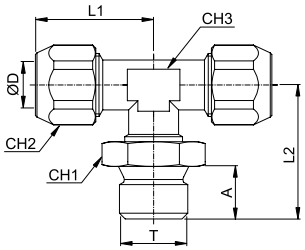





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2745TR1864 | 6/4 | R 1/8" | 7,5 | 22,5 | 21,5 | 13 | 12 | 10 | 35,5 |
| 2745TR1464 | | R 1/4" | 11,0 | 22,5 | 25,5 | 17 | 12 | 10 | 39,5 |
| 2745TR1886 | 8/6 | R 1/8" | 7,5 | 22,5 | 21,5 | 13 | 14 | 10 | 37,5 |
| 2745TR1486 | | R 1/4 | 11,0 | 22,5 | 25,5 | 17 | 14 | 10 | 42,0 |
| 2745TR14108 | 10/8 | R 1/4" | 11,0 | 24,0 | 25,5 | 17 | 17 | 10 | 53,0 |

## 2750 Swivel male tee BSPP thread

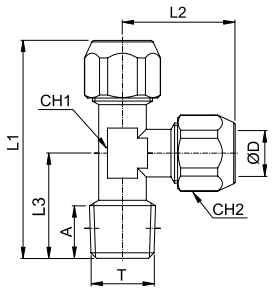





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2750TR1864 | 6/4 | G 1/8" | 8,0 | 22,5 | 14,0 | 13 | 12 | 10 | 35,5 |
| 2750TR1464 | | G 1/4" | 10,0 | 22,5 | 14,5 | 17 | 12 | 10 | 38,0 |
| 2750TR1886 | 8/6 | G 1/8" | 8,0 | 22,5 | 14,0 | 13 | 14 | 10 | 37,5 |
| 2750TR1486 | | G 1/4" | 10,0 | 22,5 | 14,5 | 17 | 14 | 10 | 41,5 |
| 2750TR14108 | 10/8 | G 1/4" | 10,0 | 24,0 | 14,5 | 17 | 17 | 10 | 54,0 |

## 2760 Lateral male tee BSPT thread

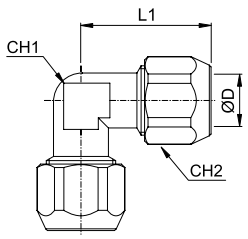





| CODE | ØD | T | A | L1 | L2 | L3 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|
| 2760TR1864 | 6/4 | R 1/8" | 9,0 | 41,0 | 22,5 | 18,5 | 10 | 12 | 30,0 |
| 2760TR1464 | | R 1/4" | 10,5 | 43,5 | 22,5 | 21,0 | 10 | 12 | 33,0 |
| 2760TR1886 | 8/6 | R 1/8" | 9,0 | 41,0 | 22,5 | 18,5 | 10 | 14 | 32,0 |
| 2760TR1486 | | R 1/4" | 10,5 | 43,5 | 22,5 | 21,0 | 10 | 14 | 35,0 |
| 2760TR18108 | 10/8 | R 1/8" | 9,0 | 43,5 | 25,0 | 18,5 | 10 | 17 | 45,0 |
| 2760TR14108 | | R 1/4" | 10,5 | 46,0 | 25,0 | 21,0 | 10 | 17 | 55,5 |
| 2760TR38108 | | R 3/8" | 11,5 | 52,0 | 27,0 | 25,0 | 13 | 17 | 68,0 |

## 2770 Union elbow

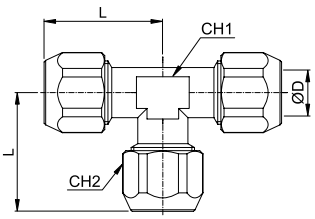





| CODE | ØD | L | CH1 | CH2 | g |
|---|---|---|---|---|---|
| 2770TR64 | 6/4 | 22,5 | 10 | 12 | 26,0 |
| 2770TR86 | 8/6 | 22,5 | 10 | 14 | 28,0 |
| 2770TR108 | 10/8 | 25,0 | 10 | 17 | 41,5 |
| 2770TR1210 | 12/10 | 29,0 | 13 | 19 | 60,0 |

## 2780 Union tee

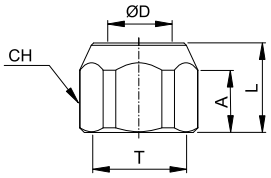





| CODE | ØD | L | CH1 | CH2 | g |
|---|---|---|---|---|---|
| 2780TR64 | 6/4 | 22,5 | 10 | 12 | 37,0 |
| 2780TR86 | 8/6 | 22,5 | 10 | 14 | 39,0 |
| 2780TR108 | 10/8 | 25,0 | 10 | 17 | 61,0 |
| 2780TR1210 | 12/10 | 29,0 | 13 | 19 | 115,0 |

## 2790 Locking nut

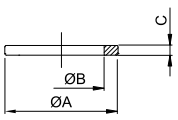





| CODE | ØD | T | A | L | CH | g |
|---|---|---|---|---|---|---|
| 2790TRM10164 | 6/4 | M10x1 | 8,0 | 11,5 | 12 | 5,0 |
| 2790TRM12186 | 8/6 | M12x1 | 8,0 | 11,5 | 14 | 6,0 |
| 2790TRM141108 | 10/8 | M14x1 | 9,5 | 13,5 | 17 | 13,0 |
| 2790TRM1611210 | 12/10 | M16x1 | 9,0 | 14,5 | 19 | 15,0 |

## 2612 PVC washer



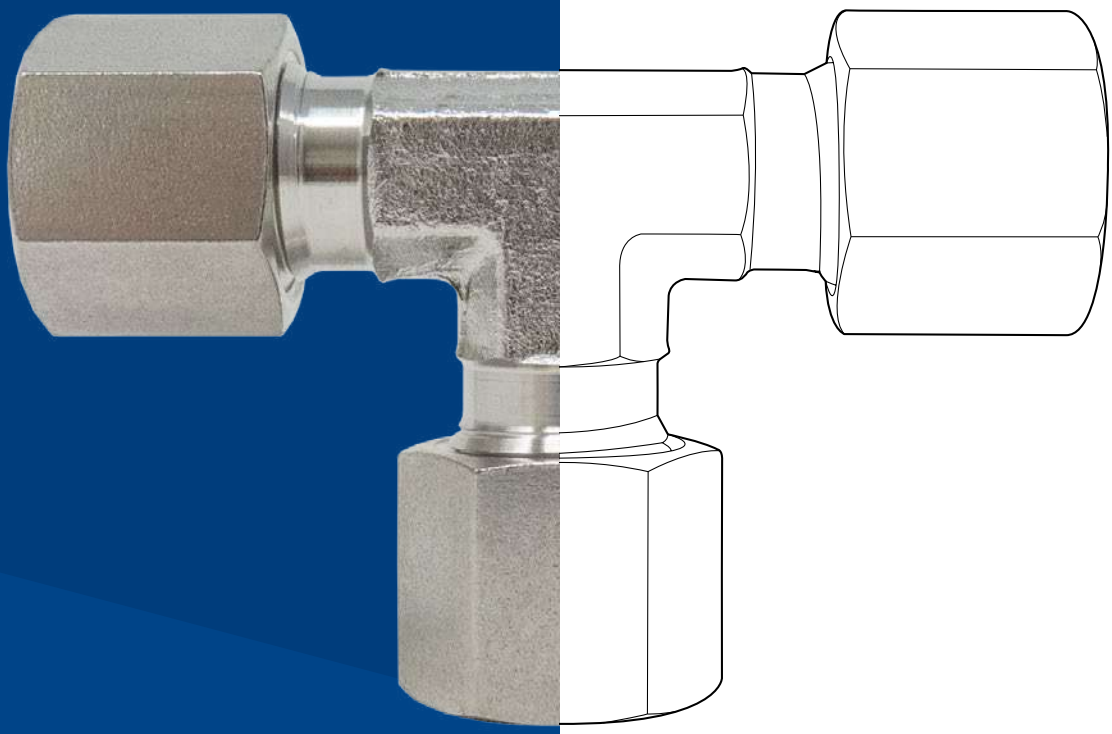



| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2612TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 18,0 |
| 2612TR14 | G 1/4" | 17,5 | 13,5 | 1,5 | 18,0 |
| 2612TR38 | G 3/8" | 21,0 | 16,7 | 1,5 | 18,0 |
| 2612TR12 | G 1/2" | 26,0 | 21,3 | 1,5 | 18,0 |

The 2612 PVC washer is not certified EC 1935/2004 (Food contact materials) and D.M. 174/2004



# COMPRESSION FITTINGS



# TECHNICAL INDEX



p. 167

**YELLOW BRASS**

**Materials:** Yellow brass
**Pressure:** from 60 to 100 Bar
**Temperature:** from 0°C to 80°C
**Range:** Ø4 - Ø28 / R1/8" to R1"
Ø4 - Ø28 / G1/8" to G1"



p. 181

**NICKEL-PLATED BRASS**

**Materials:** Nickel-plated brass
**Pressure:** 60 Bar
**Temperature:** from -20°C to 80°C
**Range:** Ø4 - Ø18 / R1/8" to R1/2"
Ø4 - Ø18 / G1/8" to G1/2"



p. 191

**STAINLESS STEEL AISI 316 DIN 2353**

**Materials:** Stainless steel AISI 316
**Pressure:** 100 - 630 Bar
**Temperature:** from -60°C to 400°C
**Range:** Ø4 - Ø16 / R1/8" to R1/2"
Ø6 - Ø16 / G1/8" to G3/4"

*drawings and technical data are not binding & can be changed without notice*

# COMPRESSION FITTINGS
YELLOW BRASS

## PLUS

**SUITABLE FOR MULTIPLE PNEUMATIC AND HYDRAILIC APPLICATIONS AT MEDIUM PRESSURE**

**EXCELLENT HOLD ON THE TUBE THANKS TO THE GRIPPING OF THE FITTING ON THE TUBE**

**RESISTANT TO VIBRATIONS AND TO WATER HAMMERS**

**HIGH STRENGHT STRUCTURE TO GUARANTEE EXCELLENT DURABILITY OVER TIME WITH EXCELLENT PERFOMANCE**

Range from **Ø4 TO Ø28mm**



p. 170 / **3400**



p. 171 / **3422**



p. 171 / **3430**



p. 172 / **3440**



p. 172 / **3442**



p. 173 / **3460**



p. 173 / **3465**



p. 174 / **3480**



p. 174 / **3490**



p. 174 / **3500**



p. 175 / **3510**



p. 175 / **3520**



p. 175 / **3530**



p. 176 / **3540**



p. 176 / **3560**



p. 177 / **3572**



p. 177 / **3467**



p. 178 / **3468**



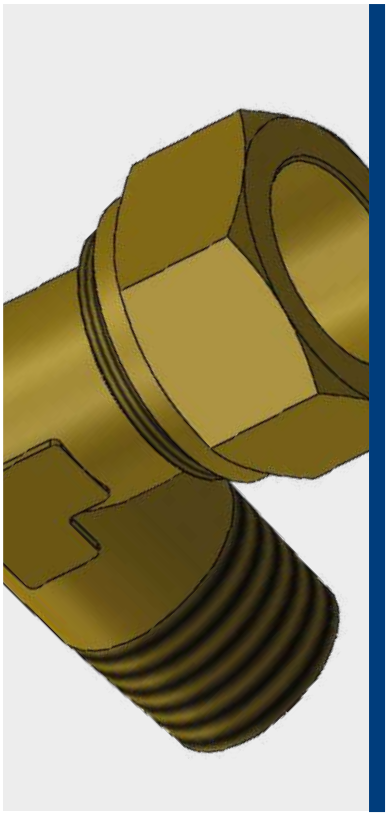
p. 178 / **ASR**



p. 179 / **ASR-HH**



p. 179 / **ASR-PU**



0°C ÷ +80°C

**Working pressure:**
form 60 to 100 Bar

For each size, the pressure is a function of the tube quality, condition, thickness and maximum using temperature. Mechanical constraints reduce the level of pressure application.

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1"
- Parallel gas BSPP ISO 228 from G1/8" to G1"

**Metal tubes:** brass, copper
**Plastic tubes:** push-lock hoses ASR, ASR-HH and ASR-PU used with fittings 3467 and 3468

**Body:** Turning - yellow brass
UNI EN 12164 CW 614N

Hot forging & machining - yellow brass
UNI EN12165 CW 617N

**Lock nut:** Yellow brass
UNI EN 12164 CW 614N

**Ogive:** Yellow brass
UNI EN 12164 CW 614N

**Seal:** Metal-nitrile

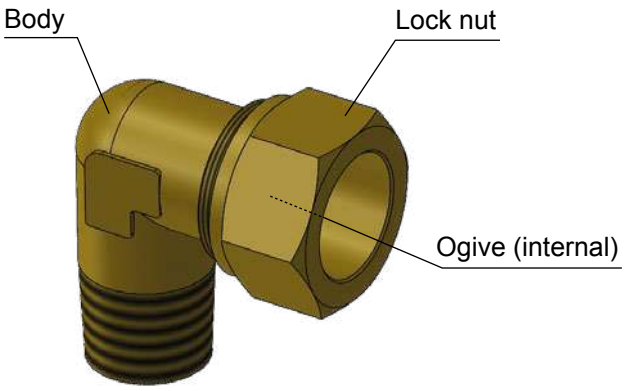
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## ASSEMBLY INSTRUCTIONS FOR HARD TUBES

- Cut the tube and remove the internal and external burrs
- Insert the nut into the tube and lubricate the thread
- Assemble the ogive on the final part of the tube
- Push the tube into the fitting until it stops
- Thanks to the ogive grip it is possible to screw the lubricated nut until the tube is fixed

## CONSTRUCTION DETAILS




## TIGHTENING TORQUE

LOCK NUT FOR HARD TUBES

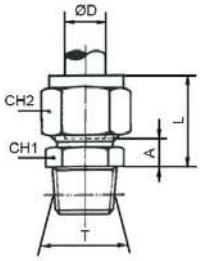
| Ø TUBE | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 28 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nm | 7,8 | 15,7 | 15,7 | 18,5 | 29,4 | 34,3 | 49 | 58,8 | 58,8 | 68,6 | 88,2 |

*drawings and technical data are not binding & can be changed without notice*

## 3400

Male connector BSPT thread





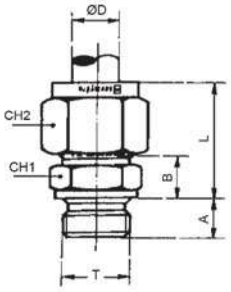

| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 3400TR184 | 4 | R 1/8" | 7,0 | 17,0 | 10 | 10 | 13,0 |
| 3400TR144 | | R 1/4" | 9,5 | 20,0 | 14 | 10 | - |
| 3400TR186 | 6 | R 1/8" | 7,5 | 18,0 | 11 | 13 | 18,0 |
| 3400TR146 | | R 1/4" | 7,5 | 18,0 | 14 | 13 | 25,0 |
| 3400TR386 | | R 3/8" | 8,5 | 19,0 | 17 | 13 | - |
| 3400TR188 | 8 | R 1/8" | 7,0 | 19,5 | 13 | 14 | 22,0 |
| 3400TR148 | | R 1/4" | 7,0 | 19,5 | 14 | 14 | 27,0 |
| 3400TR388 | | R 3/8" | 8,0 | 20,5 | 17 | 14 | 33,0 |
| 3400TR1810 | 10 | R 1/8" | 9,0 | 24,0 | 17 | 19 | - |
| 3400TR1410 | | R 1/4" | 9,0 | 24,0 | 17 | 19 | 48,0 |
| 3400TR3810 | | R 3/8" | 9,0 | 24,0 | 17 | 19 | 49,0 |
| 3400TR1210 | | R 1/2" | 10,0 | 25,0 | 22 | 19 | 67,0 |
| 3400TR1412 | 12 | R 1/4" | 9,0 | 24,0 | 19 | 22 | 57,5 |
| 3400TR3812 | | R 3/8" | 9,0 | 24,0 | 19 | 22 | - |
| 3400TR1212 | | R 1/2" | 10,0 | 25,0 | 22 | 22 | - |
| 3400TR1414 | 14 | R 1/4" | 10,5 | 26,0 | 22 | 24 | - |
| 3400TR3814 | | R 3/8" | 8,0 | 25,0 | 22 | 24 | 70,0 |
| 3400TR1214 | | R 1/2" | 9,0 | 26,0 | 22 | 24 | 80,0 |
| 3400TR1216 | 16 | R 1/2" | 9,5 | 27,0 | 24 | 27 | 101,0 |
| 3400TR3416 | | R 3/4" | 10,5 | 28,0 | 27 | 27 | - |
| 3400TR1218 | 18 | R 1/2" | 10,5 | 30,0 | 27 | 30 | 132,0 |
| 3400TR3418 | | R 3/4" | 10,5 | 30,0 | 27 | 30 | 143,0 |
| 3400TR1220 | 20 | R 1/2" | 11,0 | 32,0 | 30 | 32 | - |
| 3400TR1222 | 22 | R 1/2" | 11,0 | 33,0 | 32 | 36 | 187,0 |
| 3400TR3422 | | R 3/4" | 11,0 | 33,0 | 32 | 36 | 195,0 |
| 3400TR122 | | R 1" | 11,0 | 33,0 | 36 | 36 | 225,0 |

*drawings and technical data are not binding & can be changed without notice*

## 3422

Male connector BSPP thread with seal



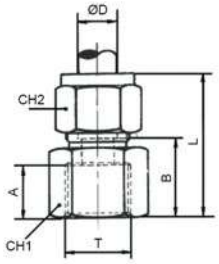



| CODE | ØD | T | A | B | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3422TR184 | 4 | G 1/8" | 6,5 | 8,0 | 16,5 | 13 | 10 | - |
| 3422TR186 | 6 | G 1/8" | 6,5 | 8,5 | 18,0 | 13 | 13 | - |
| 3422TR146 | | G 1/4" | 8,0 | 9,5 | 18,0 | 17 | 13 | - |
| 3422TR188 | 8 | G 1/8" | 6,5 | 8,5 | 19,0 | 13 | 14 | - |
| 3422TR148 | | G 1/4" | 8,0 | 9,0 | 19,5 | 17 | 14 | - |
| 3422TR388 | | G 3/8" | 10,8 | 11,0 | 24,5 | 22 | 14 | - |
| 3422TR1410 | 10 | G 1/4" | 8,0 | 11,0 | 24,0 | 17 | 19 | 47,5 |
| 3422TR3810 | | G 3/8" | 11,0 | 11,5 | 24,0 | 22 | 19 | 65,5 |
| 3422TR1412 | 12 | G 1/4" | 8,0 | 11,0 | 24,0 | 19 | 22 | 59,5 |
| 3422TR3814 | 14 | G 3/8" | 11,0 | 10,5 | 25,0 | 22 | 24 | - |
| 3422TR1214 | | G 1/2" | 12,0 | 11,0 | 25,0 | 27 | 24 | 97,0 |
| 3422TR3816 | 16 | G 3/8" | 11,0 | 12,0 | 27,0 | 22 | 27 | - |
| 3422TR1216 | | G 1/2" | 12,0 | 12,5 | 27,0 | 27 | 27 | - |
| 3422TR1218 | 18 | G 3/8" | 12,0 | 12,5 | 29,5 | 27 | 30 | - |
| 3422TR3418 | | G 3/4" | 13,0 | 13,0 | 29,5 | 32 | 30 | - |
| 3422TR3422 | 22 | G 3/4" | 13,0 | 13,0 | 32,0 | 32 | 36 | - |
| 3422TR122 | | G 1" | 15,0 | 13,5 | 32,0 | 41 | 36 | - |

## 3430

Female connector BSPP thread

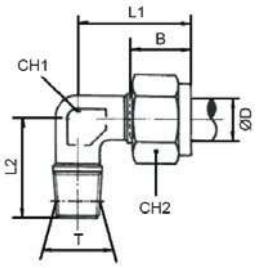





| CODE | ØD | T | A | B | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3430TR184 | 4 | G 1/8" | 9,5 | 16,5 | 26 | 14 | 10 | - |
| 3430TR144 | | G 1/4" | 13,5 | 20,5 | 30 | 17 | 10 | - |
| 3430TR186 | 6 | G 1/8" | 9,5 | 17,0 | 28 | 14 | 13 | 26,0 |
| 3430TR146 | | G 1/4" | 13,5 | 21,0 | 32 | 17 | 13 | 35,0 |
| 3430TR188 | 8 | G 1/8" | 9,5 | 16,5 | 29 | 14 | 14 | 28,0 |
| 3430TR148 | | G 1/4" | 13,5 | 20,5 | 33 | 17 | 14 | 36,0 |
| 3430TR388 | | G 3/8" | 14,0 | 21,0 | 34 | 22 | 14 | 53,0 |
| 3430TR1410 | 10 | G 1/4" | 13,5 | 21,5 | 37 | 17 | 19 | 52,0 |
| 3430TR3810 | | G 3/8" | 14,0 | 22,0 | 37 | 22 | 19 | 70,0 |
| 3430TR1210 | | G 1/2" | 18,5 | 26,5 | 42 | 27 | 19 | 102,0 |
| 3430TR3814 | 14 | G 3/8" | 14,0 | 21,0 | 38 | 22 | 24 | 82,0 |
| 3430TR1214 | | G 1/2" | 18,5 | 25,5 | 43 | 27 | 24 | 113,0 |
| 3430TR1216 | 16 | G 1/2" | 18,5 | 26,0 | 44 | 27 | 27 | - |
| 3430TR1218 | 18 | G 1/2" | 18,5 | 26,0 | 45 | 27 | 30 | 147,0 |
| 3430TR3418 | | G 3/4" | 19,5 | 27,0 | 46 | 32 | 30 | 169,0 |
| 3430TR3422 | 22 | G 3/4" | 19,5 | 26,5 | 48 | 32 | 36 | 205,0 |

## 3440 Male elbow BSPT thread

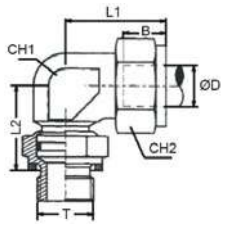





| CODE | ØD | T | B | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3440TR184 | 4 | R 1/8" | 12,0 | 19,0 | 17,0 | 8 | 10 | - |
| 3440TR144 | | R 1/4" | 12,0 | 19,0 | 20,0 | 10 | 10 | - |
| 3440TR186 | 6 | R 1/8" | 13,0 | 22,0 | 18,0 | 8 | 13 | 22,0 |
| 3440TR146 | | R 1/4" | 13,0 | 22,0 | 21,5 | 10 | 13 | 31,0 |
| 3440TR188 | 8 | R 1/8" | 15,0 | 28,0 | 18,5 | 10 | 14 | 29,0 |
| 3440TR148 | | R 1/4" | 15,0 | 28,0 | 22,0 | 10 | 14 | 34,0 |
| 3440TR388 | | R 3/8" | 15,0 | 28,0 | 24,0 | 12 | 14 | 45,0 |
| 3440TR1410 | 10 | R 1/4" | 17,0 | 30,0 | 25,0 | 12 | 19 | 53,0 |
| 3440TR3810 | | R 3/8" | 17,0 | 30,0 | 25,5 | 12 | 19 | 62,0 |
| 3440TR1210 | | R 1/2" | 17,0 | 36,0 | 32,0 | 19 | 19 | 107,0 |
| 3440TR1412 | 12 | R 1/4" | 18,0 | 30,0 | 26,0 | 15 | 22 | - |
| 3440TR3812 | | R 3/8" | 18,0 | 30,0 | 27,0 | 15 | 22 | - |
| 3440TR1212 | | R 1/2" | 18,0 | 36,0 | 32,0 | 19 | 22 | - |
| 3440TR3814 | 14 | R 3/8" | 18,0 | 35,0 | 30,0 | 19 | 24 | 105,0 |
| 3440TR1214 | | R 1/2" | 18,0 | 35,0 | 32,0 | 19 | 24 | 109,0 |
| 3440TR3816 | 16 | R 3/8" | 21,0 | 39,0 | 30,0 | 19 | 27 | - |
| 3440TR1216 | | R 1/2" | 21,0 | 39,0 | 33,5 | 19 | 27 | 135,0 |
| 3440TR3416 | | R 3/4" | 21,0 | 41,0 | 36,5 | 23 | 27 | - |
| 3440TR1218 | 18 | R 1/2" | 21,5 | 41,0 | 35,5 | 23 | 30 | 176,0 |
| 3440TR3418 | | R 3/4" | 21,5 | 41,0 | 36,5 | 23 | 30 | 203,0 |
| 3440TR3420 | 20 | R 3/4" | 21,5 | 42,0 | 38,0 | 23 | 32 | - |
| 3440TR3422 | 22 | R 3/4" | 25,0 | 50,0 | 40,0 | 27 | 36 | 296,0 |
| 3440TR122 | | R 1" | 25,0 | 50,0 | 44,0 | 27 | 36 | 324,0 |

## 3442 Swivel male elbow BSPP thread with seal



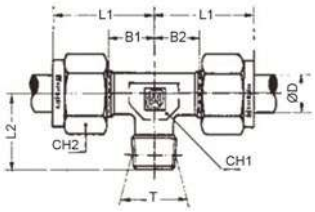



| CODE | ØD | T | B | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3442TR184 | 4 | G 1/8" | 12,0 | 19,0 | 16,0 | 8 | 10 | 21,5 |
| 3442TR144 | | G 1/4" | 12,0 | 19,0 | 22,0 | 10 | 10 | - |
| 3442TR186 | 6 | G 1/8" | 13,0 | 22,0 | 16,0 | 8 | 13 | 23,0 |
| 3442TR146 | | G 1/4" | 13,0 | 22,0 | 22,0 | 10 | 13 | 31,0 |
| 3442TR188 | 8 | G 1/8" | 15,0 | 28,0 | 18,5 | 10 | 14 | 29,0 |
| 3442TR148 | | G 1/4" | 15,0 | 28,0 | 22,0 | 10 | 14 | 34,0 |
| 3442TR388 | | G 3/8" | 15,0 | 28,0 | 24,0 | 12 | 14 | 43,0 |
| 3442TR1410 | 10 | G 1/4" | 17,0 | 30,0 | 22,0 | 12 | 19 | 53,0 |
| 3442TR3810 | | G 3/8" | 17,0 | 30,0 | 24,0 | 12 | 19 | 64,0 |
| 3442TR1210 | | G 1/2" | 17,0 | 30,0 | 29,5 | 19 | 19 | 102,0 |
| 3442TR3814 | 14 | G 3/8" | 18,0 | 35,0 | 25,0 | 19 | 24 | 105,0 |
| 3442TR1214 | | G 1/2" | 18,0 | 35,0 | 29,5 | 19 | 24 | 108,0 |
| 3442TR1218 | 18 | G 1/2" | 21,0 | 41,0 | 30,5 | 23 | 30 | 174,0 |
| 3442TR3418 | | G 3/4" | 21,5 | 41,0 | 32,8 | 23 | 30 | 202,0 |
| 3442TR122 | 22 | G 1" | 25,0 | 50,0 | 43,5 | 27 | 36 | 323,0 |
| 3442TR128 | 28 | G 1" | 30,0 | 54,0 | 43,5 | 32 | 42 | - |

*drawings and technical data are not binding & can be changed without notice*

## 3460 Male tee BSPT thread

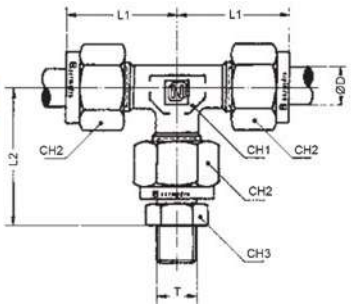





| CODE | ØD | T | B1 | B2 | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|
| 3460TR184 | 4 | R 1/8" | 9,5 | 9,5 | 19,0 | 17,0 | 8 | 10 | - |
| 3460TR185 | 5 | R 1/8" | 11,0 | 11,0 | 21,0 | 17,5 | 8 | 12 | - |
| 3460TR186 | 6 | R 1/8" | 11,0 | 11,0 | 22,0 | 18,0 | 8 | 13 | - |
| 3460TR146 | | R 1/4" | 16,0 | 16,0 | 27,0 | 21,5 | 10 | 13 | - |
| 3460TR188 | 8 | R 1/8" | 15,0 | 15,0 | 28,0 | 18,5 | 10 | 14 | - |
| 3460TR148 | | R 1/4" | 15,0 | 15,0 | 28,0 | 22,0 | 10 | 14 | - |
| 3460TR1410 | 10 | R 1/4" | 14,5 | 14,5 | 30,0 | 25,0 | 12 | 19 | - |
| 3460TR3810 | | R 3/8" | 14,5 | 14,5 | 30,0 | 25,5 | 12 | 19 | - |
| 3460TR3812 | 12 | R 3/8" | 15,0 | 15,0 | 30,0 | 27,0 | 15 | 22 | - |
| 3460TR3814 | 14 | R 3/8" | 18,0 | 18,0 | 35,0 | 30,0 | 19 | 24 | - |
| 3460TR1214 | | R 1/2" | 18,0 | 18,0 | 35,0 | 32,0 | 19 | 24 | - |
| 3460TR3815 | 15 | R 3/8" | 18,0 | 18,0 | 35,0 | 30,0 | 19 | 24 | - |
| 3460TR1215 | | R 1/2" | 18,0 | 18,0 | 35,0 | 32,0 | 19 | 24 | - |
| 3460TR3816 | 16 | R 3/8" | 21,0 | 21,0 | 39,0 | 30,0 | 19 | 27 | - |
| 3460TR1216 | | R 1/2" | 21,0 | 21,0 | 39,0 | 33,5 | 19 | 27 | - |

## 3465 Swivel male tee BSPP thread

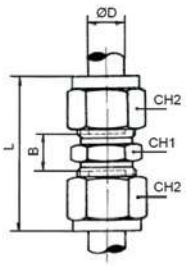





| CODE | ØD | T | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|
| 3465TR184 | 4 | G 1/8" | 19,0 | 25,0 | 8 | 10 | 13 | - |
| 3465TR144 | | G 1/4" | 19,0 | 27,0 | 8 | 10 | 17 | - |
| 3465TR186 | 6 | G 1/8" | 22,0 | 28,0 | 8 | 13 | 13 | - |
| 3465TR146 | | G 1/4" | 22,0 | 30,0 | 8 | 13 | 17 | - |
| 3465TR188 | 8 | G 1/8" | 28,0 | 34,0 | 10 | 14 | 13 | - |
| 3465TR148 | | G 1/4" | 28,0 | 36,0 | 10 | 14 | 17 | - |
| 3465TR1410 | 10 | G 1/4" | 30,0 | 38,0 | 12 | 19 | 17 | - |
| 3465TR3810 | | G 3/8" | 30,0 | 38,5 | 12 | 19 | 22 | - |
| 3465TR3814 | 14 | G 3/8" | 35,0 | 43,5 | 19 | 24 | 22 | - |
| 3465TR1214 | | G 1/2" | 35,0 | 44,5 | 19 | 24 | 27 | - |
| 3465TR1218 | 18 | G 1/2" | 41,0 | 50,5 | 23 | 30 | 27 | - |
| 3465TR3418 | | G 3/4" | 41,0 | 51,5 | 23 | 30 | 32 | - |
| 3465TR3422 | 22 | G 3/4" | 50,0 | 60,5 | 27 | 36 | 32 | - |
| 3465TR122 | | G 1" | 50,0 | 61,0 | 27 | 36 | 41 | - |
| 3465TR128 | 28 | G 1" | 55,0 | 66,0 | 32 | 42 | 41 | - |

## 3480 Union connector

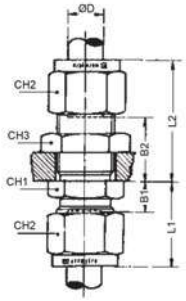





| CODE | ØD | B | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 3480TR4 | 4 | 10,0 | 28,0 | 10 | 10 | - |
| 3480TR6 | 6 | 11,0 | 32,0 | 11 | 13 | 19,0 |
| 3480TR8 | 8 | 10,0 | 36,0 | 13 | 14 | 28,0 |
| 3480TR10 | 10 | 13,0 | 42,0 | 17 | 19 | 69,0 |
| 3480TR12 | 12 | 13,0 | 42,0 | 19 | 22 | - |
| 3480TR14 | 14 | 11,0 | 45,0 | 22 | 24 | 151,0 |
| 3480TR16 | 16 | 13,0 | 48,0 | 24 | 27 | 180,0 |
| 3480TR18 | 18 | 14,0 | 53,0 | 27 | 30 | 201,0 |
| 3480TR22 | 22 | 14,0 | 60,0 | 32 | 36 | 225,0 |
| 3480TR28 | 28 | 14,0 | 64,0 | 42 | 41 | - |

## 3490 Bulkhead connector

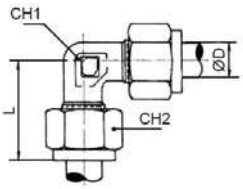





| CODE | ØD | T | B1 | B2 | L1 | L2 | CH1 | CH2 | CH3 | g |
|---|---|---|---|---|---|---|---|---|---|---|
| 3490TR4 | 4 | M8x1 | 7,0 | 17,0 | 17,0 | 27,0 | 10 | 10 | 13 | - |
| 3490TR6 | 6 | M10x1 | 7,5 | 17,5 | 19,0 | 28,0 | 13 | 13 | 14 | - |
| 3490TR8 | 8 | M12x1 | 7,0 | 17,0 | 20,0 | 29,0 | 14 | 14 | 17 | - |
| 3490TR10 | 10 | M16x1,5 | 9,0 | 19,0 | 25,0 | 33,0 | 19 | 19 | 22 | - |
| 3490TR12 | 12 | M18x1,5 | 9,0 | 19,0 | 25,0 | 33,0 | 22 | 22 | 22 | - |
| 3490TR14 | 14 | M20x1,5 | 8,0 | 18,0 | 25,0 | 35,0 | 24 | 24 | 24 | - |
| 3490TR18 | 18 | M24x1,5 | 10,5 | 20,5 | 30,0 | 40,0 | 27 | 30 | 30 | - |
| 3490TR22 | 22 | M30x1,5 | 11,0 | 21,0 | 32,0 | 42,0 | 36 | 36 | 36 | - |
| 3490TR28 | 28 | M36x1,5 | 19,0 | 30,0 | 40,0 | 52,0 | 42 | 42 | 42 | - |

## 3500 Union elbow

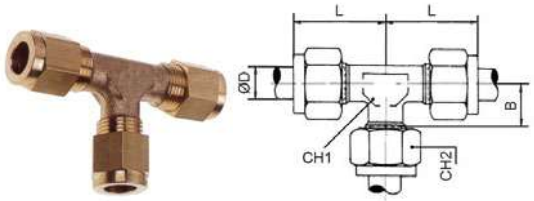





| CODE | ØD | L | CH1 | CH2 | g |
|---|---|---|---|---|---|
| 3500TR4 | 4 | 19,0 | 5 | 10 | - |
| 3500TR6 | 6 | 22,0 | 8 | 13 | 26,0 |
| 3500TR8 | 8 | 28,0 | 10 | 14 | 34,0 |
| 3500TR10 | 10 | 30,0 | 12 | 19 | 74,0 |
| 3500TR12 | 12 | 30,0 | 15 | 22 | - |
| 3500TR14 | 14 | 35,0 | 19 | 24 | 156,0 |
| 3500TR16 | 16 | 39,0 | 19 | 27 | 190,0 |
| 3500TR18 | 18 | 41,0 | 23 | 30 | 232,0 |
| 3500TR20 | 20 | 42,0 | 23 | 32 | - |
| 3500TR22 | 22 | 50,0 | 27 | 36 | 254,0 |

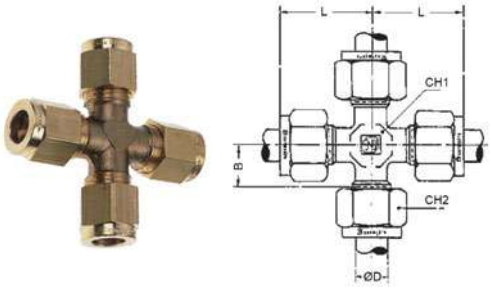
*drawings and technical data are not binding & can be changed without notice*

## 3510 Union tee



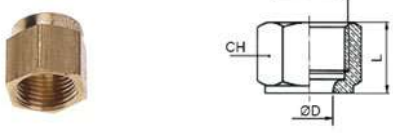

| CODE | ØD | B | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 3510TR4 | 4 | 9,5 | 19,0 | 8 | 10 | - |
| 3510TR6 | 6 | 11,0 | 22,0 | 8 | 13 | 33,0 |
| 3510TR8 | 8 | 15,0 | 28,0 | 10 | 14 | 45,0 |
| 3510TR10 | 10 | 14,5 | 30,0 | 12 | 19 | 105,0 |
| 3510TR12 | 12 | 15,0 | 30,0 | 15 | 22 | - |
| 3510TR14 | 14 | 18,0 | 35,0 | 19 | 24 | 230,0 |
| 3510TR16 | 16 | 21,0 | 39,0 | 19 | 27 | 275,0 |
| 3510TR18 | 18 | 21,5 | 41,0 | 23 | 30 | 333,0 |
| 3510TR20 | 20 | 21,5 | 42,0 | 23 | 32 | - |
| 3510TR22 | 22 | 29,0 | 50,0 | 27 | 36 | 364,0 |
| 3510TR28 | 28 | 30,0 | 55,0 | 32 | 42 | - |

## 3520 Union cross




| CODE | ØD | B | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 3520TR6 | 6 | 11,0 | 22,0 | 8 | 12 | - |
| 3520TR8 | 8 | 15,0 | 28,0 | 11 | 14 | - |
| 3520TR10 | 10 | 15,0 | 30,0 | 14 | 19 | - |
| 3520TR12 | 12 | 15,0 | 30,0 | 15 | 22 | - |
| 3520TR14 | 14 | 18,0 | 35,0 | 20 | 24 | - |
| 3520TR16 | 16 | 21,0 | 39,0 | 20 | 27 | - |
| 3520TR18 | 18 | 21,5 | 41,0 | 25 | 30 | - |
| 3520TR20 | 20 | 21,5 | 42,0 | 25 | 32 | - |
| 3520TR22 | 22 | 29,0 | 50,0 | 27 | 36 | - |

## 3530 Locking nut

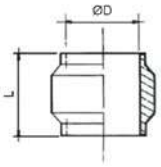



| CODE | ØD | T | L | CH | g |
|---|---|---|---|---|---|
| 3530TR4 | 4 | M8X1 | 11,0 | 10 | - |
| 3530TR6 | 6 | M10X1 | 11,0 | 13 | 5,4 |
| 3530TR8 | 8 | M12X1 | 13,0 | 14 | 7,0 |
| 3530TR10 | 10 | M16X1,5 | 15,0 | 19 | 18,2 |
| 3530TR12 | 12 | M18X1,5 | 15,0 | 22 | - |
| 3530TR14 | 14 | M20X1,5 | 15,0 | 24 | 44,3 |
| 3530TR16 | 16 | M22X1,5 | 17,0 | 27 | 55,6 |
| 3530TR18 | 18 | M24X1,5 | 18,0 | 30 | 64,2 |
| 3530TR20 | 20 | M27X1,5 | 18,0 | 32 | - |
| 3530TR22 | 22 | M30X1,5 | 19,0 | 36 | 76,3 |
| 3530TR28 | 28 | M36X1,5 | 21,0 | 42 | - |

*drawings and technical data are not binding & can be changed without notice*

## 3540 Ogive

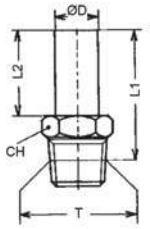





| CODE | ØD | L | g |
|---|---|---|---|
| 3540TR4 | 4 | 6,0 | - |
| 3540TR6 | 6 | 6,5 | 0,82 |
| 3540TR8 | 8 | 7,0 | 1,12 |
| 3540TR10 | 10 | 8,0 | 3,30 |
| 3540TR12 | 12 | 8,0 | 4,0 |
| 3540TR14 | 14 | 8,5 | 4,42 |
| 3540TR16 | 16 | 9,0 | 5,00 |
| 3540TR18 | 18 | 9,5 | 5,90 |
| 3540TR20 | 20 | 11,0 | - |
| 3540TR22 | 22 | 11,0 | 7,10 |
| 3540TR28 | 28 | 12,0 | - |

## 3560 Male adapter BSPT thread



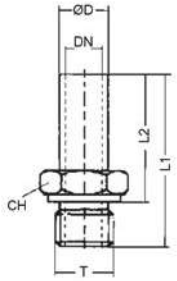



| CODE | ØD | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| 3560TR186 | 6 | R 1/8" | 26,5 | 15 | 11 | 8,0 |
| 3560TR146 | | R 1/4" | 31 | 15 | 14 | - |
| 3560TR188 | 8 | R 1/8" | 28,5 | 17 | 11 | - |
| 3560TR148 | | R 1/4" | 33 | 17 | 14 | - |
| 3560TR388 | | R 3/8" | 33,7 | 17 | 17 | - |
| 3560TR1410 | 10 | R 1/4" | 36 | 20 | 14 | - |
| 3560TR3810 | | R 3/8" | 36,5 | 20 | 17 | - |
| 3560TR1210 | | R 1/2" | 41 | 20 | 22 | - |
| 3560TR1412 | 12 | R 1/4" | 36 | 20 | 14 | - |
| 3560TR3812 | | R 3/8" | 36,5 | 20 | 17 | - |
| 3560TR1212 | | R 1/2" | 41 | 20 | 22 | - |
| 3560TR3814 | 14 | R 3/8" | 38 | 21,5 | 17 | - |
| 3560TR1214 | | R 1/2" | 42,5 | 21,5 | 22 | - |
| 3560TR1216 | 16 | R 1/2" | 44 | 23 | 22 | - |
| 3560TR1218 | 18 | R 1/2" | 44,5 | 23,5 | 22 | - |
| 3560TR3418 | | R 3/4" | 47,5 | 23,5 | 27 | - |
| 3560TR3422 | 22 | R 3/4" | 48,5 | 25,5 | 27 | - |

*drawings and technical data are not binding & can be changed without notice*

## 3572 Male adapter BSPP thread

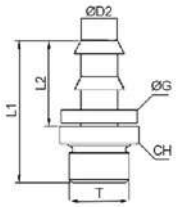





| CODE | ØD | T | DN | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|
| 3572TR184 | 4 | G 1/8" | 2 | 25,5 | 19 | 13 | - |
| 3572TR186 | 6 | G 1/8" | 4 | 26,5 | 20 | 13 | - |
| 3572TR146 | | G 1/4" | 4 | 30 | 22 | 17 | 22,0 |
| 3572TR188 | 8 | G 1/8" | 6 | 28,5 | 22 | 13 | - |
| 3572TR1410 | 10 | G 1/4" | 8 | 35 | 27 | 17 | - |
| 3572TR3810 | | G 3/8" | 8 | 38,5 | 27,5 | 22 | - |
| 3572TR1210 | | G 1/2" | 8 | 40,5 | 28,5 | 27 | - |
| 3572TR3814 | 14 | G 3/8" | 11 | 40 | 29 | 22 | - |
| 3572TR1214 | | G 1/2" | 12 | 42 | 30 | 27 | - |
| 3572TR1218 | 18 | G 1/2" | 14 | 44 | 32 | 27 | - |
| 3572TR3418 | | G 3/4" | 16 | 46 | 33 | 32 | - |
| 3572TR3422 | 22 | G 3/4" | 20 | 48 | 35 | 32 | - |
| 3572TR122 | | G 1" | 20 | 50,5 | 35,5 | 41 | - |
| 3572TR128 | 28 | G 1" | 25 | 55 | 40 | 41 | - |

## 3467 Male barb connector BSPP thread with metal-nitrile composite gasket






| CODE | DN | | T | ØD2 | L1 | L2 | ØG | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| 3467TR1814 | 1/4" | 6 | G 1/8" | 4,0 | 31,5 | 20,0 | 14,0 | 13 | 14,0 |
| 3467TR1438 | 3/8" | 10 | G 1/4" | 7,5 | 39,1 | 24,1 | 17,0 | 17 | 27,0 |
| 3467TR3838 | 3/8" | 10 | G 3/8" | 7,5 | 42,5 | 24,1 | 17,0 | 22 | 47,0 |
| 3467TR3812 | 1/2" | 13 | G 3/8" | 10,0 | 46,5 | 28,0 | 20,5 | 22 | 48,0 |
| 3467TR1212 | 1/2" | 13 | G 1/2" | 10,0 | 48,5 | 28,0 | 20,5 | 27 | 79,0 |
| 3467TR1258 | 5/8" | 16 | G 1/2" | 13,5 | 56,5 | 36,5 | 24,0 | 27 | 73,0 |
| 3467TR3434 | 3/4" | 20 | G 3/4" | 16,0 | 65,3 | 43,0 | 27,0 | 32 | 123,0 |

**3467:** For use with our ASR, ASR-HH and ASR-PU tubes

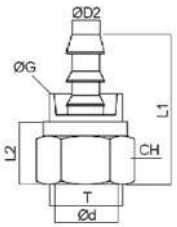


## 2605 Metal-nitrile composite gasket

| CODE | 2605TR18 | 2605TR14 | 2605TR38 | 2605TR12 | 2605TR34 | 2605TR1 |
|---|---|---|---|---|---|---|
| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |

## 3468 Swivel female barb connector metric thread






| CODE | DN | | T | ØD2 | Ød | L1 | L2 | ØG | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| 3468TRM1014 | 1/4" | 6 | M10x1 | 4,0 | 6 | 33,5 | 11,0 | 14,0 | 13 | 17,0 |
| 3468TRM1214 | 1/4" | 6 | M12x1 | 4,8 | 8 | 34,5 | 13,0 | 14,0 | 14 | 18,0 |
| 3468TRM1614 | 1/4" | 6 | M16x1,5 | 4,8 | 10 | 35,8 | 15,0 | 14,0 | 19 | 33,0 |
| 3468TRM1638 | 3/8" | 10 | M16x1,5 | 7,5 | 10 | 39,3 | 15,0 | 17,0 | 19 | 35,0 |
| 3468TRM2038 | 3/8" | 10 | M20x1,5 | 7,5 | 14 | 39,3 | 15,0 | 17,0 | 24 | 52,0 |
| 3468TRM2012 | 1/2" | 13 | M20x1,5 | 10,0 | 14 | 44,0 | 15,0 | 20,5 | 24 | 56,0 |
| 3468TRM2212 | 1/2" | 13 | M22x1,5 | 10,0 | 16 | 45,0 | 17,0 | 20,5 | 27 | 77,0 |
| 3468TRM2412 | 1/2" | 13 | M24x1,5 | 10,0 | 18 | 47,0 | 18,0 | 20,5 | 30 | 99,0 |
| 3468TRM2458 | 5/8" | 16 | M24x1,5 | 13,5 | 18 | 55,0 | 18,0 | 24,0 | 30 | 97,0 |
| 3468TRM3034 | 3/4" | 20 | M30x1,5 | 16,0 | 22 | 62,0 | 18,5 | 27,0 | 36 | 137,0 |
| 3468TRRM361 | 1" | 25 | M36x1,5 | 22,0 | 28 | 71,3 | 21,0 | 36,5 | 42 | 249,0 |

The barb connector 3468 can be combined with our yellow brass compression fittings range.
**Refer to Ød in order to chose the right combination.**

**3468:** For use with our ASR, ASR-HH and ASR-PU tubes

## ASR Push-lock hose ASR



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | MAX WORKING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (m) |
|---|---|---|---|---|---|---|---|---|
| ASR06 | 1/4" | 6 | 6,5 +0,4 -0,3 | 12,0 - 13,0 | 45 | 16 | 140 | 40 |
| ASR10 | 3/8" | 10 | 9,7 ±0,4 | 14,8 - 16,0 | 75 | 16 | 170 | 40 |
| ASR13 | 1/2" | 13 | 13,0 ±0,5 | 18,5 - 20,0 | 90 | 16 | 260 | 40 |
| ASR16 | 5/8" | 16 | 16,0 +0,7 -0,3 | 23,4 - 25,0 | 115 | 16 | 340 | 40 |
| ASR20 | 3/4" | 20 | 19,3 ±0,5 | 26,0 - 28,0 | 135 | 16 | 420 | 40 |
| ASR25 | 1" | 25 | 25,6 ±0,5 | 34,0 - 36,0 | 165 | 16 | 640 | 40 |

✱ **Blue, Red and Green:** available on demand and min. quantity

| DN | | Black | ✱ Blue | ✱ Red | ✱ Green |
|---|---|---|---|---|---|
| 1/4" | 6 | ASR06NE | ASR06BL | ASR06RO | ASR06VD |
| 3/8" | 10 | ASR10NE | ASR10BL | ASR10RO | ASR10VD |
| 1/2" | 13 | ASR13NE | ASR13BL | ASR13RO | ASR13VD |
| 5/8" | 16 | ASR16NE | ASR16BL | ASR16RO | ASR16VD |
| 3/4" | 20 | ASR20NE | ASR20BL | ASR20RO | ASR20VD |
| 1" | 25 | ASR25NE | ASR25BL | ASR25RO | ASR25VD |

Full technical data sheet available on page 769

*drawings and technical data are not binding & can be changed without notice*

## ASR-HH

Push-lock hose ASR-HH



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | MAX WORKING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (m) |
|---|---|---|---|---|---|---|---|---|
| ASR-HH06 | 1/4" | 6 | 6,5 +0,4 -0,3 | 12,0 - 13,0 | 45 | 14 | 125 | 40 |
| ASR-HH10 | 3/8" | 10 | 9,7 ±0,4 | 14,8 - 16,0 | 75 | 14 | 150 | 40 |
| ASR-HH13 | 1/2" | 13 | 13,0 ±0,5 | 18,5 - 20,0 | 90 | 14 | 235 | 40 |
| ASR-HH16 | 5/8" | 16 | 16,0 +0,7 -0,3 | 23,4 - 25,0 | 115 | 14 | 350 | 40 |

✱ available on demand and min. quantity

| DN | | Blue | Red |
|---|---|---|---|
| 1/4" | 6 | ✱ ASR-HH06BL | ASR-HH06RO |
| 3/8" | 10 | ASR-HH10BL | ASR-HH10RO |
| 1/2" | 13 | ASR-HH13BL | ASR-HH13RO |
| 5/8" | 16 | ASR-HH16BL | ASR-HH16RO |

Full technical data sheet available on page 770

## ASR-PU

Push-lock hose ASR-PU



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 20°C (Bar) | NEGATIVE PRESSURE (Bar) | g/m |
|---|---|---|---|---|---|---|---|---|
| ASR-PU06 | 1/4" | 6 | 6,4 | 13 | 25 | 13 | 0,8 | 110 |
| ASR-PU10 | 3/8" | 10 | 9,5 | 16 | 60 | 13 | 0,8 | 154 |
| ASR-PU13 | 1/2" | 13 | 12,5 | 19 | 75 | 13 | 0,8 | 218 |
| ASR-PU16 | 5/8" | 16 | 16,5 | 23 | 125 | 12 | 0,8 | 280 |
| ASR-PU20 | 3/4" | 20 | 19,5 | 27 | 150 | 10 | 0,8 | 325 |

✱ **Light blue, Red and Green:** available on demand and min. quantity

| DN | | Black | ✱ Light blue | ✱ Red | ✱ Green |
|---|---|---|---|---|---|
| 1/4" | 6 | ASR-PU06NE | ASR-PU06AZ | ASR-PU06RO | ASR-PU06VD |
| 3/8" | 10 | ASR-PU10NE | ASR-PU10AZ | ASR-PU10RO | ASR-PU10VD |
| 1/2" | 13 | ASR-PU13NE | ASR-PU13AZ | ASR-PU13RO | ASR-PU13VD |
| 5/8" | 16 | ASR-PU16NE | ASR-PU16AZ | ASR-PU16RO | ASR-PU16VD |
| 3/4" | 20 | ASR-PU20NE | ASR-PU20AZ | ASR-PU20RO | ASR-PU20VD |

Full technical data sheet available on page 771

*drawings and technical data are not binding & can be changed without notice*



# COMPRESSION FITTINGS
## NICKEL-PLATED BRASS

## PLUS

**EXCELLENT GRIPPING SYSTEM THANKS TO THE COMPRESSION OF THE TUBE ON THE OGIVE RING**

**RESISTANT TO VIBRATIONS AND TO WATER HAMMERS**

**SUITABLE WITH AIR AND OIL**

**POSSIBILITY TO CONNECT TUBES OF DIFFERENT MATERIALS, EVEN PLASTICS, THANKS TO THE INTERNAL SUPPORT BUSH**



p. 184 / **3100**



p. 184 / **3120**



p. 185 / **3130**



p. 185 / **3140**



p. 186 / **3150**



p. 186 / **3160**



p. 186 / **3170**



p. 187 / **3180**



p. 187 / **3190**



p. 187 / **3200**



p. 188 / **3210**



p. 188 / **3230**



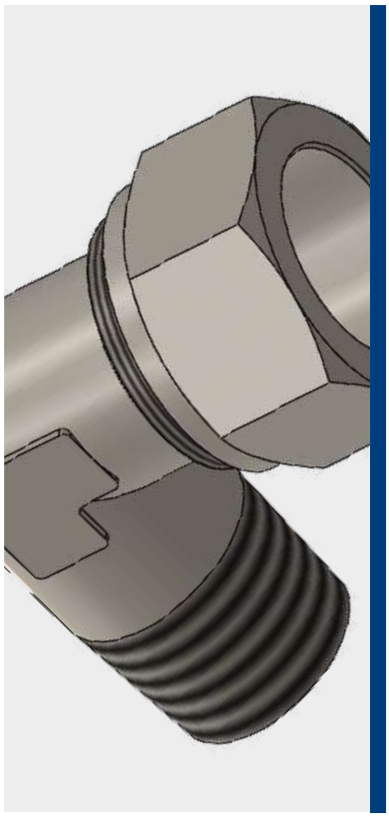
p. 188 / **3240**



p. 189 / **3250**



p. 189 / **1176**



-20°C ÷ +80°C
The working temperature is determined by the features of the tube used

**Working pressure:**
Up to 60 Bar
The max working pressure is determined by the features of the tube used

Compressed air, oil and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"

**Metal tubes:** brass, copper and aluminum
**Plastic tubes:** using support bush 3250: Polyethylene PE, Polyamide PA, PTFE, FEP (3250)

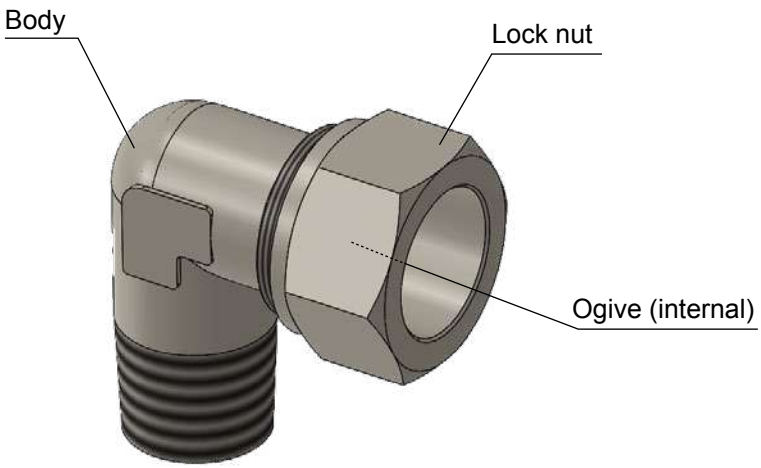
**Body:** Turning - nickel-plated brass UNI EN 12164 CW614N
Hot forging & machining - nickel-plated brass UNI EN12165 CW617N
**Lock nut:** Nickel-plated brass UNI EN 12164 CW614N
**Ogive:** Yellow brass UNI EN 12164 CW 614N

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 8 | 12 | 14 | 16 |

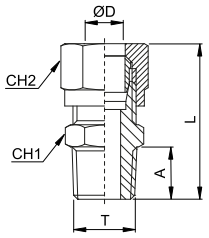
### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 5 | 8 | 10 | 12 |

*drawings and technical data are not binding & can be changed without notice*

## 3100 Male connector BSPT thread

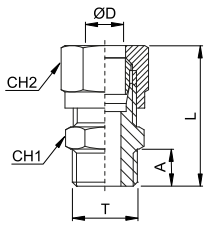





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 3100TR184 | 4 | R 1/8" | 8,0 | 27,0 | 10 | 10 | 12,0 |
| 3100TR186 | 6 | R 1/8" | 8,0 | 28,0 | 12 | 12 | 16,0 |
| 3100TR146 | | R 1/4" | 11,0 | 32,5 | 14 | 12 | 24,0 |
| 3100TR188 | 8 | R 1/8" | 8,0 | 29,5 | 12 | 14 | 18,0 |
| 3100TR148 | | R 1/4" | 11,0 | 33,0 | 14 | 14 | 24,0 |
| 3100TR388 | | R 3/8" | 11,5 | 33,0 | 17 | 14 | 36,0 |
| 3100TR1410 | 10 | R 1/4" | 11,0 | 37,5 | 17 | 19 | 44,0 |
| 3100TR3810 | | R 3/8" | 11,5 | 38,0 | 17 | 19 | 50,0 |
| 3100TR1210 | | R 1/2" | 14,0 | 40,5 | 22 | 19 | 74,0 |
| 3100TR3812 | 12 | R 3/8" | 11,5 | 39,0 | 19 | 22 | 58,0 |
| 3100TR1212 | | R 1/2" | 14,0 | 41,0 | 22 | 22 | 78,0 |
| 3100TR1214 | 14 | R 1/2" | 14,0 | 42,5 | 22 | 27 | 102,0 |
| 3100TR1215 | 15 | R 1/2" | 14,0 | 42,5 | 22 | 27 | 96,0 |
| 3100TR1216 | 16 | R 1/2" | 14,0 | 42,0 | 24 | 30 | 112,0 |
| 3100TR1218 | 18 | R 1/2" | 14,0 | 43,0 | 26 | 32 | 126,0 |

## 3120 Male connector BSPP thread



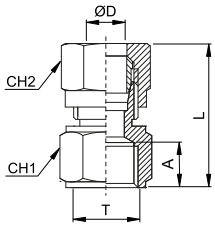



| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 3120TR184 | 4 | G 1/8" | 6,0 | 25,0 | 14 | 10 | 16,0 |
| 3120TR186 | 6 | G 1/8" | 6,0 | 26,0 | 14 | 12 | 16,0 |
| 3120TR146 | | G 1/4" | 8,0 | 29,5 | 17 | 12 | 24,0 |
| 3120TR188 | 8 | G 1/8" | 6,0 | 27,5 | 14 | 14 | 18,0 |
| 3120TR148 | | G 1/4" | 8,0 | 30,0 | 17 | 14 | 28,0 |
| 3120TR388 | | G 3/8" | 9,0 | 30,5 | 19 | 14 | 34,0 |
| 3120TR1410 | 10 | G 1/4" | 8,0 | 34,5 | 17 | 19 | 44,0 |
| 3120TR3810 | | G 3/8" | 9,0 | 36,0 | 19 | 19 | 50,0 |

*drawings and technical data are not binding & can be changed without notice*

## 3130 Female connector BSPP thread

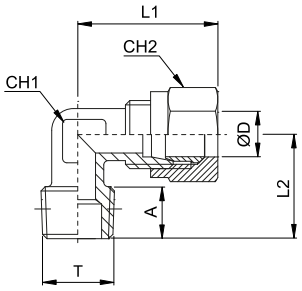





| CODE | ØD | T | A | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 3130TR184 | 4 | G 1/8" | 8,0 | 24,5 | 14 | 10 | 16,0 |
| 3130TR186 | 6 | G 1/8" | 8,0 | 26,0 | 14 | 12 | 17,0 |
| 3130TR146 | | G 1/4" | 11,0 | 30,5 | 17 | 12 | 26,0 |
| 3130TR188 | 8 | G 1/8" | 8,0 | 26,5 | 14 | 14 | 20,0 |
| 3130TR148 | | G 1/4" | 11,0 | 31,0 | 17 | 14 | 28,0 |
| 3130TR388 | | G 3/8" | 11,5 | 31,0 | 20 | 14 | 32,0 |
| 3130TR1410 | 10 | G 1/4" | 11,0 | 35,5 | 17 | 19 | 46,0 |
| 3130TR3810 | | G 3/8" | 11,5 | 36,5 | 20 | 19 | 50,0 |
| 3130TR3812 | 12 | G 3/8" | 11,5 | 37,0 | 20 | 22 | 58,0 |
| 3130TR1212 | | G 1/2" | 15,0 | 38,5 | 24 | 22 | 70,0 |
| 3130TR1214 | 14 | G 1/2" | 15,0 | 40,0 | 24 | 27 | 98,0 |
| 3130TR1215 | 15 | G 1/2" | 15,0 | 40,5 | 24 | 27 | 94,0 |
| 3130TR1216 | 16 | G 1/2" | 16,0 | 41,5 | 24 | 30 | 110,0 |
| 3130TR1218 | 18 | G 1/2" | 16,0 | 43,0 | 24 | 32 | 134,0 |

## 3140 Male elbow BSPT thread

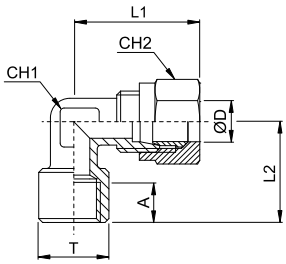





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3140TR184 | 4 | R 1/8" | 8,0 | 21,0 | 16,0 | 9 | 10 | 14,0 |
| 3140TR186 | 6 | R 1/8" | 8,0 | 22,0 | 16,0 | 9 | 12 | 16,0 |
| 3140TR146 | | R 1/4" | 11,0 | 24,5 | 20,0 | 11 | 12 | 24,0 |
| 3140TR188 | 8 | R 1/8" | 8,0 | 24,0 | 17,0 | 11 | 14 | 22,0 |
| 3140TR148 | | R 1/4" | 11,0 | 24,0 | 20,0 | 11 | 14 | 26,0 |
| 3140TR388 | | R 3/8" | 11,5 | 27,0 | 24,0 | 13 | 14 | 36,0 |
| 3140TR1410 | 10 | R 1/4" | 11,0 | 32,0 | 23,5 | 13 | 19 | 48,0 |
| 3140TR3810 | | R 3/8" | 11,5 | 32,0 | 24,0 | 13 | 19 | 52,0 |
| 3140TR1210 | | R 1/2" | 14,0 | 34,0 | 28,5 | 15 | 19 | 66,0 |
| 3140TR3812 | 12 | R 3/8" | 11,5 | 34,5 | 25,5 | 15 | 22 | 69,0 |
| 3140TR1212 | | R 1/2" | 14,0 | 34,5 | 28,5 | 15 | 22 | 74,0 |
| 3140TR1214 | 14 | R 1/2" | 14,0 | 38,0 | 30,0 | 17 | 27 | 106,0 |
| 3140TR1215 | 15 | R 1/2" | 14,0 | 38,0 | 30,0 | 17 | 27 | 100,0 |
| 3140TR1216 | 16 | R 1/2" | 14,0 | 39,5 | 31,5 | 19 | 30 | 124,0 |
| 3140TR1218 | 18 | R 1/2" | 14,0 | 44,0 | 34,0 | 22 | 32 | 156,0 |

## 3150 Female elbow BSPP thread

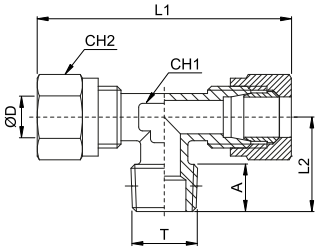





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3150TR184 | 4 | G 1/8" | 8,0 | 22,0 | 20,0 | 9 | 10 | 18,0 |
| 3150TR186 | 6 | G 1/8" | 8,0 | 24,0 | 20,0 | 9 | 12 | 20,0 |
| 3150TR146 | | G 1/4" | 11,0 | 27,0 | 25,5 | 13 | 12 | 39,0 |
| 3150TR188 | 8 | G 1/8" | 8,0 | 24,0 | 20,0 | 11 | 14 | 26,0 |
| 3150TR148 | | G 1/4" | 11,0 | 27,5 | 25,5 | 13 | 14 | 40,0 |

## 3160 Male tee BSPT thread

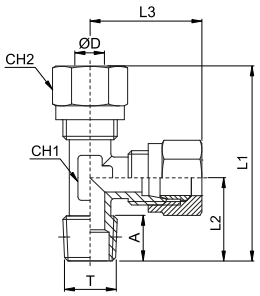





| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|
| 3160TR184 | 4 | R 1/8" | 8,0 | 42,0 | 16,0 | 9 | 10 | 22,0 |
| 3160TR186 | 6 | R 1/8" | 8,0 | 46,0 | 16,0 | 9 | 12 | 26,0 |
| 3160TR146 | | R 1/4" | 11,0 | 48,0 | 20,0 | 11 | 12 | 34,0 |
| 3160TR188 | 8 | R 1/8" | 8,0 | 48,0 | 17,0 | 11 | 14 | 34,0 |
| 3160TR148 | | R 1/4" | 11,0 | 48,0 | 20,0 | 11 | 14 | 38,0 |
| 3160TR388 | | R 3/8" | 11,5 | 54,0 | 24,0 | 13 | 14 | 52,0 |
| 3160TR1410 | 10 | R 1/4" | 11,0 | 64,0 | 23,5 | 13 | 19 | 80,0 |
| 3160TR3810 | | R 3/8" | 11,5 | 64,0 | 24,0 | 13 | 19 | 84,0 |
| 3160TR3812 | 12 | R 3/8" | 11,5 | 69,0 | 25,5 | 15 | 22 | 108,0 |
| 3160TR1212 | | R 1/2" | 14,0 | 69,0 | 28,5 | 15 | 22 | 118,0 |
| 3160TR1214 | 14 | R 1/2" | 14,0 | 76,0 | 30,0 | 17 | 27 | 176,0 |
| 3160TR1215 | 15 | R 1/2" | 14,0 | 76,0 | 30,0 | 17 | 27 | 170,0 |
| 3160TR1216 | 16 | R 1/2" | 14,0 | 79,0 | 31,5 | 19 | 30 | 212,0 |
| 3160TR1218 | 18 | R 1/2" | 14,0 | 88,0 | 34,0 | 22 | 32 | 256,0 |

## 3170 Lateral male tee BSPT thread



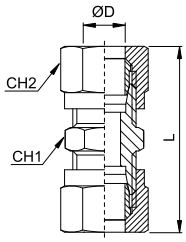



| CODE | ØD | T | A | L1 | L2 | L3 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|---|---|
| 3170TR184 | 4 | R 1/8" | 8,0 | 37,0 | 16,0 | 21,0 | 9 | 10 | 22,0 |
| 3170TR186 | 6 | R 1/8" | 8,0 | 39,0 | 16,0 | 23,0 | 9 | 10 | 26,0 |
| 3170TR146 | | R 1/4" | 11,0 | 44,5 | 20,0 | 24,5 | 11 | 12 | 34,0 |
| 3170TR188 | 8 | R 1/8" | 8,0 | 41,0 | 17,0 | 24,0 | 11 | 14 | 34,0 |
| 3170TR148 | | R 1/4" | 11,0 | 44,0 | 20,0 | 24,0 | 11 | 14 | 38,0 |
| 3170TR388 | | R 3/8" | 11,5 | 51,0 | 24,0 | 27,0 | 13 | 14 | 52,0 |
| 3170TR1410 | 10 | R 1/4" | 11,0 | 55,5 | 23,5 | 32,0 | 13 | 19 | 80,0 |
| 3170TR3810 | | R 3/8" | 11,5 | 56,0 | 24,0 | 32,0 | 13 | 19 | 84,0 |
| 3170TR3812 | 12 | R 3/8" | 11,5 | 60,0 | 25,5 | 34,5 | 15 | 22 | 110,0 |
| 3170TR1212 | | R 1/2" | 14,0 | 63,0 | 28,5 | 34,5 | 15 | 22 | 118,0 |
| 3170TR1214 | 14 | R 1/2" | 14,0 | 68,0 | 30,0 | 38,0 | 17 | 27 | 176,0 |
| 3170TR1215 | 15 | R 1/2" | 14,0 | 68,0 | 30,0 | 38,0 | 17 | 27 | 170,0 |
| 3170TR1216 | 16 | R 1/2" | 14,0 | 71,0 | 31,5 | 39,5 | 19 | 30 | 210,0 |
| 3170TR1218 | 18 | R 1/2" | 14,0 | 78,0 | 34,0 | 44,0 | 22 | 32 | 256,0 |

*drawings and technical data are not binding & can be changed without notice*

## 3180 Union connector

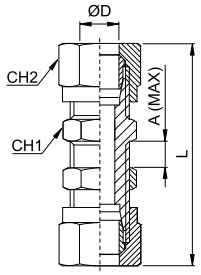





| CODE | ØD | L | CH1 | CH2 | g |
|---|---|---|---|---|---|
| 3180TR4 | 4 | 33,5 | 10 | 10 | 16,0 |
| 3180TR6 | 6 | 36,5 | 12 | 12 | 25,0 |
| 3180TR8 | 8 | 38,5 | 14 | 14 | 28,0 |
| 3180TR10 | 10 | 47,5 | 17 | 19 | 66,0 |
| 3180TR12 | 12 | 50,5 | 19 | 22 | 93,0 |
| 3180TR14 | 14 | 55,5 | 24 | 27 | 148,0 |
| 3180TR15 | 15 | 55,5 | 24 | 27 | 140,0 |
| 3180TR16 | 16 | 58,0 | 24 | 30 | 177,0 |
| 3180TR18 | 18 | 60,0 | 26 | 32 | 198,0 |

## 3190 Bulkhead connector

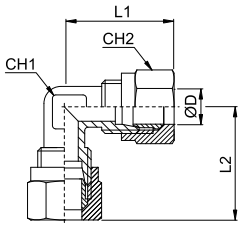





| CODE | ØD | T | A MAX | L | CH1 | CH2 | g |
|---|---|---|---|---|---|---|---|
| 3190TR6 | 6 | M10x1 | 15,5 | 51,5 | 14 | 12 | 32,0 |
| 3190TR8 | 8 | M12x1 | 16,5 | 55,5 | 16 | 14 | 42,0 |
| 3190TR10 | 10 | M16x1,5 | 15,5 | 62,5 | 19 | 19 | 90,0 |
| 3190TR12 | 12 | M18x1,5 | 16,0 | 64,5 | 22 | 22 | 116,0 |
| 3190TR14 | 14 | M22x1,5 | 18,0 | 69,5 | 25 | 27 | 192,0 |
| 3190TR15 | 15 | M22x1,5 | 18,0 | 69,5 | 25 | 27 | 184,0 |

## 3200 Union elbow

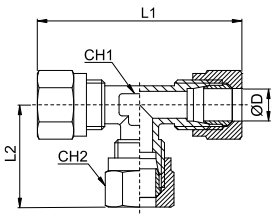





| CODE | ØD | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 3200TR4 | 4 | 21,0 | 21,0 | 9 | 10 | 18,0 |
| 3200TR6 | 6 | 23,0 | 23,0 | 9 | 12 | 22,0 |
| 3200TR8 | 8 | 24,0 | 24,0 | 11 | 14 | 30,0 |
| 3200TR10 | 10 | 32,0 | 32,0 | 13 | 19 | 70,0 |
| 3200TR12 | 12 | 34,5 | 34,5 | 15 | 22 | 94,0 |
| 3200TR14 | 14 | 38,0 | 38,0 | 17 | 27 | 152,0 |
| 3200TR15 | 15 | 38,0 | 38,0 | 17 | 27 | 144,0 |
| 3200TR16 | 16 | 39,5 | 39,5 | 19 | 30 | 186,0 |
| 3200TR18 | 18 | 44,0 | 44,0 | 22 | 32 | 228,0 |

## 3210 Union tee

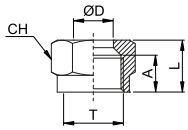





| CODE | ØD | L1 | L2 | CH1 | CH2 | g |
|---|---|---|---|---|---|---|
| 3210TR4 | 4 | 42,0 | 21,0 | 9 | 10 | 26,0 |
| 3210TR6 | 6 | 46,0 | 23,0 | 9 | 12 | 30,0 |
| 3210TR8 | 8 | 48,0 | 24,0 | 11 | 14 | 42,0 |
| 3210TR10 | 10 | 64,0 | 32,0 | 13 | 19 | 102,0 |
| 3210TR12 | 12 | 69,0 | 34,5 | 15 | 22 | 136,0 |
| 3210TR14 | 14 | 76,0 | 38,0 | 17 | 27 | 226,0 |
| 3210TR15 | 15 | 76,0 | 38,0 | 17 | 27 | 208,0 |
| 3210TR16 | 16 | 79,0 | 39,5 | 19 | 30 | 272,0 |
| 3210TR18 | 18 | 88,0 | 44,0 | 22 | 32 | 330,0 |

## 3230 Locking nut

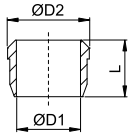





| CODE | ØD | T | A | L | CH | g |
|---|---|---|---|---|---|---|
| 3230TRM814 | 4 | M8x1 | 7,5 | 11,0 | 10 | 4,2 |
| 3230TRM1016 | 6 | M10x1 | 8,5 | 11,5 | 12 | 5,4 |
| 3230TRM1218 | 8 | M12x1 | 9,0 | 12,0 | 14 | 7,0 |
| 3230TRM161510 | 10 | M16x1,5 | 11,5 | 15,5 | 19 | 18,2 |
| 3230TRM181512 | 12 | M18x1,5 | 11,5 | 15,5 | 22 | 25,0 |
| 3230TRM221514 | 14 | M22x1,5 | 12,0 | 17,5 | 27 | 44,3 |
| 3230TRM221515 | 15 | M22x1,5 | 12,0 | 17,0 | 27 | 41,1 |
| 3230TRM241516 | 16 | M24x1,5 | 12,0 | 17,5 | 30 | 55,6 |
| 3230TRM261518 | 18 | M26x1,5 | 12,5 | 18,5 | 32 | 64,2 |

## 3240 Ogive



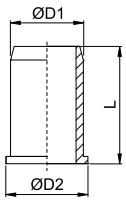



| CODE | ØD1 | ØD2 | L | g |
|---|---|---|---|---|
| 3240TR4 | 4 | 6 | 6,0 | 0,45 |
| 3240TR6 | 6 | 8 | 7,0 | 0,82 |
| 3240TR8 | 8 | 10 | 7,0 | 1,12 |
| 3240TR10 | 10 | 13 | 10,0 | 3,32 |
| 3240TR12 | 12 | 15 | 10,0 | 3,80 |
| 3240TR14 | 14 | 17 | 10,0 | 4,40 |
| 3240TR15 | 15 | 18 | 10,0 | 4,76 |
| 3240TR16 | 16 | 19 | 10,0 | 5,04 |
| 3240TR18 | 18 | 21 | 10,5 | 5,92 |

*drawings and technical data are not binding & can be changed without notice*

## 3250 Internal support bush

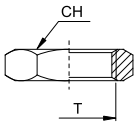





| CODE | TUBE ØD | ØD1 | ØD2 | L | g |
|---|---|---|---|---|---|
| 3250TR4 | 4 | 2,5 | 3,5 | 10,0 | 0,20 |
| 3250TR6 | 6 | 4,0 | 5,5 | 12,0 | 0,60 |
| 3250TR8 | 8 | 6,0 | 7,5 | 13,0 | 1,00 |
| 3250TR10 | 10 | 8,0 | 9,5 | 14,0 | 1,40 |
| 3250TR12 | 12 | 10,0 | 11,5 | 16,0 | 2,20 |
| 3250TR14 | 14 | 12,0 | 13,5 | 16,0 | 2,60 |
| 3250TR15 | 15 | 12,5 | 14,5 | 17,0 | 2,80 |
| 3250TR16 | 16 | 14,0 | 15,5 | 18,0 | 3,40 |
| 3250TR18 | 18 | 16,0 | 17,5 | 19,0 | - |

## 1176 Bulkhead locking nut






| CODE | T | CH | g |
|---|---|---|---|
| 1176TRM101 | M10x1 | 14 | 3,0 |
| 1176TRM121 | M12x1 | 16 | 3,8 |
| 1176TRM1615 | M16x1,5 | 19 | 5,0 |
| 1176TRM1815 | M18x1,5 | 22 | 7,0 |
| 1176TRM2215 | M22x1,5 | 25 | 17,0 |



# COMPRESSION FITTINGS
## STAINLESS STEEL AISI 316 DIN 2353

## PLUS

- **DESIGNED AND MANUFACTURED TO ACHIEVE A STRONG AND LEAK-FREE FITTING**
- **RESISTANT TO VIBRATIONS AND TO WATER HAMMERS**
- **PRODUCTS IN COMPLIANCE WITH DIN 2353**
- **SINGLE OGIVE DESIGN WITH TWO CUTTING EDGES**
- **CERTIFIED LLOYDS, DNV GL, ABS AND BUREAU VERITAS**



p. 195 / **DDMC-R**



p. 195 / **DDMC-G**



p. 196 / **DDFC-G**



p. 196 / **DDLM-R**



p. 196 / **DDU**



p. 197 / **DDBU**



p. 197 / **DDL**



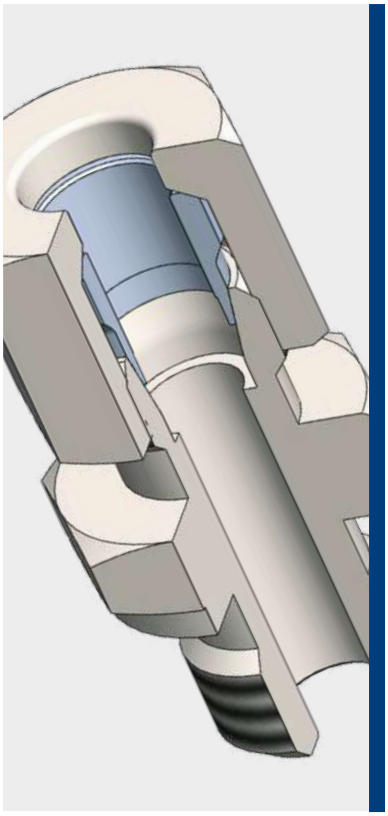
p. 197 / **DDT**



p. 197 / **DDN**



p. 198 / **DDS**



-60°C ÷ +400°C
See table below for pressure reduction according to working temperature

**Working pressure:**
See in the fittings table.
For pneumatic applications, the working pressure indicated in the table must be reduced by 50%.

Compressed air, oil, chemicals and aggressive fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G3/4"

Stainless steel tubes, hardened and seamless, according to DIN 2391. The tubes must be suitable for the process fluid, pressure and temperature

**Body:** Stainless steel AISI 316
**Lock nut:** Stainless steel AISI 316
**Ogive:** Stainless steel AISI 316 with heat treatment and annealing on the cutting ring.

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

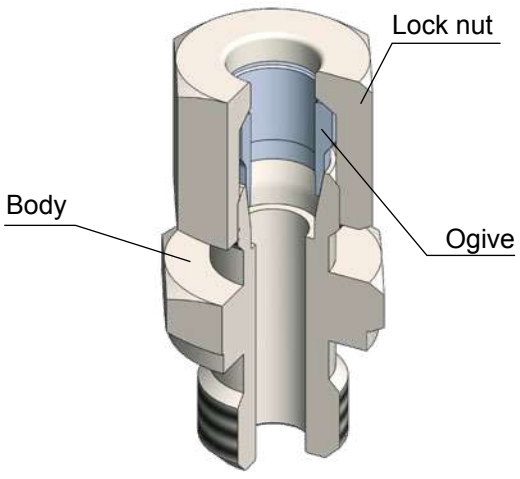
## AVAILABILITY

Other fittings and sizes are available for this range, please see our website (www.inoxfit.com) and the INOX.Fit catalogue.

## PRESSURE REDUCTION ACCORDING TO WORKING TEMPERATURE

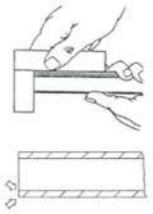
| WORKING TEMPERATURE RANGE | WORKING PRESSURE REDUCTION |
|---|---|
| -60°C ÷ +20°C | - |
| -60°C ÷ +50°C | -4% |
| +100°C | -11% |
| +200°C | -20% |
| +300°C | -29% |
| +400°C | -33% |

## CONSTRUCTION DETAILS

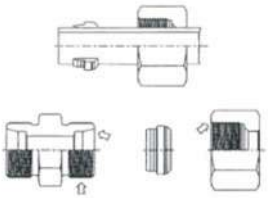



*drawings and technical data are not binding & can be changed without notice*

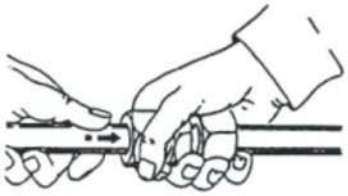
## ASSEMBLY INSTRUCTIONS



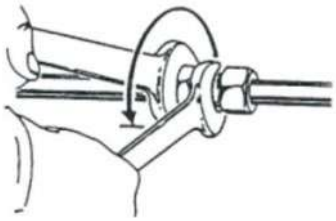
- Ensure that the tube end is cut at 90° with an angular maximum offset of +/- 1/2° in relation to the tube axis.
- After cleaning, lightly deburr tube ends at the inside and outside edge.



- Lubricate the thread and the inside part of the fitting, the ring and the thread of the nut. Don't use grease.

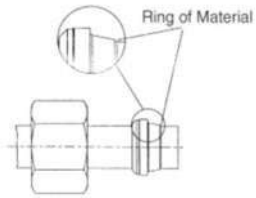


- Place nut and cutting ring on the tube. Ensure the cutting ring and nut are facing the right way.
- Manually screw the nut on to the fitting body keeping the tube completely inserted in.

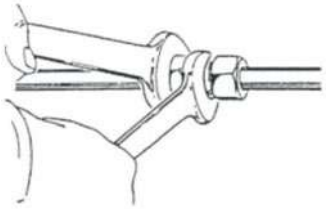


- Finally tighten the nut using a wrench for 1 and 1/2 turns by holding the fitting body with a second wrench. Never turn the fitting body, hold the body and turn the nut.

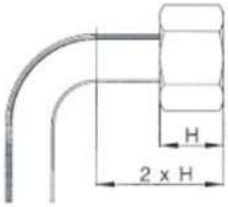
WARNING: Any deviation in the number of tighting turns reduces the maximum pressure and the service life of the fitting and may cause leakages or slipping of the tube.




- Check penetration of the cutting edge. A visible ring of material should fill the space in front of the cutting ring and face. Cutting ring may turn on tube but should not be capable of axial displacement.



- Tighten the nut again on to fitting body until completely tightened.



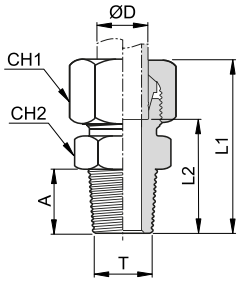

- The minimum lenght of straight tube, before any bend, has to be at least two times the height of the nut (H).

*drawings and technical data are not binding & can be changed without notice*

## DDMC-R

Male connector BSPT thread



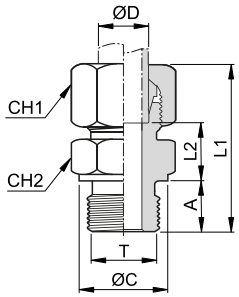



| CODE | ØD | T | A | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|---|---|
| DDMC-04LL-01R | 4 | R 1/8" | 8,0 | 26,0 | 16,0 | 10 | 11 | 100 |
| DDMC-06L-01R | 6 | R 1/8" | 8,0 | 30,0 | 15,0 | 14 | 12 | 250 |
| DDMC-08LL-01R | 8 | R 1/8" | 8,0 | 28,0 | 16,5 | 14 | 12 | 100 |
| DDMC-08L-02R | | R 1/4" | 12,0 | 35,0 | 20,0 | 17 | 17 | 250 |
| DDMC-10L-02R | 10 | R 1/4" | 12,0 | 36,0 | 21,0 | 19 | 17 | 250 |
| DDMC-12L-02R | 12 | R 1/4" | 12,0 | 37,0 | 22,0 | 22 | 19 | 250 |
| DDMC-12L-03R | | R 3/8" | 12,0 | 37,0 | 22,0 | 22 | 19 | 250 |
| DDMC-12L-04R | | R 1/2" | 14,0 | 39,0 | 24,0 | 22 | 24 | 250 |
| DDMC-15L-03R | 15 | R 3/8" | 12,0 | 38,0 | 23,0 | 27 | 24 | 250 |
| DDMC-15L-04R | 15 | R 1/2" | 14,0 | 40,0 | 25,0 | 27 | 24 | 250 |

## DDMC-G

Male connector BSPP thread



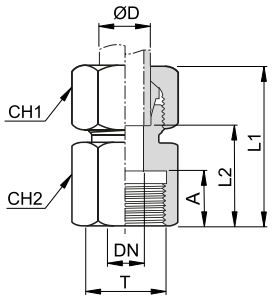



| CODE | ØD | T | ØC | A | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|---|---|---|
| DDMC-06L-01G | 6 | G 1/8" | 14,0 | 8,0 | 23,0 | 8,5 | 14 | 14 | 250 |
| DDMC-06L-02G | | G 1/4" | 18,0 | 12,0 | 25,0 | 10,0 | 14 | 19 | 250 |
| DDMC-06L-03G | | G 3/8" | 22,0 | 12,0 | 26,0 | 11,5 | 14 | 22 | 250 |
| DDMC-06L-04G | | G 1/2" | 26,0 | 14,0 | 27,0 | 12,0 | 14 | 27 | 250 |
| DDMC-08L-01G | 8 | G 1/8" | 14,0 | 8,0 | 23,0 | 8,5 | 17 | 14 | 250 |
| DDMC-08L-02G | | G 1/4" | 18,0 | 12,0 | 25,0 | 10,0 | 17 | 19 | 250 |
| DDMC-08L-03G | | G 3/8" | 22,0 | 12,0 | 26,0 | 11,5 | 17 | 22 | 250 |
| DDMC-08L-04G | | G 1/2" | 26,0 | 14,0 | 27,0 | 12,0 | 17 | 27 | 250 |
| DDMC-10L-02G | 10 | G 1/4" | 18,0 | 12,0 | 26,0 | 11,0 | 19 | 19 | 250 |
| DDMC-10L-03G | | G 3/8" | 22,0 | 12,0 | 27,0 | 12,5 | 19 | 22 | 250 |
| DDMC-10L-04G | | G 1/2" | 26,0 | 14,0 | 28,0 | 13,0 | 19 | 27 | 250 |
| DDMC-12L-02G | 12 | G 1/4" | 18,0 | 12,0 | 27,0 | 12,0 | 22 | 19 | 250 |
| DDMC-12L-03G | | G 3/8" | 22,0 | 12,0 | 27,0 | 12,5 | 22 | 22 | 250 |
| DDMC-12L-04G | | G 1/2" | 26,0 | 14,0 | 28,0 | 13,0 | 22 | 27 | 250 |
| DDMC-12L-06G | | G 3/4" | 32,0 | 16,0 | 29,0 | 14,0 | 22 | 32 | 250 |
| DDMC-15L-03G | 15 | G 3/8" | 22,0 | 12,0 | 29,0 | 13,5 | 27 | 24 | 250 |
| DDMC-15L-04G | | G 1/2" | 26,0 | 14,0 | 29,0 | 14,0 | 27 | 27 | 250 |
| DDMC-15L-06G | | G 3/4" | 32,0 | 16,0 | 30,0 | 15,0 | 27 | 32 | 250 |
| DDMC-16S-03G | 16 | G 3/8" | 22,0 | 12,0 | 36,0 | 18,0 | 30 | 27 | 400 |
| DDMC-16S-04G | | G 1/2" | 26,0 | 14,0 | 37,0 | 18,5 | 30 | 27 | 400 |
| DDMC-16S-06G | | G 3/4" | 32,0 | 16,0 | 39,0 | 20,5 | 30 | 32 | 400 |

## DDFC-G

Female connector BSPP thread



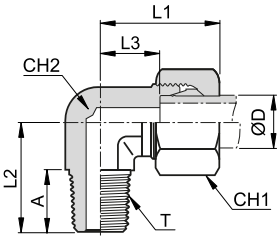



| CODE | ØD | T | DN | A | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|---|---|---|
| DDFC-06L-01G | 6 | G 1/8" | 4 | 12,0 | 34,0 | 19,0 | 14 | 14 | 250 |
| DDFC-06S-02G | | G 1/4" | 4 | 17,0 | 41,0 | 26,0 | 17 | 19 | 630 |
| DDFC-08L-02G | 8 | G 1/4" | 6 | 17,0 | 39,0 | 24,0 | 17 | 19 | 250 |
| DDFC-08L-03G | | G 3/8" | 6 | 17,0 | 40,0 | 25,0 | 17 | 24 | 250 |
| DDFC-08L-04G | | G 1/2" | 6 | 20,0 | 44,0 | 29,0 | 17 | 27 | 250 |
| DDFC-10L-02G | 10 | G 1/4" | 8 | 17,0 | 40,0 | 25,0 | 19 | 19 | 250 |
| DDFC-10L-03G | | G 3/8" | 8 | 17,0 | 41,0 | 26,0 | 19 | 24 | 250 |
| DDFC-10L-04G | | G 1/2" | 8 | 20,0 | 45,0 | 30,0 | 19 | 27 | 250 |
| DDFC-12L-03G | 12 | G 3/8" | 10 | 17,0 | 41,0 | 26,0 | 22 | 24 | 250 |
| DDFC-12L-04G | | G 1/2" | 10 | 20,0 | 45,0 | 30,0 | 22 | 27 | 250 |
| DDFC-15L-04G | 15 | G 1/2" | 12 | 20,0 | 46,0 | 31,0 | 27 | 27 | 250 |
| DDFC-16S-04G | 16 | G 1/2" | 12 | 20,0 | 50,0 | 31,5 | 30 | 30 | 400 |

## DDLM-R

Male elbow BSPT thread



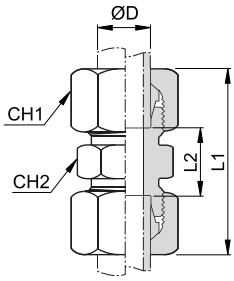



| CODE | ØD | T | A | L1 | L2 | L3 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|---|---|---|
| DDLM-04LL-01R | 4 | R 1/8" | 10,0 | 21,0 | 17,0 | 11,0 | 10 | 9 | 100 |
| DDLM-06L-01R | 6 | R 1/8" | 10,0 | 27,0 | 20,0 | 12,0 | 14 | 12 | 250 |
| DDLM-06S-02R | | R 1/4" | 14,0 | 31,0 | 26,0 | 16,0 | 17 | 12 | 630 |
| DDLM-08LL-01R | 8 | R 1/8" | 10,0 | 23,0 | 20,0 | 11,5 | 14 | 12 | 100 |
| DDLM-08L-02R | | R 1/4" | 14,0 | 29,0 | 26,0 | 14,0 | 17 | 12 | 250 |
| DDLM-10L-02R | 10 | R 1/4" | 14,0 | 30,0 | 27,0 | 15,0 | 19 | 14 | 250 |
| DDLM-10S-03R | | R 3/8" | 15,0 | 34,0 | 28,0 | 17,5 | 22 | 17 | 630 |
| DDLM-12L-03R | 12 | R 3/8" | 15,0 | 32,0 | 28,0 | 17,0 | 22 | 17 | 250 |
| DDLM-15L-04R | 15 | R 1/2" | 19,0 | 36,0 | 34,0 | 21,0 | 27 | 19 | 250 |
| DDLM-16S-04R | 16 | R 1/2" | 19,0 | 43,0 | 32,0 | 24,5 | 30 | 24 | 400 |

## DDU

Union connector

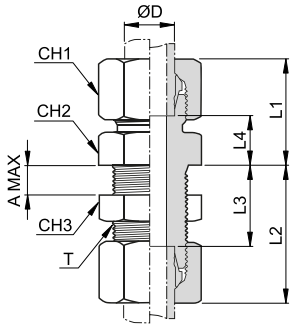





| CODE | ØD | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|
| DDU-04LL | 4 | 31,0 | 12,0 | 10 | 9 | 100 |
| DDU-06L | 6 | 39,0 | 10,0 | 14 | 12 | 250 |
| DDU-08L | 8 | 40,0 | 11,0 | 17 | 14 | 250 |
| DDU-10L | 10 | 42,0 | 13,0 | 19 | 17 | 250 |
| DDU-12L | 12 | 43,0 | 14,0 | 22 | 19 | 250 |
| DDU-15L | 15 | 46,0 | 16,0 | 27 | 24 | 250 |
| DDU-16S | 16 | 57,0 | 21,0 | 30 | 27 | 400 |

## DDBU — Bulkhead connector

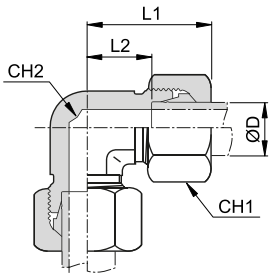





| CODE | ØD | T | MAX A | L1 | L2 | L3 | L4 | CH1 | CH2 | CH3 | Bar |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DDBU-06L | 6 | M12x1,5 | 16,0 | 22,0 | 42,0 | 27,0 | 7,0 | 14 | 17 | 17 | 250 |
| DDBU-08L | 8 | M14x1,5 | 16,0 | 23,0 | 42,0 | 27,0 | 8,0 | 17 | 19 | 19 | 250 |
| DDBU-10L | 10 | M16x1,5 | 16,0 | 25,0 | 43,0 | 28,0 | 10,0 | 19 | 22 | 22 | 250 |
| DDBU-12L | 12 | M18x1,5 | 16,0 | 25,0 | 44,0 | 29,0 | 10,0 | 22 | 24 | 24 | 250 |
| DDBU-15L | 15 | M22x1,5 | 16,0 | 27,0 | 46,0 | 31,0 | 12,0 | 27 | 27 | 30 | 250 |
| DDBU-16S | 16 | M24x1,5 | 16,0 | 35,0 | 50,0 | 31,5 | 16,5 | 30 | 32 | 32 | 400 |

## DDL — Union elbow

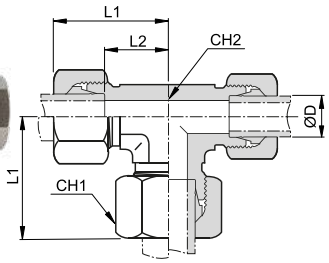





| CODE | ØD | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|
| DDL-04LL | 4 | 21,0 | 11,0 | 10 | 9 | 100 |
| DDL-06L | 6 | 27,0 | 12,0 | 14 | 12 | 250 |
| DDL-08L | 8 | 29,0 | 14,0 | 17 | 14 | 250 |
| DDL-10L | 10 | 30,0 | 15,0 | 19 | 17 | 250 |
| DDL-12L | 12 | 32,0 | 17,0 | 22 | 19 | 250 |
| DDL-15L | 15 | 36,0 | 21,5 | 27 | 24 | 250 |
| DDL-16S | 16 | 43,0 | 24,5 | 30 | 27 | 400 |

## DDT — Union tee

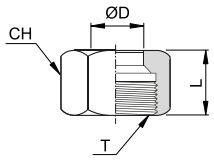





| CODE | ØD | L1 | L2 | CH1 | CH2 | Bar |
|---|---|---|---|---|---|---|
| DDT-04LL | 4 | 21,0 | 11,0 | 10 | 9 | 100 |
| DDT-06L | 6 | 27,0 | 12,0 | 14 | 12 | 250 |
| DDT-08L | 8 | 29,0 | 14,0 | 17 | 12 | 250 |
| DDT-10L | 10 | 30,0 | 15,0 | 19 | 14 | 250 |
| DDT-12L | 12 | 32,0 | 17,0 | 22 | 17 | 250 |
| DDT-15L | 15 | 36,0 | 21,0 | 27 | 19 | 250 |
| DDT-16S | 16 | 43,0 | 24,5 | 30 | 24 | 400 |

## DDN — Locking nut





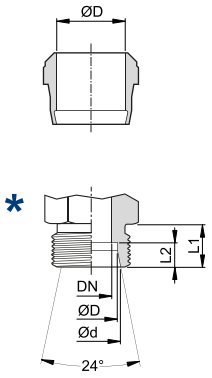

| CODE | ØD | T | L | CH | Bar |
|---|---|---|---|---|---|
| DDN-04LL | 4 | M8x1,0 | 11,5 | 10 | 100 |
| DDN-06L | 6 | M12x1,5 | 15,0 | 14 | 250 |
| DDN-08L | 8 | M14x1,5 | 15,0 | 17 | 250 |
| DDN-10L | 10 | M16x1,5 | 16,0 | 19 | 250 |
| DDN-12L | 12 | M18x1,5 | 16,0 | 22 | 250 |
| DDN-15L | 15 | M22x1,5 | 17,5 | 27 | 250 |
| DDN-16S | 16 | M14x1,5 | 21,0 | 30 | 400 |

*drawings and technical data are not binding & can be changed without notice*

## DDS

Ogive

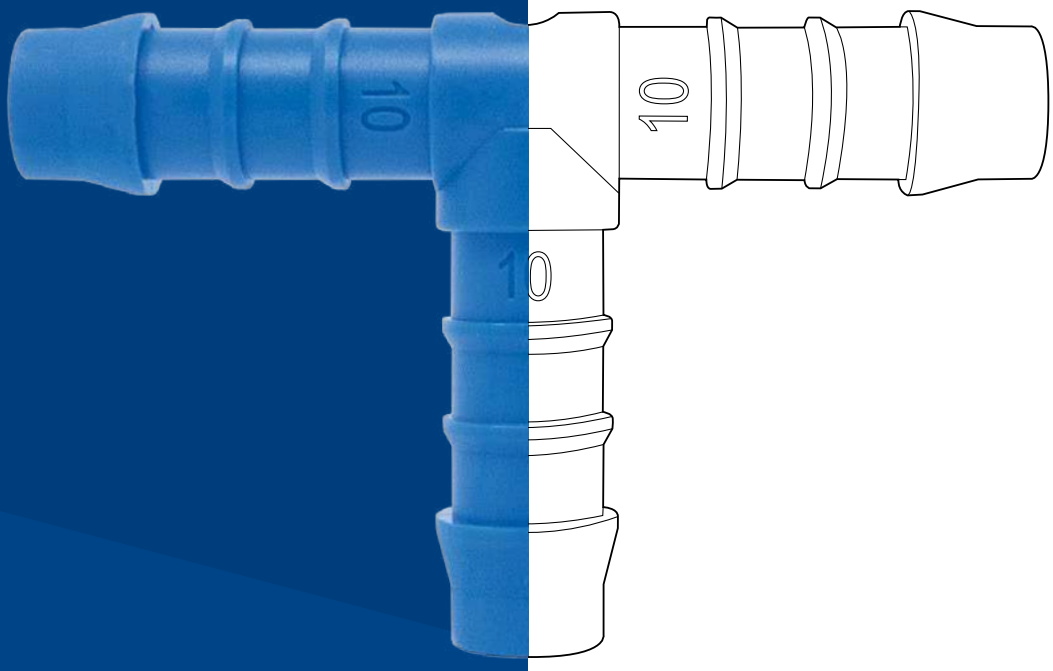





| CODE | ØD | Ød | DN | L1 | L2 | Bar |
|---|---|---|---|---|---|---|
| DDS-04LL | 4 | 5 | 3 | 8,0 | 4,0 | 100 |
| DDS-06L | 6 | 8,1 | 4 | 10,0 | 7,0 | 250 |
| DDS-08L | 8 | 10,1 | 6 | 10,0 | 7,0 | 250 |
| DDS-10L | 10 | 12,3 | 8 | 11,0 | 7,0 | 250 |
| DDS-12L | 12 | 14,3 | 10 | 11,0 | 7,0 | 250 |
| DDS-15L | 15 | 17,3 | 12 | 12,0 | 7,0 | 250 |
| DDS-16S | 16 | 18,3 | 12 | 14,0 | 8,5 | 400 |

* Thread diameter according to DIN 3853

# BARB CONNECTORS



# TECHNICAL INDEX



p. 201

## POLYPROPYLENE

**Materials:** Polypropylene
**Pressure:** 14 Bar
**Temperature:** from +4°C to 90°C
**Range:** Ø12 - Ø25 / R1/8" to R1"
Ø6 - Ø19 / G1/2" to G1"



p. 209

## BRASS

**Materials:** Nickel-plated brass
**Pressure:** 18 Bar
**Temperature:** from -20°C to 100°C
from -15°C to 200°C
**Range:** Ø6 - Ø27 / R1/8" to R1"
Ø4,5 - Ø20 / M5 to G3/4"



p. 217

## NYLON

**Materials:** Nylon 66
**Pressure:** 14 Bar
**Temperature:** from -20°C to 110°C
**Range:** Ø4 - Ø25 / R1/8" to R1"



p. 231

## PVDF

**Materials:** PVDF
**Pressure:** 14 Bar
**Temperature:** from -20°C to 120°C
**Range:** Ø4 - Ø25 / R1/8" to R1"



p. 241

## STAINLESS STEEL AISI 316

**Materials:** Stainless steel AISI 316
**Pressure:** 60 Bar
**Temperature:** from -20°C to 180°C
**Range:** Ø6 - Ø20 / R1/8" to R3/4"



p. 245

## CLAMPS

**Materials:** See technical datasheet
**Temperature:** from +4°C to 90°C (5090)
**Range:** Ø8 - Ø90 (KC9 - KCW9 - KCX9)
Ø8 - Ø49 (5090)

*drawings and technical data are not binding & can be changed without notice*

# BARB CONNECTORS POLYPROPYLENE

## PLUS

- SUITABLE FOR AIR AND WATER ACCORDING TO TABLES
- GREAT CHEMICAL RESISTANCE ESPECIALLY WITH FERTILIZERS
- UTILIZE WITH 5090 SERIES CLAMPS FOR BETTER GRIP AND SAFETY
- DESIGNED TO BE USED WITH 2,5 AND 4 CLASSES LDPE TUBES. CAN ALSO BE USED WITH DIFFERENT PLASTIC AND RUBBER FLEXIBLE TUBES
- IDEAL FOR AGRICULTURAL INDUSTRY



p. 205 / **5510**



p. 205 / **5520**



p. 205 / **5530**



p. 206 / **5540**



p. 206 / **5545**



p. 206 / **5550**



p. 206 / **5555**



p. 207 / **5560**



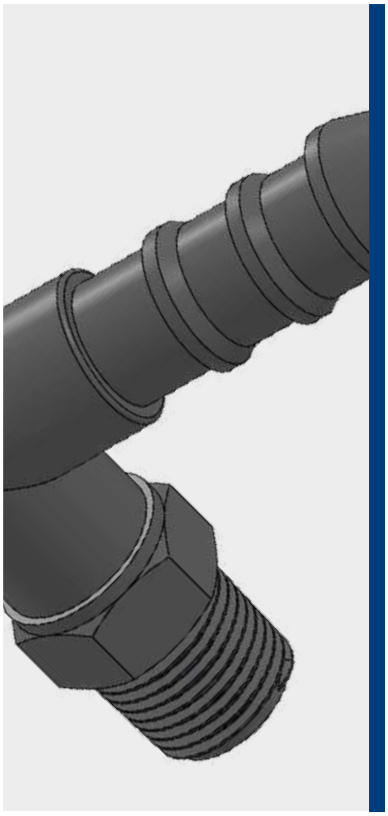
p. 207 / **5565**



p. 207 / **5570**



p. 207 / **5580**



+4°C ÷ +90°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)
Depending on the tube used

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1"
- Parallel gas BSPP ISO 228 from G1/8" to G1"

Suitable for use with LDPE class 2.5 and 4 tubes.
Can be used with plastic and rubber tubes

**Body:** Polypropylene

## FEATURES

- The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.
- It is reccomended to insert the tube to the end and tightened with the clamp.
- Cut the part of the tube attached to the fitting in order to reutilize it.

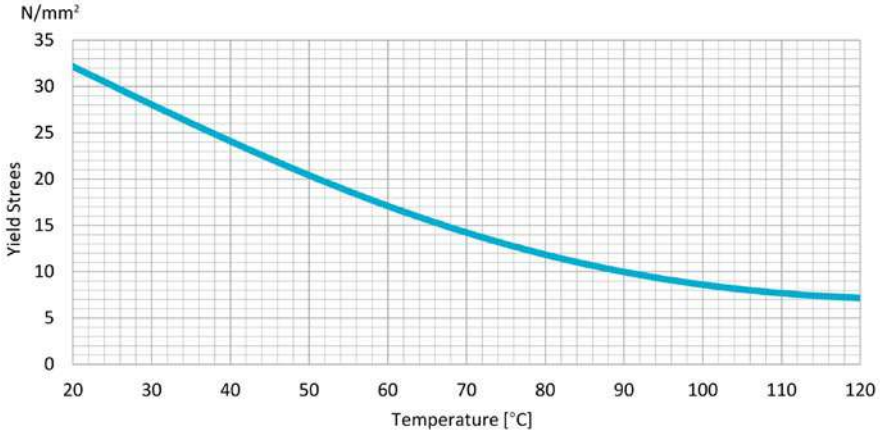
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




## YIELD STRESS OF POLYPROPYLENE AS A FUNCTION OF TEMPERATURE




*drawings and technical data are not binding & can be changed without notice*

## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 0,01 | 0,3 | 1 | 2 | 5 | 8 |

## DIAMETER OF THE BARB
BARB CONNECTORS - POLYPROPYLENE

| OD EXTERNAL TUBE | Ø12 | Ø16 | Ø20 | Ø25 |
|---|---|---|---|---|
| ØB - BARB (mm) | 11,8 | 15,1 | 18,8 | 23,0 |
| ØD (mm) | 9,8 | 12,9 | 16,2 | 20,4 |



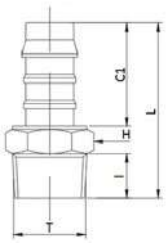

## DIAMETER OF THE BARB
BARB CONNECTORS - POLYPROPYLENE - ONLY FOR CODE 5570

| OD EXTERNAL TUBE | Ø6 | Ø8 | Ø10 | Ø12 | Ø14 | Ø16 | Ø19 |
|---|---|---|---|---|---|---|---|
| ØB - BARB (mm) | 8,1 | 10,2 | 12,4 | 13,9 | 15,9 | 18,1 | 21,0 |
| ØD (mm) | 6,1 | 8,1 | 10,1 | 11,9 | 13,8 | 15,9 | 18,8 |



## 5510 Male barb connector BSPT thread

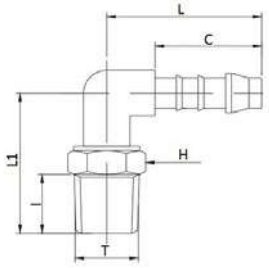





| CODE | T | OD | I | C1 | L | H | g |
|---|---|---|---|---|---|---|---|
| 5510TR1812 | R 1/8" | 12 | 7,5 | 30,0 | 44,0 | 11 | 2,0 |
| 5510TR1412 | R 1/4" | 12 | 11,0 | 30,0 | 47,7 | 14 | 3,0 |
| 5510TR3812 | R 3/8" | 12 | 10,5 | 30,0 | 47,3 | 17 | 3,0 |
| 5510TR1212 | R 1/2" | 12 | 13,0 | 30,0 | 50,8 | 22 | 3,5 |
| 5510TR3412 | R 3/4" | 12 | 13,0 | 30,0 | 51,4 | 27 | 4,0 |
| 5510TR1416 | R 1/4" | 16 | 10,5 | 31,0 | 47,6 | 14 | 3,5 |
| 5510TR1216 | R 1/2" | 16 | 13,0 | 30,0 | 51,3 | 22 | 5,0 |
| 5510TR3416 | R 3/4" | 16 | 13,0 | 28,0 | 52,0 | 27 | 4,5 |
| 5510TR1220 | R 1/2" | 20 | 13,0 | 32,5 | 52,2 | 22 | 5,0 |
| 5510TR3420 | R 3/4" | 20 | 13,0 | 32,5 | 54,0 | 27 | 7,0 |
| 5510TR120 | R 1" | 20 | 18,0 | 32,5 | 59,0 | 36 | 18,0 |
| 5510TR1225 | R 1/2" | 25 | 13,0 | 32,5 | 53,3 | 22 | 6,0 |
| 5510TR3425 | R 3/4" | 25 | 13,0 | 32,5 | 54,5 | 27 | 8,0 |
| 5510TR125 | R 1" | 25 | 17,0 | 32,5 | 59,0 | 36 | 14,0 |

## 5520 Male elbow barb connector BSPT thread

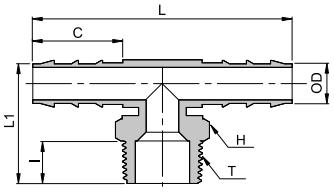





| CODE | T | OD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5520TR1412 | R 1/4" | 12 | 11,0 | 30,0 | 41,0 | 32,0 | 14 | 3,0 |
| 5520TR3812 | R 3/8" | 12 | 11,0 | 30,0 | 41,0 | 32,0 | 14 | 4,0 |
| 5520TR1212 | R 1/2" | 12 | 13,0 | 30,0 | 41,0 | 32,0 | 22 | 4,5 |
| 5520TR3412 | R 3/4" | 12 | 13,0 | 30,0 | 41,0 | 36,0 | 27 | 5,5 |
| 5520TR3816 | R 3/8" | 16 | 11,0 | 30,0 | 45,0 | 28,0 | 22 | 6,0 |
| 5520TR1216 | R 1/2" | 16 | 13,0 | 30,0 | 43,0 | 32,0 | 22 | 7,0 |
| 5520TR3416 | R 3/4" | 16 | 13,0 | 30,0 | 45,0 | 34,0 | 27 | 8,5 |
| 5520TR1220 | R 1/2" | 20 | 13,0 | 32,5 | 48,0 | 35,0 | 22 | 10,0 |
| 5520TR3420 | R 3/4" | 20 | 13,0 | 32,5 | 48,0 | 37,0 | 27 | 11,0 |
| 5520TR1225 | R 1/2" | 25 | 13,0 | 32,5 | 46,0 | 37,0 | 27 | 12,0 |
| 5520TR3425 | R 3/4" | 25 | 13,0 | 32,5 | 46,0 | 38,0 | 27 | 13,0 |

## 5530 Male tee barb connector BSPT thread

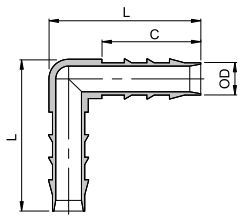





| CODE | T | OD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5530TR1412 | R 1/4" | 12 | 11,0 | 30,0 | 84,7 | 34,1 | 14 | 3,0 |
| 5530TR3812 | R 3/8" | 12 | 11,0 | 30,0 | 84,9 | 34,3 | 22 | 3,5 |
| 5530TR1212 | R 1/2" | 12 | 13,0 | 30,0 | 84,9 | 38,4 | 22 | 5,0 |
| 5530TR3412 | R 3/4" | 12 | 14,0 | 30,0 | 84,8 | 38,9 | 27 | 6,0 |
| 5530TR3816 | R 3/8" | 16 | 11,0 | 30,0 | 86,2 | 36,3 | 17 | 5,5 |
| 5530TR1216 | R 1/2" | 16 | 13,0 | 30,0 | 86,2 | 40,0 | 22 | 7,5 |
| 5530TR3416 | R 3/4" | 16 | 14,0 | 30,0 | 86,2 | 41,0 | 27 | 8,5 |
| 5530TR1220 | R 1/2" | 20 | 13,0 | 32,5 | 93,7 | 45,5 | 22 | 12,0 |
| 5530TR3420 | R 3/4" | 20 | 14,0 | 32,5 | 93,7 | 46,6 | 27 | 14,5 |
| 5530TR1225 | R 1/2" | 25 | 13,0 | 32,5 | 93,7 | 47,6 | 22 | 16,5 |
| 5530TR3425 | R 3/4" | 25 | 14,0 | 32,5 | 93,8 | 48,6 | 27 | 19,0 |

## 5540 Union elbow barb connector

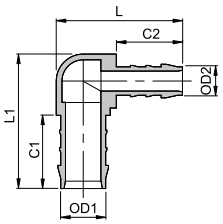





| CODE | ØD | C | L | g |
|---|---|---|---|---|
| 5540TR12 | 12 | 30,0 | 48,2 | 3,0 |
| 5540TR16 | 16 | 30,0 | 49,6 | 5,0 |
| 5540TR20 | 20 | 32,5 | 56,8 | 7,5 |
| 5540TR25 | 25 | 32,5 | 58,8 | 11,0 |

## 5545 Reduced union elbow barb connector

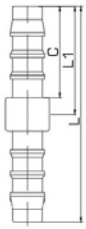





| CODE | OD1 | OD2 | C1 | C2 | L | L1 | g |
|---|---|---|---|---|---|---|---|
| 5545TR1612 | 16 | 12 | 30,0 | 30,0 | 51,2 | 49,5 | 4,6 |
| 5545TR2012 | 20 | 12 | 32,5 | 30,0 | 56,4 | 55,0 | 7,94 |
| 5545TR2016 | 20 | 16 | 32,5 | 30,0 | 56,4 | 54,8 | 8,7 |
| 5545TR2520 | 25 | 20 | 32,5 | 32,5 | 58,3 | 56,4 | 10,2 |

## 5550 Union barb connector

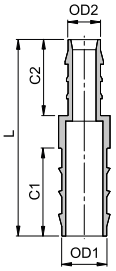





| CODE | OD | C | L | L1 | g |
|---|---|---|---|---|---|
| 5550TR12 | 12 | 30,0 | 68,6 | 34,5 | 3,0 |
| 5550TR16 | 16 | 30,0 | 71,4 | 36,0 | 4,0 |
| 5550TR20 | 20 | 32,5 | 76,5 | 38,5 | 5,0 |
| 5550TR25 | 25 | 32,5 | 76,5 | 38,5 | 8,0 |

## 5555 Reduced union barb connector



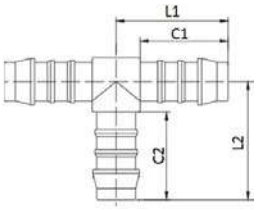



| CODE | OD1 | OD2 | C1 | C2 | L | g |
|---|---|---|---|---|---|---|
| 5555TR1612 | 16 | 12 | 30,0 | 30,0 | 71,5 | 3,7 |
| 5555TR2012 | 20 | 12 | 32,5 | 30,0 | 74,2 | 5,45 |
| 5555TR2016 | 20 | 16 | 32,5 | 30,0 | 74,2 | 5,6 |
| 5555TR2520 | 25 | 20 | 32,5 | 32,5 | 76,8 | 7,3 |

*drawings and technical data are not binding & can be changed without notice*

## 5560 Union tee barb connector

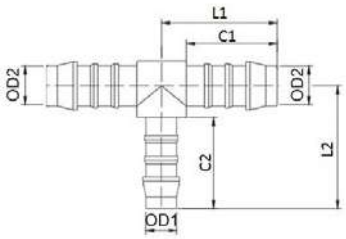





| CODE | OD | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 5560TR12 | 12 | 30,0 | 30,0 | 36,3 | 38,0 | 3,0 |
| 5560TR16 | 16 | 30,0 | 30,0 | 38,3 | 40,0 | 5,0 |
| 5560TR20 | 20 | 32,5 | 32,5 | 42,4 | 45,0 | 9,0 |
| 5560TR25 | 25 | 32,5 | 32,5 | 36,4 | 47,0 | 13,0 |

## 5565 Reduced union tee barb connector

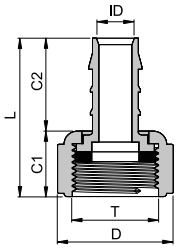





| CODE | OD1 | OD2 | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| 5565TR1216 | 12 | 16 | 30,0 | 30,0 | 48,2 | 76,7 | 3,0 |
| 5565TR1620 | 16 | 20 | 30,0 | 32,5 | 52,3 | 84,6 | 5,0 |
| 5565TR2025 | 20 | 25 | 32,5 | 32,5 | 58,6 | 88,7 | 13,0 |

## 5570 Female swivel barb connector BSPP thread with rubber seal



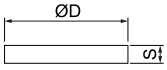



| CODE | T | ID | D | C1 | C2 | L | g |
|---|---|---|---|---|---|---|---|
| 5570TR346 | G 3/4" | 6 | 33,5 | 17,0 | 21,0 | 26,7 | 8,0 |
| 5570TR348 | G 3/4" | 8 | 33,5 | 14,5 | 25,0 | 30,6 | 8,5 |
| 5570TR18 | G 1" | 8 | 39,7 | 14,5 | 25,0 | 30,6 | 10,0 |
| * 5570TR3810 | G 3/8" | 10 | 17,0 | 16,5 | 28,0 | 32,8 | 7,5 |
| 5570TR3410 | G 3/4" | 10 | 33,5 | 16,5 | 27,0 | 32,8 | 9,0 |
| * 5570TR1212 | G 1/2" | 12 | 22,0 | 16,5 | 28,0 | 33,7 | 10,0 |
| 5570TR3412 | G 3/4" | 12 | 33,5 | 16,5 | 28,0 | 33,7 | 9,0 |
| 5570TR112 | G 1" | 12 | 39,7 | 16,5 | 27,0 | 33,7 | 11,0 |
| 5570TR3414 | G 3/4" | 14 | 33,5 | 16,5 | 30,0 | 35,0 | 7,0 |
| 5570TR114 | G 1" | 14 | 39,7 | 16,5 | 30,0 | 35,0 | 8,5 |
| 5570TR3416 | G 3/4" | 16 | 33,5 | 16,5 | 30,0 | 35,7 | 8,0 |
| 5570TR116 | G 1" | 16 | 39,7 | 16,5 | 30,0 | 35,7 | 10,0 |
| 5570TR3419 | G 3/4" | 19 | 33,5 | 16,5 | 31,0 | 36,8 | 10,0 |
| 5570TR119 | G 1" | 19 | 39,7 | 16,5 | 31,0 | 36,8 | 13,0 |

* "D" refers to the external wrench

## 5580 Flat rubber seal for female thread






| CODE | T | ØD | S | g |
|---|---|---|---|---|
| 5580TR38 | G 3/8" | 15,3 | 2,9 | 0,6 |
| 5580TR12 | G 1/2" | 18,3 | 2,5 | 0,8 |
| 5580TR34 | G 3/4" | 24,7 | 2,7 | 0,9 |
| 5580TR1 | G 1" | 31,3 | 3 | 1,2 |

*drawings and technical data are not binding & can be changed without notice*



# BARB CONNECTORS BRASS

## PLUS

- SUITABLE FOR COMPRESSED AIR AND FLUIDS
- WIDE RANGE AVAILABLE TO MEET MULTIPLE NEEDS
- DESIGNED TO GUARANTEE A GOOD MECHANICAL RESISTANCE
- USABLE WITH MANY PLASTIC AND RUBBER TUBES
- UTILIZE WITH ZINC-PLATED STEEL CLAMPS TO EFFECTIVELY SECURE THE TUBE



p. 212 / **1165**



p. 212 / **1167**



p. 213 / **1169**



p. 214 / **1170**



p. 214 / **1171**



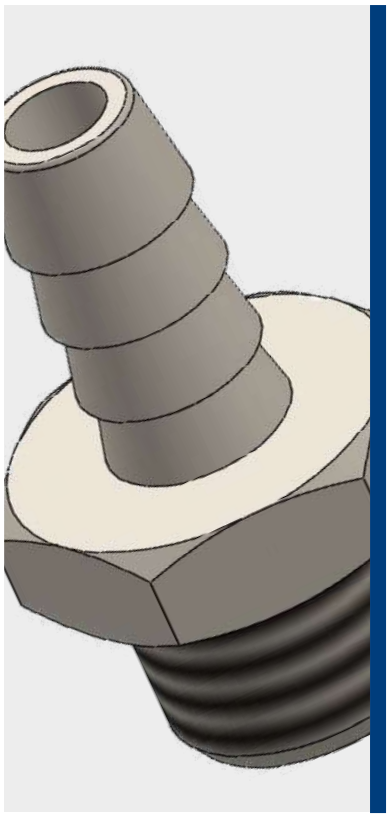
p. 215 / **1174**



p. 215 / **1172**



p. 215 / **1173**



-20°C ÷ 100°C with NBR o-ring
-15°C ÷ 200°C with Viton o-ring
The working temperature is determined by the properties of the tube used

**Working pressure:**
18 Bar
60 Bar (max working pressure)
The working pressure is determined by the properties of the tube used

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1"
- Parallel gas BSPP ISO 228 from G1/8" to G3/4"
- Metric ISO 262 M5

All tubes compatible with the internal diameter, to be used only with suitable clamps

**Body:** Nickel-plated brass
Turning: UNI EN 12164 CW 614N
Hot forging & machining:
UNI EN 12165 CW 617N
**O-ring:** NBR 70

**AVAILABILITY:**
- Available on request and with minimum quantity in yellow brass
- Available on request with Viton o-ring

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## DIAMETER OF TH BARB
BARB CONNECTORS - BRASS

| ØD (mm) | Ø4,5 | Ø6 | Ø7 | Ø8 | Ø9 | Ø10 | Ø12 | Ø14 | Ø17 | Ø18 | Ø19 | Ø21 | Ø25 | Ø27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ØB (mm) | 4,8 | 6,3 | 7,3 | 8,3 | 9,3 | 10,3 | 12,3 | 14,3 | 17,3 | 18,3 | 19,3 | 21,3 | 25,3 | 27,3 |



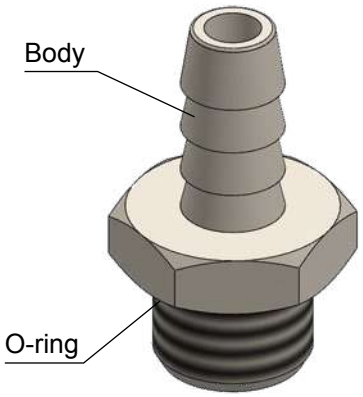

## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 8 | 12 | 14 | 16 | 18 | 20 |

## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|---|
| Nm | 0,8 | 5 | 8 | 10 | 12 | 14 |

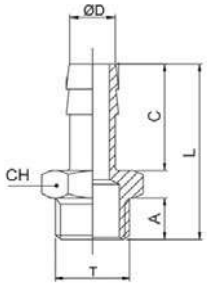
## CONSTRUCTION DETAILS




*drawings and technical data are not binding & can be changed without notice*

## 1165 Male barb connector BSPP & metric thread

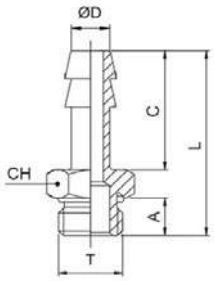





| CODE | T | ØD | A | C | L | CH | g |
|---|---|---|---|---|---|---|---|
| 1165TRM545 | M5x0,8 | 4,5 | 4,0 | 15,0 | 22,5 | 8 | 6,0 |
| 1165TR186 | G 1/8" | 6 | 6,0 | 19,0 | 29,5 | 12 | 8,0 |
| 1165TR146 | G 1/4" | 6 | 8,0 | 19,0 | 32,0 | 14 | 12,0 |
| 1165TR187 | G 1/8" | 7 | 6,0 | 19,0 | 29,5 | 12 | 8,0 |
| 1165TR147 | G 1/4" | 7 | 8,0 | 19,0 | 32,0 | 14 | 14,0 |
| 1165TR188 | G 1/8" | 8 | 6,0 | 19,0 | 29,5 | 12 | 8,0 |
| 1165TR148 | G 1/4" | 8 | 8,0 | 19,0 | 32,0 | 14 | 14,0 |
| 1165TR388 | G 3/8" | 8 | 9,0 | 19,0 | 33,0 | 19 | 22,0 |
| 1165TR189 | G 1/8" | 9 | 6,0 | 19,0 | 29,5 | 12 | 10,0 |
| 1165TR149 | G 1/4" | 9 | 8,0 | 19,0 | 32,0 | 14 | 14,0 |
| 1165TR389 | G 3/8" | 9 | 9,0 | 19,0 | 33,0 | 19 | 22,0 |
| 1165TR1810 | G 1/8" | 10 | 6,0 | 20,0 | 30,5 | 12 | 10,0 |
| 1165TR1410 | G 1/4" | 10 | 8,0 | 20,0 | 33,0 | 14 | 14,0 |
| 1165TR3810 | G 3/8" | 10 | 9,0 | 20,0 | 34,0 | 19 | 23,0 |
| 1165TR1412 | G 1/4" | 12 | 8,0 | 20,0 | 33,0 | 14 | 16,0 |
| 1165TR3812 | G 3/8" | 12 | 9,0 | 20,0 | 34,0 | 19 | 24,0 |
| 1165TR1212 | G 1/2" | 12 | 10,0 | 20,0 | 35,5 | 22 | 32,0 |
| 1165TR3814 | G 3/8" | 14 | 9,0 | 22,0 | 36,0 | 19 | 26,0 |
| 1165TR1214 | G 1/2" | 14 | 10,0 | 22,0 | 37,5 | 22 | 34,0 |
| 1165TR3817 | G 3/8" | 17 | 9,0 | 24,0 | 38,0 | 19 | 30,0 |
| 1165TR1217 | G 1/2" | 17 | 10,0 | 24,0 | 39,5 | 22 | 38,0 |
| 1165TR3418 | G 3/4" | 18 | 11,0 | 24,0 | 41,5 | 30 | 58,0 |
| 1165TR1220 | G 1/2" | 20 | 10,0 | 24,0 | 39,5 | 22 | 40,0 |
| 1165TR3420 | G 3/4" | 20 | 11,0 | 24,0 | 41,5 | 30 | 60,0 |

## 1167 Male barb connector BSPP & metric thread with O-ring





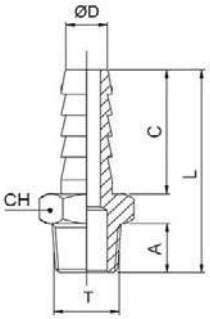

| CODE | T | ØD | A | C | L | CH | g |
|---|---|---|---|---|---|---|---|
| 1167TRM545 | M5x0,8 | 4,5 | 4,5 | 15,0 | 23,0 | 8 | 6,0 |
| 1167TR186 | G 1/8" | 6 | 6,5 | 19,0 | 30,0 | 14 | 10,0 |
| 1167TR146 | G 1/4" | 6 | 8,0 | 19,0 | 32,0 | 17 | 16,0 |
| 1167TR386 | G 3/8" | 6 | 9,0 | 19,0 | 33,0 | 20 | - |
| 1167TR187 | G 1/8" | 7 | 6,5 | 19,0 | 30,0 | 14 | 10,0 |
| 1167TR147 | G 1/4" | 7 | 8,0 | 19,0 | 32,0 | 17 | 16,0 |
| 1167TR188 | G 1/8" | 8 | 6,5 | 19,0 | 30,0 | 14 | 12,0 |
| 1167TR148 | G 1/4" | 8 | 8,0 | 19,0 | 32,0 | 17 | 17,0 |
| 1167TR388 | G 3/8" | 8 | 9,0 | 19,0 | 33,0 | 20 | - |
| 1167TR189 | G 1/8" | 9 | 6,5 | 19,0 | 30,0 | 14 | 14,0 |
| 1167TR149 | G 1/4" | 9 | 8,0 | 19,0 | 32,0 | 17 | 16,0 |
| 1167TR389 | G 3/8" | 9 | 9,0 | 19,0 | 33,0 | 20 | 22,0 |
| 1167TR1810 | G 1/8" | 10 | 6,5 | 19,0 | 30,0 | 14 | - |
| 1167TR1410 | G 1/4" | 10 | 8,0 | 19,0 | 32,0 | 17 | - |
| 1167TR1412 | G 1/4" | 12 | 8,0 | 20,0 | 33,0 | 17 | 18,0 |
| 1167TR3812 | G 3/8" | 12 | 9,0 | 20,0 | 34,0 | 20 | 24,0 |
| 1167TR1212 | G 1/2" | 12 | 10,0 | 20,0 | 35,5 | 24 | 35,0 |
| 1167TR3817 | G 3/8" | 17 | 9,0 | 24,0 | 38,0 | 20 | 30,0 |
| 1167TR1217 | G 1/2" | 17 | 10,0 | 24,0 | 39,5 | 24 | 42,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1169

Male barb connector BSPT thread





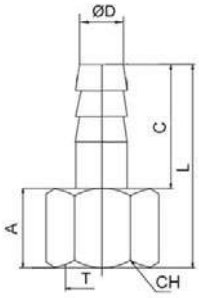

| CODE | T | ØD | A | C | L | CH | g |
|---|---|---|---|---|---|---|---|
| 1169TR186 | R 1/8" | 6 | 8,0 | 19,0 | 31,5 | 12 | 8,0 |
| 1169TR146 | R 1/4" | 6 | 11,0 | 19,0 | 35,0 | 14 | 14,0 |
| 1169TR187 | R 1/8" | 7 | 8,0 | 19,0 | 31,5 | 12 | 10,0 |
| 1169TR147 | R 1/4" | 7 | 11,0 | 19,0 | 35,0 | 14 | 14,0 |
| 1169TR188 | R 1/8" | 8 | 8,0 | 19,0 | 31,5 | 12 | 10,0 |
| 1169TR148 | R 1/4" | 8 | 11,0 | 19,0 | 35,0 | 14 | 14,0 |
| 1169TR189 | R 1/8" | 9 | 8,0 | 19,0 | 31,5 | 12 | 12,0 |
| 1169TR149 | R 1/4" | 9 | 11,0 | 19,0 | 35,0 | 14 | 16,0 |
| 1169TR389 | R 3/8" | 9 | 11,5 | 19,0 | 35,5 | 17 | 20,0 |
| 1169TR129 | R 1/2" | 9 | 14,0 | 19,0 | 38,5 | 22 | 32,0 |
| 1169TR1810 | R 1/8" | 10 | 8,0 | 20,0 | 32,5 | 12 | 10,0 |
| 1169TR1410 | R 1/4" | 10 | 11,0 | 20,0 | 36,0 | 14 | 16,0 |
| 1169TR3810 | R 3/8" | 10 | 11,5 | 20,0 | 36,5 | 17 | 22,0 |
| 1169TR1210 | R 1/2" | 10 | 14,0 | 20,0 | 39,5 | 22 | 32,0 |
| 1169TR1412 | R 1/4" | 12 | 11,0 | 20,0 | 36,0 | 14 | 16,0 |
| 1169TR3812 | R 3/8" | 12 | 11,5 | 20,0 | 36,5 | 17 | 22,0 |
| 1169TR1212 | R 1/2" | 12 | 14,0 | 20,0 | 39,5 | 22 | 34,0 |
| 1169TR3814 | R 3/8" | 14 | 11,5 | 22,0 | 38,5 | 17 | 24,0 |
| 1169TR1214 | R 1/2" | 14 | 14,0 | 22,0 | 41,5 | 22 | 36,0 |
| 1169TR3816 | R 3/8" | 16 | 11,5 | 22,0 | 38,5 | 17 | 26,0 |
| 1169TR1216 | R 1/2" | 16 | 14,0 | 22,0 | 41,5 | 22 | 36,0 |
| 1169TR3416 | R 3/4" | 16 | 16,5 | 22,0 | 45,0 | 27 | 58,0 |
| 1169TR3817 | R 3/8" | 17 | 11,5 | 24,0 | 40,5 | 18 | 30,0 |
| 1169TR1217 | R 1/2" | 17 | 14,0 | 24,0 | 43,5 | 22 | 40,0 |
| 1169TR3818 | R 3/8" | 18 | 11,5 | 24,0 | 40,5 | 19 | 34,0 |
| 1169TR1218 | R 1/2" | 18 | 14,0 | 24,0 | 43,5 | 22 | 44,0 |
| 1169TR3418 | R 3/4" | 18 | 16,5 | 24,0 | 47,0 | 27 | 62,0 |
| 1169TR3820 | R 3/8" | 20 | 11,5 | 24,0 | 41,0 | 22 | 40,0 |
| 1169TR1220 | R 1/2" | 20 | 14,0 | 24,0 | 43,5 | 22 | 42,0 |
| 1169TR3420 | R 3/4" | 20 | 16,5 | 24,0 | 46,5 | 27 | 60,0 |
| 1169TR1221 | R 1/2" | 21 | 14,0 | 34,0 | 53,5 | 22 | - |
| 1169TR3421 | R 3/4" | 21 | 16,5 | 34,0 | 56,5 | 27 | - |
| 1169TR121 | R 1" | 21 | 19,0 | 34,0 | 60,0 | 34 | - |
| 1169TR3425 | R 3/4" | 25 | 16,5 | 30,0 | 53,0 | 27 | 76,0 |
| 1169TR125 | R 1" | 25 | 19,0 | 30,0 | 56,0 | 34 | 114,0 |
| 1169TR3427 | R 3/4" | 27 | 16,5 | 38,0 | 60,5 | 32 | - |
| 1169TR127 | R 1" | 27 | 19,0 | 38,0 | 64,0 | 34 | - |

*drawings and technical data are not binding & can be changed without notice*

## 1170

Female barb connector BSPP thread



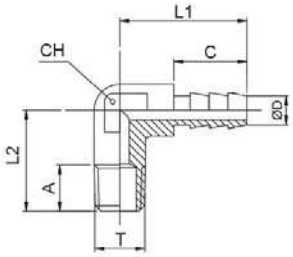



| CODE | T | ØD | A | C | L | CH | g |
|---|---|---|---|---|---|---|---|
| 1170TR186 | G 1/8" | 6 | 8,0 | 19,0 | 28,5 | 12 | 7,5 |
| 1170TR146 | G 1/4" | 6 | 11,0 | 19,0 | 31,5 | 15 | - |
| 1170TR187 | G 1/8" | 7 | 8,0 | 19,0 | 28,5 | 12 | 9,0 |
| 1170TR147 | G 1/4" | 7 | 11,0 | 19,0 | 31,5 | 15 | 21,0 |
| 1170TR188 | G 1/8" | 8 | 8,0 | 19,0 | 28,5 | 12 | 8,0 |
| 1170TR148 | G 1/4" | 8 | 11,0 | 19,0 | 31,5 | 15 | 19,0 |
| 1170TR189 | G 1/8" | 9 | 8,0 | 19,0 | 28,5 | 12 | 9,0 |
| 1170TR149 | G 1/4" | 9 | 11,0 | 19,0 | 31,5 | 15 | 20,0 |
| 1170TR389 | G 3/8" | 9 | 11,5 | 19,0 | 32,0 | 19 | - |
| 1170TR1810 | G 1/8" | 10 | 8,0 | 20,0 | 29,5 | 12 | - |
| 1170TR1410 | G 1/4" | 10 | 11,0 | 20,0 | 32,5 | 15 | 12,5 |
| 1170TR3810 | G 3/8" | 10 | 11,5 | 20,0 | 33,0 | 19 | 17,0 |
| 1170TR1210 | G 1/2" | 10 | 14,0 | 20,0 | 36,0 | 24 | - |
| 1170TR1412 | G 1/4" | 12 | 11,0 | 20,0 | 32,5 | 15 | 22,0 |
| 1170TR3812 | G 3/8" | 12 | 11,5 | 20,0 | 33,0 | 19 | 18,0 |
| 1170TR1212 | G 1/2" | 12 | 14,0 | 20,0 | 36,0 | 24 | 33,0 |
| 1170TR3814 | G 3/8" | 14 | 11,5 | 22,0 | 35,0 | 19 | - |
| 1170TR1214 | G 1/2" | 14 | 14,0 | 22,0 | 38,0 | 24 | 35,5 |
| 1170TR3816 | G 3/8" | 16 | 11,5 | 22,0 | 35,0 | 19 | - |
| 1170TR1216 | G 1/2" | 16 | 14,0 | 22,0 | 38,0 | 24 | - |
| 1170TR3817 | G 3/8" | 17 | 11,5 | 24,0 | 37,0 | 19 | - |
| 1170TR1217 | G 1/2" | 17 | 14,0 | 24,0 | 40,0 | 24 | - |
| 1170TR1218 | G 1/2" | 18 | 14,0 | 24,0 | 40,0 | 24 | - |
| 1170TR3418 | G 3/4" | 18 | 15,0 | 24,0 | 41,5 | 29 | - |
| 1170TR3420 | G 3/4" | 20 | 15,0 | 24,0 | 41,5 | 29 | - |
| 1170TR3425 | G 3/4" | 25 | 15,0 | 30,0 | 47,5 | 29 | - |

## 1171

Male elbow barb connector BSPT thread



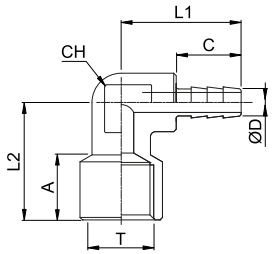



| CODE | T | ØD | A | C | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| 1171TR186185 | R 1/8" | 6 | 8,0 | 14,0 | 22,5 | 18,5 | 8 | 10,0 |
| 1171TR18623 | R 1/8" | 6 | 10,0 | 14,0 | 22,5 | 23,0 | 8 | 12,0 |
| 1171TR14623 | R 1/4" | 6 | 11,0 | 14,0 | 23,0 | 23,0 | 9 | 16,0 |
| 1171TR187185 | R 1/8" | 7 | 8,0 | 14,0 | 22,5 | 18,5 | 8 | 10,0 |
| 1171TR18723 | R 1/8" | 7 | 10,0 | 14,0 | 22,5 | 23,0 | 8 | 10,0 |
| 1171TR14723 | R 1/4" | 7 | 11,0 | 14,0 | 23,0 | 23,0 | 9 | 16,0 |
| 1171TR18819 | R 1/8" | 8 | 10,0 | 14,0 | 22,5 | 19,0 | 10 | - |

*drawings and technical data are not binding & can be changed without notice*

## 1174 Female elbow barb connector BSPP thread

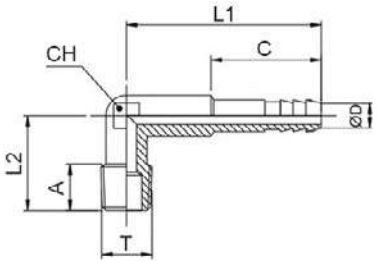





| CODE | T | ØD | A | C | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| 1174TR186 | G 1/8" | 6 | 8,0 | 13,0 | 22,0 | 22,0 | 9 | - |
| 1174TR146 | G 1/4" | 6 | 11,0 | 13,0 | 24,0 | 23,5 | 13 | - |
| 1174TR187 | G 1/8" | 7 | 8,0 | 13,0 | 24,0 | 22,0 | 9 | - |
| 1174TR147 | G 1/4" | 7 | 11,0 | 13,0 | 24,0 | 23,5 | 13 | - |

## 1172 Long series elbow barb connector BSPT thread

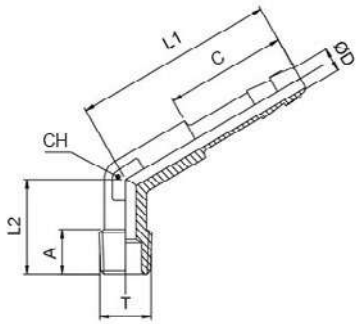





| CODE | T | ØD | A | C | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| 1172TR186325 | R 1/8" | 6 | 10,0 | 14,0 | 32,5 | 22,0 | 9 | 18,0 |
| 1172TR18638 | R 1/8" | 6 | 8,0 | 22,0 | 38,0 | 18,5 | 8 | 14,0 |
| 1172TR146325 | R 1/4" | 6 | 11,0 | 14,0 | 32,5 | 23,0 | 9 | 20,0 |
| 1172TR187325 | R 1/8" | 7 | 11,0 | 14,0 | 32,5 | 22,0 | 9 | 16,0 |
| 1172TR18738 | R 1/8" | 7 | 8,0 | 22,0 | 38,0 | 18,5 | 8 | 14,0 |
| 1172TR147325 | R 1/4" | 7 | 11,0 | 14,0 | 32,5 | 23,0 | 9 | 20,0 |

## 1173 Long serie elbow 120° barb connector BSPT thread






| CODE | T | ØD | A | C | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| 1173TR186 | R 1/8" | 6 | 8,0 | 23,0 | 38,0 | 18,5 | 8 | 14,0 |
| 1173TR187 | R 1/8" | 7 | 8,0 | 23,0 | 38,0 | 18,5 | 8 | 12,0 |



# BARB CONNECTORS NYLON

D.M. 174

## PLUS

- SUITABLE FOR FOOD FLUIDS
- STRONG AND RESISTANT TO IMPACTS
- DESIGNED TO HAVE AN INTERNAL DIAMETER WITH MAXIMUM FLOW RATE
- USABLE WITH 5090 SERIES CLAMPS FOR A BETTER GRIP AND SAFETY
- SUITABLE FOR DOMESTIC AND INDUSTRIAL USE



p. 220 / **5005**



p. 220 / **5010**



p. 221 / **5020**



p. 222 / **5025**



p. 222 / **5030**



p. 223 / **5035**



p. 223 / **5040**



p. 223 / **5045**



p. 224 / **5050**



p. 224 / **5055**



p. 224 / **5060**



p. 225 / **5070**



p. 226 / **5007**



p. 226 / **5015**



p. 227 / **5022**



p. 228 / **5027**



p. 228 / **5032**



p. 228 / **5037**



p. 229 / **5042**



p. 229 / **5047**



p. 230 / **5052**



p. 230 / **5057**



p. 230 / **5062**

*drawings and technical data are not binding & can be changed without notice*



-20°C ÷ +110°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)
Depending on the tube used

Compressed air, water and fluids suitable with contruction materials

- Taper gas BSPT ISO 7 from R1/8" to R1"
- Parallel gas BSPP ISO 228 from G1/8" to G3/4"
- NPT from N1/8" to N3/4"

Plastic, silicone, rubber and soft PVC tubes

**Body:** Nylon 66

## FEATURES

The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.

Food contact materials EC 1935/2004

D.M. 174/2004

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## DIAMETER OF THE BARB

BARB CONNECTORS - NYLON - TAPER GAS BSPT ISO 7

| ØD (mm) | Ø4 | Ø5 | Ø6 | Ø8 | Ø10 | Ø12 | Ø14 | Ø16 | Ø19 | Ø25 |
|---|---|---|---|---|---|---|---|---|---|---|
| ØB (mm) | 5,2 | 6,3 | 8,0 | 10,0 | 12,0 | 14,0 | 16,2 | 18,2 | 21,0 | 26,0 |




## DIAMETER OF THE BARB

BARB CONNECTORS - NYLON - NPT

| ØD (inch) | 5/32" | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 9/16" | 5/8" | 11/16" | 3/4" |
|---|---|---|---|---|---|---|---|---|---|---|
| ØB (mm) | 5,3 | 6,3 | 8,0 | 9,8 | 12,0 | 13,8 | - | 17,5 | - | 21,0 |

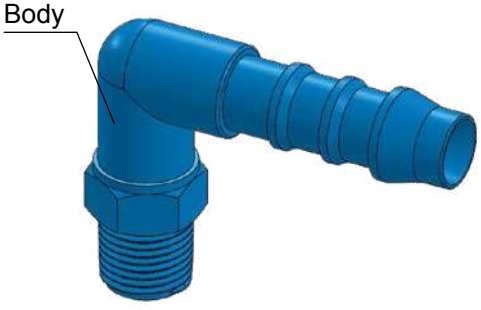



## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 0,1 | 0,8 | 4 | 6 | 8 | 10 |

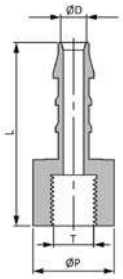
## CONSTRUCTION DETAILS




*drawings and technical data are not binding & can be changed without notice*

## 5005 Female barb connector BSPT thread

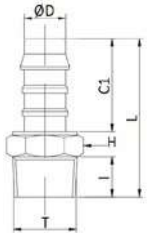





| CODE | T | ØD | H | L | g |
|---|---|---|---|---|---|
| 5005TR185 | R 1/8" | 5 | 14 | 34,4 | 2,0 |
| 5005TR145 | R 1/4" | 5 | 17 | 35,2 | 2,7 |
| 5005TR385 | R 3/8" | 5 | 22 | 36,5 | 4,57 |
| 5005TR125 | R 1/2" | 5 | 26 | 38,7 | 6,6 |
| 5005TR186 | R 1/8" | 6 | 14 | 36,3 | 2,15 |
| 5005TR146 | R 1/4" | 6 | 17 | 37,2 | 2,9 |
| 5005TR386 | R 3/8" | 6 | 22 | 38,3 | 4,8 |
| 5005TR126 | R 1/2" | 6 | 26 | 40,8 | 7,0 |
| 5005TR188 | R 1/8" | 8 | 14 | 39,4 | 2,5 |
| 5005TR148 | R 1/4" | 8 | 17 | 39,4 | 3,2 |
| 5005TR388 | R 3/8" | 8 | 22 | 40,4 | 5,0 |
| 5005TR128 | R 1/2" | 8 | 26 | 42,7 | 7,1 |
| 5005TR1410 | R 1/4" | 10 | 17 | 41,5 | 3,6 |
| 5005TR3810 | R 3/8" | 10 | 22 | 42,3 | 5,4 |
| 5005TR1210 | R 1/2" | 10 | 26 | 45,0 | 7,5 |
| 5005TR1412 | R 1/4" | 12 | 17 | 42,4 | 4,1 |
| 5005TR3812 | R 3/8" | 12 | 22 | 43,3 | 6,2 |
| 5005TR1212 | R 1/2" | 12 | 26 | 46,0 | 8,0 |
| 5005TR3814 | R 3/8" | 14 | 22 | 45,0 | 6,9 |
| 5005TR1214 | R 1/2" | 14 | 26 | 47,3 | 8,7 |
| 5005TR1216 | R 1/2" | 16 | 26 | 48,1 | 9,0 |
| 5005TR1219 | R 1/2" | 19 | 26 | 48,8 | 9,5 |

## 5010 Male barb connector BSPT thread



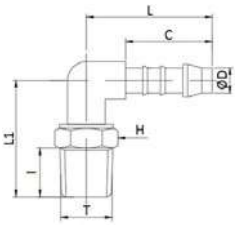



| CODE | T | ØD | I | C1 | L | H | g |
|---|---|---|---|---|---|---|---|
| 5010TR184 | R 1/8" | 4 | 8,0 | 16,0 | 31,2 | 11 | 1,0 |
| 5010TR144 | R 1/4" | 4 | 10,0 | 16,0 | 33,8 | 14 | 1,2 |
| 5010TR185 | R 1/8" | 5 | 8,0 | 21,0 | 34,7 | 11 | 1,0 |
| 5010TR145 | R 1/4" | 5 | 10,0 | 21,0 | 38,3 | 14 | 1,0 |
| 5010TR125 | R 1/2" | 5 | 10,0 | 21,0 | 41,4 | 22 | 1,0 |
| 5010TR186 | R 1/8" | 6 | 8,0 | 23,0 | 35,3 | 11 | 1,0 |
| 5010TR146 | R 1/4" | 6 | 10,0 | 23,0 | 39,2 | 14 | 2,0 |
| 5010TR386 | R 3/8" | 6 | 10,0 | 23,0 | 39,1 | 17 | 3,0 |
| 5010TR126 | R 1/2" | 6 | 12,5 | 23,0 | 42,3 | 22 | 6,0 |
| 5010TR346 | R 3/4" | 6 | 14,5 | 23,0 | 43,0 | 22 | 8,2 |
| 5010TR188 | R 1/8" | 8 | 8,0 | 25,0 | 39,8 | 11 | 2,0 |
| 5010TR148 | R 1/4" | 8 | 10,0 | 25,0 | 43,0 | 14 | 2,0 |
| 5010TR388 | R 3/8" | 8 | 10,0 | 25,0 | 43,0 | 17 | 3,0 |
| 5010TR128 | R 1/2" | 8 | 12,5 | 25,0 | 46,1 | 22 | 6,0 |
| 5010TR348 | R 3/4" | 8 | 12,5 | 25,0 | 47,1 | 27 | 6,0 |
| 5010TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 45,2 | 14 | 1,0 |
| 5010TR3810 | R 3/8" | 10 | 10,0 | 27,0 | 45,2 | 17 | 4,0 |
| 5010TR1210 | R 1/2" | 10 | 12,5 | 27,0 | 48,3 | 22 | 6,0 |
| 5010TR3410 | R 3/4" | 10 | 14,5 | 27,0 | 49,3 | 27 | 9,1 |
| 5010TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 46,0 | 14 | 4,0 |
| 5010TR3812 | R 3/8" | 12 | 10,0 | 28,0 | 46,0 | 17 | 4,0 |
| 5010TR1212 | R 1/2" | 12 | 12,5 | 28,0 | 49,3 | 22 | 7,0 |
| 5010TR3412 | R 3/4" | 12 | 14,5 | 28,0 | 50,0 | 27 | 9,2 |
| 5010TR3814 | R 3/8" | 14 | 10,0 | 29,5 | 47,5 | 17 | 6,0 |
| 5010TR1214 | R 1/2" | 14 | 12,5 | 29,5 | 50,8 | 22 | 7,0 |
| 5010TR3414 | R 3/4" | 14 | 14,5 | 29,5 | 51,7 | 27 | 9,8 |
| 5010TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 51,3 | 22 | 8,0 |
| 5010TR3416 | R 3/4" | 16 | 14,5 | 30,0 | 52,2 | 27 | 10,0 |
| 5010TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 52,2 | 22 | 9,0 |
| 5010TR3419 | R 3/4" | 19 | 14,5 | 31,0 | 53,3 | 27 | 15,0 |
| 5010TR119 | R 1" | 19 | 21,0 | 31,0 | 60,1 | 27 | 18,8 |
| 5010TR3425 | R 3/4" | 25 | 14,0 | 32,0 | 54,8 | 27 | - |
| 5010TR0125 | R 1" | 25 | 18,0 | 39,5 | 66,6 | 35 | - |

*drawings and technical data are not binding & can be changed without notice*

## 5020 Male elbow barb connector BSPT thread

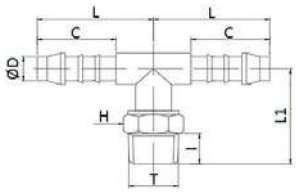





| CODE | T | OD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5020TR184 | R 1/8" | 4 | 8,0 | 16,0 | 22,5 | 21,0 | 11 | 1,0 |
| 5020TR144 | R 1/4" | 4 | 10,0 | 16,0 | 22,5 | 24,0 | 14 | 1,0 |
| 5020TR185 | R 1/8" | 5 | 8,0 | 21,0 | 28,0 | 24,0 | 11 | 1,0 |
| 5020TR145 | R 1/4" | 5 | 10,0 | 21,0 | 28,0 | 26,0 | 14 | 3,0 |
| 5020TR125 | R 1/2" | 5 | 13,0 | 21,0 | 28,0 | 30,0 | 22 | 6,0 |
| 5020TR186 | R 1/8" | 6 | 8,5 | 23,5 | 31,5 | 23,5 | 11 | 1,0 |
| 5020TR146 | R 1/4" | 6 | 10,0 | 23,0 | 31,0 | 26,0 | 14 | 3,0 |
| 5020TR386 | R 3/8" | 6 | 10,5 | 23,0 | 31,0 | 26,0 | 17 | 3,0 |
| 5020TR126 | R 1/2" | 6 | 13,0 | 23,5 | 31,5 | 30,0 | 22 | 7,0 |
| 5020TR188 | R 1/8" | 8 | 8,0 | 25,0 | 36,0 | 26,0 | 11 | 3,0 |
| 5020TR148 | R 1/4" | 8 | 10,0 | 25,0 | 36,0 | 28,0 | 14 | 3,0 |
| 5020TR388 | R 3/8" | 8 | 10,5 | 25,0 | 36,0 | 28,0 | 17 | 5,0 |
| 5020TR128 | R 1/2" | 8 | 13,0 | 25,0 | 36,0 | 30,5 | 22 | 7,0 |
| 5020TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 39,0 | 28,0 | 14 | 4,0 |
| 5020TR3810 | R 3/8" | 10 | 10,5 | 27,0 | 39,0 | 28,0 | 17 | 6,0 |
| 5020TR1210 | R 1/2" | 10 | 13,0 | 27,0 | 39,0 | 30,5 | 22 | 8,0 |
| 5020TR3410 | R 3/4" | 10 | 14,5 | 27,0 | 39,0 | 33,5 | 27 | 9,9 |
| 5020TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 41,0 | 28,0 | 14 | 7,0 |
| 5020TR3812 | R 3/8" | 12 | 10,5 | 28,0 | 41,0 | 28,0 | 17 | 8,0 |
| 5020TR1212 | R 1/2" | 12 | 13,0 | 28,0 | 41,0 | 32,0 | 22 | 9,0 |
| 5020TR3412 | R 3/4" | 12 | 14,5 | 28,0 | 41,0 | 34,0 | 27 | 12,0 |
| 5020TR3814 | R 3/8" | 14 | 10,5 | 29,5 | 42,5 | 31,5 | 17 | 9,0 |
| 5020TR1214 | R 1/2" | 14 | 13,0 | 29,5 | 42,5 | 34,0 | 22 | 11,0 |
| 5020TR3414 | R 3/4" | 14 | 14,5 | 29,5 | 42,5 | 37,5 | 27 | 14,4 |
| 5020TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 44,0 | 36,0 | 22 | 13,0 |
| 5020TR3416 | R 3/4" | 16 | 14,5 | 30,0 | 44,0 | 39,0 | 27 | 14,0 |
| 5020TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 45,0 | 36,0 | 22 | 15,0 |
| 5020TR3419 | R 3/4" | 19 | 15,0 | 31,0 | 45,0 | 38,0 | 27 | 16,6 |

## 5025 Male tee barb connector BSPT thread

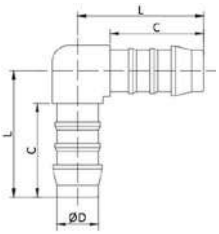





| CODE | T | ØD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5025TR184 | R 1/8" | 4 | 8,0 | 16,0 | 19,7 | 18,5 | 11 | 1,0 |
| 5025TR144 | R 1/4" | 4 | 10,5 | 16,0 | 22,6 | 21,5 | 14 | 2,5 |
| 5025TR185 | R 1/8" | 5 | 8,0 | 21,0 | 25,5 | 19,5 | 11 | 1,0 |
| 5025TR145 | R 1/4" | 5 | 10,5 | 21,0 | 28,2 | 22,5 | 14 | 3,0 |
| 5025TR186 | R 1/8" | 6 | 8,5 | 23,5 | 28,0 | 23,5 | 11 | 1,0 |
| 5025TR146 | R 1/4" | 6 | 10,5 | 23,0 | 31,5 | 23,0 | 14 | 3,0 |
| 5025TR386 | R 3/8" | 6 | 13,0 | 23,0 | 31,5 | 23,0 | 17 | 4,1 |
| 5025TR126 | R 1/2" | 6 | 12,5 | 23,0 | 31,5 | 27,0 | 22 | 7,1 |
| 5025TR188 | R 1/8" | 8 | 8,0 | 25,0 | 30,8 | 21,5 | 11 | 3,0 |
| 5025TR148 | R 1/4" | 8 | 10,5 | 25,0 | 36,3 | 24,5 | 14 | 5,0 |
| 5025TR388 | R 3/8" | 8 | 10,5 | 25,0 | 36,3 | 24,5 | 17 | 6,0 |
| 5025TR128 | R 1/2" | 8 | 13,0 | 25,0 | 31,0 | 28,5 | 22 | 7,5 |
| 5025TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 39,3 | 28,0 | 14 | 6,4 |
| 5025TR3810 | R 3/8" | 10 | 10,5 | 27,0 | 39,3 | 28,0 | 17 | 7,3 |
| 5025TR1210 | R 1/2" | 10 | 12,5 | 27,0 | 39,5 | 30,5 | 22 | 9,6 |
| 5025TR3410 | R 3/4" | 10 | 13,0 | 27,0 | 39,5 | 31,5 | 27 | 11,8 |
| 5025TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 41,3 | 28,0 | 14 | 15,0 |
| 5025TR3812 | R 3/8" | 12 | 10,5 | 28,0 | 41,3 | 28,0 | 17 | 9,0 |
| 5025TR1212 | R 1/2" | 12 | 13,0 | 28,0 | 41,3 | 31,5 | 22 | 12,6 |
| 5025TR3412 | R 3/4" | 12 | 13,0 | 28,0 | 41,3 | 31,5 | 27 | 14,3 |
| 5025TR3814 | R 3/8" | 14 | 10,5 | 29,5 | 42,8 | 31,5 | 17 | 12,8 |
| 5025TR1214 | R 1/2" | 14 | 12,5 | 29,5 | 42,8 | 34,0 | 22 | 15,0 |
| 5025TR3414 | R 3/4" | 14 | 13,0 | 30,0 | 42,8 | 35,0 | 27 | 17,9 |
| 5025TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 44,1 | 36,0 | 22 | 15,0 |
| 5025TR3416 | R 3/4" | 16 | 13,5 | 30,0 | 44,2 | 37,0 | 27 | 18,6 |
| 5025TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 45,1 | 36,0 | 22 | 19,6 |
| 5025TR3419 | R 3/4" | 19 | 13,5 | 31,0 | 45,3 | 36,0 | 27 | 21,6 |

## 5030 Union elbow barb connector



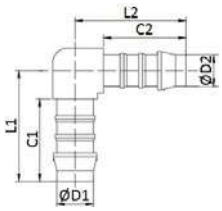



| CODE | ØD | C | L | g |
|---|---|---|---|---|
| 5030TR4 | 4 | 16,0 | 23,0 | 1,0 |
| 5030TR5 | 5 | 21,0 | 28,5 | 1,2 |
| 5030TR6 | 6 | 23,0 | 31,5 | 1,5 |
| 5030TR8 | 8 | 25,0 | 36,5 | 3,0 |
| 5030TR10 | 10 | 27,0 | 39,0 | 4,0 |
| 5030TR12 | 12 | 28,0 | 40,0 | 7,0 |
| 5030TR14 | 14 | 29,5 | 42,5 | 9,0 |
| 5030TR16 | 16 | 30,0 | 44,0 | 11,0 |
| 5030TR19 | 19 | 31,0 | 45,0 | 13,0 |

*drawings and technical data are not binding & can be changed without notice*

## 5035 Reduced union elbow barb connector

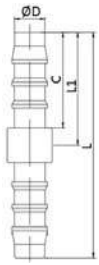





| CODE | ØD1 | ØD2 | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| 5035TR54 | 5 | 4 | 21,0 | 16,0 | 28,5 | 23,0 | 1,0 |
| 5035TR64 | 6 | 4 | 21,0 | 16,0 | 35,5 | 29,0 | 1,0 |
| 5035TR65 | 6 | 5 | 23,0 | 21,0 | 31,5 | 28,5 | 1,5 |
| 5035TR86 | 8 | 6 | 25,0 | 23,0 | 36,5 | 31,5 | 2,0 |
| 5035TR106 | 10 | 6 | 27,0 | 23,0 | 39,0 | 31,5 | 3,8 |
| 5035TR108 | 10 | 8 | 27,0 | 25,0 | 39,0 | 36,5 | 4,0 |
| 5035TR1210 | 12 | 10 | 28,0 | 27,0 | 40,0 | 39,0 | 7,0 |
| 5035TR1412 | 14 | 12 | 29,5 | 28,0 | 42,5 | 40,0 | 9,0 |
| 5035TR1614 | 16 | 14 | 30,0 | 29,5 | 44,0 | 42,5 | 11,0 |
| 5035TR1916 | 19 | 16 | 31,0 | 30,0 | 45,0 | 44,0 | 14,0 |

## 5040 Union barb connector

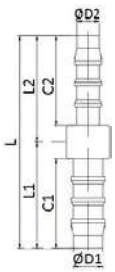





| CODE | ØD | C | L | L1 | g |
|---|---|---|---|---|---|
| 5040TR4 | 4 | 16,0 | 36,6 | 18,0 | 1,0 |
| 5040TR5 | 5 | 21,0 | 48,5 | 23,5 | 1,2 |
| 5040TR6 | 6 | 23,0 | 52,2 | 26,0 | 1,5 |
| 5040TR8 | 8 | 25,0 | 59,3 | 29,0 | 2,0 |
| 5040TR10 | 10 | 27,0 | 63,0 | 31,5 | 3,0 |
| 5040TR12 | 12 | 28,0 | 66,0 | 33,0 | 4,0 |
| 5040TR14 | 14 | 29,5 | 71,8 | 35,5 | 7,5 |
| 5040TR16 | 16 | 30,0 | 72,5 | 36,0 | 9,0 |
| 5040TR19 | 19 | 31,0 | 73,5 | 37,0 | 11,0 |

## 5045 Reduced union barb connector



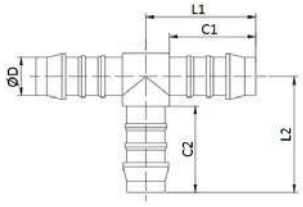



| CODE | ØD1 | ØD2 | C1 | C2 | L | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|
| 5045TR54 | 5 | 4 | 21,0 | 16,0 | 42,2 | 23,5 | 18,0 | 1,0 |
| 5045TR64 | 6 | 4 | 23,0 | 16,0 | 45,7 | 26,0 | 18,0 | 1,0 |
| 5045TR65 | 6 | 5 | 23,0 | 21,0 | 50,6 | 26,0 | 23,5 | 1,0 |
| 5045TR85 | 8 | 5 | 25,0 | 21,0 | 54,4 | 29,5 | 23,5 | 2,0 |
| 5045TR86 | 8 | 6 | 25,0 | 23,0 | 56,3 | 29,0 | 26,0 | 3,0 |
| 5045TR106 | 10 | 6 | 27,0 | 23,0 | 58,9 | 31,5 | 26,0 | 3,0 |
| 5045TR108 | 10 | 8 | 27,0 | 25,0 | 62,0 | 31,5 | 29,0 | 3,0 |
| 5045TR128 | 12 | 8 | 28,0 | 25,0 | 63,8 | 33,0 | 29,0 | 3,0 |
| 5045TR1210 | 12 | 10 | 28,0 | 27,0 | 65,3 | 33,0 | 31,5 | 5,0 |
| 5045TR1410 | 14 | 10 | 29,5 | 27,0 | 69,0 | 35,5 | 31,5 | 6,0 |
| 5045TR1412 | 14 | 12 | 29,5 | 28,0 | 70,0 | 35,5 | 33,0 | 7,0 |
| 5045TR1612 | 16 | 12 | 30,0 | 28,0 | 70,3 | 36,0 | 33,0 | 7,0 |
| 5045TR1614 | 16 | 14 | 30,0 | 29,5 | 71,7 | 36,0 | 35,5 | 8,0 |
| 5045TR1914 | 19 | 14 | 31,0 | 29,5 | 72,7 | 37,0 | 35,5 | 10,0 |
| 5045TR1916 | 19 | 16 | 31,0 | 30,0 | 73,2 | 37,0 | 36,0 | 10,0 |

*drawings and technical data are not binding & can be changed without notice*

## 5050 Union tee barb connector

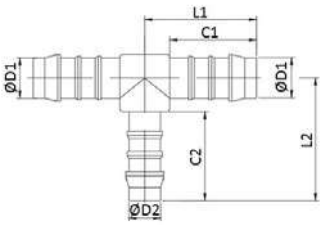





| CODE | ØD | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 5050TR4 | 4 | 16,0 | 16,0 | 20,0 | 20,5 | 1,0 |
| 5050TR5 | 5 | 21,0 | 21,0 | 25,5 | 26,5 | 1,0 |
| 5050TR6 | 6 | 23,0 | 23,0 | 28,0 | 29,0 | 1,0 |
| 5050TR8 | 8 | 25,0 | 25,0 | 30,8 | 32,5 | 3,0 |
| 5050TR10 | 10 | 27,0 | 27,0 | 33,5 | 33,5 | 5,0 |
| 5050TR12 | 12 | 28,0 | 28,0 | 35,5 | 37,5 | 8,0 |
| 5050TR14 | 14 | 29,5 | 29,5 | 38,3 | 42,5 | 12,0 |
| 5050TR16 | 16 | 30,0 | 30,0 | 39,8 | 44,0 | 13,0 |
| 5050TR19 | 19 | 31,0 | 31,0 | 40,0 | 45,0 | 17,0 |

## 5055 Reduced union tee barb connector

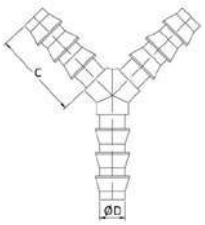





| CODE | ØD1 | ØD2 | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| 5055TR54 | 5 | 4 | 21,0 | 16,0 | 25,3 | 21,5 | 1,0 |
| 5055TR65 | 6 | 5 | 23,0 | 21,0 | 27,8 | 27,0 | 2,0 |
| 5055TR86 | 8 | 6 | 25,0 | 23,0 | 30,7 | 30,5 | 3,0 |
| 5055TR108 | 10 | 8 | 27,0 | 25,0 | 33,2 | 34,0 | 4,0 |
| 5055TR1210 | 12 | 10 | 28,0 | 27,0 | 35,3 | 36,5 | 7,0 |
| 5055TR1412 | 14 | 12 | 29,5 | 28,0 | 38,3 | 38,5 | 11,0 |
| 5055TR1614 | 16 | 14 | 30,0 | 29,5 | 39,7 | 41,5 | 13,0 |
| 5055TR1916 | 19 | 16 | 31,0 | 30,0 | 42,3 | 43,0 | 17,0 |

## 5060 Union Y barb connector





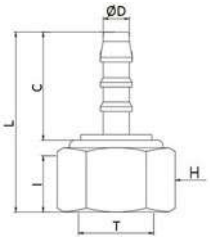

| CODE | ØD | C | g |
|---|---|---|---|
| 5060TR4 | 4 | 16,5 | 1,0 |
| 5060TR6 | 6 | 23,5 | 1,5 |
| 5060TR8 | 8 | 25,5 | 3,0 |
| 5060TR10 | 10 | 24,0 | 5,0 |
| 5060TR17 | 17 | 24,0 | 7,0 |

*drawings and technical data are not binding & can be changed without notice*

## 5070

Swivel female barb connector BSPP thread





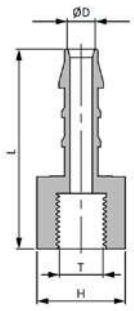

| CODE | T | ØD | I | C | L | H | g |
|---|---|---|---|---|---|---|---|
| 5070TR184 | G 1/8" | 4 | 10,0 | 16,0 | 27,5 | 13 | 1,0 |
| 5070TR144 | G 1/4" | 4 | 14,2 | 16,0 | 31,7 | 16 | 1,0 |
| 5070TR185 | G 1/8" | 5 | 10,0 | 21,0 | 32,0 | 13 | 1,2 |
| 5070TR145 | G 1/4" | 5 | 15,0 | 21,0 | 36,2 | 16 | 1,5 |
| 5070TR385 | G 3/8" | 5 | 14,5 | 21,0 | 36,0 | 20 | 2,0 |
| 5070TR146 | G 1/4" | 6 | 15,0 | 23,0 | 37,3 | 16 | 2,0 |
| 5070TR386 | G 3/8" | 6 | 14,5 | 23,0 | 36,8 | 20 | 3,0 |
| 5070TR126 | G 1/2" | 6 | 17,0 | 23,0 | 39,5 | 24 | 6,0 |
| 5070TR148 | G 1/4" | 8 | 14,2 | 25,0 | 41,3 | 16 | 2,0 |
| 5070TR388 | G 3/8" | 8 | 14,5 | 25,0 | 40,8 | 20 | 2,0 |
| 5070TR128 | G 1/2" | 8 | 17,0 | 25,0 | 43,6 | 24 | 3,0 |
| 5070TR348 | G 3/4" | 8 | 17,0 | 25,0 | 43,4 | 30 | 6,0 |
| 5070TR3810 | G 3/8" | 10 | 14,5 | 27,0 | 42,8 | 20 | 4,0 |
| 5070TR1210 | G 1/2" | 10 | 17,0 | 27,0 | 43,6 | 24 | 6,0 |
| 5070TR3410 | G 3/4" | 10 | 17,0 | 27,0 | 45,6 | 30 | 9,0 |
| 5070TR1212 | G 1/2" | 12 | 17,0 | 28,0 | 46,7 | 24 | 8,0 |
| 5070TR3412 | G 3/4" | 12 | 17,0 | 28,0 | 46,5 | 30 | 10,0 |
| 5070TR1214 | G 1/2" | 14 | 17,0 | 29,5 | 50,0 | 24 | 8,0 |
| 5070TR3414 | G 3/4" | 14 | 17,0 | 29,5 | 48,0 | 30 | 10,0 |
| 5070TR3416 | G 3/4" | 16 | 17,0 | 30,0 | 48,5 | 30 | 11,0 |
| 5070TR3419 | G 3/4" | 19 | 17,0 | 31,0 | 49,3 | 30 | 16,0 |

*drawings and technical data are not binding & can be changed without notice*

## 5007

Female barb connector NPT thread



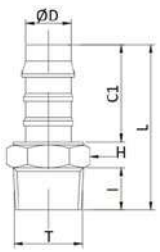



| CODE | T | ØD | L | H | g |
|---|---|---|---|---|---|
| 5007TR1814 | N 1/8" | 1/4" | 36,7 | 14 | 2,24 |
| 5007TR1414 | N 1/4" | 1/4" | 40,1 | 17 | 3,5 |
| 5007TR3814 | N 3/8" | 1/4" | 40,0 | 22 | 5,29 |
| 5007TR1214 | N 1/2" | 1/4" | 43,7 | 27 | 7,95 |
| 5007TR18516 | N 1/8" | 5/16" | 38,9 | 14 | 2,5 |
| 5007TR14516 | N 1/4" | 5/16" | 41,8 | 17 | 3,58 |
| 5007TR38516 | N 3/8" | 5/16" | 42,0 | 22 | 5,6 |
| 5007TR12516 | N 1/2" | 5/16" | 45,0 | 27 | 8,1 |
| 5007TR1438 | N 1/4" | 3/8" | 44,1 | 17 | 4,09 |
| 5007TR3838 | N 3/8" | 3/8" | 43,9 | 22 | 6,1 |
| 5007TR1238 | N 1/2" | 3/8" | 47,2 | 27 | 8,7 |
| 5007TR1412 | N 1/4" | 1/2" | 44,7 | 17 | 4,64 |
| 5007TR3812 | N 3/8" | 1/2" | 45,2 | 22 | 6,55 |
| 5007TR1212 | N 1/2" | 1/2" | 48,8 | 27 | 9,2 |
| 5007TR38916 | N 3/8" | 9/16" | 46,5 | 22 | - |
| 5007TR12916 | N 1/2" | 9/16" | 50,3 | 27 | - |
| 5007TR1258 | N 1/2" | 5/8" | 50,4 | 27 | 10,1 |
| 5007TR1234 | N 1/2" | 3/4" | 51,7 | 27 | 10,6 |

## 5015

Male barb connector NPT thread



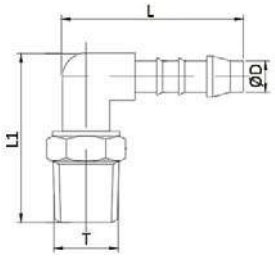



| CODE | T | ØD | I | C1 | L | H | g |
|---|---|---|---|---|---|---|---|
| 5015TR18532 | N 1/8" | 5/32" | 8,0 | 16,0 | 30,7 | 11 | 1,0 |
| 5015TR14532 | N 1/4" | 5/32" | 13,0 | 16,0 | 35,3 | 14 | 1,0 |
| 5015TR18316 | N 1/8" | 3/16" | 9,0 | 21,0 | 36,3 | 11 | 1,0 |
| 5015TR14316 | N 1/4" | 3/16" | 13,0 | 21,0 | 39,7 | 14 | 1,0 |
| 5015TR1814 | N 1/8" | 1/4" | 9,0 | 23,0 | 36,1 | 11 | 1,5 |
| 5015TR14 | N 1/4" | 1/4" | 13,0 | 23,0 | 40,6 | 14 | 1,0 |
| 5015TR3814 | N 3/8" | 1/4" | 13,0 | 23,0 | 42,0 | 17 | 3,0 |
| 5015TR1214 | N 1/2" | 1/4" | 18,0 | 23,0 | 46,7 | 22 | 6,4 |
| 5015TR18516 | N 1/8" | 5/16" | 9,0 | 25,0 | 40,2 | 11 | 1,8 |
| 5015TR14516 | N 1/4" | 5/16" | 13,0 | 25,0 | 44,7 | 14 | 2,7 |
| 5015TR38516 | N 3/8" | 5/16" | 13,0 | 25,0 | 46,0 | 17 | 4,1 |
| 5015TR12516 | N 1/2" | 5/16" | 18,0 | 25,0 | 51,0 | 22 | 6,8 |
| 5015TR1438 | N 1/4" | 3/8" | 13,0 | 27,0 | 46,5 | 14 | 3,0 |
| 5015TR38 | N 3/8" | 3/8" | 13,0 | 27,0 | 47,7 | 17 | 5,0 |
| 5015TR1238 | N 1/2" | 3/8" | 18,0 | 27,0 | 53,2 | 22 | 7,4 |
| 5015TR3438 | N 3/4" | 3/8" | 19,0 | 27,0 | 54,3 | 27 | 9,8 |
| 5015TR1412 | N 1/4" | 1/2" | 13,0 | 28,0 | 47,7 | 14 | 3,5 |
| 5015TR3812 | N 3/8" | 1/2" | 13,0 | 28,0 | 49,0 | 17 | 5,0 |
| 5015TR12 | N 1/2" | 1/2" | 18,0 | 28,0 | 53,7 | 22 | 7,6 |
| 5015TR3412 | N 3/4" | 1/2" | 19,0 | 28,0 | 54,7 | 27 | 10,3 |
| 5015TR38916 | N 3/8" | 9/16" | 13,0 | - | 51,0 | 17 | - |
| 5015TR12916 | N 1/2" | 9/16" | 18,0 | - | 55,4 | 22 | - |
| 5015TR34916 | N 3/4" | 9/16" | 19,0 | - | 56,1 | 27 | - |
| 5015TR1258 | N 1/2" | 5/8" | 18,0 | 30,0 | 56,3 | 22 | 8,5 |
| 5015TR3458 | N 3/4" | 5/8" | 19,0 | 30,0 | 56,8 | 27 | 11,2 |
| 5015TR1234 | N 1/2" | 3/4" | 18,0 | 31,0 | 57,0 | 22 | 9,1 |
| 5015TR34 | N 3/4" | 3/4" | 19,0 | 31,0 | 57,7 | 27 | 11,9 |

*drawings and technical data are not binding & can be changed without notice*

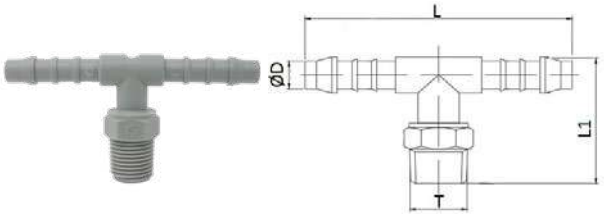
## 5022 Male elbow barb connector NPT thread





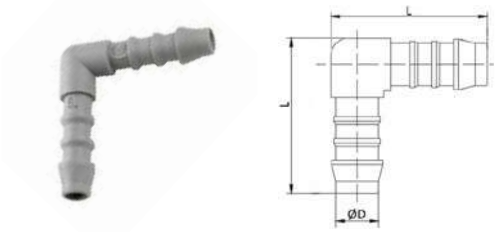

| CODE | T | ØD | L | L1 | g |
|---|---|---|---|---|---|
| 5022TR18532 | N 1/8" | 5/32" | 25,7 | 26,0 | 1,58 |
| 5022TR14532 | N 1/4" | 5/32" | 25,9 | 31,1 | 2,5 |
| 5022TR18316 | N 1/8" | 3/16" | 31,8 | 28,6 | 2,0 |
| 5022TR14316 | N 1/4" | 3/16" | 33,4 | 31,8 | 2,0 |
| 5022TR12316 | N 1/2" | 3/16" | 41,8 | 31,8 | 2,0 |
| 5022TR1814 | N 1/8" | 1/4" | 35,4 | 29,0 | 2,29 |
| 5022TR1414 | N 1/4" | 1/4" | 35,5 | 33,7 | 3,3 |
| 5022TR3814 | N 3/8" | 1/4" | 35,5 | 33,8 | 4,8 |
| 5022TR1214 | N 1/2" | 1/4" | 42,2 | 35,5 | 6,7 |
| 5022TR18516 | N 1/8" | 5/16" | 41,5 | 32,1 | 3,30 |
| 5022TR14516 | N 1/4" | 5/16" | 41,2 | 36,7 | 4,25 |
| 5022TR38516 | N 3/8" | 5/16" | 41,5 | 36,6 | 5,4 |
| 5022TR12516 | N 1/2" | 5/16" | 41,5 | 43,1 | 8,7 |
| 5022TR1438 | N 1/4" | 3/8" | 45,4 | 37,7 | 4,8 |
| 5022TR3838 | N 3/8" | 3/8" | 45,3 | 37,5 | 6,2 |
| 5022TR1238 | N 1/2" | 3/8" | 45,4 | 44,4 | 7,8 |
| 5022TR3438 | N 3/4" | 3/8" | 45,4 | 44,0 | 12,4 |
| 5022TR1412 | N 1/4" | 1/2" | 48,6 | 39,0 | - |
| 5022TR3812 | N 3/8" | 1/2" | 48,3 | 28,6 | 7,8 |
| 5022TR1212 | N 1/2" | 1/2" | 48,7 | 45,2 | 11,1 |
| 5022TR3412 | N 3/4" | 1/2" | 48,7 | 45,2 | 14,1 |
| 5022TR38916 | N 3/8" | 9/16" | 51,4 | 42,2 | - |
| 5022TR12916 | N 1/2" | 9/16" | 51,4 | 48,6 | - |
| 5022TR34916 | N 3/4" | 9/16" | 51,5 | 48,5 | - |
| 5022TR1258 | N 1/2" | 5/8" | 53,8 | 51,5 | 14,4 |
| 5022TR3458 | N 3/4" | 5/8" | 53,8 | 51,4 | 17,5 |
| 5022TR1234 | N 1/2" | 3/4" | 56,6 | 52,8 | 16,1 |
| 5022TR3434 | N 3/4" | 3/4" | 56,2 | 53,0 | 18,8 |

## 5027 Male tee barb connector NPT thread



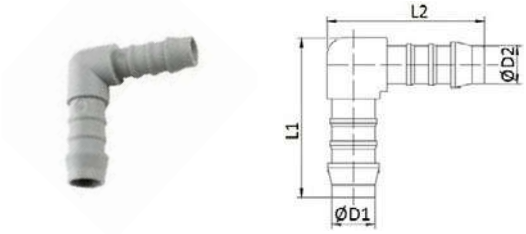

| CODE | T | ØD | L | L1 | g |
|---|---|---|---|---|---|
| 5027TR12316 | N 1/2" | 3/16" | 56,3 | 39,3 | 7,8 |
| 5027TR1814 | N 1/8" | 1/4" | 63,0 | 29,4 | - |
| 5027TR1414 | N 1/4" | 1/4" | 63,0 | 33,8 | 3,86 |
| 5027TR3814 | N 3/8" | 1/4" | 63,0 | 33,7 | 6,55 |
| 5027TR1214 | N 1/2" | 1/4" | 63,0 | 40,3 | 9,57 |
| 5027TR18516 | N 1/8" | 5/16" | 72,5 | 32,3 | 4,51 |
| 5027TR14516 | N 1/4" | 5/16" | 72,5 | 36,8 | 5,46 |
| 5027TR38516 | N 3/8" | 5/16" | 72,5 | 36,9 | 6,65 |
| 5027TR12516 | N 1/2" | 5/16" | 72,5 | 42,8 | 9,68 |
| 5027TR1438 | N 1/4" | 3/8" | 78,5 | 38,0 | 5,14 |
| 5027TR3838 | N 3/8" | 3/8" | 78,5 | 37,7 | 7,78 |
| 5027TR1238 | N 1/2" | 3/8" | 78,5 | 44,0 | 10,52 |
| 5027TR3438 | N 3/4" | 3/8" | 78,5 | 43,8 | 13,91 |
| 5027TR1412 | N 1/4" | 1/2" | 82,6 | 39,3 | 8,62 |
| 5027TR3812 | N 3/8" | 1/2" | 82,6 | 38,8 | 11,0 |
| 5027TR1212 | N 1/2" | 1/2" | 82,6 | 45,5 | 14,44 |
| 5027TR3412 | N 3/4" | 1/2" | 82,6 | 45,5 | 20,42 |
| 5027TR1258 | N 1/2" | 5/8" | 88,4 | 51,5 | 18,28 |
| 5027TR3458 | N 3/4" | 5/8" | 88,4 | 51,1 | 21,0 |
| 5027TR1234 | N 1/2" | 3/4" | 90,5 | 53,0 | 16,6 |
| 5027TR3434 | N 3/4" | 3/4" | 90,5 | 52,5 | 23,0 |

## 5032 Union elbow barb connector - inch tube




| CODE | ØD | L | g |
|---|---|---|---|
| 5032TR532 | 5/32" | 25,6 | 0,65 |
| 5032TR316 | 3/16" | 33,2 | 1,19 |
| 5032TR14 | 1/4" | 36,1 | 1,77 |
| 5032TR516 | 5/16" | 41,4 | 3,18 |
| 5032TR38 | 3/8" | 44,6 | 4,42 |
| 5032TR12 | 1/2" | 47,6 | 6,7 |
| 5032TR916 | 9/16" | 51,2 | - |
| 5032TR58 | 5/8" | 54,3 | 11,17 |
| 5032TR34 | 3/4" | 56,7 | 13,6 |

## 5037 Reduced union elbow barb connector - inch tube

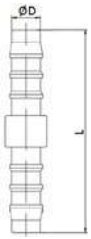



| CODE | ØD1 | ØD2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 5037TR316532 | 3/16" | 5/32" | 31,8 | 27,9 | 1,5 |
| 5037TR14316 | 1/4" | 3/16" | 35,4 | 34,1 | 2,0 |
| 5037TR51614 | 5/16" | 1/4" | 39,4 | 41,6 | 2,3 |
| 5037TR3814 | 3/8" | 1/4" | 40,2 | 45,3 | 3,8 |
| 5037TR38516 | 3/8" | 5/16" | 42,5 | 45,5 | 4,0 |
| 5037TR1238 | 1/2" | 3/8" | 45,8 | 48,6 | 6,5 |
| 5037TR91612 | 9/16" | 1/2" | 49,8 | 51,1 | - |
| 5037TR58916 | 5/8" | 9/16" | 53,6 | 53,6 | - |
| 5037TR3458 | 3/4" | 5/8" | 55,8 | 55,8 | 7,2 |

*drawings and technical data are not binding & can be changed without notice*

## 5042 Union barb connector - inch tube

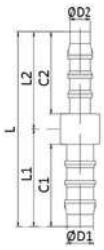





| CODE | ØD | L | g |
|---|---|---|---|
| 5042TR532 | 5/32" | 36,6 | 0,65 |
| 5042TR316 | 3/16" | 47,0 | 1,19 |
| 5042TR14 | 1/4" | 52,2 | 1,77 |
| 5042TR516 | 5/16" | 59,3 | 3,18 |
| 5042TR38 | 3/8" | 63,0 | 4,42 |
| 5042TR12 | 1/2" | 66,3 | 6,7 |
| 5042TR916 | 9/16" | 72,0 | - |
| 5042TR58 | 5/8" | 71,4 | 11,17 |
| 5042TR1116 | 11/16" | 59,1 | - |
| 5042TR34 | 3/4" | 73,8 | 13,6 |

## 5047 Reduced union barb connector - inch tube

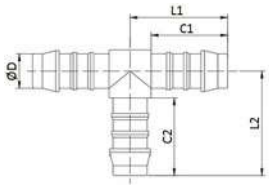





| CODE | ØD1 | ØD2 | C1 | C2 | L1 | L2 | L | g |
|---|---|---|---|---|---|---|---|---|
| 5047TR316532 | 3/16" | 5/32" | 16,0 | 21,0 | 19,0 | 24,0 | 42,2 | 0,63 |
| 5047TR14532 | 1/4" | 5/32" | 23,5 | 21,0 | 26,0 | 19,5 | 45,7 | 0,86 |
| 5047TR14316 | 1/4" | 3/16" | 23,5 | 16,0 | 26,0 | 23,5 | 50,6 | 1,0 |
| 5047TR516316 | 5/16" | 3/16" | 24,0 | 16,0 | 29,5 | 23,5 | 54,4 | 2,0 |
| 5047TR51614 | 5/16" | 1/4" | 25,0 | 23,0 | 29,0 | 26,0 | 56,3 | 2,1 |
| 5047TR3814 | 3/8" | 1/4" | 27,0 | 23,0 | 31,5 | 27,0 | 58,9 | 2,5 |
| 5047TR38516 | 3/8" | 5/16" | 27,0 | 25,0 | 31,5 | 29,0 | 62,0 | 2,8 |
| 5047TR12516 | 1/2" | 5/16" | 28,0 | 25,0 | 33,0 | 29,0 | 63,8 | 4,1 |
| 5047TR1238 | 1/2" | 3/8" | 28,0 | 27,0 | 33,0 | 31,5 | 65,3 | 4,6 |
| 5047TR91638 | 9/16" | 3/8" | 29,5 | 27,0 | 35,5 | 33,0 | 69,1 | 6,16 |
| 5047TR91612 | 9/16" | 1/2" | 29,5 | 28,0 | 35,5 | 34,0 | 69,9 | 6,57 |
| 5047TR5812 | 5/8" | 1/2" | 30,0 | 28,0 | 36,0 | 33,0 | 70,3 | 7,5 |
| 5047TR58916 | 5/8" | 9/16" | 29,5 | 29,5 | 35,5 | 36,0 | 71,7 | 8,0 |
| 5047TR34916 | 3/4" | 9/16" | 31,0 | 29,5 | 35,5 | 37,0 | 72,7 | 9,7 |
| 5047TR3458 | 3/4" | 5/8" | 31,0 | 30,0 | 37,0 | 37,0 | 73,2 | 10,0 |

## 5052 Union tee barb connector - inch tube

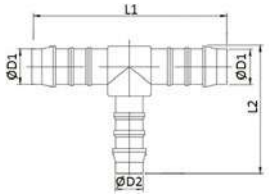





| CODE | ØD | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 5052TR532 | 5/32" | 16,0 | 16,0 | 20,0 | 24,3 | 0,62 |
| 5052TR316 | 3/16" | 21,0 | 21,0 | 25,5 | 27,5 | 1,2 |
| 5052TR14 | 1/4" | 23,0 | 23,0 | 28,0 | 29,0 | 1,9 |
| 5052TR516 | 5/16" | 25,0 | 25,0 | 30,6 | 32,5 | 3,2 |
| 5052TR38 | 3/8" | 26,5 | 27,0 | 33,5 | 35,5 | 5,5 |
| 5052TR12 | 1/2" | 28,0 | 28,0 | 35,5 | 37,5 | 9,0 |
| 5052TR916 | 9/16" | 30,0 | 30,0 | 38,6 | 40,8 | 12,3 |
| 5052TR58 | 5/8" | 30,0 | 30,0 | 39,8 | 44,0 | 14,0 |
| 5052TR34 | 3/4" | 31,0 | 31,0 | 40,0 | 45,0 | 17,0 |

## 5057 Reduced union tee barb connector - inch tube

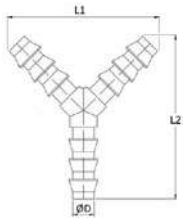





| CODE | ØD1 | ØD2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 5057TR316532 | 3/16" | 5/32" | 50,6 | 25,9 | 1,1 |
| 5057TR14316 | 1/4" | 3/16" | 55,8 | 32,0 | 1,74 |
| 5057TR51614 | 5/16" | 1/4" | 61,5 | 36,2 | 2,94 |
| 5057TR38516 | 3/8" | 5/16" | 66,5 | 39,3 | 1,1 |
| 5057TR1238 | 1/2" | 3/8" | 70,3 | 43,5 | 7,75 |
| 5057TR91612 | 9/16" | 1/2" | 76,3 | 48,0 | - |
| 5057TR58916 | 5/8" | 9/16" | 79,4 | 51,0 | - |
| 5057TR3458 | 3/4" | 5/8" | 84,3 | 55,2 | 16,42 |

## 5062 Union Y barb connector - inch tube






| CODE | ØD | L1 | L2 | g |
|---|---|---|---|---|
| 5062TR532 | 5/32" | 30,8 | 35,5 | 0,65 |
| 5062TR14 | 1/4" | 44,3 | 50,8 | 2,095 |
| 5062TR516 | 5/16" | 49,4 | 55,6 | 3,35 |
| 5062TR38 | 3/8" | 54,9 | 60,8 | 4,93 |
| 5062TR1116 | 11/16" | 57,4 | 62,5 | - |

# BARB CONNECTORS PVDF

D.M. 174

NSF

## PLUS

- RESISTANT TO CONTACT WITH CHEMICALS AND CAN BE USE IN THE FOOD SECTOR
- RESISTANT TO COSTANT HIGH LEVEL TEMPERATURES
- OPTIMIZATION OF INTERNAL STEPS WHICH GUARANTEE FULL FLUID PASSAGE
- EXTREMLY SIMPLE TO USE FOLLOWING TECHNICAL INFORMATION
- ENVIRONMENTALLY FRIENDLY AND NON-TOXIC
- IT IS RECOMMENDED TO USE 5090 PIPE CLAMPS TO GUARANTEE A BETTER GRIP BETWEEN FITTING AND TUBE



p. 234 / **5905**



p. 235 / **5910**



p. 236 / **5920**



p. 237 / **5925**



p. 237 / **5930**



p. 238 / **5935**



p. 238 / **5940**



p. 238 / **5945**



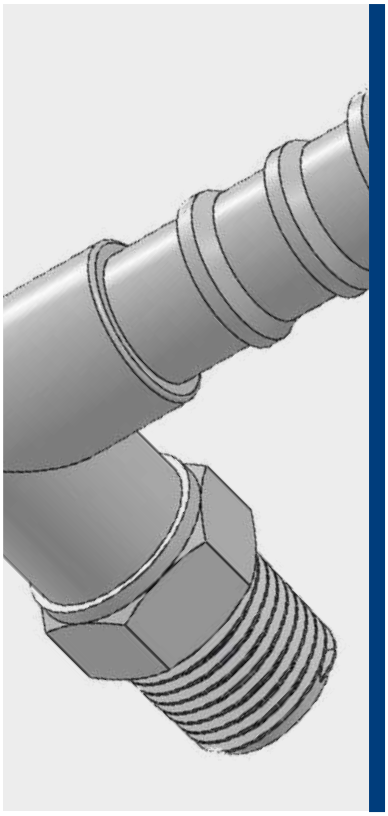
p. 239 / **5950**



p. 239 / **5955**



p. 239 / **5960**



-20°C ÷ +120°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)
Depending on the tube used

Compressed air, water and fluids suitable with construction materials

Taper gas BSPT ISO 7
from R1/8" to R1"

Plastic, silicone, PTFE, FEP and soft PVC tubes

**Body:** Polyvinylidene fluoride (PVDF)

## AVAILABILITY

Available on demand with NPT thread for inch tubes.

Food contact materials
EC 1935/2004

D.M. 174/2004

NSF 61 / NSF 372
NSF certificate on behalf of Tefen Flow and Dosing Technologies Ltd.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## FEATURES

- The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.
- The connection to the tube must be secured with a 5090 clamp.

## DIAMETER OF THE BARB

BARB CONNECTORS - PVDF

| ØD (mm) | Ø4 | Ø5 | Ø6 | Ø8 | Ø10 | Ø12 | Ø14 | Ø16 | Ø19 | Ø25 |
|---|---|---|---|---|---|---|---|---|---|---|
| ØB (mm) | 5,2 | 6,3 | 8,0 | 10,0 | 12,0 | 14,0 | 16,2 | 18,2 | 21,0 | 26,0 |

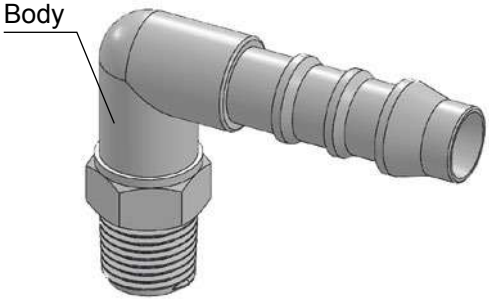



## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 0,1 | 1 | 5 | 8 | 16 | 26 |

## CONSTRUCTION DETAILS

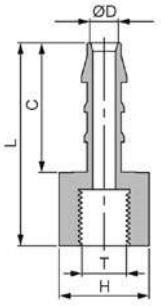



*drawings and technical data are not binding & can be changed without notice*

## 5905

Female barb connector BSPT thread



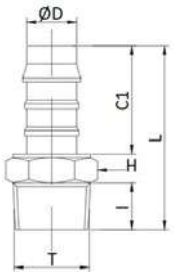



| CODE | T | ØD | C | L | H | g |
|---|---|---|---|---|---|---|
| 5905TR185 | R 1/8" | 5 | 21,0 | 34,4 | 14 | 2,0 |
| 5905TR145 | R 1/4" | 5 | 21,0 | 35,0 | 17 | 2,7 |
| 5905TR385 | R 3/8" | 5 | 21,0 | 36,5 | 22 | 4,57 |
| 5905TR125 | R 1/2" | 5 | 21,5 | 38,7 | 26 | 6,6 |
| 5905TR186 | R 1/8" | 6 | 23,0 | 36,3 | 14 | 2,15 |
| 5905TR146 | R 1/4" | 6 | 23,0 | 37,2 | 17 | 2,9 |
| 5905TR386 | R 3/8" | 6 | 23,0 | 38,3 | 22 | 4,8 |
| 5905TR126 | R 1/2" | 6 | 23,0 | 40,8 | 26 | 7,0 |
| 5905TR188 | R 1/8" | 8 | 25,0 | 38,2 | 14 | 2,5 |
| 5905TR148 | R 1/4" | 8 | 25,0 | 39,4 | 17 | 5,0 |
| 5905TR388 | R 3/8" | 8 | 25,0 | 40,4 | 22 | 7,1 |
| 5905TR128 | R 1/2" | 8 | 25,0 | 42,7 | 26 | 3,6 |
| 5905TR1410 | R 1/4" | 10 | 27,5 | 41,5 | 17 | 5,4 |
| 5905TR3810 | R 3/8" | 10 | 27,0 | 42,3 | 22 | 7,5 |
| 5905TR1210 | R 1/2" | 10 | 27,5 | 45,0 | 26 | 4,1 |
| 5905TR1412 | R 1/4" | 12 | 28,0 | 42,4 | 17 | 6,2 |
| 5905TR3812 | R 3/8" | 12 | 28,0 | 43,3 | 22 | 8,0 |
| 5905TR1212 | R 1/2" | 12 | 28,0 | 46,0 | 26 | 6,9 |
| 5905TR3814 | R 3/8" | 14 | 30,0 | 45,0 | 22 | 8,7 |
| 5905TR1214 | R 1/2" | 14 | 30,0 | 47,3 | 26 | 9,0 |
| 5905TR1216 | R 1/2" | 16 | 30,5 | 48,1 | 26 | 9,5 |
| 5905TR1219 | R 1/2" | 19 | 31,0 | 48,8 | 26 | 10,0 |

*drawings and technical data are not binding & can be changed without notice*

## 5910 Male barb conector BSPT thread

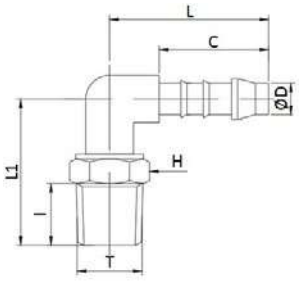





| CODE | T | ØD | I | C1 | L | H | g |
|---|---|---|---|---|---|---|---|
| 5910TR184 | R 1/8" | 4 | 8,0 | 16,0 | 31,2 | 11 | 1,0 |
| 5910TR144 | R 1/4" | 4 | 10,0 | 16,0 | 33,8 | 14 | 1,2 |
| 5910TR185 | R 1/8" | 5 | 8,0 | 21,0 | 34,7 | 11 | 1,0 |
| 5910TR145 | R 1/4" | 5 | 10,0 | 21,0 | 38,3 | 14 | 1,0 |
| 5910TR186 | R 1/8" | 6 | 8,0 | 23,0 | 37,5 | 11 | 1,0 |
| 5910TR146 | R 1/4" | 6 | 10,0 | 23,0 | 39,2 | 14 | 2,0 |
| 5910TR386 | R 3/8" | 6 | 10,0 | 23,0 | 39,1 | 17 | 3,0 |
| 5910TR126 | R 1/2" | 6 | 12,5 | 23,0 | 42,3 | 22 | 6,0 |
| 5910TR346 | R 3/4" | 6 | 14,5 | 23,0 | 43,0 | 22 | 8,2 |
| 5910TR188 | R 1/8" | 8 | 8,0 | 25,0 | 39,8 | 11 | 2,0 |
| 5910TR148 | R 1/4" | 8 | 10,0 | 25,0 | 43,0 | 14 | 2,0 |
| 5910TR388 | R 3/8" | 8 | 10,0 | 25,0 | 43,0 | 17 | 3,0 |
| 5910TR128 | R 1/2" | 8 | 12,5 | 25,0 | 46,1 | 22 | 6,0 |
| 5910TR348 | R 3/4" | 8 | 12,5 | 25,0 | 37,1 | 17 | 4,7 |
| 5910TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 47,1 | 14 | 1,0 |
| 5910TR3810 | R 3/8" | 10 | 10,0 | 27,0 | 45,2 | 17 | 4,0 |
| 5910TR1210 | R 1/2" | 10 | 12,5 | 27,0 | 48,3 | 22 | 6,0 |
| 5910TR3410 | R 3/4" | 10 | 14,5 | 27,0 | 49,3 | 27 | 9,1 |
| 5910TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 46,0 | 14 | 4,0 |
| 5910TR3812 | R 3/8" | 12 | 10,0 | 28,0 | 46,0 | 17 | 4,0 |
| 5910TR1212 | R 1/2" | 12 | 12,5 | 28,0 | 49,3 | 22 | 7,0 |
| 5910TR3412 | R 3/4" | 12 | 14,5 | 28,0 | 50,0 | 27 | 9,2 |
| 5910TR3814 | R 3/8" | 14 | 10,0 | 29,5 | 47,5 | 17 | 6,0 |
| 5910TR1214 | R 1/2" | 14 | 12,5 | 29,5 | 50,8 | 22 | 7,0 |
| 5910TR3414 | R 3/4" | 14 | 14,5 | 29,5 | 51,7 | 27 | 9,8 |
| 5910TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 51,3 | 22 | 8,0 |
| 5910TR3416 | R 3/4" | 16 | 14,5 | 30,0 | 52,2 | 27 | 10,0 |
| 5910TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 52,2 | 22 | 9,0 |
| 5910TR3419 | R 3/4" | 19 | 14,5 | 31,0 | 53,3 | 27 | 15,0 |
| 5910TR119 | R 1" | 19 | 21,0 | 31,0 | 60,1 | 27 | 18,8 |
| 5910TR3425 | R 3/4" | 25 | 21,0 | 31,0 | 54,8 | 27 | 17,0 |
| 5910TR125 | R 1" | 25 | 21,0 | 31,0 | 66,6 | 36 | 19,5 |

## 5920 Male elbow barb connector BSPT thread

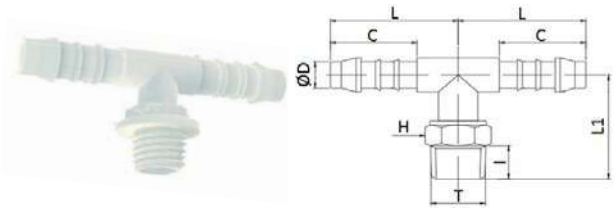





| CODE | T | ØD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5920TR184 | R 1/8" | 4 | 8,0 | 16,0 | 22,5 | 21,0 | 11 | 1,0 |
| 5920TR144 | R 1/4" | 4 | 10,0 | 16,0 | 22,5 | 24,0 | 14 | 1,0 |
| 5920TR185 | R 1/8" | 5 | 8,0 | 21,0 | 28,0 | 24,0 | 11 | 1,0 |
| 5920TR145 | R 1/4" | 5 | 10,0 | 21,0 | 28,0 | 26,0 | 14 | 3,0 |
| 5920TR125 | R 1/2" | 5 | 13,0 | 21,0 | 28,0 | 30,0 | 22 | 6,0 |
| 5920TR186 | R 1/8" | 6 | 8,5 | 23,5 | 31,5 | 23,5 | 11 | 1,0 |
| 5920TR146 | R 1/4" | 6 | 10,0 | 23,0 | 31,0 | 26,0 | 14 | 3,0 |
| 5920TR386 | R 3/8" | 6 | 10,5 | 23,0 | 31,0 | 26,0 | 17 | 3,0 |
| 5920TR126 | R 1/2" | 6 | 13,0 | 23,5 | 31,5 | 30,0 | 22 | 7,0 |
| 5920TR188 | R 1/8" | 8 | 8,0 | 25,0 | 36,0 | 26,0 | 11 | 3,0 |
| 5920TR148 | R 1/4" | 8 | 10,0 | 25,0 | 36,0 | 28,0 | 14 | 3,0 |
| 5920TR388 | R 3/8" | 8 | 10,5 | 25,0 | 36,0 | 28,0 | 17 | 5,0 |
| 5920TR128 | R 1/2" | 8 | 13,0 | 25,0 | 36,0 | 30,5 | 22 | 7,0 |
| 5920TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 39,0 | 28,0 | 14 | 4,0 |
| 5920TR3810 | R 3/8" | 10 | 10,5 | 27,0 | 39,0 | 28,0 | 17 | 6,0 |
| 5920TR1210 | R 1/2" | 10 | 13,0 | 27,0 | 39,0 | 30,5 | 22 | 8,0 |
| 5920TR3410 | R 3/4" | 10 | 14,5 | 27,0 | 39,0 | 33,5 | 27 | 9,9 |
| 5920TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 41,0 | 28,0 | 14 | 7,0 |
| 5920TR3812 | R 3/8" | 12 | 10,5 | 28,0 | 41,0 | 28,0 | 17 | 8,0 |
| 5920TR1212 | R 1/2" | 12 | 13,0 | 28,0 | 41,0 | 32,0 | 22 | 9,0 |
| 5920TR3412 | R 3/4" | 12 | 14,5 | 28,0 | 41,0 | 34,0 | 27 | 12,0 |
| 5920TR3814 | R 3/8" | 14 | 10,5 | 29,5 | 42,5 | 31,5 | 17 | 9,0 |
| 5920TR1214 | R 1/2" | 14 | 13,0 | 29,5 | 42,5 | 34,0 | 22 | 11,0 |
| 5920TR3414 | R 3/4" | 14 | 14,5 | 29,5 | 42,5 | 37,5 | 27 | 14,4 |
| 5920TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 44,0 | 36,0 | 22 | 13,0 |
| 5920TR3416 | R 3/4" | 16 | 14,5 | 30,0 | 44,0 | 39,0 | 27 | 14,0 |
| 5920TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 45,0 | 36,0 | 22 | 15,0 |
| 5920TR3419 | R 3/4" | 19 | 15,0 | 31,0 | 45,0 | 38,0 | 27 | 16,6 |

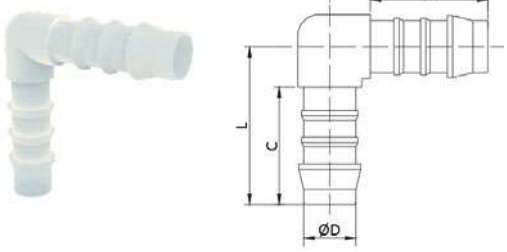
*drawings and technical data are not binding & can be changed without notice*

## 5925 Male tee barb connector BSPT thread




| CODE | T | ØD | I | C | L | L1 | H | g |
|---|---|---|---|---|---|---|---|---|
| 5925TR184 | R 1/8" | 4 | 8,0 | 16,0 | 19,7 | 18,5 | 11 | 1,0 |
| 5925TR144 | R 1/4" | 4 | 10,5 | 16,0 | 22,6 | 21,5 | 14 | 2,5 |
| 5925TR185 | R 1/8" | 5 | 8,0 | 21,0 | 25,4 | 19,5 | 11 | 1,0 |
| 5925TR145 | R 1/4" | 5 | 10,5 | 21,0 | 28,2 | 22,5 | 14 | 3,0 |
| 5925TR186 | R 1/8" | 6 | 8,5 | 23,5 | 28,0 | 23,5 | 11 | 1,0 |
| 5925TR146 | R 1/4" | 6 | 10,5 | 23,0 | 31,5 | 23,0 | 14 | 3,0 |
| 5925TR386 | R 3/8" | 6 | 13,0 | 23,0 | 31,5 | 23,0 | 17 | 4,1 |
| 5925TR126 | R 1/2" | 6 | 12,5 | 23,0 | 31,5 | 27,0 | 22 | 7,1 |
| 5925TR188 | R 1/8" | 8 | 8,0 | 25,0 | 30,8 | 21,5 | 11 | 3,0 |
| 5925TR148 | R 1/4" | 8 | 10,5 | 25,0 | 36,3 | 24,5 | 14 | 5,0 |
| 5925TR388 | R 3/8" | 8 | 10,5 | 25,0 | 36,3 | 24,5 | 17 | 6,0 |
| 5925TR128 | R 1/2" | 8 | 13,0 | 25,0 | 31,0 | 28,5 | 22 | 7,5 |
| 5925TR1410 | R 1/4" | 10 | 10,0 | 27,0 | 39,3 | 28,0 | 14 | 6,4 |
| 5925TR3810 | R 3/8" | 10 | 10,5 | 27,0 | 39,3 | 28,0 | 17 | 7,3 |
| 5925TR1210 | R 1/2" | 10 | 12,5 | 27,0 | 39,4 | 30,5 | 22 | 9,6 |
| 5925TR3410 | R 3/4" | 10 | 13,0 | 27,0 | 39,4 | 31,5 | 27 | 11,8 |
| 5925TR1412 | R 1/4" | 12 | 10,0 | 28,0 | 41,3 | 28,0 | 14 | 15,0 |
| 5925TR3812 | R 3/8" | 12 | 10,5 | 28,0 | 41,3 | 28,0 | 17 | 9,0 |
| 5925TR1212 | R 1/2" | 12 | 13,0 | 28,0 | 41,3 | 31,5 | 22 | 12,6 |
| 5925TR3412 | R 3/4" | 12 | 13,0 | 28,0 | 41,3 | 31,5 | 27 | 14,3 |
| 5925TR3814 | R 3/8" | 14 | 10,5 | 29,5 | 42,8 | 31,5 | 17 | 12,8 |
| 5925TR1214 | R 1/2" | 14 | 12,5 | 29,5 | 42,8 | 34,0 | 22 | 15,0 |
| 5925TR3414 | R 3/4" | 14 | 13,0 | 30,0 | 42,8 | 35,0 | 27 | 17,9 |
| 5925TR1216 | R 1/2" | 16 | 12,5 | 30,0 | 44,1 | 36,0 | 22 | 15,0 |
| 5925TR3416 | R 3/4" | 16 | 13,5 | 30,0 | 44,2 | 37,0 | 27 | 18,6 |
| 5925TR1219 | R 1/2" | 19 | 12,5 | 31,0 | 45,1 | 36,0 | 22 | 19,6 |
| 5925TR3419 | R 3/4" | 19 | 13,5 | 31,0 | 45,3 | 36,0 | 27 | 21,6 |

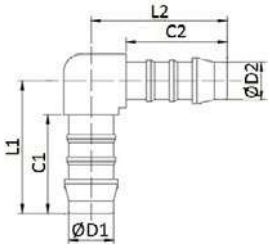
## 5930 Union elbow barb connector




| CODE | ØD | C | L | g |
|---|---|---|---|---|
| 5930TR4 | 4 | 16,0 | 23,0 | 1,0 |
| 5930TR5 | 5 | 21,0 | 28,5 | 1,2 |
| 5930TR6 | 6 | 23,0 | 31,5 | 1,5 |
| 5930TR8 | 8 | 25,0 | 36,5 | 3,0 |
| 5930TR10 | 10 | 27,0 | 39,0 | 4,0 |
| 5930TR12 | 12 | 28,0 | 40,0 | 7,0 |
| 5930TR14 | 14 | 29,5 | 42,5 | 9,0 |
| 5930TR16 | 16 | 30,0 | 44,0 | 11,0 |
| 5930TR19 | 19 | 31,0 | 45,0 | 13,0 |

## 5935 Reduced union elbow barb connector

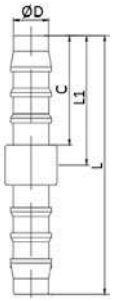





| CODE | ØD1 | ØD2 | C1 | C2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| 5935TR54 | 5 | 4 | 21,0 | 16,0 | 28,5 | 23,0 | 1,0 |
| 5935TR64 | 6 | 4 | 21,0 | 16,0 | 35,5 | 29,0 | 1,0 |
| 5935TR65 | 6 | 5 | 23,0 | 21,0 | 31,5 | 28,5 | 1,5 |
| 5935TR86 | 8 | 6 | 25,0 | 23,0 | 36,5 | 31,5 | 2,0 |
| 5935TR106 | 10 | 6 | 27,0 | 23,0 | 39,0 | 31,5 | 3,8 |
| 5935TR108 | 10 | 8 | 27,0 | 25,0 | 39,0 | 36,5 | 4,0 |
| 5935TR1210 | 12 | 10 | 28,0 | 27,0 | 40,0 | 39,0 | 7,0 |
| 5935TR1412 | 14 | 12 | 29,5 | 28,0 | 42,5 | 40,0 | 9,0 |
| 5935TR1614 | 16 | 14 | 30,0 | 29,5 | 44,0 | 42,5 | 11,0 |
| 5935TR1916 | 19 | 16 | 31,0 | 30,0 | 45,0 | 44,0 | 14,0 |

## 5940 Union barb connector

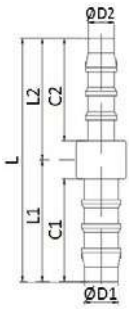





| CODE | ØD | C | L | L1 | g |
|---|---|---|---|---|---|
| 5940TR4 | 4 | 16,0 | 36,6 | 18,0 | 1,0 |
| 5940TR5 | 5 | 21,0 | 47,0 | 23,5 | 1,2 |
| 5940TR6 | 6 | 23,0 | 52,2 | 26,0 | 1,5 |
| 5940TR8 | 8 | 25,0 | 59,3 | 29,0 | 2,0 |
| 5940TR10 | 10 | 27,0 | 63,0 | 31,5 | 3,0 |
| 5940TR12 | 12 | 28,0 | 66,0 | 33,0 | 4,0 |
| 5940TR14 | 14 | 29,5 | 71,8 | 35,5 | 7,5 |
| 5940TR16 | 16 | 30,0 | 72,5 | 36,0 | 9,0 |
| 5940TR19 | 19 | 31,0 | 73,5 | 37,0 | 11,0 |

## 5945 Reduced union barb connector

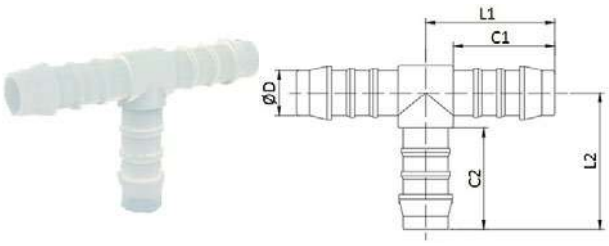





| CODE | ØD1 | ØD2 | C1 | L1 | C2 | L2 | L | g |
|---|---|---|---|---|---|---|---|---|
| 5945TR54 | 5 | 4 | 21,0 | 23,5 | 16,0 | 18,0 | 42,2 | 1,0 |
| 5945TR64 | 6 | 4 | 23,0 | 26,0 | 16,0 | 18,0 | 45,7 | 1,0 |
| 5945TR65 | 6 | 5 | 23,0 | 26,0 | 21,0 | 23,5 | 50,6 | 1,0 |
| 5945TR85 | 8 | 5 | 25,0 | 29,5 | 21,0 | 23,5 | 54,4 | 2,0 |
| 5945TR86 | 8 | 6 | 25,0 | 29,0 | 23,0 | 26,0 | 56,3 | 3,0 |
| 5945TR106 | 10 | 6 | 27,0 | 31,5 | 23,0 | 26,0 | 59,0 | 3,0 |
| 5945TR108 | 10 | 8 | 27,0 | 31,5 | 25,0 | 29,0 | 62,0 | 3,0 |
| 5945TR128 | 12 | 8 | 28,0 | 33,0 | 25,0 | 29,0 | 63,8 | 3,0 |
| 5945TR1210 | 12 | 10 | 28,0 | 33,0 | 27,0 | 31,5 | 65,3 | 5,0 |
| 5945TR1410 | 14 | 10 | 29,5 | 35,5 | 27,0 | 31,5 | 69,1 | 6,0 |
| 5945TR1412 | 14 | 12 | 29,5 | 35,5 | 28,0 | 33,0 | 70,0 | 7,0 |
| 5945TR1612 | 16 | 12 | 30,0 | 36,0 | 28,0 | 33,0 | 70,3 | 7,0 |
| 5945TR1614 | 16 | 14 | 30,0 | 36,0 | 29,5 | 35,5 | 71,7 | 8,0 |
| 5945TR1914 | 19 | 14 | 31,0 | 37,0 | 29,5 | 35,5 | 72,7 | 10,0 |
| 5945TR1916 | 19 | 16 | 31,0 | 37,0 | 30,0 | 36,0 | 73,2 | 10,0 |

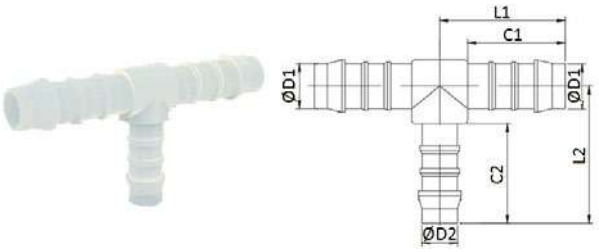
*drawings and technical data are not binding & can be changed without notice*

## 5950 Union tee barb connector



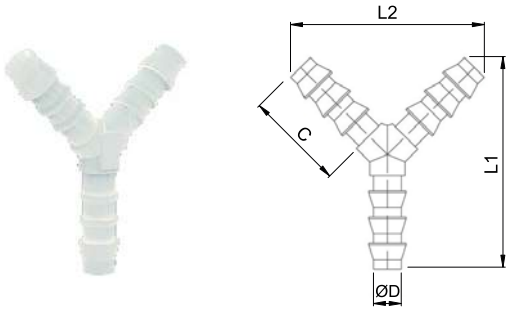

| CODE | ØD | C1 | L1 | C2 | L2 | g |
|---|---|---|---|---|---|---|
| 5950TR4 | 4 | 16,0 | 19,7 | 16,0 | 20,5 | 1,0 |
| 5950TR5 | 5 | 21,0 | 25,3 | 21,0 | 26,5 | 1,0 |
| 5950TR6 | 6 | 23,0 | 28,0 | 23,0 | 29,0 | 1,0 |
| 5950TR8 | 8 | 25,0 | 30,8 | 25,0 | 32,5 | 3,0 |
| 5950TR10 | 10 | 27,0 | 33,2 | 27,0 | 33,5 | 5,0 |
| 5950TR12 | 12 | 28,0 | 35,2 | 28,0 | 37,5 | 8,0 |
| 5950TR14 | 14 | 29,5 | 38,1 | 29,5 | 42,5 | 12,0 |
| 5950TR16 | 16 | 30,0 | 39,6 | 30,0 | 44,0 | 13,0 |
| 5950TR19 | 19 | 31,0 | 42,2 | 31,0 | 45,0 | 17,0 |

## 5955 Reduced union tee barb connector




| CODE | ØD1 | ØD2 | C1 | L1 | C2 | L2 | g |
|---|---|---|---|---|---|---|---|
| 5955TR54 | 5 | 4 | 21,0 | 25,3 | 16,0 | 21,5 | 1,0 |
| 5955TR65 | 6 | 5 | 23,0 | 27,8 | 21,0 | 27,0 | 2,0 |
| 5955TR86 | 8 | 6 | 25,0 | 30,7 | 23,0 | 30,5 | 3,0 |
| 5955TR108 | 10 | 8 | 27,0 | 33,2 | 25,0 | 34,0 | 4,0 |
| 5955TR1210 | 12 | 10 | 28,0 | 35,3 | 27,0 | 36,5 | 7,0 |
| 5955TR1412 | 14 | 12 | 29,5 | 38,3 | 28,0 | 38,5 | 11,0 |
| 5955TR1614 | 16 | 14 | 30,0 | 39,7 | 29,5 | 41,5 | 13,0 |
| 5955TR1916 | 19 | 16 | 31,0 | 42,3 | 30,0 | 43,0 | 17,0 |

## 5960 Union Y barb connector




| CODE | ØD | C | L1 | L2 | g |
|---|---|---|---|---|---|
| 5960TR4 | 4 | 16,5 | 35,0 | 31,0 | 1,0 |
| 5960TR6 | 6 | 23,5 | 51,2 | 44,5 | 1,5 |
| 5960TR8 | 8 | 25,5 | 56,6 | 40,6 | 3,0 |
| 5960TR10 | 10 | 24,0 | 62,3 | 55,0 | 5,0 |
| 5960TR17 | 17 | 24,0 | 63,3 | 57,7 | 7,0 |

*drawings and technical data are not binding & can be changed without notice*

# BARB CONNECTORS STAINLESS STEEL AISI 316

D.M. 174

## PLUS

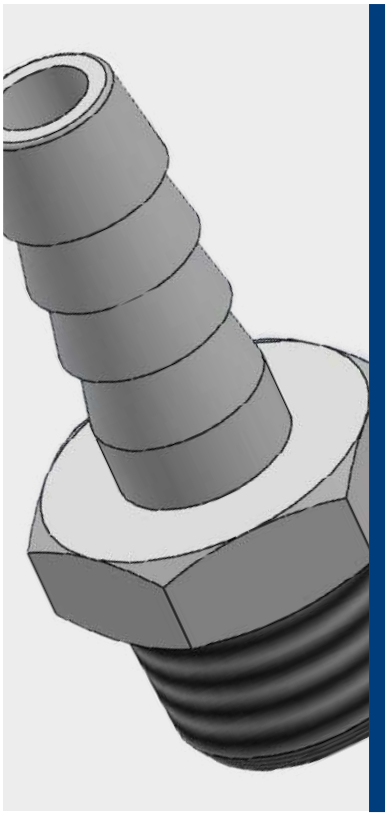
**SUITABLE FOR FOOD AND POTABLE WATER**

**DESIGN WITH A STRONG BODY FOR HEAVY DUTY APPLICATIONS**

**UTILIZE WITH STAINLESS STEEL CLAMPS TO EFFECTIVELY SECURE THE TUBE**



p. 244 / **1469**



-20°C ÷ +180°C
Subject to applications

**Working pressure:**
60 Bar
Depending on the tube used

Compressed air, potable water, oil and food fluids suitable with construction details

Taper gas BSPT ISO 7
from R1/8" to R3/4"

All plastic and rubber tubes compatible with the internal diameter, to be used only with suitable clamps

**Body:** Stailess steel AISI 316

Food contact materials
EC 1935/2004

D.M. 174/2004

Products in compliance with
EC Regulation 1907/2006

Products in compliance with
the directive EU 2015/863

## DIAMETER OF THE BARB

BARB CONNECTORS - STAINLESS STEEL AISI 316 - TAPER GAS BSPT ISO 7

| ØD (mm) | Ø6 | Ø8 | Ø9 | Ø10 | Ø14 | Ø20 |
|---|---|---|---|---|---|---|
| ØB (mm) | 7,2 | 9,2 | 10 | 11,2 | 15,2 | 21,0 |

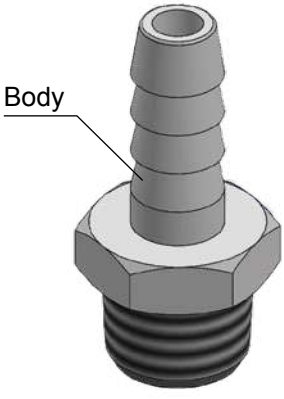



## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|
| Nm | 2,5 | 3,5 | 6 | 12 | - |

## CONSTRUCTION DETAILS

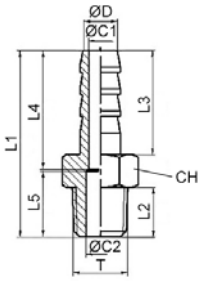



*drawings and technical data are not binding & can be changed without notice*

## 1469

Male barb connector BSPT thread






| CODE | T | ØD | L1 | L2 | L3 | L4 | L5 | ØC1 | ØC2 | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1469TR186 | R 1/8" | 6 | 34,0 | 9,0 | 19,0 | 21,7 | 12,0 | 4,0 | 5,0 | 12 | 13,0 |
| 1469TR148 | R 1/4" | 8 | 35,5 | 10,5 | 19,0 | 21,1 | 14,0 | 5,5 | 7,0 | 14 | 18,0 |
| 1469TR149 | R 1/4" | 9 | 35,5 | 10,5 | 19,5 | 21,7 | 14,0 | 5,5 | 7,1 | 14 | 21,0 |
| 1469TR3810 | R 3/8" | 10 | 41,5 | 11,5 | 23,0 | 25,9 | 15,0 | 8,0 | 10,0 | 17 | 26,0 |
| 1469TR1214 | R 1/2" | 14 | 51,0 | 15,0 | 28,0 | 32,4 | 18,0 | 11,0 | 13,0 | 22 | 54,0 |
| 1469TR3420 | R 3/4" | 20 | 65,0 | 18,0 | 37,0 | 40,8 | 23,0 | 14,0 | 18,0 | 27 | 119,0 |

*drawings and technical data are not binding & can be changed without notice*

# BARB CONNECTORS CLAMPS

## PLUS

- WIDE RANGE OF AVAILABLE MATERIALS
- MANY DIAMETERS AVAILABLE TO MEET DIFFERENT NEEDS
- EASY TO USE
- DESIGNED TO GUARANTEE A GREAT CLAMPING FORCE AND HIGH RESISTANCE TO BREAKAGE
- PROTECTION FOR THE FLEXIBLE TUBE THANKS TO THE INTERNAL SMOOTH SIDE OF THE BAND



p. 248 / **KC9**



p. 248 / **KCW9**



p. 249 / **KCX9**



p. 249 / **5090**

# TECHNICAL SPECIFICATIONS

## KC9

**TUBE DIAMETER:**
From Ø8 to Ø90

**CONSTRUCTION MATERIALS:**
**Housing & band:** Zinc-plated steel with Chromium VI-free galvanisation treatment (EU RoHS Directive)
**Screw:** Zinc-plated steel with Chromium VI-free galvanisation treatment (EU RoHS Directive)

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## KCW9

**TUBE DIAMETER:**
From Ø8 to Ø90

**CONSTRUCTION MATERIALS:**
**Housing & band:** Stainless steel AISI 304
**Screw:** Stainless steel AISI 304

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## KCX9

**TUBE DIAMETER:**
From Ø8 to Ø90

**CONSTRUCTION MATERIALS:**
**Housing & band:** Stainless steel AISI 316
**Screw:** Stainless steel AISI 316

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## 5090

**WORKING TEMPERATURE:**
+4°C ÷ +90°C

**TUBE DIAMETER:**
From Ø8 to Ø49

**CONSTRUCTION MATERIALS:**
**Body:** Acetal resin

**FEATURES:**
Acetal resin clamps are strong, durable and reusable

Products in compliance with EC Regulation 1907/2006

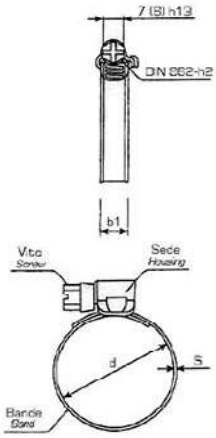
Products in compliance with the directive EU 2015/863

*drawings and technical data are not binding & can be changed without notice*

## KC9

Hose clamp DIN 3017, with band, housing and screw in zinc-plated steel



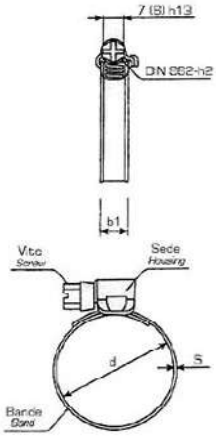



| CODE | Ø CAMP (mm) | BANDWIDTH (mm) | b1 SCREW (mm) | THICKNESS (mm) | TORQUE (Nm) |
|---|---|---|---|---|---|
| KC9-0812 | 8-12 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-1016 | 10-16 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-1220 | 12-20 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-1222 | 12-22 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-1625 | 16-25 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-1627 | 16-27 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-2032 | 20-32 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-2535 | 25-35 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-2540 | 25-40 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-3045 | 30-45 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-3250 | 32-50 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-4060 | 40-60 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-5070 | 50-70 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-6080 | 60-80 | 9,0 | 7,0 | 0,7 | 4,5 |
| KC9-7090 | 70-90 | 9,0 | 7,0 | 0,7 | 4,5 |

## KCW9

Hose clamp DIN 3017, with band, housing and screw in stainless steel AISI 304





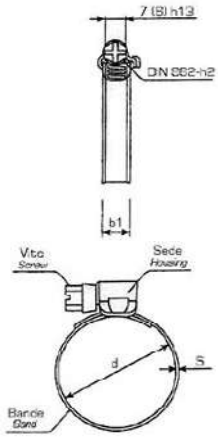

| CODE | Ø CAMP (mm) | BANDWIDTH (mm) | b1 SCREW (mm) | THICKNESS (mm) | TORQUE (Nm) |
|---|---|---|---|---|---|
| KCW9-0812 | 8-12 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-1016 | 10-16 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-1220 | 12-20 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-1222 | 12-22 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-1625 | 16-25 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-1627 | 16-27 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-2032 | 20-32 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-2535 | 25-35 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-2540 | 25-40 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-3045 | 30-45 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-3250 | 32-50 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-4060 | 40-60 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-5070 | 50-70 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-6080 | 60-80 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCW9-7090 | 70-90 | 9,0 | 7,0 | 0,7 | 4,5 |

*drawings and technical data are not binding & can be changed without notice*

## KCX9

Hose clamp DIN 3017, with band, housing and screw in stainless steel AISI 316



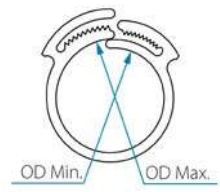



| CODE | Ø CAMP (mm) | BANDWIDTH (mm) | b1 SCREW (mm) | THICKNESS (mm) | TORQUE (Nm) |
|---|---|---|---|---|---|
| KCX9-0812 | 8-12 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-1016 | 10-16 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-1220 | 12-20 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-1222 | 12-22 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-1625 | 16-25 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-1627 | 16-27 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-2032 | 20-32 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-2535 | 25-35 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-2540 | 25-40 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-3045 | 30-45 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-3250 | 32-50 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-4060 | 40-60 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-5070 | 50-70 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-6080 | 60-80 | 9,0 | 7,0 | 0,7 | 4,5 |
| KCX9-7090 | 70-90 | 9,0 | 7,0 | 0,7 | 4,5 |

## 5090

Acetal resin hose clamp






| CODE | O.D. MIN | O.D. MAX |
|---|---|---|
| 5090TR810 | 8 | 10 |
| 5090TR1012 | 10 | 12 |
| 5090TR1113 | 11 | 13 |
| 5090TR1315 | 13 | 15 |
| 5090TR1416 | 14 | 16 |
| 5090TR1517 | 15 | 17 |
| 5090TR1618 | 16 | 18 |
| 5090TR1719 | 17 | 19 |
| 5090TR1820 | 18 | 20 |
| 5090TR2022 | 20 | 22 |
| 5090TR2123 | 21 | 23 |
| 5090TR2325 | 23 | 25 |
| 5090TR2628 | 26 | 28 |
| 5090TR4749 | 47 | 49 |

Hose clamps in 5090 acetal resin are the simple and fast solution for securing flexible hoses to any fittings.

How to use: insert snap clip onto the tube and give a manual pression to garantee a perfect adherence. Use a plier for final tightening.

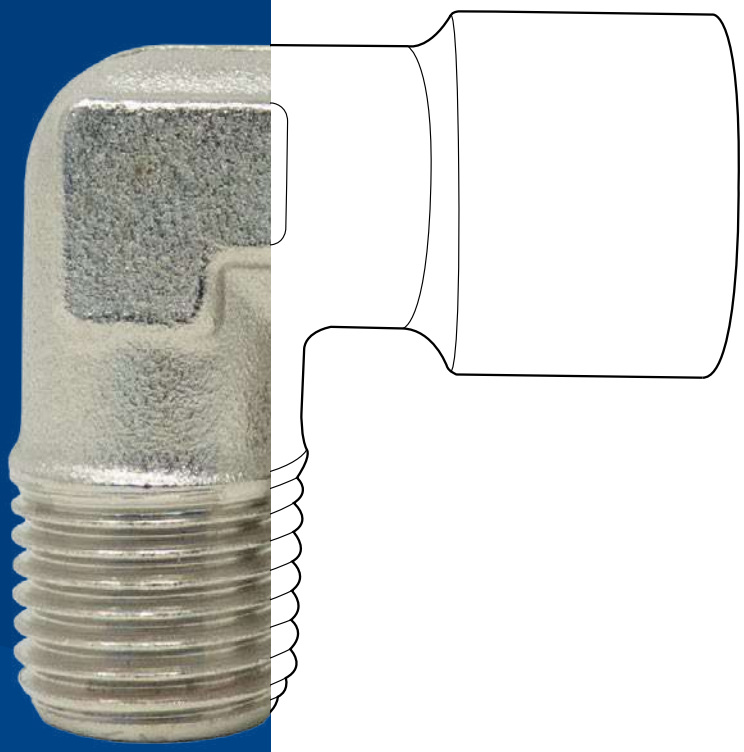
How to release: apply lateral pressure to unlock it. 5090 hose clamps are relisable.

TierreGroup®
Always a fittings solution

# Da sempre **unia**  **mo** alte prestazioni a rapidità di consegna.

**FOLLOW US!**

# STANDARD FITTINGS



# TECHNICAL INDEX



p. 253

**MICROCAST**

**Materials:** Stainless steel AISI 316
**Pressure:** 16 Bar
**Temperature:** from -20°C to 200°C
**Range:** R1/8" to R4"
G1/8" to G4"



p. 263

**BRASS**

**Materials:** Nickel-plated brass
**Pressure:** 60 Bar
**Temperature:** from -20°C to 100°C
from -15°C to 200°C
**Range:** R1/8" to R1"
M5 to G1"



p. 279

**BAYONED JOINT**

**Materials:** Nickel-plated brass
**Pressure:** 12 Bar
**Temperature:** from -18°C to 18°C
**Range:** G1/8" to G1/2"



p. 289

**NYLON**

**Materials:** Nylon 66
**Pressure:** 14 Bar
**Temperature:** from -20°C to 110°C
**Range:** R1/8" to R3/4"
N1/8" to N3/4"



p. 299

**PVDF**

**Materials:** PVDF
**Pressure:** 14 Bar
**Temperature:** from -20°C to 120°C
**Range:** R1/8" to R1"



p. 307

**STAINLESS STEEL AISI 316**

**Materials:** Stainless steel AISI 316
**Temperature:** from -20°C to 180°C
from -198°C to 648°C
**Range:** R1/8" to R1"
G1/8" to G1"
N1/8" to N1"

*disegni e dati tecnici non sono vincolanti e possono essere modificati senza preavviso*

# STANDARD FITTINGS MICROCAST

## PLUS

**STRONG BODY SUITABLE FOR INDUSTRIAL SYSTEMS**

**WIDE RANGE OF SIZES AND ARTICLES FOR MANY APPLICATIONS**

**GOOD RESISTANCE TO CORROSION**



p. 256 / **1410MF**



p. 256 / **1412MF**



p. 257 / **1416MF**



p. 257 / **1420MF-P3**



p. 257 / **1425MF-P3**



p. 258 / **1425MF**



p. 258 / **1426MF**



p. 259 / **1440MF**



p. 259 / **1450MF**



p. 260 / **1455MF**



p. 260 / **1469MF**



p. 260 / **1475MF**



p. 261 / **1480MF**



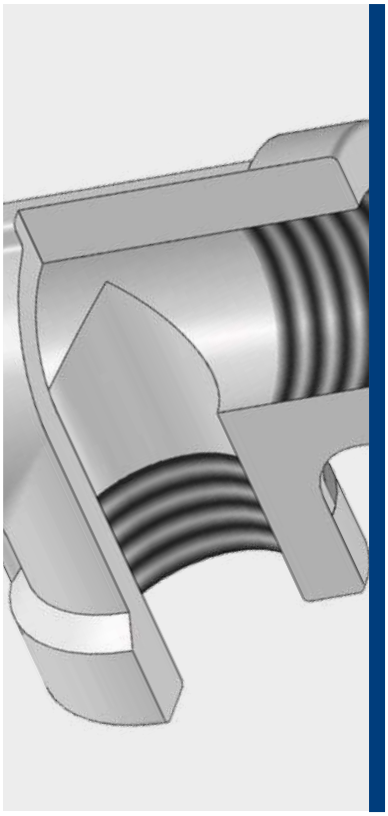
p. 261 / **1482MF**



p. 261 / **1485MF**



p. 262 / **1490MF**



-20°C ÷ +225°C

**Working pressure**
**Up to 120°C:**
From 1/8" to 2": 16 Bar
From 2-1/2" to 4": 10 Bar
**Up to 225°C:**
From 1/8" to 3/4": 16 Bar
From 1" to 2": 10 Bar
From 2-1/2" to 4": 6 Bar

- Taper gas BSPT EN10226-1 from R1/8" to R4"
- Parallel gas BSPP EN10226-1 from G1/8" to G4"

**Body:** Microcast in stainless steel AISI 316

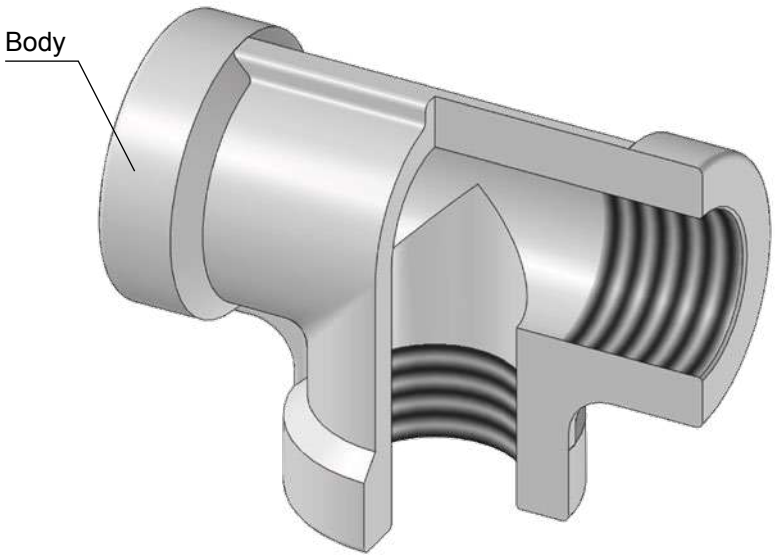
## FEATURES

Pressure for intermediate temperatures may be determinated by interpolation method. Indicated temperatures are reffering to the fluid.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

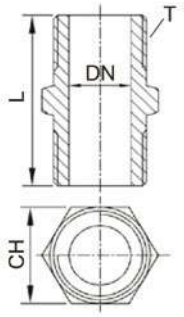
## CONSTRUCTION DETAILS



## 1410MF

Nipple connector BSPT thread



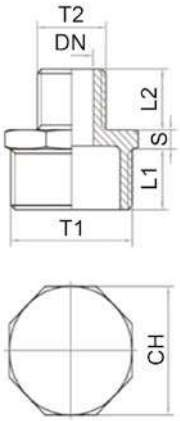



| CODE | T | DN | L | CH |
|---|---|---|---|---|
| 1410MF18 | R 1/8" | 5,6 | 23,0 | 12 |
| 1410MF14 | R 1/4" | 9,0 | 25,0 | 14,5 |
| 1410MF38 | R 3/8" | 11,2 | 28,5 | 17,5 |
| 1410MF12 | R 1/2" | 14,7 | 37,0 | 22,6 |
| 1410MF34 | R 3/4" | 20,0 | 41,0 | 27,7 |
| 1410MF1 | R 1" | 26,6 | 45,5 | 36 |
| 1410MF114 | R 1-1/4" | 35,0 | 50,0 | 43,5 |
| 1410MF112 | R 1-1/2" | 40,0 | 53,3 | 50 |
| 1410MF2 | R 2" | 50,0 | 61,0 | 63 |
| 1410MF212 | R 2-1/2" | 64,3 | 72,0 | 77,5 |
| 1410MF3 | R 3" | 77,3 | 77,0 | 91,5 |
| 1410MF4 | R 4" | 101,0 | 83,0 | 116 |

## 1412MF

Reduced nipple connector BSPT thread





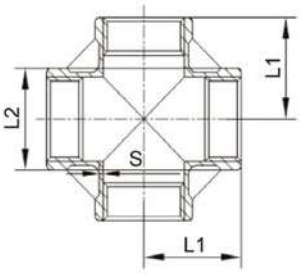

| CODE | T1 | T2 | DN | L1 | L2 | S | CH |
|---|---|---|---|---|---|---|---|
| 1412MF1418 | R 1/4" | R 1/8" | 5,6 | 12,1 | 9,3 | 5,7 | 15 |
| 1412MF3814 | R 3/8" | R 1/4" | 9 | 12,0 | 12,0 | 6,0 | 18,5 |
| 1412MF1218 | R 1/2" | R 1/8" | 5,6 | 14,5 | 8,8 | 5,5 | 22 |
| 1412MF1214 | R 1/2" | R 1/4" | 9 | 14,5 | 11,7 | 5,8 | 22 |
| 1412MF1238 | R 1/2" | R 3/8" | 11,2 | 14,6 | 12,3 | 5,5 | 22,5 |
| 1412MF3414 | R 3/4" | R 1/4" | 9 | 15,5 | 11,3 | 6,0 | 28 |
| 1412MF3412 | R 3/4" | R 1/2" | 14,7 | 17,0 | 14,5 | 6,3 | 28,4 |
| 1412MF112 | R 1" | R 1/2" | 14,7 | 19,0 | 15,0 | 6,3 | 34,5 |
| 1412MF134 | R 1" | R 3/4" | 20 | 18,3 | 16,6 | 7,0 | 35,2 |
| 1412MF11412 | R 1-1/4" | R 1/2" | 14,7 | 20,2 | 15,0 | 7,8 | 44,2 |
| 1412MF1141 | R 1-1/4" | R 1" | 26,6 | 20,5 | 18,3 | 7,8 | 44 |
| 1412MF1121 | R 1-1/2" | R 1" | 26,6 | 20,8 | 18,6 | 9,9 | 49,9 |
| 1412MF112114 | R 1-1/2" | R 1-1/4" | 35 | 20,8 | 20,3 | 9,9 | 50 |
| 1412MF21 | R 2" | R 1" | 26,6 | 26,0 | 18,6 | 9,4 | 62 |
| 1412MF2114 | R 2" | R 1-1/4" | 35 | 25,3 | 20,7 | 10,3 | 61,9 |
| 1412MF2112 | R 2" | R 1-1/2" | 40 | 26,0 | 21,5 | 10,3 | 62 |

*drawings and technical data are not binding & can be changed without notice*

## 1416MF

Female cross BSPP thread



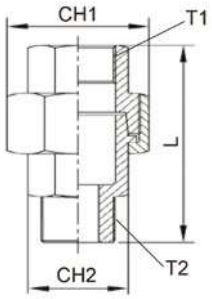



| CODE | T | L1 | L2 | S |
|---|---|---|---|---|
| 1416MF14 | G 1/4" | 18,0 | 16,5 | 2,3 |
| 1416MF38 | G 3/8" | 21,0 | 20,0 | 2,2 |
| 1416MF12 | G 1/2" | 25,0 | 26,0 | 1,7 |
| 1416MF34 | G 3/4" | 30,0 | 32,0 | 1,8 |
| 1416MF1 | G 1" | 34,0 | 39,0 | 2,1 |
| 1416MF114 | G 1-1/4" | 40,0 | 47,0 | 2,1 |
| 1416MF112 | G 1-1/2" | 44,0 | 54,5 | 2,1 |
| 1416MF2 | G 2" | 53,5 | 67,0 | 2,1 |

## 1420MF-P3

Nipple M/F 3 pieces, male BSPT thread and female BSPP thread



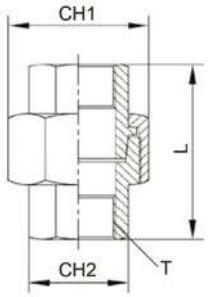



| CODE | T1 | T2 | L | CH1 | CH2 |
|---|---|---|---|---|---|
| 1420MF18P3 | G 1/8" | R 1/8" | 38,0 | 25 | 13 |
| 1420MF14P3 | G 1/4" | R 1/4" | 44,0 | 30,5 | 17 |
| 1420MF38P3 | G 3/8" | R 3/8" | 47,5 | 34 | 20,5 |
| 1420MF12P3 | G 1/2" | R 1/2" | 47,5 | 34,4 | 23,8 |
| 1420MF34P3 | G 3/4" | R 3/4" | 51,7 | 41,2 | 29,2 |
| 1420MF1P3 | G 1" | R 1" | 60,0 | 48,3 | 36,5 |
| 1420MF114P3 | G 1-1/4" | R 1-1/4" | 64,0 | 60,3 | 46 |
| 1420MF112P3 | G 1-1/2" | R 1-1/2" | 67,5 | 66,5 | 52 |
| 1420MF2P3 | G 2" | R 2" | 75,5 | 79 | 64 |
| 1420MF212P3 | G 2-1/2" | R 2-1/2" | 84,5 | 96,5 | 80 |
| 1420MF3P3 | G 3" | R 3" | 96,0 | 110 | 93,5 |
| 1420MF4P3 | G 4" | R 4" | 107,5 | 141 | 118,5 |

## 1425MF-P3

Nipple F/F 3 pieces BSPP thread





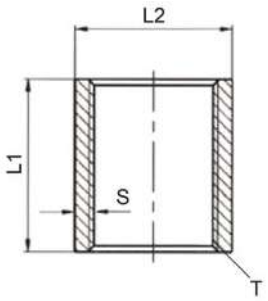

| CODE | T | L | CH1 | CH2 |
|---|---|---|---|---|
| 1425MF18P3 | G 1/8" | 30,0 | 25 | 13 |
| 1425MF14P3 | G 1/4" | 33,5 | 30,5 | 17 |
| 1425MF38P3 | G 3/8" | 36,5 | 34 | 20,5 |
| 1425MF12P3 | G 1/2" | 34,7 | 34,4 | 23,8 |
| 1425MF34P3 | G 3/4" | 37,5 | 41,2 | 29,2 |
| 1425MF1P3 | G 1" | 43,0 | 48,3 | 36,5 |
| 1425MF114P3 | G 1-1/4" | 45,5 | 60,3 | 46 |
| 1425MF112P3 | G 1-1/2" | 49,0 | 66,5 | 52 |
| 1425MF2P3 | G 2" | 57,0 | 79 | 64 |
| 1425MF212P3 | G 2-1/2" | 66,0 | 96,5 | 80 |
| 1425MF3P3 | G 3" | 74,0 | 110 | 93,5 |
| 1425MF4P3 | G 4" | 82,5 | 141 | 118,5 |

*drawings and technical data are not binding & can be changed without notice*

## 1425MF

Sleeve F/F BSPP thread



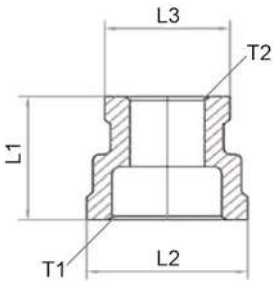



| CODE | T | L1 | L2 | S |
|---|---|---|---|---|
| 1425MF18 | G 1/8" | 18,0 | 14,0 | 2,8 |
| 1425MF14 | G 1/4" | 24,0 | 18,0 | 3,3 |
| 1425MF38 | G 3/8" | 29,0 | 20,5 | 2,9 |
| 1425MF12 | G 1/2" | 32,0 | 24,5 | 3,2 |
| 1425MF34 | G 3/4" | 34,0 | 30,0 | 3,1 |
| 1425MF1 | G 1" | 41,0 | 37,0 | 3,5 |
| 1425MF114 | G 1-1/4" | 47,0 | 46,5 | 3,9 |
| 1425MF112 | G 1-1/2" | 47,0 | 51,5 | 3,5 |
| 1425MF2 | G 2" | 61,0 | 67,0 | 5,3 |
| 1425MF212 | G 2-1/2" | 70,0 | 84,5 | 6,7 |
| 1425MF3 | G 3" | 75,0 | 96,0 | 6,2 |
| 1425MF4 | G 4" | 86,0 | 125,0 | 8,2 |

## 1426MF

Reduced sleeve F/F BSPP thread





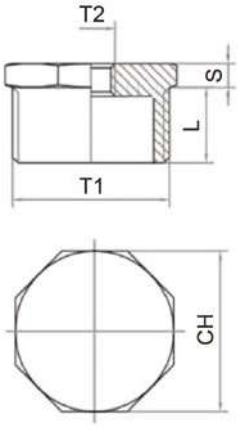

| CODE | T1 | T2 | L1 | L2 | L3 |
|---|---|---|---|---|---|
| 1426MF3814 | G 3/8" | G 1/4" | 28,1 | 22,0 | 17,5 |
| 1426MF1238 | G 1/2" | G 3/8" | 31,7 | 26,1 | 21,0 |
| 1426MF3412 | G 3/4" | G 1/2" | 36,6 | 32,1 | 27,0 |
| 1426MF134 | G 1" | G 3/4" | 40,0 | 39,5 | 32,0 |
| 1426MF1141 | G 1-1/4" | G 1" | 43,2 | 48,9 | 39,0 |
| 1426MF112114 | G 1-1/2" | G 1-1/4" | 46,0 | 55,3 | 48,5 |
| 1426MF2112 | G 2" | G 1-1/2" | 51,5 | 69,0 | 55,5 |

*drawings and technical data are not binding & can be changed without notice*

## 1440MF

M/F reducer, male BSPT thread & female BSPP thread



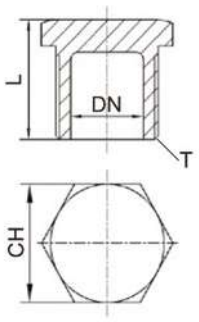



| CODE | T1 | T2 | L | S | CH |
|---|---|---|---|---|---|
| 1440MF1418 | R 1/4" | G 1/8" | 11,0 | 4,0 | 15 |
| 1440MF3818 | R 3/8" | G 1/8" | 11,5 | 3,5 | 17,5 |
| 1440MF3814 | R 3/8" | G 1/4" | 12,7 | 5,0 | 18,5 |
| 1440MF1218 | R 1/2" | G 1/8" | 15,2 | 4,8 | 22,5 |
| 1440MF1214 | R 1/2" | G 1/4" | 15,4 | 4,8 | 22,5 |
| 1440MF1238 | R 1/2" | G 3/8" | 15,1 | 4,8 | 22,5 |
| 1440MF3414 | R 3/4" | G 1/4" | 16,6 | 5,7 | 28 |
| 1440MF3438 | R 3/4" | G 3/8" | 16,7 | 5,8 | 28,3 |
| 1440MF3412 | R 3/4" | G 1/2" | 16,9 | 5,6 | 28,5 |
| 1440MF112 | R 1" | G 1/2" | 18,9 | 7,0 | 34,8 |
| 1440MF134 | R 1" | G 3/4" | 18,8 | 7,2 | 35 |
| 1440MF11412 | R 1-1/4" | G 1/2" | 20,5 | 8,5 | 44 |
| 1440MF11434 | R 1-1/4" | G 3/4" | 20,3 | 8,5 | 43,4 |
| 1440MF1141 | R 1-1/4" | G 1" | 20,6 | 8,4 | 43,9 |
| 1440MF11234 | R 1-1/2" | G 3/4" | 21,5 | 8,5 | 49 |
| 1440MF1121 | R 1-1/2" | G 1" | 21,6 | 8,4 | 49 |
| 1440MF112114 | R 1-1/2" | G 1-1/4" | 21,8 | 8,2 | 49 |
| 1440MF21 | R 2" | G 1" | 25,6 | 8,4 | 61,8 |
| 1440MF2114 | R 2" | G 1-1/4" | 25,5 | 8,5 | 62,5 |
| 1440MF2112 | R 2" | G 1-1/2" | 25,4 | 8,8 | 62,3 |
| 1440MF212112 | R 2-1/2" | G 1-1/2" | 28,1 | 10,7 | 78,3 |
| 1440MF2122 | R 2-1/2" | G 2" | 28,2 | 10,8 | 78 |
| 1440MF32 | R 3" | G 2" | 28,5 | 12,0 | 89,8 |
| 1440MF3212 | R 3" | G 2-1/2" | 30,2 | 11,8 | 92,5 |
| 1440MF43 | R 4" | G 3" | 34,8 | 13,0 | 115,8 |

## 1450MF

Male plug BSPT thread



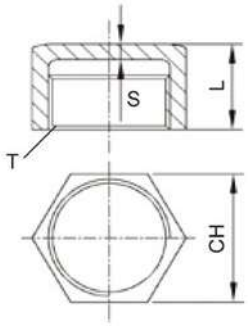



| CODE | T | DN | L | CH |
|---|---|---|---|---|
| 1450MF18 | R 1/8" | 0 | 14,0 | 12 |
| 1450MF14 | R 1/4" | 0 | 17,0 | 15 |
| 1450MF38 | R 3/8" | 0 | 17,8 | 18 |
| 1450MF12 | R 1/2" | 15,0 | 20,9 | 22 |
| 1450MF34 | R 3/4" | 21,0 | 25,0 | 28 |
| 1450MF1 | R 1" | 26,0 | 26,7 | 36 |
| 1450MF114 | R 1-1/4" | 35,0 | 30,5 | 43,6 |
| 1450MF112 | R 1-1/2" | 40,3 | 30,6 | 50 |
| 1450MF2 | R 2" | 51,6 | 34,3 | 62 |
| 1450MF212 | R 2-1/2" | 67,0 | 39,0 | 78 |
| 1450MF3 | R 3" | 78,5 | 42,0 | 92 |
| 1450MF4 | R 4" | 103,0 | 47,0 | 116 |

## 1455MF

Female plug BSPP thread





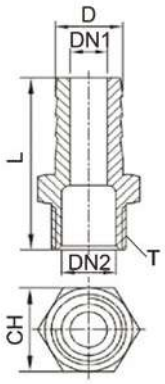

| | CODE | T | L | S | CH |
|---|---|---|---|---|---|
| | 1455MF18 | G 1/8" | 12,5 | 2,4 | 12,5 |
| | 1455MF14 | G 1/4" | 16,0 | 2,6 | 16 |
| | 1455MF38 | G 3/8" | 16,5 | 3,5 | 18,8 |
| | 1455MF12 | G 1/2" | 19,0 | 3,7 | 25 |
| * | 1455MF34 | G 3/4" | 24,0 | 2,5 | 31 |
| * | 1455MF1 | G 1" | 26,0 | 3,2 | 37,5 |
| * | 1455MF114 | G 1-1/4" | 29,0 | 3,3 | 47 |
| * | 1455MF112 | G 1-1/2" | 25,0 | 3,5 | 53 |
| * | 1455MF2 | G 2" | 29,5 | 3,5 | 64,5 |
| * | 1455MF212 | G 2-1/2" | 32,0 | 3,5 | 80,5 |
| * | 1455MF3 | G 3" | 38,5 | 3,5 | 93 |
| * | 1455MF4 | G 4" | 41,0 | 3,8 | 121 |

* Octagonal wrench

## 1469MF

Barb connector BSPT thread



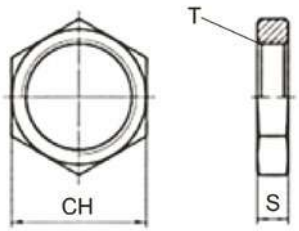



| CODE | T | D | DN1 | DN2 | L | CH |
|---|---|---|---|---|---|---|
| 1469MF18T7 | R 1/8" | 7,0 | 4,2 | 4,3 | 41,0 | 11,2 |
| 1469MF14T9 | R 1/4" | 9,0 | 5,0 | 8,0 | 48,0 | 15 |
| 1469MF38T11 | R 3/8" | 11,0 | 7,0 | 11,3 | 48,0 | 18,3 |
| 1469MF12T15 | R 1/2" | 15,0 | 10,0 | 15,4 | 52,6 | 22 |
| 1469MF34T20 | R 3/4" | 20,0 | 15,1 | 20,0 | 61,0 | 28 |
| 1469MF1T27 | R 1" | 26,0 | 20,4 | 26,2 | 66,0 | 36 |
| 1469MF114T34 | R 1-1/4" | 34,0 | 27,8 | 35,4 | 66,0 | 43,5 |
| 1469MF112T40 | R 1-1/2" | 40,5 | 33,8 | 40,2 | 68,5 | 50 |
| 1469MF2T52 | R 2" | 52,5 | 45,7 | 51,5 | 82,0 | 62 |
| 1469MF212T65 | R 2-1/2" | 63,5 | 55,0 | 64,2 | 96,5 | 77,5 |
| 1469MF3T77 | R 3" | 76,1 | 66,8 | 77,3 | 105,0 | 91,5 |
| 1469MF4T105 | R 4" | 100,0 | 90,6 | 102,2 | 115,0 | 115,5 |

## 1475MF

Bulkhead locking nut





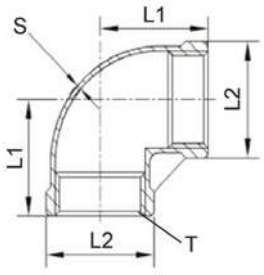

| CODE | T | S | CH |
|---|---|---|---|
| 1475MF18 | G 1/8" | 7,0 | 15 |
| 1475MF14 | G 1/4" | 6,0 | 19,2 |
| 1475MF38 | G 3/8" | 6,5 | 24 |
| 1475MF12 | G 1/2" | 8,0 | 26,5 |
| 1475MF34 | G 3/4" | 10,0 | 32 |
| 1475MF1 | G 1" | 10,0 | 38,5 |
| 1475MF114 | G 1-1/4" | 11,2 | 48 |
| 1475MF112 | G 1-1/2" | 12,0 | 55 |
| 1475MF2 | G 2" | 13,3 | 68 |

*drawings and technical data are not binding & can be changed without notice*

## 1480MF

Female elbow 90° BSPP thread



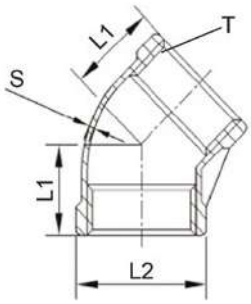



| CODE | T | L1 | L2 | S |
|---|---|---|---|---|
| 1480MF18 | G 1/8" | 16,0 | 14,0 | 1,6 |
| 1480MF14 | G 1/4" | 18,0 | 16,5 | 1,7 |
| 1480MF38 | G 3/8" | 21,0 | 20,0 | 1,5 |
| 1480MF12 | G 1/2" | 25,0 | 26,0 | 1,6 |
| 1480MF34 | G 3/4" | 30,0 | 32,0 | 1,7 |
| 1480MF1 | G 1" | 34,0 | 39,2 | 2,1 |
| 1480MF114 | G 1-1/4" | 40,0 | 47,2 | 2,2 |
| 1480MF112 | G 1-1/2" | 43,5 | 54,5 | 2,4 |
| 1480MF2 | G 2" | 53,5 | 67,0 | 2,7 |
| 1480MF212 | G 2-1/2" | 63,5 | 85,0 | 3,3 |
| 1480MF3 | G 3" | 74,0 | 97,5 | 2,8 |
| 1480MF4 | G 4" | 89,0 | 124,5 | 3,8 |

## 1482MF

Female elbow 45° BSPP thread



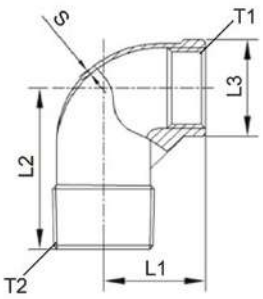



| CODE | T | L1 | L2 | S |
|---|---|---|---|---|
| 1482MF14 | G 1/4" | 16,0 | 17,5 | 2,0 |
| 1482MF38 | G 3/8" | 18,0 | 21,0 | 2,2 |
| 1482MF12 | G 1/2" | 20,0 | 26,0 | 1,8 |
| 1482MF34 | G 3/4" | 25,0 | 32,0 | 1,9 |
| 1482MF1 | G 1" | 27,0 | 39,0 | 2,0 |
| 1482MF114 | G 1-1/4" | 32,0 | 49,0 | 2,3 |
| 1482MF112 | G 1-1/2" | 33,0 | 55,2 | 2,3 |
| 1482MF2 | G 2" | 40,0 | 68,0 | 2,5 |

## 1485MF

Elbow 90°, male BSPT thread & female BSPP thread





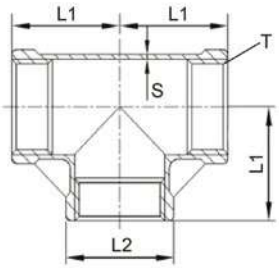

| CODE | T1 | T2 | L1 | L2 | L3 | S |
|---|---|---|---|---|---|---|
| 1485MF18 | G 1/8" | R 1/8" | 18,0 | 26,0 | 16,0 | 2,8 |
| 1485MF14 | G 1/4" | R 1/4" | 20,0 | 30,0 | 17,0 | 2,0 |
| 1485MF38 | G 3/8" | R 3/8" | 21,0 | 31,0 | 20,0 | 2,2 |
| 1485MF12 | G 1/2" | R 1/2" | 22,0 | 31,0 | 26,0 | 2,2 |
| 1485MF34 | G 3/4" | R 3/4" | 27,0 | 37,0 | 32,0 | 2,1 |
| 1485MF1 | G 1" | R 1" | 33,0 | 46,0 | 39,0 | 2,2 |
| 1485MF114 | G 1-1/4" | R 1-1/4" | 38,0 | 52,0 | 47,0 | 2,5 |
| 1485MF112 | G 1-1/2" | R 1-1/2" | 42,0 | 58,0 | 54,5 | 2,6 |
| 1485MF2 | G 2" | R 2" | 51,0 | 67,0 | 67,5 | 2,6 |
| 1485MF212 | G 2-1/2" | R 2-1/2" | 64,0 | 81,0 | 84,0 | 3,3 |
| 1485MF3 | G 3" | R 3" | 74,0 | 92,0 | 96,8 | 3,0 |
| 1485MF4 | G 4" | R 4" | 89,0 | 108,0 | 124,0 | 4,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1490MF

Female tee BSPP thread






| CODE | T | L1 | L2 | S |
|---|---|---|---|---|
| 1490MF18 | G 1/8" | 16,0 | 14,0 | 1,9 |
| 1490MF14 | G 1/4" | 19,0 | 17,0 | 1,5 |
| 1490MF38 | G 3/8" | 21,0 | 20,0 | 2,3 |
| 1490MF12 | G 1/2" | 25,0 | 26,0 | 1,8 |
| 1490MF34 | G 3/4" | 30,0 | 32,0 | 1,9 |
| 1490MF1 | G 1" | 34,0 | 39,2 | 2,1 |
| 1490MF114 | G 1-1/4" | 40,0 | 42,0 | 2,3 |
| 1490MF112 | G 1-1/2" | 44,0 | 54,0 | 2,4 |
| 1490MF2 | G 2" | 53,5 | 67,5 | 2,5 |
| 1490MF212 | G 2-1/2" | 64,0 | 84,0 | 3,3 |
| 1490MF3 | G 3" | 73,0 | 97,0 | 3,3 |
| 1490MF4 | G 4" | 93,5 | 125,6 | 4,6 |

*drawings and technical data are not binding & can be changed without notice*

# STANDARD FITTINGS BRASS

## PLUS

**BODY THAT GUARANTEES A GOOD MECHANICAL RESISTANCE**

**SUITABLE FOR DIFFERENT NEEDS IN PNEUMATIC AND INDUSTRIAL SECTORS**

**WIDE RANGE OF THREADS AND CONFIGURATIONS AVAILABLE**


p. 266 / **1105**


p. 266 / **1106**


p. 266 / **1107**


p. 266 / **1108**


p. 267 / **1110**


p. 267 / **1112**


p. 267 / **1113**


p. 268 / **1115**


p. 268 / **1116**


p. 268 / **1118**


p. 269 / **1120**


p. 269 / **1122**


p. 269 / **1125**


p. 270 / **1126**


p. 270 / **1130**


p. 270 / **1135**


p. 271 / **1136**


p. 271 / **1140**


p. 271 / **1145**


p. 272 / **1148**


p. 272 / **1149**


p. 272 / **1150**


p. 272 / **1152**


p. 273 / **1155**


p. 273 / **1160**


p. 273 / **1161**


p. 273 / **1175**


p. 274 / **1176**


p. 274 / **1200**


p. 274 / **1205**


p. 274 / **1210**


p. 275 / **1215**


p. 275 / **1216**


p. 275 / **1218**


p. 275 / **1220**


p. 276 / **1225**


p. 276 / **1230**


p. 276 / **1235**


p. 276 / **1240**


p. 277 / **1245**


p. 277 / **1300**

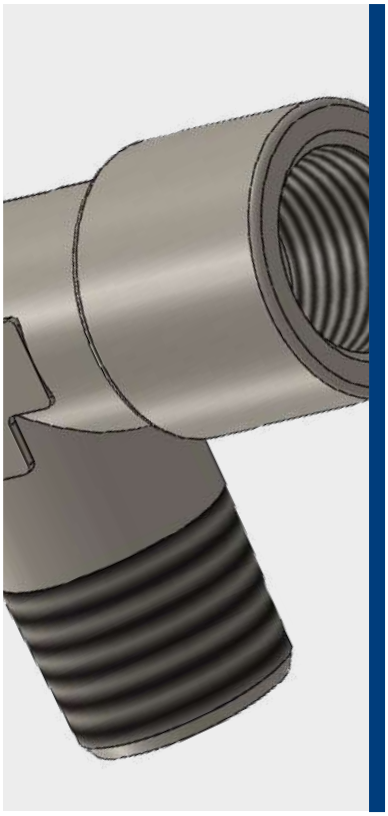

p. 277 / **1310**


p. 277 / **1320**


p. 278 / **1322**


p. 278 / **1600**


p. 278 / **1110-3PCS**



-20°C ÷ 100°C with NBR o-ring
-15°C ÷ 200°C with Viton o-ring
The working temperature is determined by the properties of the tube used

**Working pressure:**
60 Bar
20 Bar (1110-3PCS)

Compressed air, water, oil and fluids suitable with construction materials

- Taper gas BSPT ISO 7
  from R1/8" to R1"
- Parallel gas BSPP ISO 228
  from G1/8" to G1"
- Metric ISO 262
  M5

**Body:** Nickel-plated brass
- Turning: UNI EN 12164 CW614N
- Hot forging & machining:
  UNI EN 12165 CW617N
- 1322 & 1110-3PCS: Yellow brass
  UNI EN 12165 CW614N

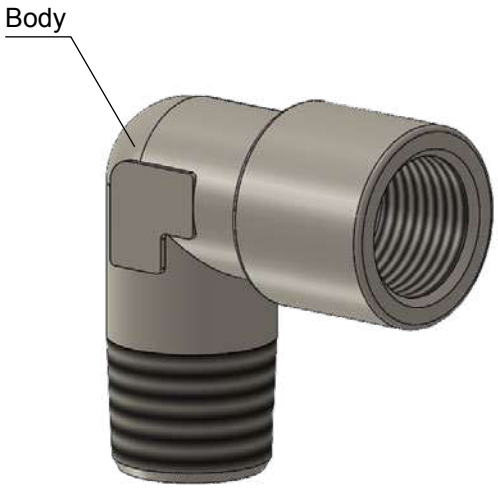
**O-ring:** NBR or Viton

**AVAILABILITY:**
- Available on request and with minimum quantity in yellow brass
- Available on request with NBR or Viton o-ring

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




**TIGHTENING TORQUE**
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 8 | 12 | 14 | 16 | 18 | 20 |

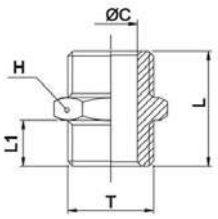
**TIGHTENING TORQUE**
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|---|
| Nm | 0,8 | 1,2 | 1,5 | 2,5 | 3,5 | 4,5 | 5,5 |

*drawings and technical data are not binding & can be changed without notice*

## 1105 Nipple BSPP & metric thread

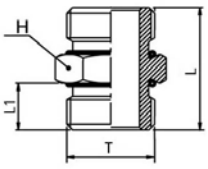





| CODE | T | ØC | L | L1 | H | g |
|---|---|---|---|---|---|---|
| 1105TRM5 | M5x0,8 | 2,5 | 11,0 | 4 | 8 | 2,0 |
| 1105TR18 | G 1/8" | 6,0 | 18,5 | 7 | 14 | 9,0 |
| 1105TR14 | G 1/4" | 8,5 | 21,0 | 8 | 17 | 15,0 |
| 1105TR38 | G 3/8" | 11,5 | 23,0 | 9 | 19 | 21,0 |
| 1105TR12 | G 1/2" | 15,0 | 25,0 | 10 | 24 | 34,0 |
| 1105TR34 | G 3/4" | 20,0 | 27,5 | 11 | 30 | 53,0 |
| 1105TR1 | G 1" | 26,0 | 32,0 | 13 | 36 | 84,0 |

## 1106 Nipple BSPP thread with NBR O-ring

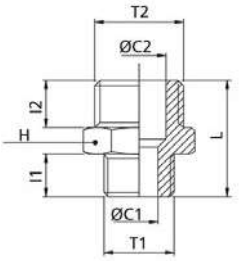





| CODE | T | L | L1 | H | g |
|---|---|---|---|---|---|
| 1106TR18 | G 1/8" | 14 | 6,5 | 17,5 | 8,0 |
| 1106TR14 | G 1/4" | 17 | 8 | 21 | 16,0 |
| 1106TR38 | G 3/8" | 20 | 9 | 23 | 24,0 |
| 1106TR12 | G 1/2" | 24 | 10 | 26 | 38,0 |

## 1107 Reduced nipple BSPP & metric thread

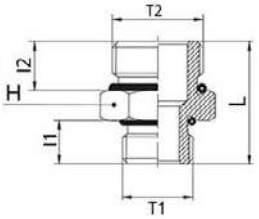





| CODE | T1 | T2 | ØC1 | ØC2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1107TRM518 | M5x0,8 | G 1/8" | 2,5 | 6,0 | 5,0 | 6,5 | 15,5 | 14 | 7,0 |
| 1107TR1814 | G 1/8" | G 1/4" | 5,5 | 8,5 | 6,5 | 8,0 | 19,0 | 17 | 14,0 |
| 1107TR1838 | G 1/8" | G 3/8" | 5,5 | 11,5 | 6,5 | 9,0 | 20,5 | 19 | 19,0 |
| 1107TR1438 | G 1/4" | G 3/8" | 8,5 | 11,5 | 8,0 | 9,0 | 22,0 | 19 | 19,0 |
| 1107TR1412 | G 1/4" | G 1/2" | 8,0 | 15,0 | 9,0 | 10,0 | 24,5 | 24 | 35,0 |
| 1107TR3812 | G 3/8" | G 1/2" | 11,0 | 15,0 | 9,0 | 10,0 | 24,5 | 24 | 36,0 |
| 1107TR3834 | G 3/8" | G 3/4" | 11,0 | 20,0 | 10,0 | 11,0 | 26,5 | 30 | 52,0 |
| 1107TR1234 | G 1/2" | G 3/4" | 15,0 | 20,0 | 11,0 | 11,0 | 27,5 | 30 | 52,0 |
| 1107TR341 | G 3/4" | G 1" | 20,0 | 25,5 | 11,0 | 13,0 | 30,0 | 36 | 71,0 |

## 1108 Reduced nipple BSPP thread with NBR O-ring



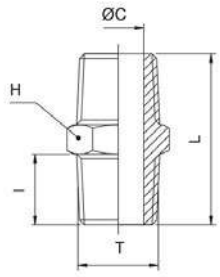



| CODE | T1 | T2 | L | I1 | I2 | H | g |
|---|---|---|---|---|---|---|---|
| 1108TR1814 | G 1/8" | G 1/4" | 19,5 | 6,5 | 8 | 17 | 14,0 |
| 1108TR1838 | G 1/8" | G 3/8" | 21 | 6,5 | 9 | 20 | 22,0 |
| 1108TR1438 | G 1/4" | G 3/8" | 22 | 8 | 9 | 20 | 24,0 |
| 1108TR1412 | G 1/4" | G 1/2" | 24 | 8 | 10 | 24 | 34,0 |
| 1108TR3812 | G 3/8" | G 1/2" | 25 | 9 | 10 | 24 | 34,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1110 Nipple BSPT thread

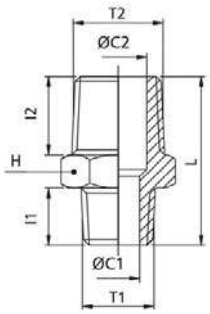





| CODE | T | ØC | I | L | H | g |
|---|---|---|---|---|---|---|
| 1110TR18 | R 1/8" | 6,0 | 7,5 | 19,0 | 12 | 7,0 |
| 1110TR14 | R 1/4" | 7,5 | 11,0 | 26,5 | 14 | 16,0 |
| 1110TR38 | R 3/8" | 11,5 | 11,0 | 27,0 | 17 | 23,0 |
| 1110TR12 | R 1/2" | 15,0 | 12,5 | 30,5 | 22 | 79,0 |
| 1110TR34 | R 3/4" | 20,0 | 14,0 | 34,5 | 27 | 61,0 |
| 1110TR1 | R 1" | 26,0 | 15,5 | 37,0 | 34 | 92,0 |

## 1112 Reduced nipple BSPT thread

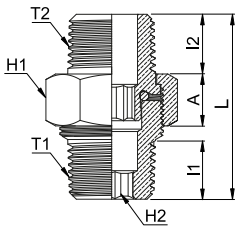





| CODE | T1 | T2 | ØC1 | ØC2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1112TR1814 | R 1/8" | R 1/4" | 5,5 | 8,5 | 7,5 | 11,0 | 23,0 | 14 | 12,0 |
| 1112TR1838 | R 1/8" | R 3/8" | 5,5 | 11,5 | 7,5 | 11,0 | 23,5 | 17 | 19,0 |
| 1112TR1438 | R 1/4" | R 3/8" | 8,5 | 11,5 | 10,5 | 11,0 | 26,5 | 17 | 21,0 |
| 1112TR1412 | R 1/4" | R 1/2" | 8,0 | 15,0 | 10,5 | 12,5 | 28,5 | 22 | 32,0 |
| 1112TR3812 | R 3/8" | R 1/2" | 11,0 | 15,0 | 10,5 | 12,5 | 28,5 | 22 | 35,0 |
| 1112TR1234 | R 1/2" | R 3/4" | 15,0 | 20,0 | 12,5 | 14,0 | 32,5 | 27 | 58,0 |
| 1112TR341 | R 3/4" | R 1" | 20,0 | 25,5 | 13,0 | 15,5 | 35,5 | 34 | 91,0 |

## 1113 Swivel male nipple 3 pieces BSPT thread

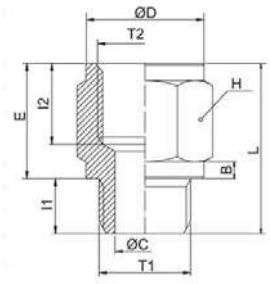





| CODE | T1 | T2 | L | I1 | I2 | A | H1 | H2 |
|---|---|---|---|---|---|---|---|---|
| 1113TR1818 | R 1/8" | R 1/8" | 28,5 | 9,0 | 9,0 | 9 | 15 | 4 |
| 1113TR1414 | R 1/4" | R 1/4" | 34,0 | 11,0 | 11,0 | 10 | 19 | 5 |
| 1113TR3838 | R 3/8" | R 3/8" | 35,5 | 11,5 | 11,5 | 10 | 22 | 8 |
| 1113TR1212 | R 1/2" | R 1/2" | 41,0 | 14,0 | 14,0 | 11 | 27 | 10 |

## 1115 Enlarger M/F BSPP & metric thread

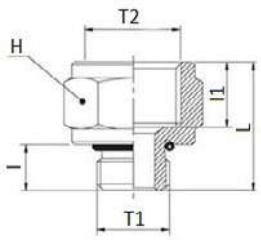





| CODE | T1 | T2 | B | ØC | ØD | I1 | I2 | E | L | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1115TRM5 | M5x0,8 | M5x0,8 | 1,5 | 2,5 | 7,5 | 4,5 | 5,0 | 6,5 | 11,0 | 8 | 3,0 |
| 1115TRM518 | M5x0,8 | G 1/8" | 2,0 | 2,2 | 13,5 | 5,0 | 7,0 | 11,0 | 16,0 | 14 | 10,0 |
| 1115TRM618 | M6x1 | G 1/8" | 2,0 | 2,7 | 13,5 | 6,0 | 7,0 | 11,0 | 17,0 | 14 | 10,0 |
| 1115TR18 | G 1/8" | G 1/8" | 2,0 | 5,5 | 13,5 | 6,5 | 8,0 | 11,0 | 17,5 | 14 | 11,0 |
| 1115TR1814 | G 1/8" | G 1/4" | 2,0 | 5,5 | 16,5 | 6,5 | 10,5 | 13,5 | 20,0 | 17 | 18,0 |
| 1115TR1838 | G 1/8" | G 3/8" | 2,5 | 5,5 | 21,5 | 6,5 | 10,5 | 14,0 | 20,5 | 22 | 33,0 |
| 1115TR14 | G 1/4" | G 1/4" | 2,0 | 8,5 | 16,5 | 8,0 | 10,5 | 13,5 | 21,5 | 17 | 19,0 |
| 1115TR1438 | G 1/4" | G 3/8" | 2,5 | 8,0 | 21,5 | 9,0 | 10,5 | 14,0 | 23,0 | 22 | 32,0 |
| 1115TR1412 | G 1/4" | G 1/2" | 3,0 | 8,0 | 26,5 | 9,0 | 12,5 | 17,0 | 26,0 | 27 | 51,0 |
| 1115TR38 | G 3/8" | G 3/8" | 2,5 | 11,0 | 21,5 | 9,0 | 10,5 | 14,0 | 23,0 | 22 | 32,0 |
| 1115TR3812 | G 3/8" | G 1/2" | 3,0 | 11,0 | 26,5 | 9,0 | 12,5 | 17,0 | 26,0 | 27 | 54,0 |
| 1115TR3834 | G 3/8" | G 3/4" | 3,0 | 11,0 | 31,5 | 9,0 | 12,5 | 17,0 | 26,0 | 32 | 66,0 |
| 1115TR12 | G 1/2" | G 1/2" | 3,0 | 15,0 | 26,5 | 10,5 | 12,5 | 16,0 | 26,5 | 27 | 56,0 |
| 1115TR1234 | G 1/2" | G 3/4" | 3,0 | 15,0 | 31,5 | 10,5 | 12,5 | 17,0 | 27,5 | 32 | 71,0 |
| 1115TR121 | G 1/2" | G 1" | 3,0 | 15,0 | 37,5 | 11,0 | 12,5 | 18,0 | 29,0 | 38 | 93,0 |
| 1115TR34 | G 3/4" | G 3/4" | 3,0 | 20,0 | 31,5 | 10,5 | 12,5 | 17,0 | 27,5 | 32 | 69,0 |
| 1115TR341 | G 3/4" | G 1" | 3,0 | 20,0 | 37,5 | 11,0 | 12,5 | 18,0 | 29,0 | 38 | 93,0 |
| 1115TR1 | G 1" | G 1" | 3,0 | 26,0 | 37,5 | 13,0 | 12,5 | 18,0 | 31,0 | 38 | 96,0 |

## 1116 Enlarger M/F BSPP thread with NBR O-ring






| CODE | T1 | T2 | L | I | I1 | H | g |
|---|---|---|---|---|---|---|---|
| 1116TR18 | G 1/8" | G 1/8" | 17,0 | 6,5 | 8,5 | 17 | 12,3 |
| 1116TR1814 | G 1/8" | G 1/4" | 20,0 | 6,5 | 11 | 20 | 13,0 |
| 1116TR1838 | G 1/8" | G 3/8" | 21,0 | 6,5 | 11,5 | 21 | 31,0 |
| 1116TR14 | G 1/4" | G 1/4" | 21,5 | 8 | 11 | 21,5 | 18,0 |
| 1116TR1438 | G 1/4" | G 3/8" | 22,5 | 8 | 11,5 | 22,5 | 32,0 |
| 1116TR1412 | G 1/4" | G 1/2" | 26,0 | 9 | 14 | 26 | 36,0 |
| 1116TR38 | G 3/8" | G 3/8" | 23,5 | 9 | 11,5 | 23,5 | 32,0 |
| 1116TR3812 | G 3/8" | G 1/2" | 27,0 | 9 | 14 | 27 | 38,0 |

## 1118 Swivel nipple M/F BSPP thread with NBR O-ring



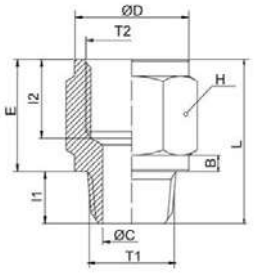



| CODE | T1 | T2 | I1 | I2 | L | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| 1118TR18 | G 1/8" | G 1/8" | 6,5 | 8 | 27,0 | 13 | 13 | 2,0 |
| 1118TR14 | G 1/4" | G 1/4" | 8 | 11 | 32,0 | 16 | 16 | 32,0 |
| 1118TR38 | G 3/8" | G 3/8" | 9 | 11,5 | 33,5 | 19 | 19 | 44,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1120 Enlarger M/F, male BSPT thread & female BSPP thread

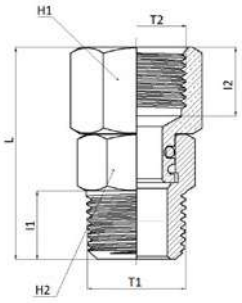





| CODE | T1 | T2 | B | ØC | ØD | I1 | I2 | E | L | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1120TR18 | R 1/8" | G 1/8" | 2,0 | 5,5 | 13,5 | 7,5 | 8 | 11,0 | 18,5 | 14 | 12,0 |
| 1120TR1814 | R 1/8" | G 1/4" | 2,0 | 5,5 | 16,5 | 7,5 | 10,5 | 13,5 | 21,0 | 17 | 18,0 |
| 1120TR1838 | R 1/8" | G 3/8" | 2,5 | 5,5 | 21,5 | 7,5 | 10,5 | 14,0 | 21,5 | 22 | 31,0 |
| 1120TR14 | R 1/4" | G 1/4" | 2,0 | 8,5 | 16,5 | 10,5 | 10,5 | 13,5 | 24,0 | 17 | 18,0 |
| 1120TR1438 | R 1/4" | G 3/8" | 2,5 | 8,0 | 21,5 | 10,5 | 10,5 | 14,0 | 24,5 | 22 | 32,0 |
| 1120TR1412 | R 1/4" | G 1/2" | 3,0 | 8,0 | 26,5 | 10,5 | 12,5 | 17,0 | 27,5 | 27 | 52,0 |
| 1120TR38 | R 3/8" | G 3/8" | 2,5 | 11,0 | 21,5 | 10,5 | 10,5 | 14,0 | 24,5 | 22 | 37,0 |
| 1120TR3812 | R 3/8" | G 1/2" | 3,0 | 11,0 | 26,5 | 10,5 | 12,5 | 17,0 | 27,5 | 27 | 55,0 |
| 1120TR3834 | R 3/8" | G 3/4" | 3,0 | 11,0 | 31,5 | 11,0 | 12,5 | 17,0 | 28,0 | 32 | 74,0 |
| 1120TR12 | R 1/2" | G 1/2" | 3,0 | 15,0 | 26,5 | 12,5 | 12,5 | 16,0 | 28,5 | 27 | 54,0 |
| 1120TR1234 | R 1/2" | G 3/4" | 3,0 | 15,0 | 31,5 | 12,5 | 12,5 | 17,0 | 29,5 | 32 | 70,0 |
| 1120TR121 | R 1/2" | G 1" | 3,0 | 15,0 | 37,5 | 13,0 | 12,5 | 18,0 | 31,0 | 38 | 91,0 |
| 1120TR34 | R 3/4" | G 3/4" | 3,0 | 20,0 | 31,5 | 13,0 | 12,5 | 17,0 | 30,0 | 32 | 74,0 |
| 1120TR341 | R 3/4" | G 1" | 3,0 | 20,0 | 37,5 | 13,0 | 12,5 | 18,0 | 31,0 | 38 | 97,0 |
| 1120TR1 | R 1" | G 1" | 3,0 | 26,0 | 37,5 | 15,5 | 12,5 | 18,0 | 33,5 | 38 | 100,0 |

## 1122 Swivel enlarger M/F, male BSPT thread & female BSPP thread

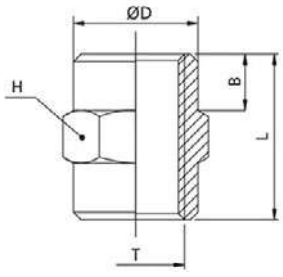





| CODE | T1 | T2 | I1 | I2 | L | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| 1122TR18 | R 1/8" | R 1/8" | 8 | 8 | 28 | 12 | 13 | 2,0 |
| 1122TR14 | R 1/4" | R 1/4" | 11 | 11 | 34 | 14 | 16 | 3,0 |
| 1122TR1838 | R 1/8" | R 3/8" | 11,5 | 11,5 | 35,5 | 17 | 19 | 42,0 |

## 1125 Female sleeve BSPP & metric thread

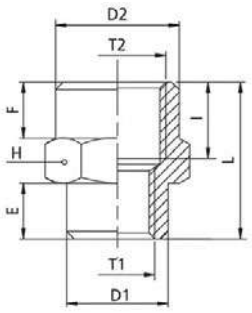





| CODE | T | ØD | B | L | H | g |
|---|---|---|---|---|---|---|
| 1125TRM5 | M5x0,8 | 7,5 | 3,5 | 11,0 | 8 | 3,0 |
| 1125TR18 | G 1/8" | 13,5 | 5,0 | 15,0 | 14 | 10,0 |
| 1125TR14 | G 1/4" | 16,5 | 8,0 | 22,0 | 17 | 18,0 |
| 1125TR38 | G 3/8" | 21,5 | 8,5 | 24,0 | 22 | 37,0 |
| 1125TR12 | G 1/2" | 26,5 | 10,0 | 29,0 | 27 | 62,0 |
| 1125TR34 | G 3/4" | 31,5 | 10,0 | 29,0 | 32 | 70,0 |
| 1125TR1 | G 1" | 37,5 | 11,0 | 31,0 | 38 | 89,0 |

## 1126 Reduced female sleeve BSPP & metric thread

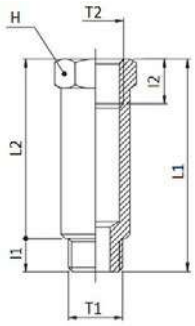





| CODE | T1 | T2 | ØD1 | ØD2 | I | E | F | L | H | g |
|---|---|---|---|---|---|---|---|---|---|---|
| 1126TRM518 | M5x0,8 | G 1/8" | 8,0 | 13,5 | 7,0 | 3,5 | 4,5 | 12,5 | 14 | 9,0 |
| 1126TR1814 | G 1/8" | G 1/4" | 13,0 | 16,5 | 11,0 | 6,0 | 8,0 | 20,0 | 17 | 18,0 |
| 1126TR1838 | G 1/8" | G 3/8" | 14,0 | 21,5 | 11,0 | 6,0 | 8,0 | 20,0 | 22 | 28,0 |
| 1126TR1438 | G 1/4" | G 3/8" | 17,0 | 21,5 | 11,0 | 7,0 | 8,0 | 21,0 | 22 | 30,0 |
| 1126TR1412 | G 1/4" | G 1/2" | 17,0 | 26,5 | 13,0 | 8,0 | 9,0 | 24,0 | 27 | 46,0 |
| 1126TR3812 | G 3/8" | G 1/2" | 21,5 | 26,5 | 13,0 | 8,0 | 9,0 | 24,0 | 27 | 48,0 |
| 1126TR3834 | G 3/8" | G 3/4" | 21,0 | 31,5 | 13,5 | 8,0 | 10,0 | 25,0 | 32 | 64,0 |
| 1126TR1234 | G 1/2" | G 3/4" | 26,0 | 31,5 | 13,5 | 8,0 | 10,0 | 25,0 | 32 | 65,0 |
| 1126TR121 | G 1/2" | G 1" | 26,0 | 37,0 | 14,0 | 8,0 | 10,0 | 25,0 | 38 | 84,0 |
| 1126TR341 | G 3/4" | G 1" | 32,0 | 37,0 | 14,0 | 8,0 | 10,0 | 25,0 | 38 | 83,0 |

## 1130 Extension M/F BSPP thread

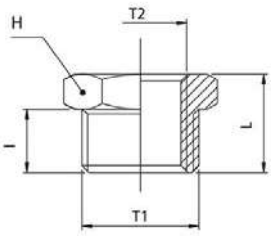





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1130TR181422 | G 1/8" | G 1/8" | 6 | 8,0 | 22 | 16 | 14 | 14,0 |
| 1130TR181442 | G 1/8" | G 1/8" | 6 | 8,0 | 42 | 36 | 14 | 30,0 |
| 1130TR181451 | G 1/8" | G 1/8" | 6 | 8,0 | 51 | 45 | 14 | 36,0 |
| 1130TR141735 | G 1/4" | G 1/4" | 8 | 11,0 | 35 | 27 | 17 | 32,0 |
| 1130TR141751 | G 1/4" | G 1/4" | 8 | 11,0 | 51 | 43 | 17 | 46,0 |

## 1135 Reduced M/F BSPP & metric thread



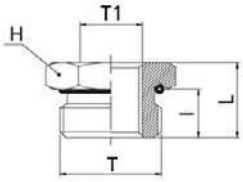



| CODE | T1 | T2 | I | L | H | g |
|---|---|---|---|---|---|---|
| 1135TRM518 | G 1/8" | M5x0,8 | 6,5 | 10,5 | 14 | 7,0 |
| 1135TR1418 | G 1/4" | G 1/8" | 8,0 | 12,5 | 17 | 10,0 |
| 1135TR3818 | G 3/8" | G 1/8" | 9,0 | 14,0 | 19 | 18,0 |
| 1135TR3814 | G 3/8" | G 1/4" | 9,0 | 14,0 | 19 | 13,0 |
| 1135TR1218 | G 1/2" | G 1/8" | 10,0 | 15,0 | 24 | 39,0 |
| 1135TR1214 | G 1/2" | G 1/4" | 10,0 | 15,0 | 24 | 32,0 |
| 1135TR1238 | G 1/2" | G 3/8" | 10,0 | 15,0 | 24 | 21,0 |
| 1135TR3414 | G 3/4" | G 1/4" | 11,0 | 16,5 | 30 | 64,0 |
| 1135TR3438 | G 3/4" | G 3/8" | 11,0 | 16,5 | 30 | 52,0 |
| 1135TR3412 | G 3/4" | G 1/2" | 11,0 | 16,5 | 30 | 36,0 |
| 1135TR138 | G 1" | G 3/8" | 13,5 | 19,5 | 36 | 110,0 |
| 1135TR112 | G 1" | G 1/2" | 13,0 | 19,0 | 36 | 90,0 |
| 1135TR134 | G 1" | G 3/4" | 13,0 | 19,0 | 36 | 59,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1136 Reduced M/F BSPP & metric thread with NBR O-ring

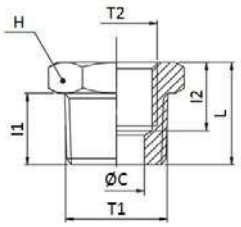





| CODE | T | T1 | I | L | H | g |
|---|---|---|---|---|---|---|
| 1136TR18M5 | G 1/8" | M5x0,8 | 6,5 | 11 | 14 | 8,0 |
| 1136TR1418 | G 1/4" | G 1/8" | 8 | 13 | 17 | 10,0 |
| 1136TR3818 | G 3/8" | G 1/8" | 9 | 14 | 20 | 12,0 |
| 1136TR3814 | G 3/8" | G 1/4" | 9 | 14 | 20 | 14,0 |
| 1136TR1218 | G 1/2" | G 1/8" | 10 | 15,5 | 24 | 38,0 |
| 1136TR1214 | G 1/2" | G 1/4" | 10 | 15,5 | 24 | 39,0 |
| 1136TR1238 | G 1/2" | G 3/8" | 10 | 15,5 | 24 | 40,0 |

## 1140 Reduced male BSPT thread & female BSPP thread

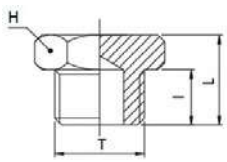





| CODE | T1 | T2 | ØC | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|---|
| 1140TR1418 | R 1/4" | G 1/8" | 6,0 | 11,0 | 9,0 | 15,5 | 14 | 9,0 |
| 1140TR3818 | R 3/8" | G 1/8" | 6,5 | 11,0 | 9,0 | 15,5 | 17 | 21,0 |
| 1140TR3814 | R 3/8" | G 1/4" | 8,5 | 11,0 | 11,0 | 15,5 | 17 | 13,0 |
| 1140TR1218 | R 1/2" | G 1/8" | 6,0 | 12,5 | 10,0 | 18,0 | 22 | 42,0 |
| 1140TR1214 | R 1/2" | G 1/4" | 8,5 | 12,5 | 11,5 | 18,0 | 22 | 34,0 |
| 1140TR1238 | R 1/2" | G 3/8" | 11,5 | 12,5 | 11,5 | 18,0 | 22 | 25,0 |
| 1140TR3414 | R 3/4" | G 1/4" | 8,5 | 14,0 | 12,0 | 20,0 | 27 | 74,0 |
| 1140TR3438 | R 3/4" | G 3/8" | 11,5 | 14,0 | 12,0 | 20,0 | 27 | 62,0 |
| 1140TR3412 | R 3/4" | G 1/2" | 15,0 | 14,0 | 14,0 | 20,0 | 27 | 43,0 |
| 1140TR138 | R 1" | G 3/8" | 15,0 | 15,5 | 13,0 | 21,5 | 34 | 123,0 |
| 1140TR112 | R 1" | G 1/2" | 15,0 | 15,5 | 14,0 | 21,5 | 34 | 144,0 |
| 1140TR134 | R 1" | G 3/4" | 20,0 | 15,5 | 14,0 | 21,5 | 34 | 173,0 |

## 1145 Male plug BSPP & metric thread

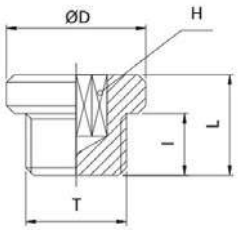





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1145TRM5 | M5x0,8 | 4,5 | 7,5 | 8 | 4,0 |
| 1145TR18 | G 1/8" | 6,0 | 10,0 | 14 | 7,0 |
| 1145TR14 | G 1/4" | 8,0 | 12,5 | 17 | 12,0 |
| 1145TR38 | G 3/8" | 9,0 | 13,5 | 19 | 19,0 |
| 1145TR12 | G 1/2" | 10,0 | 15,0 | 24 | 28,0 |
| 1145TR34 | G 3/4" | 11,0 | 16,5 | 30 | 46,0 |
| 1145TR1 | G 1" | 12,5 | 18,5 | 36 | 79,0 |

## 1148 Male plug BSPP & metric thread with exagon embedded

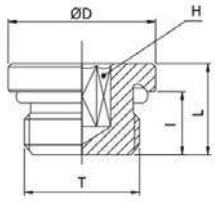





| CODE | T | I | L | ØD | H | g |
|---|---|---|---|---|---|---|
| 1148TRM5 | M5x0,8 | 4,0 | 6,5 | 8 | 2,5 | 2,0 |
| 1148TR18 | G 1/8" | 6,0 | 10,0 | 15 | 5 | 8,0 |
| 1148TR14 | G 1/4" | 8,0 | 12,0 | 18 | 6 | 12,0 |
| 1148TR38 | G 3/8" | 9,0 | 13,0 | 21 | 8 | 22,0 |
| 1148TR12 | G 1/2" | 10,0 | 14,5 | 25 | 10 | 36,0 |
| 1148TR34 | G 3/4" | 11,0 | 15,5 | 31 | 14 | - |
| 1148TR1 | G 1" | 12,5 | 17,5 | 38 | 17 | - |

## 1149 Male plug BSPP & metric thread with exagon embedded and NBR O-ring

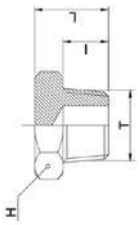





| CODE | T | I | L | ØD | H | g |
|---|---|---|---|---|---|---|
| 1149TRM5 | M5x0,8 | 4,5 | 7,2 | 8,0 | 2,5 | 1,4 |
| 1149TR18 | G 1/8" | 6,5 | 9,5 | 14,0 | 5 | 6,0 |
| 1149TR14 | G 1/4" | 8,0 | 11,5 | 17,0 | 6 | 12,0 |
| 1149TR38 | G 3/8" | 9,0 | 12,5 | 20,0 | 8 | 18,0 |
| 1149TR12 | G 1/2" | 10,0 | 14,0 | 25,0 | 10 | 34,0 |

## 1150 Male plug BSPT thread

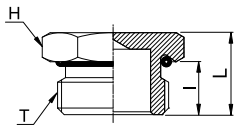





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1150TR18 | R 1/8" | 7,5 | 11,5 | 10 | 4,0 |
| 1150TR14 | R 1/4" | 11,0 | 15,5 | 14 | 9,0 |
| 1150TR38 | R 3/8" | 11,0 | 16,0 | 17 | 17,0 |
| 1150TR12 | R 1/2" | 12,0 | 17,5 | 22 | 29,0 |
| 1150TR34 | R 3/4" | 13,5 | 19,5 | 27 | 60,0 |
| 1150TR1 | R 1" | 15,5 | 22,0 | 34 | 92,0 |

## 1152 Male plug BSPP thread with O-ring



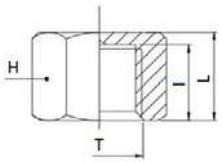



| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1152TR18 | G 1/8" | 6,5 | 10,5 | 14 | - |
| 1152TR14 | G 1/4" | 8,0 | 12,5 | 17 | - |
| 1152TR38 | G 3/8" | 9,0 | 13,5 | 20 | - |
| 1152TR12 | G 1/2" | 10,0 | 15,5 | 24 | - |

*drawings and technical data are not binding & can be changed without notice*

## 1155 Female plug BSPP & metric thread

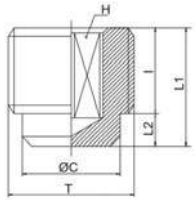





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1155TRM5 | M5x0,8 | 5,5 | 7,0 | 8 | 2,0 |
| 1155TR18 | G 1/8" | 9,0 | 11,0 | 14 | 5,0 |
| 1155TR14 | G 1/4" | 11,0 | 13,0 | 17 | 17,0 |
| 1155TR38 | G 3/8" | 11,0 | 13,5 | 21 | 23,0 |
| 1155TR12 | G 1/2" | 11,0 | 13,5 | 24 | 44,0 |
| 1155TR34 | G 3/4" | 12,5 | 15,0 | 30 | 44,0 |
| 1155TR1 | G 1" | 12,5 | 15,0 | 38 | 56,0 |

## 1160 Male plug BSPP thread with exagon embedded

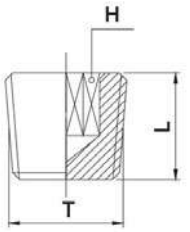





| CODE | T | I | ØC | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|
| 1160TR18 | G 1/8" | 4,0 | 8,0 | 7,0 | 3,0 | 5 | 2,0 |
| 1160TR14 | G 1/4" | 6,0 | 10,5 | 10,0 | 4,0 | 6 | 6,0 |
| 1160TR38 | G 3/8" | 6,0 | 13,5 | 10,0 | 4,0 | 8 | 10,0 |
| 1160TR12 | G 1/2" | 6,5 | 17,5 | 11,0 | 4,0 | 10 | 13,0 |

## 1161 Male flat plug BSPT thread with exagon embedded

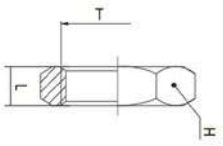





| CODE | T | L | H | g |
|---|---|---|---|---|
| 1161TR18 | R 1/8" | 8,0 | 5 | 3,0 |
| 1161TR14 | R 1/4" | 10,0 | 6 | 7,0 |
| 1161TR38 | R 3/8" | 10,5 | 8 | 23,0 |
| 1161TR12 | R 1/2" | 13,0 | 10 | 24,0 |
| 1161TR34 | R 3/4" | 15,5 | 14 | 32,0 |
| 1161TR1 | R 1" | 17,5 | 17 | 45,0 |

## 1175 Nut BSPP & metric thread

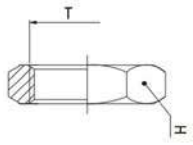





| CODE | T | L | H | g |
|---|---|---|---|---|
| 1175TRM5 | M5x0,8 | 2,5 | 9 | 1,0 |
| 1175TR18 | G 1/8" | 3,5 | 12 | 3,0 |
| 1175TR14 | G 1/4" | 4,0 | 16 | 2,0 |
| 1175TR38 | G 3/8" | 4,5 | 19 | 3,0 |
| 1175TR12 | G 1/2" | 4,5 | 24 | 6,0 |
| 1175TR34 | G 3/4" | 5,0 | 30 | 10,0 |
| 1175TR1 | G 1" | 6,0 | 38 | 20,0 |

## 1176 Bulkhead locking nut metric thread

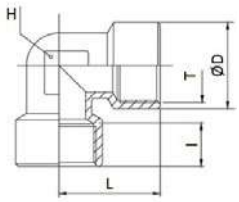





| CODE | T | H | g |
|---|---|---|---|
| 1176TRM101 | M10x1 | 14 | 3,0 |
| 1176TRM121 | M12X1 | 16 | 3,8 |
| 1176TRM1615 | M16X1,5 | 19 | 5,0 |
| 1176TRM1815 | M18X1,5 | 22 | 7,0 |
| 1176TRM2015 | M20X1,5 | 24 | 18,0 |
| 1176TRM2215 | M22X1,5 | 25 | 17,0 |
| 1176TRM2615 | M26X1,5 | 32 | 21,0 |
| 1176TRM2815 | M28X1,5 | 36 | 23,0 |

## 1200 Elbow F/F BSPP & metric thread

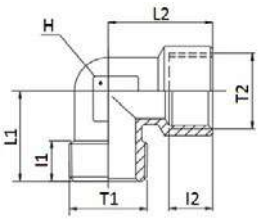





| CODE | T | I | ØD | L | H | g |
|---|---|---|---|---|---|---|
| 1200TRM5 | M5x0,8 | 5,5 | 9,0 | 11,0 | 8 | 6,0 |
| 1200TR18 | G 1/8" | 8,0 | 13,5 | 20,5 | 10 | 19,0 |
| 1200TR14 | G 1/4" | 11,5 | 16,5 | 31,0 | 13 | 33,0 |
| 1200TR38 | G 3/8" | 12,0 | 21,0 | 36,0 | 17 | 57,0 |
| 1200TR12 | G 1/2" | 15,0 | 26,0 | 44,0 | 21 | 109,0 |
| 1200TR34 | G 3/4" | 16,5 | 32,0 | 36,5 | 25 | 144,0 |
| 1200TR1 | G 1" | 19,0 | 39,0 | 45,0 | 30 | 244,0 |

## 1205 Elbow male BSPT thread and female BSPP & metric thread

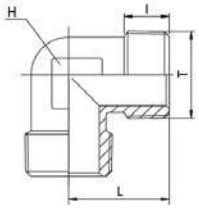





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1205TRM5 | M5x0,8 | M5x0,8 | 5,0 | 5,5 | 11,5 | 11 | 8 | 7,0 |
| 1205TR18 | R 1/8" | G 1/8" | 9,5 | 8,0 | 17,5 | 19,5 | 10 | 16,0 |
| 1205TR14 | R 1/4" | G 1/4" | 11,5 | 11,5 | 24,0 | 25 | 13 | 31,0 |
| 1205TR38 | R 3/8" | G 3/8" | 13,0 | 12,0 | 27,5 | 27,5 | 17 | 46,0 |
| 1205TR12 | R 1/2" | G 1/2" | 15,0 | 15,0 | 30,0 | 33,5 | 21 | 92,0 |
| 1205TR34 | R 3/4" | G 3/4" | 16,0 | 16,5 | 33,0 | 36,5 | 25 | 120,0 |
| 1205TR1 | R 1" | G 1" | 17,0 | 19,0 | 39,0 | 45,0 | 30 | 212,0 |

## 1210 Elbow M/M BSPT & metric thread



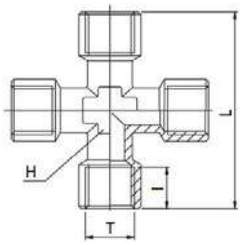



| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1210TRM5 | M5x0,8 | 5,0 | 13,5 | 8 | 6,0 |
| 1210TR18 | R 1/8" | 9,0 | 18,5 | 10 | 13,0 |
| 1210TR14 | R 1/4" | 11,5 | 22,0 | 12 | 20,0 |
| 1210TR38 | R 3/8" | 13,0 | 26,0 | 13 | 31,0 |
| 1210TR12 | R 1/2" | 14,0 | 28,5 | 17 | 55,0 |
| 1210TR34 | R 3/4" | 16,0 | 33,0 | 25 | 100,0 |
| 1210TR1 | R 1" | 17,0 | 39,0 | 30 | 174,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1215 Equal female cross BSPP thread

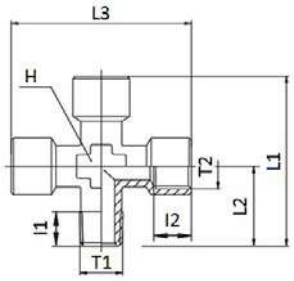





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1215TR18 | G 1/8" | 8,0 | 42,0 | 10 | 38,0 |
| 1215TR14 | G 1/4" | 11,0 | 51,0 | 13 | 76,0 |
| 1215TR38 | G 3/8" | 11,5 | 56,0 | 17 | 108,0 |
| 1215TR12 | G 1/2" | 14,0 | 67,0 | 21 | 186,0 |

## 1216 Equal cross male BSPT thread & female BSPP thread

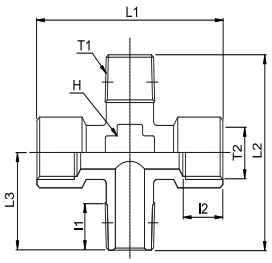





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | L3 | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1216TR18 | R 1/8" | G 1/8" | 8,0 | 8,0 | 39,5 | 18,5 | 42 | 10 | 34,0 |
| 1216TR14 | R 1/4" | G 1/4" | 11,0 | 11,0 | 49,0 | 23,5 | 51 | 13 | 68,0 |
| 1216TR38 | R 3/8" | G 3/8" | 11,5 | 11,5 | 54,0 | 26,0 | 56 | 17 | 100,0 |
| 1216TR12 | R 1/2" | G 1/2" | 14,0 | 14,0 | 64,5 | 31,0 | 67 | 21 | 168,0 |

## 1218 Equal cross male BSPT thread & female BSPP thread

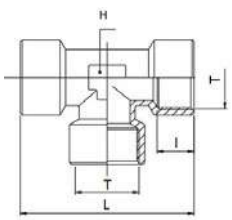





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | L3 | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1218TR14 | R 1/4" | G 1/4" | 11 | 11 | 51,0 | 47,0 | 23,5 | 13 | - |

## 1220 Female tee BSPP & metric thread



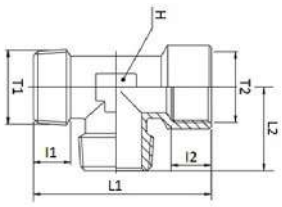



| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1220TRM5 | M5x0,8 | 5,5 | 26,5 | 8 | 7,0 |
| 1220TR18 | G 1/8" | 8,0 | 40,0 | 10 | 28,0 |
| 1220TR14 | G 1/4" | 11,5 | 50,0 | 13 | 49,0 |
| 1220TR38 | G 3/8" | 12,0 | 57,0 | 17 | 85,0 |
| 1220TR12 | G 1/2" | 15,0 | 68,5 | 21 | 146,0 |
| 1220TR34 | G 3/4" | 16,5 | 73,0 | 25 | 194,0 |
| 1220TR1 | G 1" | 19,0 | 90,0 | 30 | 326,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1225 Tee M/M/F, male BSPT & metric and female BSPP & metric thread

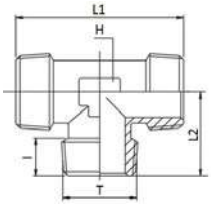





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1225TRM5 | M5x0,8 | M5x0,8 | 5,0 | 5,5 | 26,0 | 13,0 | 8 | 8,0 |
| 1225TR18 | R 1/8" | G 1/8" | 9,5 | 8,0 | 38,5 | 18,5 | 10 | 25,0 |
| 1225TR14 | R 1/4" | G 1/4" | 11,5 | 11,5 | 47,5 | 23,5 | 13 | 43,0 |
| 1225TR38 | R 3/8" | G 3/8" | 13,0 | 12,0 | 56,0 | 26,0 | 17 | 72,0 |
| 1225TR12 | R 1/2" | G 1/2" | 15,0 | 15,0 | 67,5 | 32,0 | 21 | 102,0 |
| 1225TR34 | R 3/4" | G 3/4" | 16,0 | 16,5 | 69,5 | 33,0 | 25 | 156,0 |
| 1225TR1 | R 1" | G 1" | 17,5 | 19,0 | 84,0 | 39,0 | 30 | 268,0 |

## 1230 Male tee BSPT & metric thread

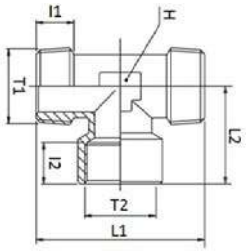





| CODE | T | I | L1 | L2 | H | g |
|---|---|---|---|---|---|---|
| 1230TRM5 | M5x0,8 | 5,0 | 27,5 | 13,5 | 8 | 8,0 |
| 1230TR18 | R 1/8" | 9,5 | 36,0 | 17,0 | 10 | 20,0 |
| 1230TR14 | R 1/4" | 11,5 | 48,0 | 24,0 | 12 | 38,0 |
| 1230TR38 | R 3/8" | 12,0 | 48,0 | 24,0 | 13 | 47,0 |
| 1230TR12 | R 1/2" | 15,0 | 57,0 | 28,0 | 17 | 80,0 |
| 1230TR34 | R 3/4" | 16,2 | 66,4 | 33,0 | 25 | 134,0 |
| 1230TR1 | R 1" | 17,5 | 78,0 | 39,0 | 30 | 236,0 |

## 1235 Tee male BSPT & metric and female BSPP & metric thread

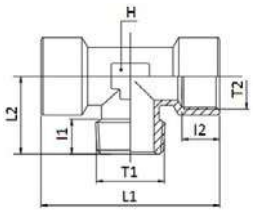





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1235TRM5 | M5x0,8 | M5x0,8 | 5,0 | 5,5 | 27,5 | 13,0 | 8 | 6,0 |
| 1235TR18 | R 1/8" | G 1/8" | 9,5 | 8,0 | 36,5 | 19,5 | 10 | 22,0 |
| 1235TR14 | R 1/4" | G 1/4" | 11,5 | 11,5 | 48,0 | 25,5 | 13 | 37,0 |
| 1235TR38 | R 3/8" | G 3/8" | 13,0 | 12,0 | 51,5 | 28,0 | 17 | 62,0 |
| 1235TR12 | R 1/2" | G 1/2" | 15,0 | 15,0 | 63,0 | 34,0 | 21 | 118,0 |
| 1235TR34 | R 3/4" | G 3/4" | 16,0 | 16,5 | 66,4 | 36,5 | 25 | 156,0 |
| 1235TR1 | R 1" | G 1" | 17,5 | 19,0 | 78,0 | 45,0 | 30 | 268,0 |

## 1240 Tee male BSPT & metric and female BSPP & metric thread





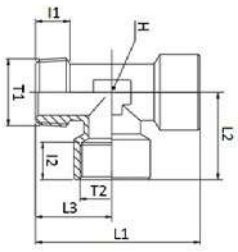

| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1240TRM5 | M5x0,8 | M5x0,8 | 5,0 | 5,5 | 26,5 | 11,5 | 8 | 9,0 |
| 1240TR18 | R 1/8" | G 1/8" | 9,5 | 8,0 | 40,0 | 18,5 | 10 | 22,0 |
| 1240TR14 | R 1/4" | G 1/4" | 11,5 | 11,5 | 50,0 | 24,5 | 13 | 49,0 |
| 1240TR38 | R 3/8" | G 3/8" | 13,0 | 12,0 | 57,0 | 26,5 | 17 | 75,0 |
| 1240TR12 | R 1/2" | G 1/2" | 15,0 | 15,0 | 68,5 | 32,0 | 21 | 127,0 |
| 1240TR34 | R 3/4" | G 3/4" | 16,0 | 16,5 | 73,0 | 33,0 | 25 | 178,0 |
| 1240TR1 | R 1" | G 1" | 17,5 | 19,0 | 90,0 | 39,0 | 30 | 296,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1245

Tee male BSPT & metric and female BSPP & metric thread



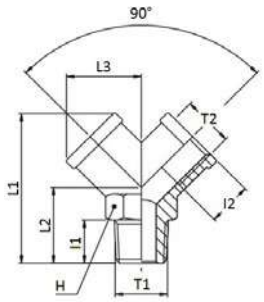



| CODE | T1 | T2 | I1 | I2 | L1 | L2 | L3 | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1245TRM5 | M5x0,8 | M5x0,8 | 5,0 | 5,5 | 26,0 | 13,0 | 12,0 | 8 | 9,0 |
| 1245TR18 | R 1/8" | G 1/8" | 9,5 | 8,0 | 38,5 | 19,5 | 18,5 | 10 | 24,0 |
| 1245TR14 | R 1/4" | G 1/4" | 11,5 | 11,5 | 49,0 | 25,0 | 24,0 | 13 | 44,0 |
| 1245TR38 | R 3/8" | G 3/8" | 13,0 | 12,0 | 54,0 | 28,5 | 25,5 | 17 | 74,0 |
| 1245TR12 | R 1/2" | G 1/2" | 15,0 | 15,0 | 65,5 | 34,5 | 31,0 | 21 | 132,0 |
| 1245TR34 | R 3/4" | G 3/4" | 16,0 | 16,5 | 69,5 | 36,5 | 33,0 | 25 | 172,0 |
| 1245TR1 | R 1" | G 1" | 17,5 | 19,0 | 84,0 | 45,0 | 39,0 | 30 | 298,0 |

## 1300

Y male BSPT thread & female BSPP thread



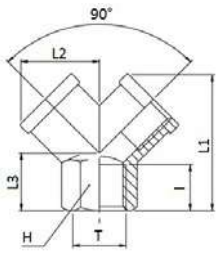



| CODE | T1 | T2 | I1 | I2 | L1 | L2 | L3 | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1300TR18 | R 1/8" | G 1/8" | 8,0 | 8,0 | 32,0 | 16 | 14,5 | 13 | 22,0 |
| 1300TR14 | R 1/4" | G 1/4" | 11,0 | 11,0 | 38,0 | 20 | 18,0 | 17 | 38,0 |
| 1300TR38 | R 3/8" | G 3/8" | 11,5 | 11,5 | 42,5 | 22 | 20,5 | 20 | 52,0 |
| 1300TR12 | R 1/2" | G 1/2" | 14,0 | 14,0 | 53,0 | 27 | 26,5 | 25 | 110,0 |

## 1310

Female Y BSPP thread



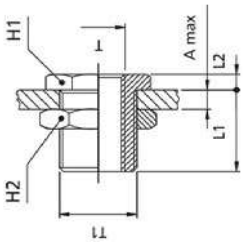



| CODE | T | I | L1 | L2 | L3 | H | g |
|---|---|---|---|---|---|---|---|
| 1310TR18 | G 1/8" | 8,0 | 26,5 | 14,5 | 12 | 13 | 18,0 |
| 1310TR14 | G 1/4" | 11,0 | 32,0 | 18,0 | 14 | 17 | 32,0 |
| 1310TR38 | G 3/8" | 11,5 | 37,0 | 20,5 | 16 | 20 | 44,0 |
| 1310TR12 | G 1/2" | 14,0 | 45,0 | 26,5 | 19 | 25 | 92,0 |

## 1320

Female bulkhead connector BSPP & metric thread



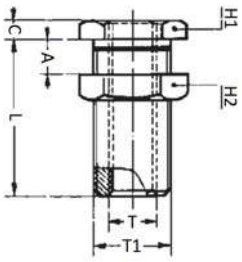



| CODE | T | T1 | A MAX | L1 | L2 | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| 1320TRM5M101 | M5x0,8 | M10x1 | 7 | 10,5 | 3,5 | 14 | 14 | 12,0 |
| 1320TR18M1615 | G 1/8" | M16x1,5 | 10 | 14,0 | 4,0 | 19 | 22 | 30,0 |
| 1320TR14M2015 | G 1/4" | M20x1,5 | 16 | 21,0 | 4,0 | 24 | 27 | 58,0 |
| 1320TR38M2615 | G 3/8" | M26x1,5 | 15 | 21,0 | 5,0 | 30 | 32 | 94,0 |
| 1320TR12M2815 | G 1/2" | M28x1,5 | 21 | 27,0 | 6,0 | 32 | 36 | 116,0 |

## 1322

Female bulkhead connector BSPP thread, yellow brass



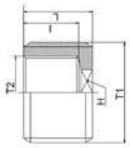



| CODE | T | T1 | C | L | A | H1 | H2 |
|---|---|---|---|---|---|---|---|
| 1322TR18M1615 | G 1/8" | M16x1,5 | 4 | 14,0 | 9 | 19 | 19 |
| 1322TR14M2015 | G 1/4" | M20x1,5 | 4 | 21,0 | 15 | 24 | 24 |
| 1322TR38M2615 | G 3/8" | M26x1,5 | 5 | 21,0 | 14 | 30 | 30 |
| 1322TR12M282 | G 1/2" | M28x2 | 6 | 27,0 | 20 | 32 | 32 |
| 1322TR34M342 | G 3/4" | M34x2 | 6 | 30,0 | 22,5 | 41 | 41 |
| 1322TR114M492 | G 1-1/4" | M49x2 | 8 | 39,0 | 29,5 | 55 | 55 |

## 1600

Reducer M/F BSPP & metric thread with exagon embedded



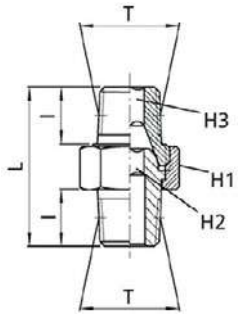



| CODE | T1 | T2 | I | L | H | g |
|---|---|---|---|---|---|---|
| 1600TRM518 | G 1/8" | M5x0,8 | 6,5 | 8,0 | 3 | 3,0 |
| 1600TR1418 | G 1/4" | G 1/8" | 7,0 | 9,0 | 6 | 7,0 |
| 1600TR3818 | G 3/8" | G 1/8" | 7,0 | 9,0 | 6 | 10,0 |
| 1600TR3814 | G 3/8" | G 1/4" | 7,0 | 9,0 | 8 | 6,0 |
| 1600TR1214 | G 1/2" | G 1/4" | 8,5 | 10,5 | 10 | 23,0 |
| 1600TR1238 | G 1/2" | G 3/8" | 8,5 | 10,5 | 10 | 10,0 |
| 1600TR3412 | G 3/4" | G 1/2" | 11,0 | 13,0 | 12 | 35,0 |
| 1600TR134 | G 1" | G 3/4" | 12,5 | 15,0 | 17 | 38,0 |

## 1110-3PCS

Nipple 3 pieces male BSPT thread, yellow brass






| CODE | T | I | L | H1 | H2 | H3 | g |
|---|---|---|---|---|---|---|---|
| 1110TR18-3P | R 1/8" | 9,0 | 27,0 | 15 | 5 | 5 | 59,0 |
| 1110TR14-3P | R 1/4" | 12,0 | 33,5 | 19 | 6 | 6 | 65,0 |
| 1110TR38-3P | R 3/8" | 13,0 | 36,5 | 22 | 8 | 8 | 71,0 |
| 1110TR12-3P | R 1/2" | 16,0 | 44,0 | 27 | 12 | 12 | 86,0 |
| 1110TR34-3P | R 3/4" | 18,0 | 53,0 | 36 | 14 | 14 | 103,0 |
| 1110TR1-3P | R 1" | 22,0 | 64,0 | 46 | 19 | 19 | 124,0 |

Available with internal seal (up to 3/4" thread)
by adding at the end of the code **-OR**

*drawings and technical data are not binding & can be changed without notice*

# STANDARD FITTINGS BAYONET JOINT

## PLUS

**WIDE RANGE SUITABLE FOR PNEUMATIC APPLICATIONS**

**CONNECTIONS FOR STANDARD AND BAYONET JOINT**

**PERFECTLY SUITABLE WITH OUR PVC-AC AND PU-PVC TUBES**



p. 282 / **1255**



p. 282 / **1260**



p. 282 / **1265**



p. 282 / **1270**



p. 283 / **1290**



p. 283 / **1256**



p. 283 / **1280**



p. 283 / **1285**



p. 284 / **1288**



p. 284 / **1275**



p. 284 / **1291**



p. 285 / **1163**



p. 285 / **1166**



p. 286 / **1164**



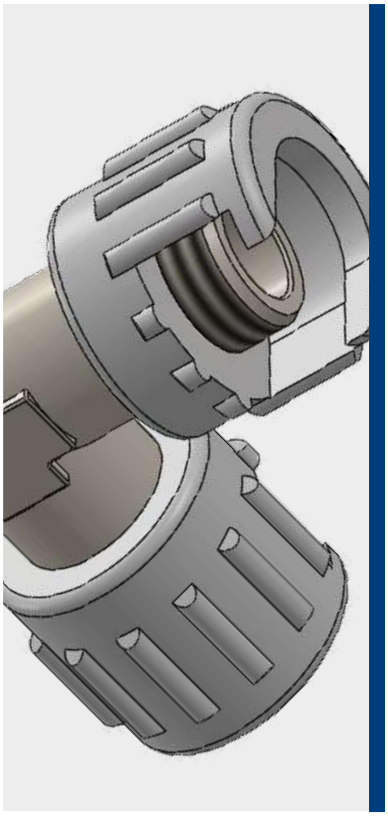
p. 286 / **1292**



p. 287 / **1278**



p. 287 / **1295**



-18°C ÷ +18°C
The working temperature is determined by the properties of the tube used

**Working pressure:**
12 Bar
The working pressure is determined by the properties of the tube used

Compressed air

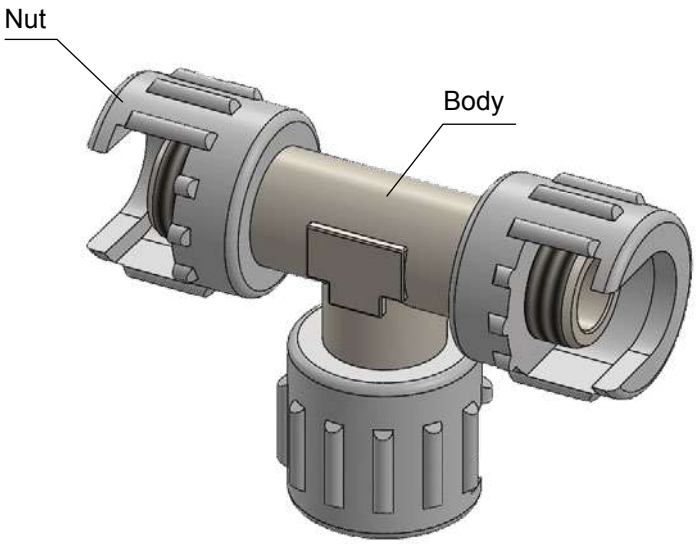
Parallel gas BSPP ISO 228
from G1/8" to G1/2"

**Body:** Nickel-plated brass
**Nut:** Nickel-plated brass

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## 1255 Milled nut



| CODE | THREAD | g |
|---|---|---|
| 1255TR14 | 1/4" | 14,0 |
| 1255TR14125 | 1/4"/125 | 14,0 |
| 1255TR38 | 3/8" | 11,0 |

## 1260 Union tee with milled nuts



| CODE | THREAD | g |
|---|---|---|
| 1260TR14 | G 1/4" | 82,0 |

## 1265 Male connector BSPP thread with milled nut



| CODE | THREAD | g |
|---|---|---|
| 1265TR18 | G 1/8" | - |
| 1265TR14 | G 1/4" | 71,0 |
| 1265TR38 | G 3/8" | 73,0 |
| 1265TR12 | G 1/2" | 82,0 |

## 1270 Union connector with milled nuts



| CODE | THREAD | g |
|---|---|---|
| 1270TR14 | G 1/4" | 81,0 |

## 1290 Female connector with milled nut



| CODE | THREAD | g |
|---|---|---|
| 1290TR18 | G 1/8" | 28,0 |
| 1290TR14 | G 1/4" | 29,0 |
| 1290TR38 | G 3/8" | 40,0 |

## 1256 Bayonet joints gasket



| CODE | g |
|---|---|
| 1256 | 10,0 |
| LARGE BAYONET JOINT GASKET | |
| 1256-GG | - |

## 1280 Male bayonet joint BSPP thread



| CODE | THREAD | g |
|---|---|---|
| 1280TR18 | G 1/8" | 16,0 |
| 1280TR14 | G 1/4" | 16,0 |
| 1280TR38 | G 3/8" | 18,0 |

## 1285 Female bayonet joint BSPP thread



| CODE | THREAD | g |
|---|---|---|
| 1285TR18 | G 1/8" | 17,0 |
| 1285TR14 | G 1/4" | 19,0 |
| 1285TR38 | G 3/8" | 18,0 |

## 1288 Bayonet joint with barb connector



| CODE | Ø TUBE | g |
|---|---|---|
| 1288TR6 | 6 | 10,0 |
| 1288TR7 | 7 | 12,0 |
| 1288TR8 | 8 | 13,0 |
| 1288TR9 | 9 | 15,0 |
| 1288TR10 | 10 | 14,0 |
| 1288TR11 | 11 | 16,0 |
| 1288TR12 | 12 | 19,0 |
| 1288TR14 | 14 | 18,0 |

## 1275 Bayonet joint with rubber and PU hose connector



| CODE | Ø TUBE | g |
|---|---|---|
| 1275TR610 | 6x10 | 38,0 |
| 1275TR612 | 6x12 | 35,0 |
| 1275TR613 | 6x13 | 38,0 |
| 1275TR614 | 6x14 | 36,0 |
| 1275TR716 | 7x16 | 43,0 |
| 1275TR812 | 8x12 | 33,0 |
| 1275TR813 | 8x13 | 40,0 |
| 1275TR815 | 8x15 | 42,0 |
| 1275TR817 | 8x17 | 31,0 |
| 1275TR1015 | 10x15 | 45,0 |
| 1275TR1017 | 10x17 | 49,0 |
| 1275TR1019 | 10x19 | 60,0 |

## 1291 Large bayonet joint with rubber and PU hose connector



| CODE | Ø TUBE | g |
|---|---|---|
| 1291BG1019 | 10x19 | 112 |
| 1291BG1020 | 10x20 | 112 |
| 1291BG1021 | 10x21 | 112 |
| 1291BG1022 | 10x22 | 117 |
| 1291BG1023 | 10x23 | 119 |
| 1291BG1319 | 13x19 | 117 |
| 1291BG1320 | 13x20 | 118 |
| 1291BG1323 | 13x23 | 127 |
| 1291BG1324 | 13x24 | 150 |
| 1291BG1325 | 13x25 | 150 |

*drawings and technical data are not binding & can be changed without notice*

## 1163 Male connector BSPP thread with rubber and PU hose connector



| CODE | Ø TUBE | THREAD | g |
|---|---|---|---|
| 1163TR61014 | 6x10 | G 1/4" | 33,0 |
| 1163TR61214 | 6x12 | G 1/4" | 30,0 |
| 1163TR61314 | 6x13 | G 1/4" | 34,0 |
| 1163TR61414 | 6x14 | G 1/4" | 34,0 |
| 1163TR71614 | 7x16 | G 1/4" | 38,0 |
| 1163TR81214 | 8x12 | G 1/4" | 35,0 |
| 1163TR81314 | 8x13 | G 1/4" | 36,0 |
| 1163TR81514 | 8x15 | G 1/4" | 39,0 |
| 1163TR81714 | 8x17 | G 1/4" | 41,0 |
| 1163TR101514 | 10x15 | G 1/4" | 45,0 |
| 1163TR101714 | 10x17 | G 1/4" | 48,0 |
| 1163TR101914 | 10x19 | G 1/4" | 48,0 |
| 1163TR61038 | 6x10 | G 3/8" | 39,0 |
| 1163TR61238 | 6x12 | G 3/8" | 36,0 |
| 1163TR61338 | 6x13 | G 3/8" | 40,0 |
| 1163TR61438 | 6x14 | G 3/8" | 40,0 |
| 1163TR71638 | 7x16 | G 3/8" | 44,0 |
| 1163TR81238 | 8x12 | G 3/8" | 41,0 |
| 1163TR81338 | 8x13 | G 3/8" | 42,0 |
| 1163TR81538 | 8x15 | G 3/8" | 45,0 |
| 1163TR81738 | 8x17 | G 3/8" | 47,0 |
| 1163TR101538 | 10x15 | G 3/8" | 51,0 |
| 1163TR101738 | 10x17 | G 3/8" | 54,0 |
| 1163TR101938 | 10x19 | G 3/8" | 54,0 |
| 1163TR111638 | 11x16 | G 3/8" | 57,0 |

## 1166 Swivel male connector BSPP thread with O-ring & rubber and PU hose connector



| CODE | Ø TUBE | THREAD |
|---|---|---|
| 1166TR61014 | 6x10 | G 1/4" |
| 1166TR61214 | 6x12 | G 1/4" |
| 1166TR61314 | 6x13 | G 1/4" |
| 1166TR61414 | 6x14 | G 1/4" |
| 1166TR81214 | 8x12 | G 1/4" |
| 1166TR81314 | 8x13 | G 1/4" |
| 1166TR81514 | 8x15 | G 1/4" |
| 1166TR81714 | 8x17 | G 1/4" |

## 1164 Female connector BSPP thread with rubber and PU hose connector



| CODE | Ø TUBE | THREAD | g |
|---|---|---|---|
| 1164TR61014 | 6x10 | G 1/4" | 30,0 |
| 1164TR61214 | 6x12 | G 1/4" | 30,0 |
| 1164TR61314 | 6x13 | G 1/4" | 37,0 |
| 1164TR61414 | 6x14 | G 1/4" | 35,0 |
| 1164TR71614 | 7x16 | G 1/4" | 40,0 |
| 1164TR81214 | 8x12 | G 1/4" | 32,0 |
| 1164TR81314 | 8x13 | G 1/4" | 32,0 |
| 1164TR81514 | 8x15 | G 1/4" | 35,0 |
| 1164TR81714 | 8x17 | G 1/4" | 34,0 |
| 1164TR101514 | 10x15 | G 1/4" | 38,0 |
| 1164TR101714 | 10x17 | G 1/4" | 37,0 |
| 1164TR101914 | 10x19 | G 1/4" | 39,0 |
| 1164TR61038 | 6x10 | G 3/8" | 36,0 |
| 1164TR61238 | 6x12 | G 3/8" | 36,0 |
| 1164TR61338 | 6x13 | G 3/8" | 43,0 |
| 1164TR61438 | 6x14 | G 3/8" | 41,0 |
| 1164TR71638 | 7x16 | G 3/8" | 46,0 |
| 1164TR81238 | 8x12 | G 3/8" | 38,0 |
| 1164TR81338 | 8x13 | G 3/8" | 38,0 |
| 1164TR81538 | 8x15 | G 3/8" | 41,0 |
| 1164TR81738 | 8x17 | G 3/8" | 40,0 |
| 1164TR101538 | 10x15 | G 3/8" | 44,0 |
| 1164TR101738 | 10x17 | G 3/8" | 43,0 |
| 1164TR101938 | 10x19 | G 3/8" | 45,0 |

## 1292 Large male connector BSPP thread with rubber and PU hose connector



| CODE | Ø TUBE | THREAD | WRENCH | TOT. LENGHT | g |
|---|---|---|---|---|---|
| 1292TR101938 | 10x19 | G 3/8" | 24 | 65,0 | 113,0 |
| 1292TR102038 | 10x20 | G 3/8" | 24 | 65,0 | 114,0 |
| 1292TR102138 | 10x21 | G 3/8" | 24 | 65,0 | 114,0 |
| 1292TR102238 | 10x22 | G 3/8" | 24 | 65,0 | 118,0 |
| 1292TR102338 | 10x23 | G 3/8" | 27 | 65,0 | 120,0 |
| 1292TR131938 | 13x19 | G 3/8" | 25 | 65,0 | 115,0 |
| 1292TR132038 | 13x20 | G 3/8" | 25 | 65,0 | 117,0 |
| 1292TR132138 | 13x21 | G 3/8" | 25 | 65,0 | 117,0 |
| 1292TR132338 | 13x23 | G 3/8" | 27 | 65,0 | 124,0 |
| 1292TR132438 | 13x24 | G 3/8" | 30 | 65,0 | 151,0 |
| 1292TR132538 | 13x25 | G 3/8" | 30 | 65,0 | 149,0 |
| 1292TR101912 | 10x19 | G 1/2" | 24 | 65,0 | 113,0 |
| 1292TR102012 | 10x20 | G 1/2" | 24 | 65,0 | 115,0 |
| 1292TR102112 | 10x21 | G 1/2" | 24 | 65,0 | 115,0 |
| 1292TR102212 | 10x22 | G 1/2" | 24 | 65,0 | 119,0 |
| 1292TR102312 | 10x23 | G 1/2" | 27 | 65,0 | 121,0 |
| 1292TR131912 | 13x19 | G 1/2" | 25 | 65,0 | 117,0 |
| 1292TR132012 | 13x20 | G 1/2" | 25 | 65,0 | 118,0 |
| 1292TR132112 | 13x21 | G 1/2" | 25 | 65,0 | 118,0 |
| 1292TR132312 | 13x23 | G 1/2" | 27 | 65,0 | 124,0 |
| 1292TR132412 | 13x24 | G 1/2" | 30 | 65,0 | 151,0 |
| 1292TR132512 | 13x25 | G 1/2" | 30 | 65,0 | 151,0 |

*drawings and technical data are not binding & can be changed without notice*

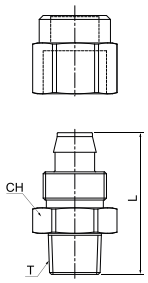
## 1278 Sliding tap bayonet joint with rubber hose connector



| CODE | Ø TUBE | g |
|---|---|---|
| 1278TR612 | 6x12 | 93,0 |
| 1278TR614 | 6x14 | 91,0 |
| 1278TR817 | 8x17 | 100,0 |
| 1278TR1019 | 10x19 | 112,0 |

## 1295 Male barb connector BSPT thread






| CODE | Ø TUBE | T | L | CH |
|---|---|---|---|---|
| 1295TR14128 | 8x12 | R 1/4" | 36,2 | 19 |
| 1295TR381510 | 10x15 | R 3/8" | 42,0 | 22 |

**1295:** Recommended for use with PU-PVC tube on page 751



# STANDARD FITTINGS NYLON

D.M. 174

## PLUS

**GOOD MECHANICAL RESISTANCE**

**SUITABLE FOR DOMESTIC AND INDUSTRIAL USE AND FOR FOOD FLUIDS**

**WIDE RANGE OF SHAPES AND THREADS AVAILABLE**



p. 292 / **1800**



p. 292 / **1802**



p. 292 / **1810**



p. 292 / **1812**



p. 293 / **1820**



p. 293 / **1825**



p. 293 / **1827**



p. 294 / **1830**



p. 294 / **1832**



p. 294 / **1834**



p. 294 / **1840**



p. 295 / **1850**



p. 295 / **1855**



p. 295 / **1875**



p. 296 / **1800N**



p. 296 / **1802N**



p. 296 / **1810N**



p. 296 / **1812N**



p. 297 / **1820N**



p. 297 / **1825N**



p. 297 / **1827N**



p. 298 / **1830N**



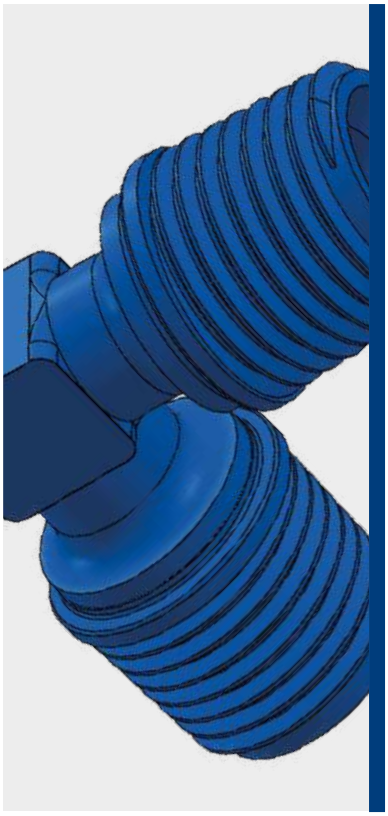
p. 298 / **1832N**



p. 298 / **1840N**



p. 298 / **1850N**



-20°C ÷ +110°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)
Depending on the tube used

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7
  from R1/8" to R3/4"
- NPT
  from N1/8" to N3/4"

**Body:** Nylon 66

## FEATURES

The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.

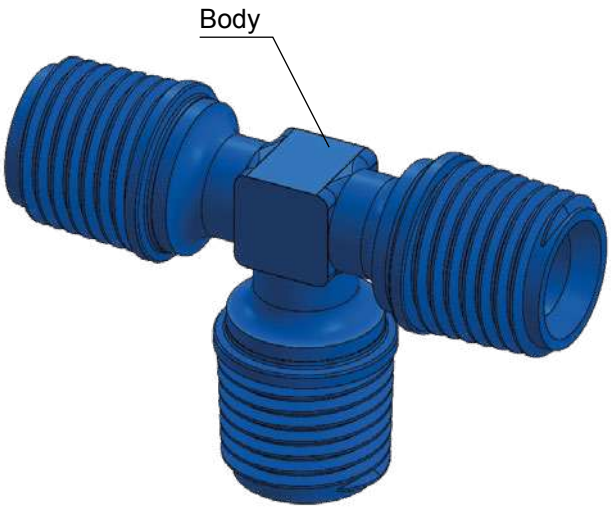
Food contact materials
EC 1935/2004

D.M. 174/2004

Products in compliance with
EC Regulation 1907/2006

Products in compliance with
the directive EU 2015/863

## CONSTRUCTION DETAILS



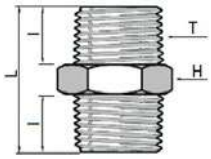

## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|
| Nm | 0,1 | 0,8 | 4 | 6 | 8 |

## 1800 Nipple BSPT thread

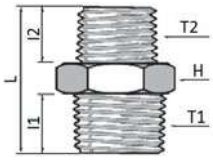





| CODE | T | L | I | H | g |
|---|---|---|---|---|---|
| 1800TR18 | R 1/8" | 23,2 | 8,0 | 11 | 1,4 |
| 1800TR14 | R 1/4" | 27,1 | 10,0 | 14 | 3,5 |
| 1800TR38 | R 3/8" | 28,2 | 10,0 | 17 | 4,2 |
| 1800TR12 | R 1/2" | 34,1 | 12,5 | 22 | 8,0 |
| 1800TR34 | R 3/4" | 36,0 | - | 27 | - |

## 1802 Reduced nipple BSPT thread

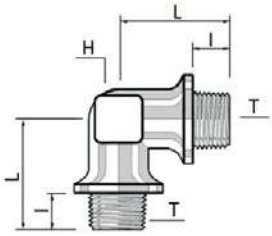





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1802TR1418 | R 1/4" | R 1/8" | 10,5 | 8,5 | 25,2 | 14 | 2,5 |
| 1802TR3818 | R 3/8" | R 1/8" | 10,0 | 8,0 | 27,1 | 17 | 3,8 |
| 1802TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 28,5 | 17 | 4,1 |
| 1802TR1214 | R 1/2" | R 1/4" | 13,0 | 10,5 | 31,5 | 22 | 6,7 |
| 1802TR1238 | R 1/2" | R 3/8" | 13,0 | 10,5 | 31,5 | 22 | 6,0 |
| 1802TR3412 | R 3/4" | R 1/2" | - | - | 34,5 | 27 | - |

## 1810 Male elbow BSPT thread

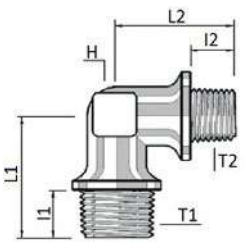





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1810TR18 | R 1/8" | 8,0 | 20,0 | 10 | 3,0 |
| 1810TR14 | R 1/4" | 10,0 | 22,0 | 10 | 4,0 |
| 1810TR38 | R 3/8" | 10,0 | 24,0 | 14 | 7,0 |
| 1810TR12 | R 1/2" | 12,5 | 32,0 | 17 | 15,0 |

## 1812 Reduced male elbow BSPT thread



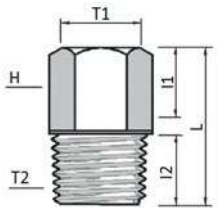



| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1812TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 22,0 | 20,0 | 12 | 3,6 |
| 1812TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 24,0 | 24,0 | 15 | 6,5 |
| 1812TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 32,0 | 29,5 | 17 | 13,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1820 Adapter M/F BSPT thread

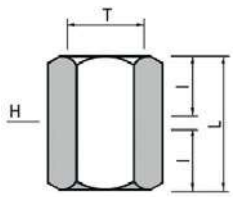





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1820TR1818 | R 1/8" | R 1/8" | 9,0 | 8,0 | 23,0 | 14 | 1,0 |
| 1820TR1414 | R 1/4" | R 1/4" | 10,5 | 10,0 | 24,0 | 17 | 3,0 |
| 1820TR3838 | R 3/8" | R 3/8" | 11,0 | 10,5 | 25,7 | 22 | 5,3 |
| 1820TR1212 | R 1/2" | R 1/2" | 13,5 | 13,0 | 30,6 | 26 | 9,0 |
| REDUCED ADAPTER M/F BSPT THREAD | | | | | | | |
| 1820TR1814 | R 1/8" | R 1/4" | 10,5 | 10,0 | 23,0 | 14 | 2,4 |
| 1820TR1838 | R 1/8" | R 3/8" | 9,0 | 10,0 | 24,0 | 14 | 2,7 |
| 1820TR1812 | R 1/8" | R 1/2" | 9,0 | 12,0 | 27,0 | 14 | 4,1 |
| 1820TR1438 | R 1/4" | R 3/8" | 10,5 | 10,0 | 24,8 | 17 | 5,0 |
| 1820TR1412 | R 1/4" | R 1/2" | 10,5 | 10,0 | 27,2 | 17 | 4,8 |
| 1820TR3812 | R 3/8" | R 1/2" | 11,0 | 13,0 | 28,2 | 22 | 8,0 |
| ENLARGER ADAPTER M/F BSPT THREAD | | | | | | | |
| 1820TR1418 | R 1/4" | R 1/8" | 10,5 | 8,0 | 22,1 | 17 | 2,8 |
| 1820TR3818 | R 3/8" | R 1/8" | 11,0 | 8,0 | 23,1 | 22 | 4,8 |
| 1820TR3814 | R 3/8" | R 1/4" | 11,0 | 10,0 | 25,2 | 22 | 5,1 |
| 1820TR1218 | R 1/2" | R 1/8" | 13,5 | 8,0 | 25,6 | 26 | 7,0 |
| 1820TR1214 | R 1/2" | R 1/4" | 13,5 | 10,0 | 27,3 | 26 | 7,2 |
| 1820TR1238 | R 1/2" | R 3/8" | 13,5 | 10,0 | 28,0 | 26 | 8,0 |

## 1825 Female sleeve BSPT thread

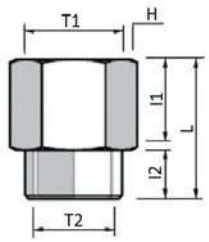





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1825TR18 | R 1/8" | 9,0 | 20,0 | 14 | 2,3 |
| 1825TR14 | R 1/4" | 11,0 | 23,6 | 17 | 3,7 |
| 1825TR38 | R 3/8" | 11,0 | 24,5 | 21 | 5,2 |
| 1825TR12 | R 1/2" | 13,5 | 29,7 | 26 | 9,6 |
| 1825TR34 | R 3/4" | 18,0 | 38,0 | 34 | 16,8 |

## 1827 Reduced female sleeve BSPT thread

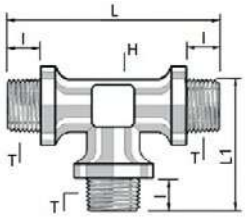





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1827TR1418 | R 1/4" | R 1/8" | 11,0 | 9,0 | 22,0 | 17 | 3,2 |
| 1827TR3818 | R 3/8" | R 1/8" | 11,0 | 9,0 | 24,5 | 21 | 5,2 |
| 1827TR3814 | R 3/8" | R 1/4" | 11,0 | 11,0 | 24,5 | 21 | 6,0 |
| 1827TR1214 | R 1/2" | R 1/4" | 13,5 | 11,0 | 27,0 | 26 | 8,0 |
| 1827TR1238 | R 1/2" | R 3/8" | 13,5 | 11,0 | 27,0 | 26 | 7,7 |
| 1827TR3414 | R 3/4" | R 1/4" | 13,5 | 11,0 | 30,1 | 34 | 11,0 |
| 1827TR3412 | R 3/4" | R 1/2" | 13,5 | 11,0 | 35,0 | 34 | 14,5 |

## 1830 Male tee BSPT thread

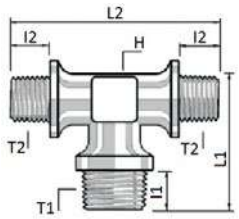





| CODE | T | I | L | L1 | H | g |
|---|---|---|---|---|---|---|
| 1830TR18 | R 1/8" | 8,0 | 39,8 | 24,1 | 12 | 4,0 |
| 1830TR14 | R 1/4" | 10,0 | 44,0 | 26,2 | 12 | 5,0 |
| 1830TR38 | R 3/8" | 10,0 | 50,5 | 32,0 | 15 | 10,0 |
| 1830TR12 | R 1/2" | 12,5 | 64,0 | 40,3 | 17 | 22,0 |

## 1832 Reduced male tee BSPT thread

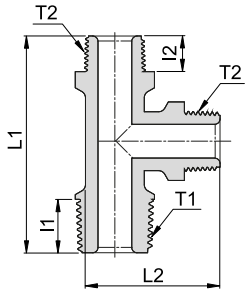





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1832TR1814 | R 1/8" | R 1/4" | 8,0 | 10,0 | 26,4 | 39,7 | 12 | 4,4 |
| 1832TR1438 | R 1/4" | R 3/8" | 10,0 | 10,0 | 38,2 | 43,3 | 15 | 9,3 |
| 1832TR3812 | R 3/8" | R 1/2" | 10,0 | 12,5 | 40,4 | 60,2 | 17 | 17,3 |
| ENLARGER MALE TEE BSPT THREAD | | | | | | | | |
| 1832TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 24,2 | 43,3 | 12 | 5,6 |
| 1832TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 26,4 | 60,2 | 15 | 9,7 |
| 1832TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 38,2 | 64,2 | 17 | 17,0 |

## 1834 Lateral reduced male tee BSPT thread

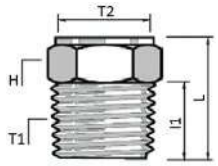





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| 1834TR1814 | R 1/8" | R 1/4" | 8,0 | 10,0 | 42,7 | 25,5 | 5,0 |
| 1834TR1438 | R 1/4" | R 3/8" | 10,0 | 10,0 | 48,5 | 31,0 | 9,5 |
| 1834TR3812 | R 3/8" | R 1/2" | 10,0 | 12,5 | 62,0 | 38,2 | 19,0 |
| LATERAL ENLARGER MALE TEE BSPT THREAD | | | | | | | |
| 1834TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 41,8 | 26,3 | 4,9 |
| 1834TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 48,3 | 30,8 | 8,8 |
| 1834TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 62,0 | 40,0 | 17,9 |

## 1840 M/F reducer BSPT thread



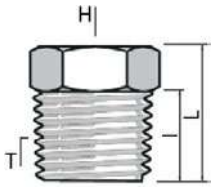



| CODE | T1 | T2 | I1 | L | H | g |
|---|---|---|---|---|---|---|
| 1840TR1418 | R 1/4" | R 1/8" | 10,0 | 17,2 | 14 | 1,5 |
| 1840TR3818 | R 3/8" | R 1/8" | 10,5 | 17,8 | 17 | 2,7 |
| 1840TR3814 | R 3/8" | R 1/4" | 10,5 | 17,8 | 17 | 2,1 |
| 1840TR1218 | R 1/2" | R 1/8" | 12,5 | 20,7 | 22 | 6,0 |
| 1840TR1214 | R 1/2" | R 1/4" | 12,5 | 20,4 | 22 | 5,5 |
| 1840TR1238 | R 1/2" | R 3/8" | 12,5 | 20,7 | 22 | 3,8 |
| 1840TR3414 | R 3/4" | R 1/4" | 13,5 | 22,0 | 27 | 8,9 |
| 1840TR3438 | R 3/4" | R 3/8" | 13,5 | 22,2 | 27 | 8,1 |
| 1840TR3412 | R 3/4" | R 1/2" | 13,5 | 22,4 | 27 | 7,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1850 Male plug BSPT thread

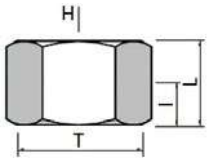





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1850TR18 | R 1/8" | 9,0 | 13,6 | 11 | 1,0 |
| 1850TR14 | R 1/4" | 10,5 | 16,6 | 14 | 2,0 |
| 1850TR38 | R 3/8" | 10,5 | 16,1 | 17 | 3,0 |
| 1850TR12 | R 1/2" | 12,5 | 19,6 | 22 | 5,0 |
| 1850TR34 | R 3/4" | 15,0 | 22,0 | 27 | 8,0 |
| 1850TR1 | R 1" | 20,0 | 27,0 | 36 | - |

## 1855 Female plug BSPT thread

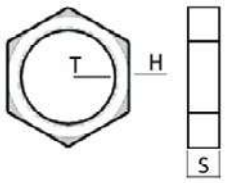





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1855TR18 | R 1/8" | 9,0 | 10,4 | 13 | 1,1 |
| 1855TR14 | R 1/4" | 10,0 | 14,2 | 17 | 1,2 |
| 1855TR38 | R 3/8" | 11,0 | 14,2 | 20 | 2,7 |
| 1855TR12 | R 1/2" | 13,5 | 17,1 | 24 | 4,3 |
| 1855TR34 | R 3/4" | 14,0 | 17,1 | 30 | 6,2 |

## 1875 Nut BSPT thread

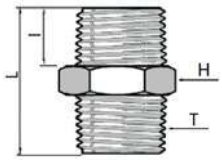





| CODE | T | S | H | g | COLOURS |
|---|---|---|---|---|---|
| 1875TR14 | G 1/4" | 5,0 | 17 | 1,1 | BLACK |
| 1875TR12 | G 1/2" | 11,6 | 26 | 1,2 | BLUE |

## 1800N — Nipple NPT thread

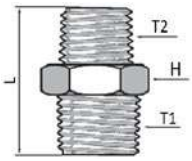





| CODE | T | I | H | g |
|---|---|---|---|---|
| 1800TRN18 | N 1/8" | 11 | 23,9 | 1,4 |
| 1800TRN14 | N 1/4" | 14 | 32,7 | 2,79 |
| 1800TRN38 | N 3/8" | 17 | 34,4 | 4,85 |
| 1800TRN12 | N 1/2" | 22 | 43,3 | 8,75 |
| 1800TRN34 | N 3/4" | 27 | 44,4 | 12,44 |

## 1802N — Reduced nipple NPT thread

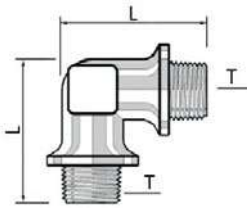





| CODE | T1 | T2 | H | L | g |
|---|---|---|---|---|---|
| 1802TRN1418 | N 1/4" | N 1/8" | 14 | 28,4 | 2,3 |
| 1802TRN3818 | N 3/8" | N 1/8" | 17 | 29,6 | 3,8 |
| 1802TRN1218 | N 1/2" | N 1/8" | 22 | 34,9 | 6,4 |
| 1802TRN3418 | N 3/4" | N 1/8" | 27 | 35,4 | 9,1 |
| 1802TRN3814 | N 3/8" | N 1/4" | 17 | 33,4 | 4,17 |
| 1802TRN1214 | N 1/2" | N 1/4" | 22 | 38,7 | 6,9 |
| 1802TRN3414 | N 3/4" | N 1/4" | 27 | 39,4 | 9,5 |
| 1802TRN1238 | N 1/2" | N 3/8" | 22 | 39,1 | 7,6 |
| 1802TRN3438 | N 3/4" | N 3/8" | 27 | 39,6 | 10,2 |
| 1802TRN3412 | N 3/4" | N 1/2" | 27 | 44,1 | 11,4 |

## 1810N — Male elbow NPT thread

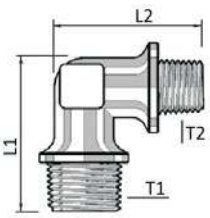





| CODE | T | L | g |
|---|---|---|---|
| 1810TRN18 | N 1/8" | 23,8 | 2,2 |
| 1810TRN14 | N 1/4" | 28,4 | 3,3 |

## 1812N — Reduced male elbow NPT thread

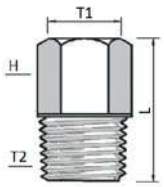





| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 1812TRN1418 | N 1/4" | N 1/8" | 28,4 | 24,0 | 2,9 |

## 1820N — M/F adapter NPT thread

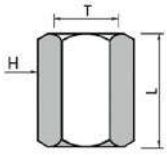





| CODE | T1 | T2 | H | L | g |
|---|---|---|---|---|---|
| 1820TRN1818 | N 1/8" | N 1/8" | 14 | 23,4 | 2,2 |
| 1820TRN1414 | N 1/4" | N 1/4" | 17 | 30,7 | 3,8 |
| 1820TRN3838 | N 3/8" | N 3/8" | 22 | 30,4 | 5,95 |
| 1820TRN1212 | N 1/2" | N 1/2" | 26 | 39,0 | 5,77 |
| REDUCED M/F ADAPTER NPT THREAD | | | | | |
| 1820TRN1814 | N 1/8" | N 1/4" | 14 | 23,4 | 2,55 |
| 1820TRN1838 | N 1/8" | N 3/8" | 14 | 27,4 | 3,13 |
| 1820TRN1812 | N 1/8" | N 1/2" | 14 | 32,5 | 4,66 |
| 1820TRN1438 | N 1/4" | N 3/8" | 17 | 30,5 | 4,23 |
| 1820TRN1412 | N 1/4" | N 1/2" | 17 | 35,5 | 5,8 |
| 1820TRN3812 | N 3/8" | N 1/2" | 22 | 35,5 | 7,66 |
| ENLARGER M/F ADAPTER NPT THREAD | | | | | |
| 1820TRN1418 | N 1/4" | N 1/8" | 17 | 26,5 | 3,17 |
| 1820TRN3818 | N 3/8" | N 1/8" | 22 | 26,3 | 5,06 |
| 1820TRN3814 | N 3/8" | N 1/4" | 22 | 26,5 | 5,68 |
| 1820TRN1218 | N 1/2" | N 1/8" | 26 | 30,0 | 7,73 |
| 1820TRN1214 | N 1/2" | N 1/4" | 26 | 34,0 | 8,04 |
| 1820TRN1238 | N 1/2" | N 3/8" | 26 | 36,6 | 8,66 |

## 1825N — Female sleeve NPT thread

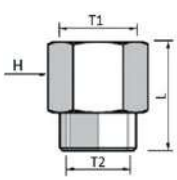





| CODE | T | H | L | g |
|---|---|---|---|---|
| 1825TRN18 | N 1/8" | 14 | 19,7 | 2,3 |
| 1825TRN14 | N 1/4" | 17 | 23,5 | 3,7 |
| 1825TRN38 | N 3/8" | 22 | 24,6 | 5,2 |
| 1825TRN12 | N 1/2" | 27 | 29,5 | 9,7 |

## 1827N — Reduced female sleeve NPT thread



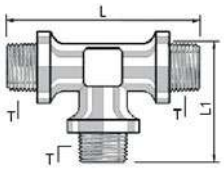



| CODE | T1 | T2 | H | L | g |
|---|---|---|---|---|---|
| 1827TRN1418 | N 1/4" | N 1/8" | 17 | 22,0 | 3,2 |
| 1827TRN3818 | N 3/8" | N 1/8" | 22 | 24,4 | 4,9 |
| 1827TRN3814 | N 3/8" | N 1/4" | 22 | 24,8 | 4,83 |
| 1827TRN1214 | N 1/2" | N 1/4" | 26 | 27,0 | 7,4 |
| 1827TRN1238 | N 1/2" | N 3/8" | 26 | 26,8 | 7,8 |

## 1830N

Male tee NPT thread



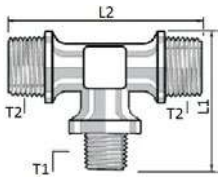



| CODE | T | L | L1 | g |
|---|---|---|---|---|
| 1830TRN18 | N 1/8" | 39,3 | 24,0 | 3,2 |
| 1830TRN14 | N 1/4" | 48,4 | 28,5 | 4,8 |

## 1832N

Reduced male tee NPT thread



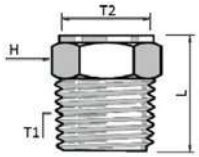



| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 1832TRN1418 | N 1/8" | N 1/4" | 48,4 | 24,0 | 4,2 |

## 1840N

M/F reduced NPT thread



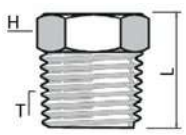



| CODE | T1 | T2 | H | L | g |
|---|---|---|---|---|---|
| 1840TRN1418 | N 1/4" | N 1/8" | 15 | 21,0 | 1,78 |
| 1840TRN3818 | N 3/8" | N 1/8" | 18 | 20,8 | 3,3 |
| 1840TRN3814 | N 3/8" | N 1/4" | 19 | 20,8 | 2,4 |
| 1840TRN1218 | N 1/2" | N 1/8" | 24 | 27,2 | 6,98 |
| 1840TRN1214 | N 1/2" | N 1/4" | 19 | 27,1 | 6,65 |
| 1840TRN1238 | N 1/2" | N 3/8" | 29 | 27,2 | 5,55 |
| 1840TRN3414 | N 3/4" | N 1/4" | 29 | 27,0 | 10,44 |
| 1840TRN3438 | N 3/4" | N 3/8" | 29 | 27,2 | 9,85 |
| 1840TRN3412 | N 3/4" | N 1/2" | 29 | 27,3 | 7,9 |

## 1850N

Male plug NPT thread






| CODE | T | H | L | g |
|---|---|---|---|---|
| 1850TRN18 | N 1/8" | 11 | 14,7 | 1,1 |
| 1850TRN14 | N 1/4" | 14 | 19,4 | 2 |
| 1850TRN38 | N 3/8" | 17 | 20,4 | 3,3 |
| 1850TRN12 | N 1/2" | 22 | 25,6 | 6 |
| 1850TRN34 | N 3/4" | 27 | 26,0 | 8,7 |

# STANDARD FITTINGS PVDF

PLUS

- RESISTANT TO CONTACT WITH CHEMICALS AND CAN BE USED IN THE FOOD SECTOR
- EXTREMLY SIMPLE TO USE FOLLOWING TECHNICAL INFORMATION
- ENVIRONMENTALLY FRIENDLY AND NON-TOXIC
- RESISTANT TO COSTANT HIGH LEVEL TEMPERATURES
- OPTIMISATION OF INTERNAL STEPS WHICH GUARANTEES FULL FLUID PASSAGE



p. 302 / **1900**



p. 302 / **1902**



p. 302 / **1910**



p. 302 / **1912**



p. 303 / **1920**



p. 303 / **1925**



p. 303 / **1927**



p. 304 / **1930**



p. 304 / **1932**



p. 304 / **1934**



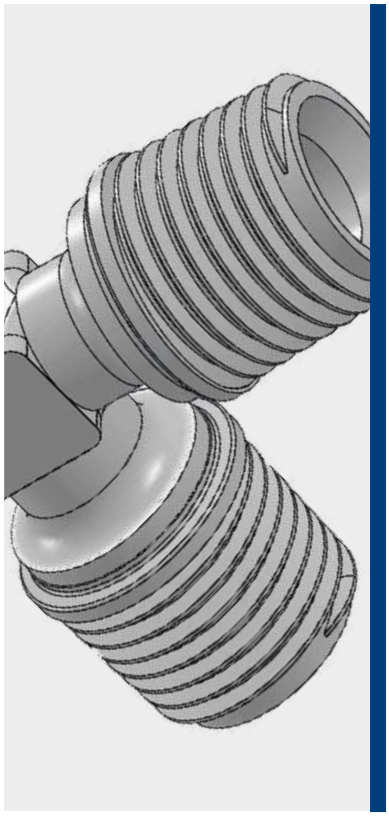
p. 304 / **1940**



p. 305 / **1950**



p. 305 / **1955**



-20°C ÷ +120°C
Subject to applications

**Working pressure:**
14 Bar (at 20°C)
Depending on the tube used

Compressed air, water and fluids suitable with construction materials

Taper gas BSPT ISO 7
from R1/8" to R1"

**Body:** Polyvinylidene fluoride (PVDF)

**FEATURES**

The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.

**AVAIABILITY:**

Available on request with NPT threads

Food contact materials
EC 1935/2004

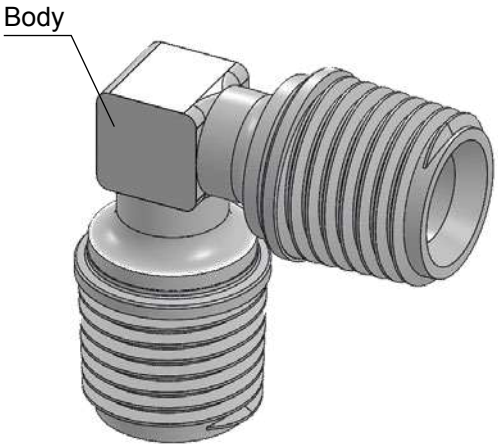
D.M. 174/2004

NSF 61 / NSF 372
NSF certificate on behalf of Tefen Flow and Dosing Technologies Ltd.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CINSTRUCTION DETAILS



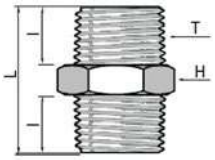

## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 1/8" | 1/2" | 3/4" | 1" |
|---|---|---|---|---|---|---|
| Nm | 0,1 | 1 | 5 | 8 | 16 | 26 |

## 1900 Nipple BSPT thread

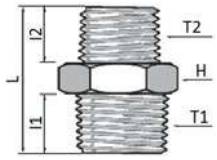





| CODE | T | L | I | H | g |
|---|---|---|---|---|---|
| 1900TR18 | R 1/8" | 23,2 | 8,0 | 11 | 1,4 |
| 1900TR14 | R 1/4" | 27,1 | 10,0 | 14 | 3,5 |
| 1900TR38 | R 3/8" | 28,2 | 10,0 | 17 | 4,2 |
| 1900TR12 | R 1/2" | 34,1 | 12,5 | 22 | 8,0 |

## 1902 Reduced nipple BSPT thread

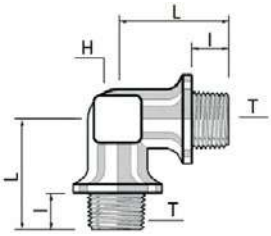





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1902TR1418 | R 1/4" | R 1/8" | 10,5 | 8,5 | 25,2 | 14 | 2,5 |
| 1902TR3818 | R 3/8" | R 1/8" | 10,0 | 8,0 | 27,1 | 17 | 3,8 |
| 1902TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 28,5 | 17 | 4,1 |
| 1902TR1218 | R 1/2" | R 1/8" | 13,0 | 12,0 | 29,3 | 22 | 6,1 |
| 1902TR1214 | R 1/2" | R 1/4" | 13,0 | 10,5 | 31,5 | 22 | 6,7 |
| 1902TR1238 | R 1/2" | R 3/8" | 13,0 | 10,5 | 31,5 | 22 | 6,0 |
| 1902TR3412 | R 3/4" | R 1/2" | 13,5 | 13,0 | 34,5 | 27 | 7,5 |

## 1910 Male elbow BSPT thread

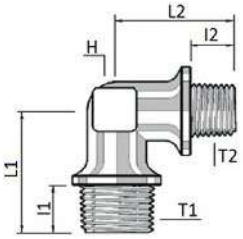





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1910TR18 | R 1/8" | 8,0 | 20,0 | 10 | 3,0 |
| 1910TR14 | R 1/4" | 10,0 | 22,0 | 10 | 4,0 |
| 1910TR38 | R 3/8" | 10,0 | 24,0 | 14 | 7,0 |
| 1910TR12 | R 1/2" | 12,5 | 32,0 | 17 | 15,0 |

## 1912 Reduced male elobw BSPT thread

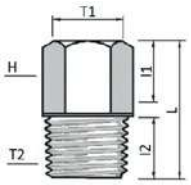





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1912TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 22,0 | 20,0 | 12 | 3,6 |
| 1912TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 24,0 | 24,0 | 15 | 6,5 |
| 1912TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 32,0 | 29,5 | 17 | 13,0 |

## 1920 Adapter M/F BSPT thread

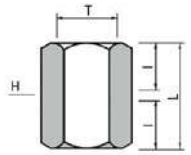





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1920TR1818 | R 1/8" | R 1/8" | 9,0 | 8,0 | 23,0 | 14 | 1,0 |
| 1920TR1414 | R 1/4" | R 1/4" | 10,5 | 10,0 | 24,0 | 17 | 3,0 |
| 1920TR3838 | R 3/8" | R 3/8" | 11,0 | 10,5 | 26,0 | 22 | 5,3 |
| 1920TR1212 | R 1/2" | R 1/2" | 13,5 | 13,0 | 30,5 | 26 | 9,0 |
| REDUCED ADAPTER M/F BSPT THREAD | | | | | | | |
| 1920TR1814 | R 1/8" | R 1/4" | 10,5 | 10,0 | 23,0 | 14 | 2,4 |
| 1920TR1838 | R 1/8" | R 3/8" | 9,0 | 10,0 | 24,0 | 14 | 2,7 |
| 1920TR1812 | R 1/8" | R 1/2" | 9,0 | 12,0 | 27,0 | 14 | 4,1 |
| 1920TR1438 | R 1/4" | R 3/8" | 10,5 | 10,0 | 25,0 | 17 | 5,0 |
| 1920TR1412 | R 1/4" | R 1/2" | 10,5 | 10,0 | 27,0 | 17 | 4,8 |
| 1920TR3812 | R 3/8" | R 1/2" | 11,0 | 13,0 | 28,0 | 22 | 8,0 |
| ENLARGER ADAPTER M/F BSPT THREAD | | | | | | | |
| 1920TR1418 | R 1/4" | R 1/8" | 10,5 | 8,0 | 22,0 | 17 | 2,8 |
| 1920TR3818 | R 3/8" | R 1/8" | 11,0 | 8,0 | 23,0 | 22 | 4,8 |
| 1920TR3814 | R 3/8" | R 1/4" | 11,0 | 10,0 | 25,0 | 22 | 5,1 |
| 1920TR1218 | R 1/2" | R 1/8" | 13,5 | 8,0 | 25,5 | 26 | 7,0 |
| 1920TR1214 | R 1/2" | R 1/4" | 13,5 | 10,0 | 27,0 | 26 | 7,2 |
| 1920TR1238 | R 1/2" | R 3/8" | 13,5 | 10,0 | 28,0 | 26 | 8,0 |

## 1925 Sleeve F/F BSPT thread

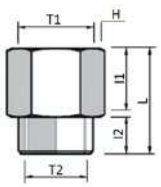





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1925TR18 | R 1/8" | 9,0 | 20,0 | 14 | 2,3 |
| 1925TR14 | R 1/4" | 11,0 | 23,6 | 17 | 3,7 |
| 1925TR38 | R 3/8" | 11,0 | 24,5 | 21 | 5,2 |
| 1925TR12 | R 1/2" | 13,5 | 29,7 | 26 | 9,6 |
| 1925TR34 | R 3/4" | 18,0 | 38,0 | 34 | 16,8 |

## 1927 Reduced sleeve F/F BSPT thread

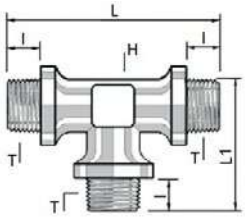





| CODE | T1 | T2 | I1 | I2 | L | H | g |
|---|---|---|---|---|---|---|---|
| 1927TR1418 | R 1/4" | R 1/8" | 11,0 | 9,0 | 22,0 | 17 | 3,2 |
| 1927TR3818 | R 3/8" | R 1/8" | 11,0 | 9,0 | 24,5 | 21 | 5,2 |
| 1927TR3814 | R 3/8" | R 1/4" | 11,0 | 11,0 | 24,5 | 21 | 6,0 |
| 1927TR1214 | R 1/2" | R 1/4" | 13,5 | 11,0 | 27,0 | 26 | 8,0 |
| 1927TR1238 | R 1/2" | R 3/8" | 13,5 | 11,0 | 27,0 | 26 | 7,7 |
| 1927TR3414 | R 3/4" | R 1/4" | 13,5 | 11,0 | 34,0 | 35 | 11,0 |
| 1927TR3412 | R 3/4" | R 1/2" | 13,5 | 11,0 | 34,0 | 35 | 14,5 |

## 1930 Male tee BSPT thread

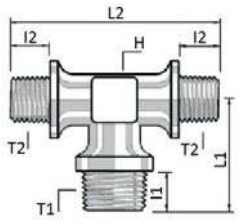





| CODE | T | I | L | L1 | H | g |
|---|---|---|---|---|---|---|
| 1930TR18 | R 1/8" | 8,0 | 39,8 | 24,1 | 12 | 4,0 |
| 1930TR14 | R 1/4" | 10,0 | 44,0 | 26,2 | 12 | 5,0 |
| 1930TR38 | R 3/8" | 10,0 | 50,5 | 32,0 | 15 | 10,0 |
| 1930TR12 | R 1/2" | 12,5 | 64,0 | 40,3 | 17 | 22,0 |

## 1932 Reduced male tee BSPT thread

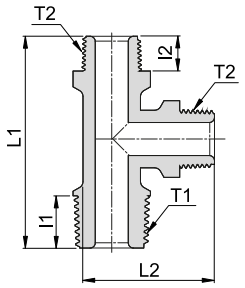





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1932TR1814 | R 1/8" | R 1/4" | 8,0 | 10,0 | 20,0 | 39,7 | 12 | 4,4 |
| 1932TR1438 | R 1/4" | R 3/8" | 10,0 | 10,0 | 25,0 | 38,2 | 15 | 9,3 |
| 1932TR3812 | R 3/8" | R 1/2" | 10,0 | 12,5 | 29,5 | 60,2 | 17 | 17,3 |
| ENLARGER MALE TEE BSPT THREAD | | | | | | | | |
| 1932TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 22,0 | 43,3 | 12 | 5,6 |
| 1932TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 25,0 | 60,2 | 15 | 9,7 |
| 1932TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 32,0 | 64,2 | 17 | 17,0 |

## 1934 Lateral reduced male tee BSPT thread

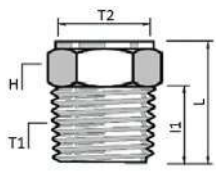





| CODE | T1 | T2 | I1 | I2 | L1 | L2 | H | g |
|---|---|---|---|---|---|---|---|---|
| 1934TR1814 | R 1/8" | R 1/4" | 8,0 | 10,0 | 42,7 | 25,5 | 12 | 5,0 |
| 1934TR1438 | R 1/4" | R 3/8" | 10,0 | 10,0 | 48,5 | 31,0 | 15 | 9,5 |
| 1934TR3812 | R 3/8" | R 1/2" | 10,0 | 12,5 | 62,0 | 38,2 | 17 | 19,0 |
| LATERAL ENLARGER MALE TEE BSPT THREAD | | | | | | | | |
| 1934TR1418 | R 1/4" | R 1/8" | 10,0 | 8,0 | 41,8 | 26,3 | 12 | 4,9 |
| 1934TR3814 | R 3/8" | R 1/4" | 10,0 | 10,0 | 48,3 | 30,8 | 15 | 8,8 |
| 1934TR1238 | R 1/2" | R 3/8" | 12,5 | 10,0 | 62,0 | 40,0 | 17 | 17,9 |

## 1940 M/F reduced BSPT thread



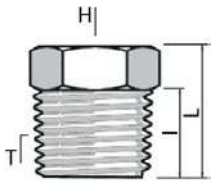



| CODE | T1 | T2 | I1 | L | H | g |
|---|---|---|---|---|---|---|
| 1940TR1418 | R 1/4" | R 1/8" | 10,0 | 17,2 | 14 | 1,5 |
| 1940TR3818 | R 3/8" | R 1/8" | 10,5 | 17,8 | 17 | 2,7 |
| 1940TR3814 | R 3/8" | R 1/4" | 10,5 | 17,8 | 17 | 2,1 |
| 1940TR1218 | R 1/2" | R 1/8" | 12,5 | 20,7 | 22 | 6,0 |
| 1940TR1214 | R 1/2" | R 1/4" | 12,5 | 20,4 | 22 | 5,0 |
| 1940TR1238 | R 1/2" | R 3/8" | 12,5 | 20,7 | 22 | 3,8 |
| 1940TR3414 | R 3/4" | R 1/4" | 13,5 | 22,0 | 27 | 8,9 |
| 1940TR3438 | R 3/4" | R 3/8" | 13,5 | 22,2 | 27 | 8,1 |
| 1940TR3412 | R 3/4" | R 1/2" | 13,5 | 22,4 | 27 | 7,0 |

*drawings and technical data are not binding & can be changed without notice*

## 1950 Male plug BSPT thread

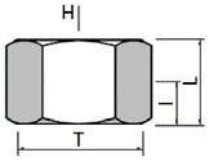





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1950TR18 | R 1/8" | 9,0 | 13,6 | 12 | 1,0 |
| 1950TR14 | R 1/4" | 10,5 | 16,6 | 15 | 2,0 |
| 1950TR38 | R 3/8" | 10,5 | 16,1 | 18 | 3,0 |
| 1950TR12 | R 1/2" | 12,5 | 19,6 | 22 | 5,0 |
| 1950TR34 | R 3/4" | 15,0 | 22,0 | 27 | 8,0 |
| 1950TR1 | R 1" | 20,0 | 27,0 | 36 | 9,5 |

## 1955 Female plug BSPT thread






| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 1955TR18 | R 1/8" | 9,0 | 10,4 | 13 | 1,1 |
| 1955TR14 | R 1/4" | 10,0 | 14,2 | 17 | 1,2 |
| 1955TR38 | R 3/8" | 11,0 | 14,2 | 20 | 2,7 |
| 1955TR12 | R 1/2" | 13,5 | 17,1 | 24 | 4,3 |
| 1955TR34 | R 3/4" | 14,0 | 17,1 | 30 | 6,2 |



# STANDARD FITTINGS
## STAINLESS STEEL AISI 316






## PLUS

**USABLE WITH DIFFERENT FLUIDS AND IN AGGRESSIVE ENVIRONMENTS**

**DESIGNED FOR HEAVY DUTY USE THANKS TO THEIR STURDINESS**

**SUITABLE FOR FOOD CONTACT**



p. 310 / **1410**



p. 310 / **1412**



p. 310 / **1420**



p. 311 / **1425**



p. 311 / **1426**



p. 311 / **1430**



p. 312 / **1440**



p. 312 / **1461**



p. 314 / **P-SL**



p. 314 / **P-SSL**



p. 314 / **P-ST**



p. 314 / **P-SBT**



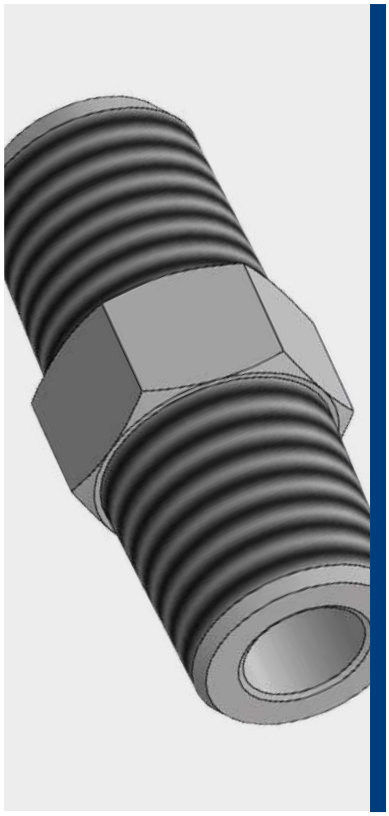
p. 315 / **P-SHN**



p. 315 / **P-MFAA**



p. 315 / **1449**



-20°C ÷ +180°C

**Working pressure:**
150 Bar

Compressed air, potable water and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R3/4"
- Parallel gas BSPP ISO 228 from G1/8" to G3/4"

**Body:** Stainless steel AISI 316

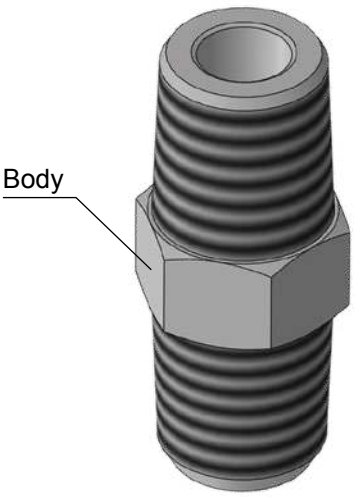
Food contact materials EC 1935/2004

D.M. 174/2004

Products in compliance with EC Regulation 1907/2006

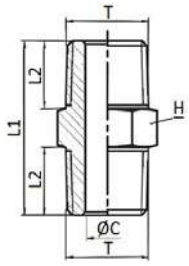
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## 1410 Nipple BSPT thread

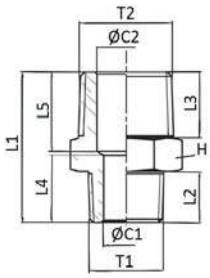





| CODE | T | ØC | L1 | L2 | H | g |
|---|---|---|---|---|---|---|
| 1410TR18 | R 1/8" | 5 | 24 | 9,0 | 12 | 11,3 |
| 1410TR14 | R 1/4" | 7 | 27 | 10,5 | 14 | 19,6 |
| 1410TR38 | R 3/8" | 10 | 30 | 11,5 | 17 | 29,9 |
| 1410TR12 | R 1/2" | 13 | 38 | 15,0 | 22 | 58,0 |
| 1410TR34 | R 3/4" | 18 | 46 | 18,0 | 27 | 95,4 |

## 1412 Reduced nipple BSPT thread

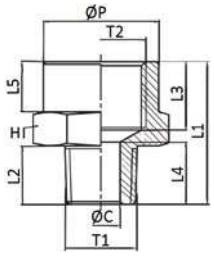





| CODE | T1 | T2 | ØC1 | ØC2 | L1 | L2 | L3 | L4 | L5 | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1412TR1814 | R 1/8" | R 1/4" | 7 | 5 | 25,5 | 10,5 | 9,0 | 15,0 | 9,9 | 14 | 15,9 |
| 1412TR1438 | R 1/4" | R 3/8" | 7 | 10 | 29,0 | 10,5 | 11,5 | 13,10 | 15,0 | 17 | 26,6 |
| 1412TR1412 | R 1/4" | R 1/2" | 7 | 13 | 33,0 | 10,5 | 15,0 | 13,27 | 18,0 | 22 | 45,3 |
| 1412TR3812 | R 3/8" | R 1/2" | 10 | 13 | 34,0 | 11,5 | 15,0 | 15,10 | 18,0 | 22 | 48,5 |
| 1412TR1234 | R 1/2" | R 3/4" | 13 | 18 | 43,0 | 15,0 | 18,0 | 19,60 | 22,0 | 27 | 87,1 |

## 1420 Enlarger male BSPT thread & female BSPP thread

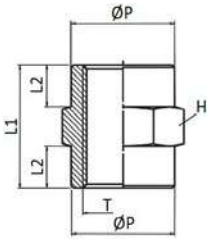





| CODE | T1 | T2 | ØC | ØP | L1 | L2 | L3 | L4 | L5 | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1420TR1814 | R 1/8" | G 1/4" | 5 | 16,5 | 22 | 8 | 11,0 | 9,1 | 8,0 | 17 | 16,2 |
| 1420TR1438 | R 1/4" | G 3/8" | 7 | 21,5 | 27,0 | 11 | 13,0 | 11,7 | 9,5 | 22 | 33,2 |
| 1420TR3812 | R 3/8" | G 1/2" | 10 | 26,5 | 30,0 | 11 | 15,0 | 12,4 | 11,5 | 27 | 54,6 |

## 1425 Female sleeve BSPP thread

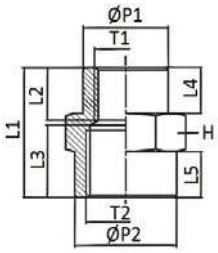





| CODE | T | ØP | L1 | L2 | H | g |
|---|---|---|---|---|---|---|
| 1425TR18 | G 1/8" | 13,0 | 15 | 5,0 | 14 | 8,9 |
| 1425TR14 | G 1/4" | 16,5 | 22 | 7,5 | 17 | 17,4 |
| 1425TR38 | G 3/8" | 21,5 | 25 | 8,5 | 22 | 34,4 |
| 1425TR12 | G 1/2" | 26,5 | 32 | 11,0 | 27 | 64,4 |
| 1425TR34 | G 3/4" | 31,5 | 34 | 12,0 | 32 | 79,3 |

## 1426 Reduced female sleeve BSPP thread

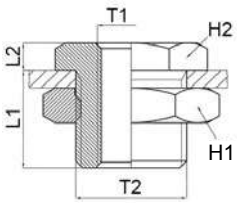





| CODE | T1 | T2 | ØP1 | ØP2 | L1 | L2 | L3 | L4 | L5 | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1426TR1814 | G 1/8" | G 1/4" | 13,5 | 16,5 | 23,0 | 9,1 | 13 | 7,0 | 9,0 | 17 | 18,4 |
| 1426TR1438 | G 1/4" | G 3/8" | 18,0 | 21,5 | 27,0 | 11,0 | 15 | 9,5 | 9,5 | 22 | 36,2 |
| 1426TR1412 | G 1/4" | G 1/2" | 18,0 | 26,5 | 30,0 | 10,8 | 17 | 9,5 | 10,5 | 27 | 56,8 |
| 1426TR3812 | G 3/8" | G 1/2" | 21,5 | 26,5 | 30,0 | 11,8 | 17 | 8,0 | 13,0 | 27 | 61,6 |
| 1426TR1234 | G 1/2" | G 3/4" | 26,5 | 31,5 | 36,0 | 14,6 | 20 | 11,0 | 15,0 | 32 | 88,3 |

## 1430 Bulkhead BSPP thread

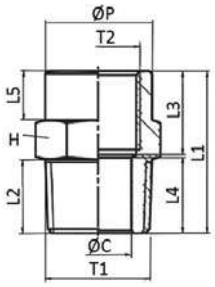





| CODE | T1 | T2 | L1 | L2 | H1 | H2 | g |
|---|---|---|---|---|---|---|---|
| 1430TR14M2015 | G 1/4" | M20x1,5 | 20 | 4 | 27 | 24 | 58,0 |
| 1430TR12M2815 | G 1/2" | M28x1,5 | 27 | 6 | 36 | 32 | 125,0 |

## 1440 Reduced male BSPT thread & female BSPP thread

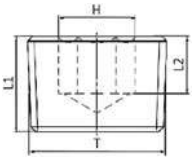




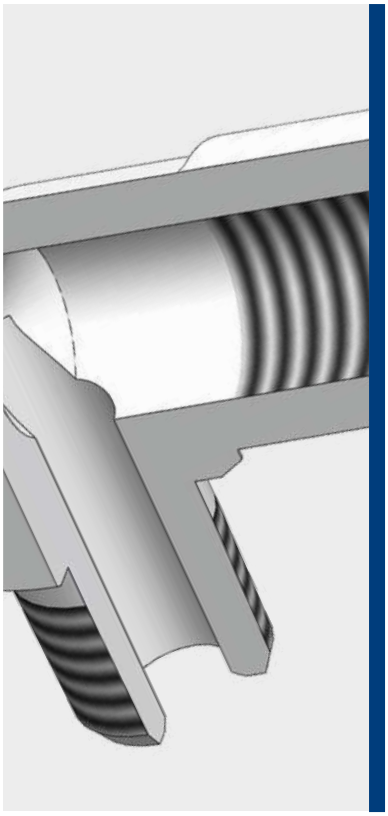

| CODE | T1 | T2 | ØP | ØC | L1 | L2 | L3 | L4 | L5 | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1440TR1418 | R 1/4" | G 1/8" | 13,5 | 7,0 | 23,5 | 11,0 | 9 | 13,0 | 7,0 | 14 | 16,0 |
| 1440TR3814 | R 3/8" | G 1/4" | 16,5 | 10,0 | 26,5 | 11,5 | 12 | 13,1 | 8,0 | 17 | 23,7 |
| 1440TR1238 | R 1/2" | G 3/8" | 21,4 | 13,0 | 33,0 | 15,0 | 17 | 15,4 | 10,0 | 22 | 47,0 |

## 1461 Male plug BSPT thread with exagon embedded






| CODE | T | L1 | L2 | H | g |
|---|---|---|---|---|---|
| 1461TR18 | R 1/8" | 8,2 | 5,0 | 5 | 3,0 |
| 1461TR14 | R 1/4" | 10,2 | 6,0 | 6 | 7,4 |
| 1461TR38 | R 3/8" | 11,6 | 7,0 | 8 | 14,0 |
| 1461TR12 | R 1/2" | 13,3 | 8,0 | 10 | 24,5 |
| 1461TR34 | R 3/4" | 15,0 | 9,0 | 12 | 46,4 |



-198°C ÷ +648°C
-28°C ÷ +204°C (1449)

**Working pressure:**
See the table for each code.
The pressure was calculated at 37.8 °C.

Compressed air, water and fluids suitable with construction materials

- Taper gas BSPT ISO 7
  from R1/8" to R1"
- Parallel gas BSPP ISO 228
  from G1/8" to G1-1/2"
- NPT
  from N1/8" to N1"

**Body:** Stainless steel AISI 316
**O-ring:** Viton (1449)

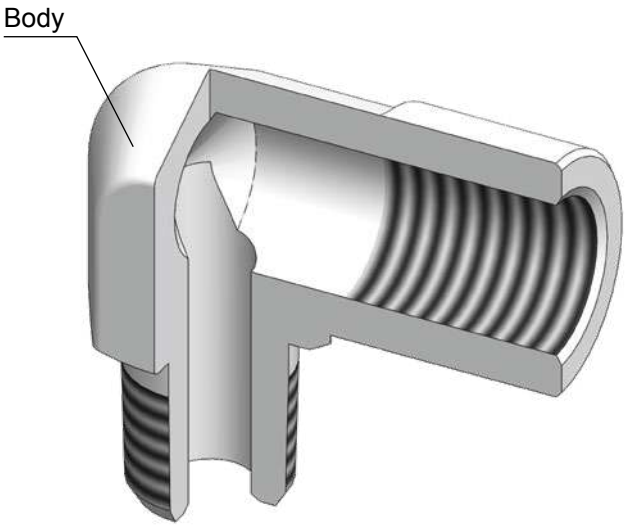
Food contact materials
EC 1935/2004

D.M. 174/2004

Products in compliance with
EC Regulation 1907/2006

Products in compliance with
the directive EU 2015/863

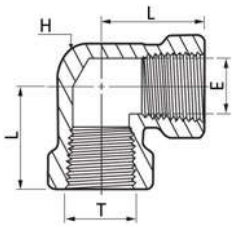
## CONSTRUCTION DETAILS



## P-SL

Female elbow BSPP thread



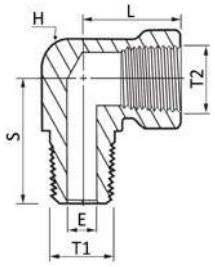



| CODE | T | L | E | H | PN (Bar) |
|---|---|---|---|---|---|
| P-SL-2G | G 1/8" | 24,1 | 8,9 | 12,7 | 448 |
| P-SL-4G | G 1/4" | 29,0 | 11,7 | 17,5 | 455 |
| P-SL-6G | G 3/8" | 34,5 | 15,0 | 20,6 | 365 |
| P-SL-8G | G 1/2" | 37,0 | 18,7 | 25,4 | 338 |
| P-SL-12G | G 3/4" | 46,5 | 23,5 | 31,8 | 317 |
| P-SL-16G | G 1" | 48,8 | 29,7 | 42,9 | 303 |

## P-SSL

Male elbow BSPT thread & female BSPP thread



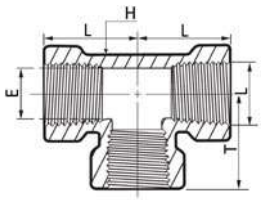



| CODE | T1 | T2 | E | L | S | H | PN (Bar) |
|---|---|---|---|---|---|---|---|
| P-SSL-2GR | R 1/8" | G 1/8" | 4,8 | 24,1 | 19,6 | 12,7 | 448 |
| P-SSL-4GR | R 1/4" | G 1/4" | 7,1 | 29,0 | 26,5 | 17,5 | 455 |
| P-SSL-6GR | R 3/8" | G 3/8" | 9,6 | 34,5 | 28,2 | 20,6 | 365 |
| P-SSL-8GR | R 1/2" | G 1/2" | 11,9 | 37,0 | 35,3 | 25,4 | 338 |
| P-SSL-12GR | R 3/4" | G 3/4" | 15,7 | 46,5 | 39,6 | 31,8 | 317 |
| P-SSL-16GR | R 1" | G 1" | 22,3 | 48,8 | 49,2 | 42,9 | 303 |

## P-ST

Female tee BSPP thread



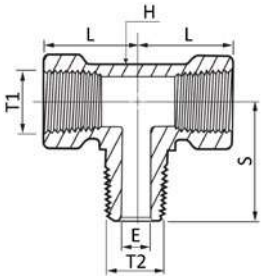



| CODE | T | E | L | H | PN (Bar) |
|---|---|---|---|---|---|
| P-ST-2G | G 1/8" | 8,9 | 24,1 | 12,7 | 448 |
| P-ST-4G | G 1/4" | 11,7 | 29,0 | 17,5 | 455 |
| P-ST-6G | G 3/8" | 15,0 | 34,5 | 20,6 | 365 |
| P-ST-8G | G 1/2" | 18,7 | 37,0 | 25,4 | 338 |
| P-ST-12G | G 3/4" | 23,5 | 46,5 | 31,8 | 317 |
| P-ST-16G | G 1" | 29,7 | 48,5 | 42,9 | 303 |

## P-SBT

Male tee BSPT thread & female BSPP thread





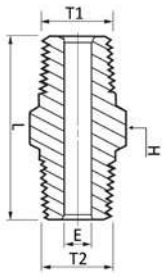

| CODE | T1 | T2 | E | L | S | H | PN (bar) |
|---|---|---|---|---|---|---|---|
| P-SBT-2GR | G 1/8" | R 1/8" | 4,8 | 24,1 | 19,6 | 12,7 | 448 |
| P-SBT-4GR | G 1/4" | R 1/4" | 7,1 | 29,0 | 26,5 | 17,5 | 455 |
| P-SBT-6GR | G 3/8" | R 3/8" | 9,6 | 34,5 | 28,2 | 20,6 | 365 |
| P-SBT-8GR | G 1/2" | R 1/2" | 11,9 | 37,0 | 35,3 | 25,4 | 338 |
| P-SBT-12GR | G 3/4" | R 3/4" | 15,7 | 46,5 | 39,6 | 31,8 | 317 |
| P-SBT-16GR | G 1" | R 1" | 22,3 | 48,8 | 49,2 | 42,9 | 303 |

*drawings and technical data are not binding & can be changed without notice*

## P-SHN

Nipple adapter NPT & BSPT thread



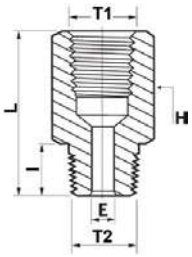



| CODE | T1 | T2 | L | E | H | PN (Bar) |
|---|---|---|---|---|---|---|
| P-SHN-2NR | N 1/8" | R 1/8" | 24,6 | 4,1 | 11,1 | 689 |
| P-SHN-4NR | N 1/4" | R 1/4" | 35,6 | 6,4 | 14,2 | 551 |
| P-SHN-6NR | N 3/8" | R 3/8" | 36,3 | 9,7 | 17,4 | 538 |
| P-SHN-8NR | N 1/2" | R 1/2" | 46,0 | 11,9 | 22,2 | 531 |
| P-SHN-12NR | N 3/4" | R 3/4" | 46,7 | 15,7 | 26,9 | 503 |
| P-SHN-16NR | N 1" | R 1" | 58,9 | 22,4 | 34,9 | 365 |

## P-MFAA

Adapter male BSPT thread & female NPT thread



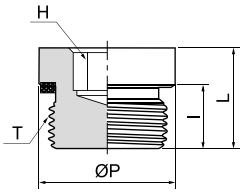



| CODE | T1 | T2 | L | I | E | H | PN (Bar) |
|---|---|---|---|---|---|---|---|
| P-MFAA-2RN | N 1/8" | R 1/8" | 27,4 | 9,7 | 4,8 | 14,2 | 448 |
| P-MFAA-4RN | N 1/4" | R 1/4" | 35,8 | 14,2 | 7,1 | 19,05 | 455 |
| P-MFAA-6RN | N 3/8" | R 3/8" | 37,6 | 14,2 | 9,7 | 22,2 | 365 |
| P-MFAA-8RN | N 1/2" | R 1/2" | 49,0 | 19,1 | 11,9 | 26,9 | 338 |
| P-MFAA-12RN | N 3/4" | R 3/4" | 50,3 | 19,1 | 15,7 | 31,8 | 317 |
| P-MFAA-16RN | N 1" | R 1" | 58,0 | 23,9 | 22,3 | 41,2 | 303 |

## 1449

Male plug BSPP thread with Viton O-ring, DIN2353

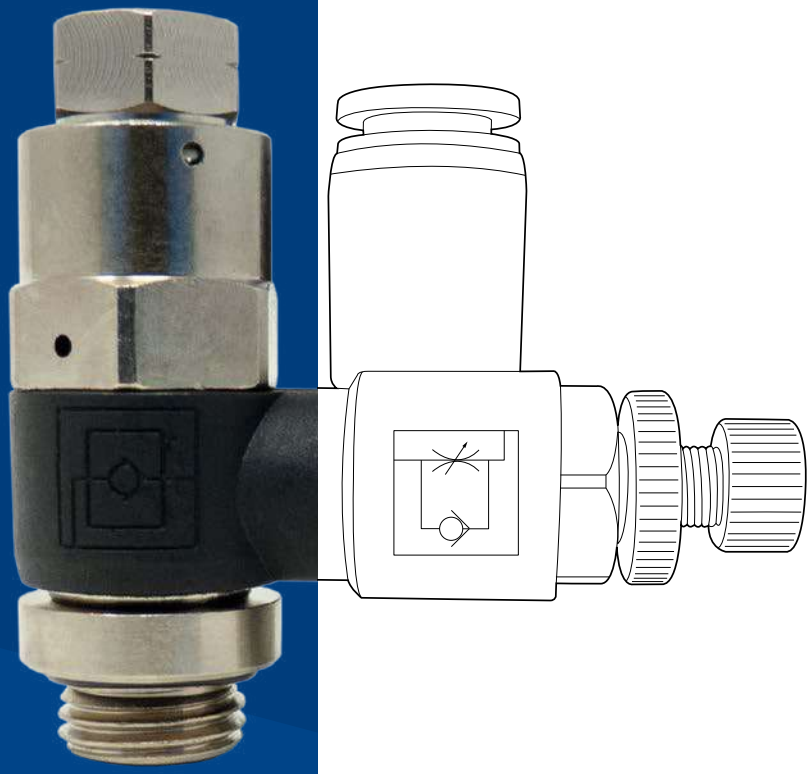





| CODE | T | ØP | L | I | H | PN (Bar) |
|---|---|---|---|---|---|---|
| 1449TRH18-V | G 1/8" | 14 | 12,0 | 8 | 5 | 400 |
| 1449TRH14-V | G 1/4" | 19 | 17,0 | 12 | 6 | 400 |
| 1449TRH38-V | G 3/8" | 22 | 17,0 | 12 | 8 | 400 |
| 1449TRH12-V | G 1/2" | 27 | 19,0 | 14 | 10 | 400 |
| 1449TRH34-V | G 3/4" | 32 | 21,0 | 16 | 12 | 400 |
| 1449TRH1-V | G 1" | 40 | 22,5 | 16 | 17 | 400 |
| 1449TRH114-V | G 1-1/4" | 50 | 22,5 | 16 | 22 | 250 |
| 1449TRH112-V | G 1-1/2" | 55 | 22,5 | 16 | 24 | 250 |



# FUNCTION FITTINGS



# TECHNICAL INDEX



p. 319
**FLOW REGULATORS**



p. 355
**EXHAUST VALVES**



p. 367
**STOP FITTINGS**



p. 373
**CHECK VALVES**

# FUNCTION FITTINGS FLOW REGULATORS

## PLUS

**MADE OF DIFFERENT MATERIALS FOR SPECIFIC INDUSTRIAL APPLICATIONS**

**ALSO AVAILABLE IN MANUAL EXHAUST**

**THE DOUBLE FUNCTION FITTINGS WITH INTEGRATED CHECK VALVE COMPLETE THE RANGE**

**PRECISE REGULATION THAT ALLOWS AN ACCURATE FLOW DOSAGE WITH LIMITED PRESSURE LOSS**

**PASSAGE Ø OPTIMIZED IN ACCORDANCE WITH DIMENSIONS**

## **BANJO FLOW REGULATORS /** WTR SERIES



p. 324 / **WTRFR-R**



p. 324 / **WTRFR-R-IN**



p. 325 / **WTRFR-G**



p. 325 / **WTRFR-G-IN**

## **FLAT FLOW REGULATORS /** WTR SERIES



p. 328 / **WTRNSF**

## **BANJO FLOW REGULATORS /** M SERIES



p. 331 / **MSC-R**



p. 331 / **MSC-G**

## **FLAT FLOW REGULATORS /** M SERIES



p. 334 / **MSF**

## **BANJO FLOW REGULATORS /** BRASS & ZINC CDC



p. 336 / **NSCF**

## **BANJO FLOW REGULATORS /** BRASS



p. 338 / **OTSC-G**



p. 338 / **OTSC-G-IN**



p. 338 / **OTSC-G-D**



p. 339 / **OTSC-G-D-IN**



p. 339 / **OTSC-G-D-B**



p. 339 / **OTSC-G-DF**



p.340 / **OTSC-G-DF-IN**



p. 340 / **OTSC-G-DF-B**

## **FLAT FLOW REGULATORS /** ALUMINIUM



p. 342 / **ASF-U**



p. 342 / **ASF-B**

## **FLOW REGULATORS /** ACETAL RESIN



p. 344 / **HSTU**



p. 344 / **HSLU**



p. 344 / **HSTB**



p. 344 / **HSLB**

## **FLOW REGULATORS /** YELLOW BRASS CW510L



p. 346 / **LFSF-B**

## **BANJO FLOW REGULATORS /** STAINLESS STEEL AISI 316



p. 348 / **SXSC-D**



p. 348 / **SXSC-DF**

## **FLAT FLOW REGULATORS /** STAINLESS STEEL AISI 316



p. 350 / **XSFC-U**



p. 350 / **XSFC-B**



p. 350 / **XSFC-U-N**



p. 350 / **XSFC-B-N**

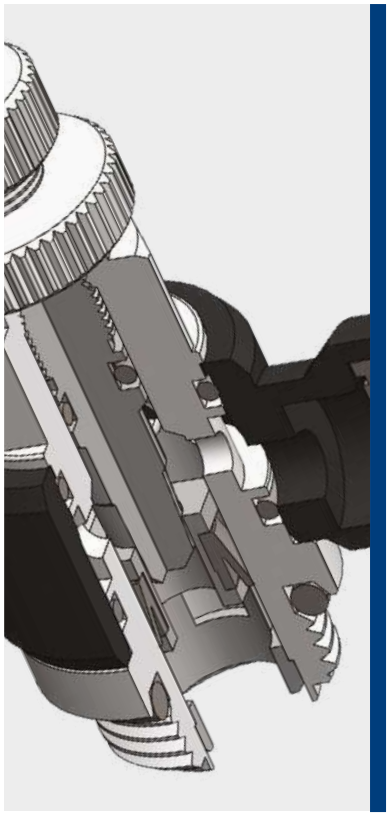
## **FLOW REGULATORS WITH PILOT CHECK VALVES /** TECHNOPOLYMER



p. 353 / **PVSC-R**



p. 353 / **PVSC-G**



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & Vacuum

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"
- Metric ISO 262
  M5

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow regulation

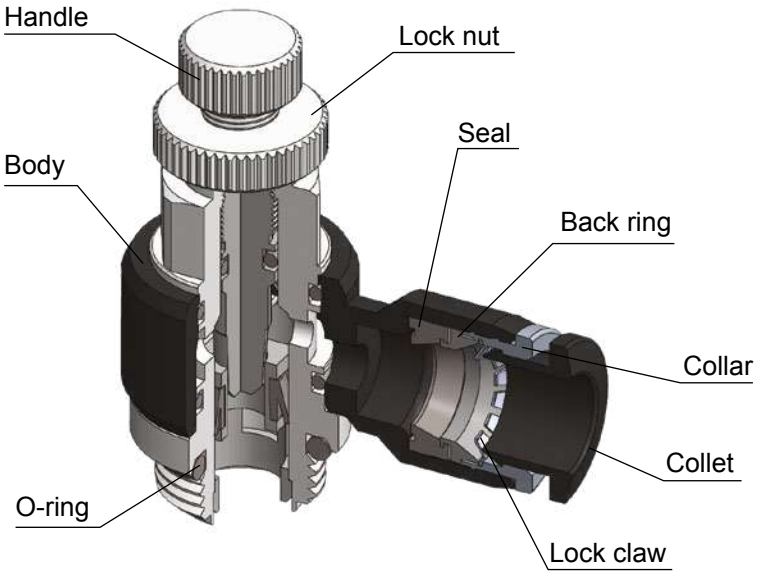
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR silicone free
**O-ring:** NBR silicone free
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

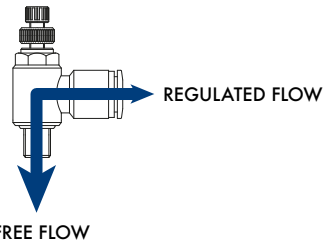
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

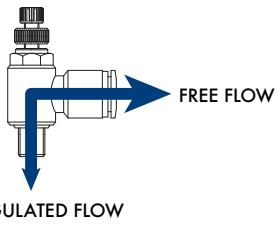
## CONSTRUCTION DETAILS




**EXHAUST (FOR CYLINDERS)**
black collet




**SUPPLY (FOR VALVES)**
red collet




**TIGHTENING TORQUE**
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

**TIGHTENING TORQUE**
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

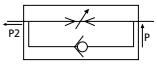
| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| Nm | 1,5 | 10 | 15 | 25 | 40 |

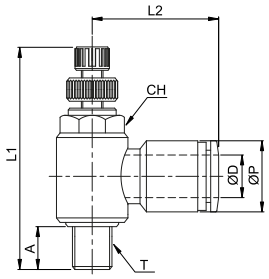
*drawings and technical data are not binding & can be changed without notice*

## WTRFR-R

Banjo male elbow flow regulator unidirectional, for cylinders, BSPT thread with handle regulation





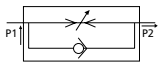



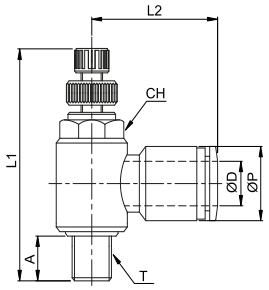

| CODE | ØD | T | ØP | L1 | L2 | A | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRFR04R01 | 4 | R 1/8" | 11,1 | 39,7 | 22,3 | 7 | 10 | 18 |
| WTRFR04R02 | | R 1/4" | 11,1 | 45,5 | 24,1 | 9,5 | 14 | 35,9 |
| WTRFR06R01 | 6 | R 1/8" | 13 | 39,7 | 23,1 | 7 | 10 | 18,5 |
| WTRFR06R02 | | R 1/4" | 13 | 45,5 | 25,1 | 9,5 | 14 | 36,5 |
| WTRFR06R03 | | R 3/8" | 13 | 52 | 26,8 | 10,5 | 19 | 60,5 |
| WTRFR06R04 | | R 1/2" | 13 | 58 | 29,8 | 13,5 | 24 | 92,7 |
| WTRFR08R01 | 8 | R 1/8" | 15,1 | 39,7 | 25,6 | 7 | 10 | 19,3 |
| WTRFR08R02 | | R 1/4" | 15,1 | 45,5 | 28,6 | 9,5 | 14 | 37,3 |
| WTRFR08R03 | | R 3/8" | 15,1 | 52 | 29,6 | 10,5 | 19 | 61,1 |
| WTRFR08R04 | | R 1/2" | 15,1 | 58 | 32,6 | 13,5 | 24 | 93,4 |
| WTRFR10R01 | 10 | R 1/8" | 18,8 | 39,7 | 28,8 | 7 | 10 | 22,7 |
| WTRFR10R02 | | R 1/4" | 18,8 | 45,5 | 31 | 9,5 | 14 | 40,7 |
| WTRFR10R03 | | R 3/8" | 18,8 | 52 | 31,6 | 10,5 | 19 | 64,5 |
| WTRFR10R04 | | R 1/2" | 18,8 | 58 | 34,6 | 13,5 | 24 | 96,8 |
| WTRFR12R02 | 12 | R 1/4" | 21,5 | 45,5 | 33,5 | 9,5 | 14 | 42,2 |
| WTRFR12R03 | | R 3/8" | 21,5 | 52 | 35,6 | 10,5 | 19 | 66,1 |
| WTRFR12R04 | | R 1/2" | 21,5 | 58 | 36,6 | 13,5 | 24 | 98,3 |

## WTRFR-R-IN

Banjo male elbow flow regulator unidirectional, for valves, BSPT thread with handle regulation





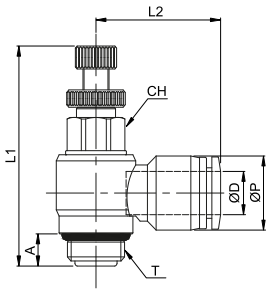

| CODE | ØD | T | ØP | L1 | L2 | B | H | g |
|---|---|---|---|---|---|---|---|---|
| WTRFR04R01-IN | 4 | R 1/8" | 11,1 | 39,7 | 22,3 | 7 | 10 | 18 |
| WTRFR04R02-IN | | R 1/4" | 11,1 | 45,5 | 24,1 | 9,5 | 14 | 35,9 |
| WTRFR06R01-IN | 6 | R 1/8" | 13 | 39,7 | 23,1 | 7 | 10 | 18,5 |
| WTRFR06R02-IN | | R 1/4" | 13 | 45,5 | 25,1 | 9,5 | 14 | 36,5 |
| WTRFR06R03-IN | | R 3/8" | 13 | 52 | 26,8 | 10,5 | 19 | 60,5 |
| WTRFR06R04-IN | | R 1/2" | 13 | 58 | 29,8 | 13,5 | 24 | 92,7 |
| WTRFR08R01-IN | 8 | R 1/8" | 15,1 | 39,7 | 25,6 | 7 | 10 | 19,3 |
| WTRFR08R02-IN | | R 1/4" | 15,1 | 45,5 | 28,6 | 9,5 | 14 | 37,3 |
| WTRFR08R03-IN | | R 3/8" | 15,1 | 52 | 29,6 | 10,5 | 19 | 61,1 |
| WTRFR08R04-IN | | R 1/2" | 15,1 | 58 | 32,6 | 13,5 | 24 | 93,4 |
| WTRFR10R01-IN | 10 | R 1/8" | 18,8 | 39,7 | 28,8 | 7 | 10 | 22,7 |
| WTRFR10R02-IN | | R 1/4" | 18,8 | 45,5 | 31 | 9,5 | 14 | 40,7 |
| WTRFR10R03-IN | | R 3/8" | 18,8 | 52 | 31,6 | 10,5 | 19 | 64,5 |
| WTRFR10R04-IN | | R 1/2" | 18,8 | 58 | 34,6 | 13,5 | 24 | 96,8 |
| WTRFR12R02-IN | 12 | R 1/4" | 21,5 | 45,5 | 33,5 | 9,5 | 14 | 42,2 |
| WTRFR12R03-IN | | R 3/8" | 21,5 | 52 | 35,6 | 10,5 | 19 | 66,1 |
| WTRFR12R04-IN | | R 1/2" | 21,5 | 58 | 36,6 | 13,5 | 24 | 98,3 |

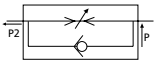
*drawings and technical data are not binding & can be changed without notice*

## WTRFR-G

Banjo male elbow flow regulator unidirectional, for cylinders, BSPP & metric thread with handle regulation





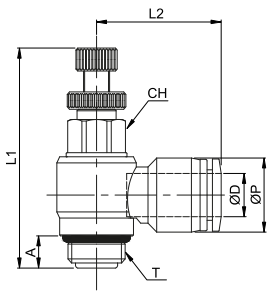



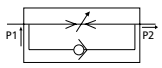

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRFR04M5 | 4 | M5x0,8 | 11,1 | 4 | 29,3 | 20 | 8 | 15 |
| WTRFR04G01 | | G 1/8" | 11,1 | 5 | 39,7 | 22,3 | 8 | 18 |
| WTRFR04G02 | | G 1/4" | 11,1 | 6 | 45,5 | 24,1 | 12 | 36 |
| WTRFR06M5 | 6 | M5x0,8 | 13 | 4 | 29,3 | 21,9 | 8 | 17 |
| WTRFR06G01 | | G 1/8" | 13 | 5 | 39,7 | 23,1 | 8 | 18,5 |
| WTRFR06G02 | | G 1/4" | 13 | 6 | 45,5 | 25,1 | 12 | 36,5 |
| WTRFR06G03 | | G 3/8" | 13 | 7,2 | 52 | 26,8 | 14 | 60,5 |
| WTRFR06G04 | | G 1/2" | 13 | 8,2 | 58 | 29,8 | 17 | 92,7 |
| WTRFR08G01 | 8 | G 1/8" | 15,1 | 5 | 39,7 | 25,6 | 8 | 19,3 |
| WTRFR08G02 | | G 1/4" | 15,1 | 6 | 45,5 | 8,6 | 12 | 37,3 |
| WTRFR08G03 | | G 3/8" | 15,1 | 7,2 | 52 | 29,6 | 14 | 61,1 |
| WTRFR08G04 | | G 1/2" | 15,1 | 8,2 | 58 | 32,6 | 17 | 93,4 |
| WTRFR10G01 | 10 | G 1/8" | 18,8 | 5 | 39,7 | 28,8 | 8 | 22,7 |
| WTRFR10G02 | | G 1/4" | 18,8 | 6 | 45,5 | 31,1 | 12 | 40,7 |
| WTRFR10G03 | | G 3/8" | 18,8 | 7,2 | 52 | 31,6 | 14 | 64,5 |
| WTRFR10G04 | | G 1/2" | 18,8 | 8,2 | 58 | 34,6 | 17 | 96,8 |
| WTRFR12G02 | 12 | G 1/4" | 21,5 | 6 | 45,5 | 33,5 | 12 | 42,2 |
| WTRFR12G03 | | G 3/8" | 21,5 | 7,2 | 52 | 35,6 | 14 | 66,1 |
| WTRFR12G04 | | G 1/2" | 21,5 | 8,2 | 58 | 36,6 | 17 | 98,3 |

## WTRFR-G-IN

Banjo male elbow flow regulator unidirectional, for valves, BSPP & metric thread with handle regulation





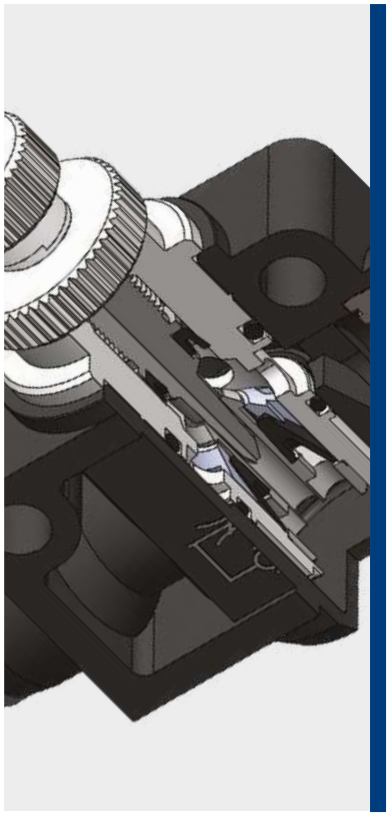

| CODE | ØD | T | ØP | A | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| WTRFR04M5-IN | 4 | M5x0,8 | 11,1 | 4 | 29,3 | 20 | 8 | 15 |
| WTRFR04G01-IN | | G 1/8" | 11,1 | 5 | 39,7 | 22,3 | 8 | 18 |
| WTRFR04G02-IN | | G 1/4" | 11,1 | 6 | 45,5 | 24,1 | 12 | 36 |
| WTRFR06M5-IN | 6 | M5x0,8 | 13 | 4 | 29,3 | 21,9 | 8 | 17 |
| WTRFR06G01-IN | | G 1/8" | 13 | 5 | 39,7 | 23,1 | 8 | 18,5 |
| WTRFR06G02-IN | | G 1/4" | 13 | 6 | 45,5 | 25,1 | 12 | 36,5 |
| WTRFR06G03-IN | | G 3/8" | 13 | 7,2 | 52 | 26,8 | 14 | 60,5 |
| WTRFR06G04-IN | | G 1/2" | 13 | 8,2 | 58 | 29,8 | 17 | 92,7 |
| WTRFR08G01-IN | 8 | G 1/8" | 15,1 | 5 | 39,7 | 25,6 | 8 | 19,3 |
| WTRFR08G02-IN | | G 1/4" | 15,1 | 6 | 45,5 | 8,6 | 12 | 37,3 |
| WTRFR08G03-IN | | G 3/8" | 15,1 | 7,2 | 52 | 29,6 | 14 | 61,1 |
| WTRFR08G04-IN | | G 1/2" | 15,1 | 8,2 | 58 | 32,6 | 17 | 93,4 |
| WTRFR10G01-IN | 10 | G 1/8" | 18,8 | 5 | 39,7 | 28,8 | 8 | 22,7 |
| WTRFR10G02-IN | | G 1/4" | 18,8 | 6 | 45,5 | 31,1 | 12 | 40,7 |
| WTRFR10G03-IN | | G 3/8" | 18,8 | 7,2 | 52 | 31,6 | 14 | 64,5 |
| WTRFR10G04-IN | | G 1/2" | 18,8 | 8,2 | 58 | 34,6 | 17 | 96,8 |
| WTRFR12G02-IN | 12 | G 1/4" | 21,5 | 6 | 45,5 | 33,5 | 12 | 42,2 |
| WTRFR12G03-IN | | G 3/8" | 21,5 | 7,2 | 52 | 35,6 | 14 | 66,1 |
| WTRFR12G04-IN | | G 1/2" | 21,5 | 8,2 | 58 | 36,6 | 17 | 98,3 |

TierreGroup®

Always a fittings solution




## FOLLOW US!



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & Vacuum

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow regulation

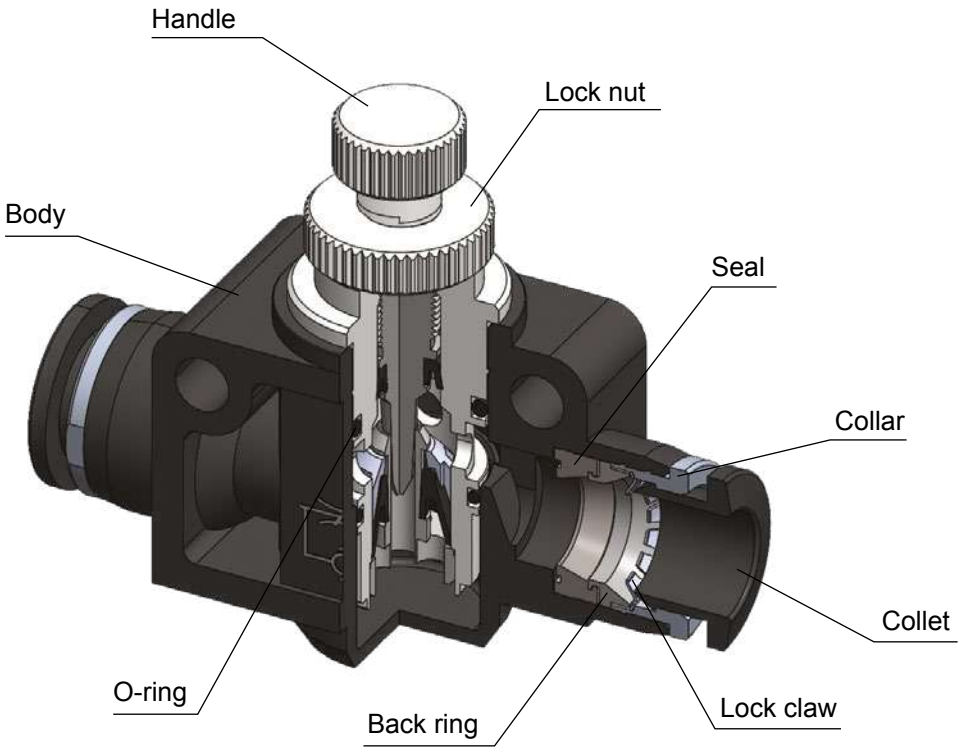
**Body:** PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

REACH COMPLIANT
Products in compliance with EC Regulation 1907/2006

RoHS3
Products in compliance with the directive EU 2015/863

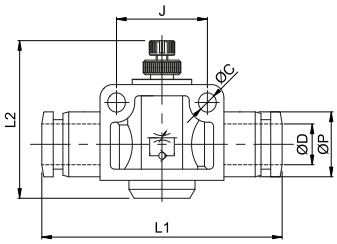
## CONSTRUCTION DETAILS

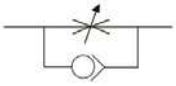


## WTRNSF

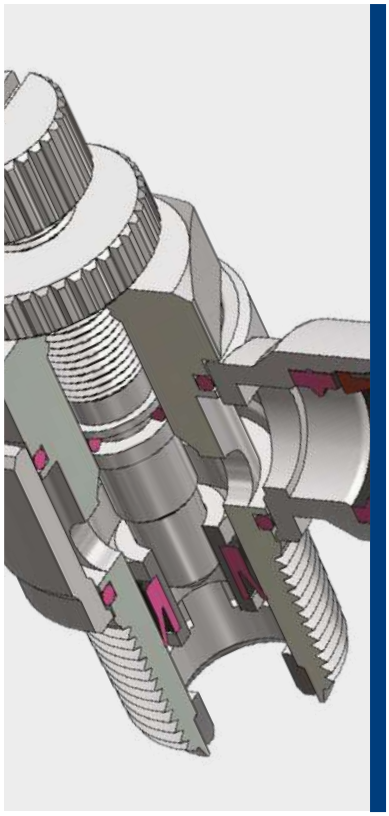
Unidirectional flat flow regulator with handle regulation





| CODE | ØD | ØP | ØC | J | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| WTRNSF04 | 4 | 11,1 | 3,2 | 14 | 39,5 | 28,8 | 11,7 |
| WTRNSF06 | 6 | 13 | 4,3 | 20 | 47,6 | 42,6 | 27 |
| WTRNSF08 | 8 | 15,1 | 4,3 | 22 | 52,6 | 44,3 | 39,5 |
| WTRNSF10 | 10 | 18,8 | 4,3 | 26 | 60,5 | 53,4 | 69 |
| WTRNSF12 | 12 | 21,5 | 4,3 | 32 | 74,2 | 55,6 | 113,2 |



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Pressure peaks do not exceed the max working pressure

Compressed air & vacuum
(do not use with water)

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  with OR from G1/8" to G1/2"
- Metric ISO 262
  M5

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow regulation and screwdriver

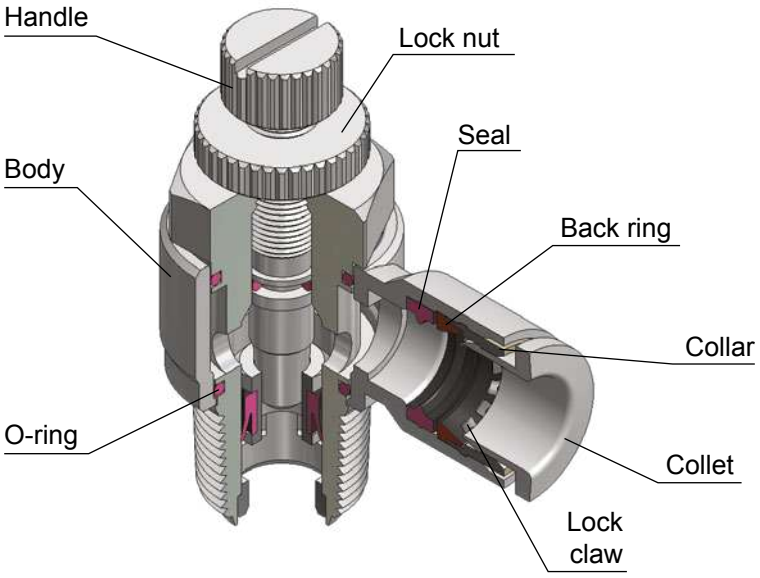
**Body:** Nickel-plated brass and PA66
**Collet:** PA66
**Collar:** PA66
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

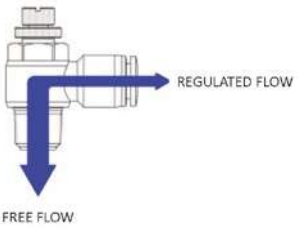
REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### EXHAUST (FOR CYLINDERS)




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

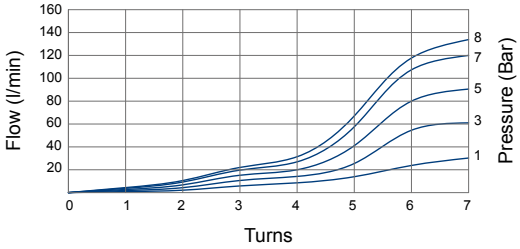
| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

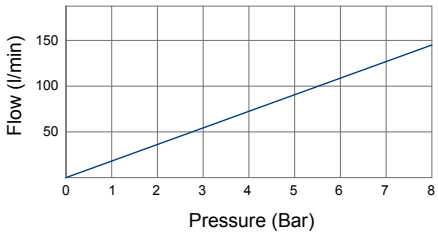
| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| Nm | 1,5 | 10 | 15 | 25 | 40 |

**MSC04M5**
**MSC06M5**

Flow Control



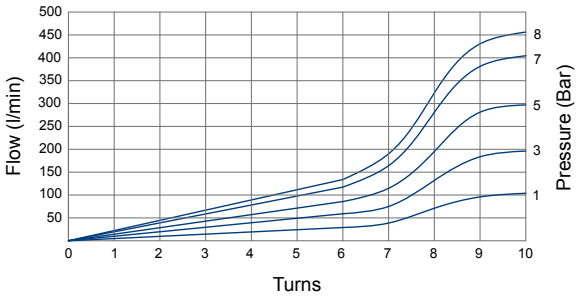

Free Flow



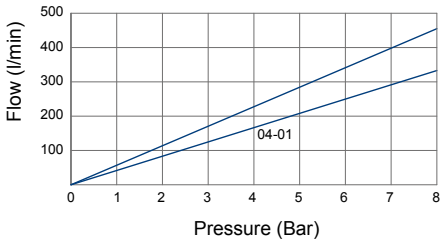

---

**MSC0401**
**MSC0601**
**MSC0801**
**MSC1001**

Flow Control



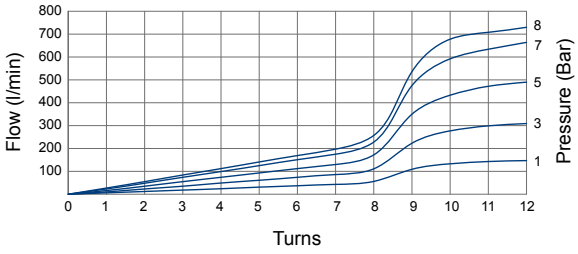

Free Flow



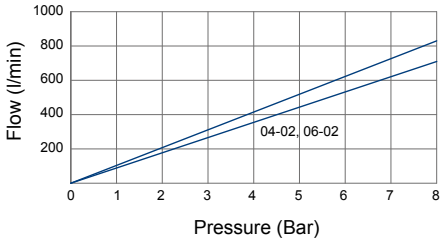

---

**MSC0402**
**MSC0602**
**MSC0802**
**MSC1002**
**MSC1202**

Flow Control



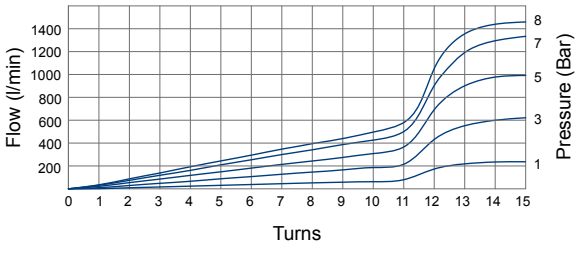

Free Flow



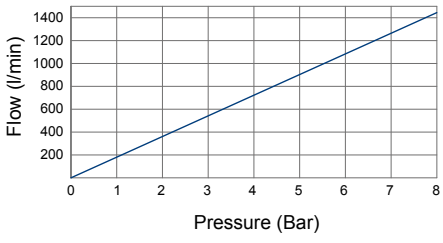

---

**MSC0603**
**MSC0803**
**MSC1003**
**MSC1203**

Flow Control



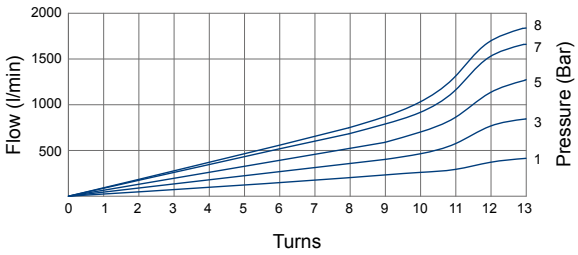

Free Flow



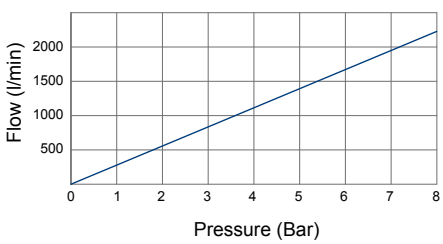

---

**MSC0604**
**MSC0804**
**MSC1004**
**MSC1204**

Flow Control




Free Flow

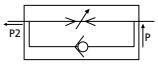


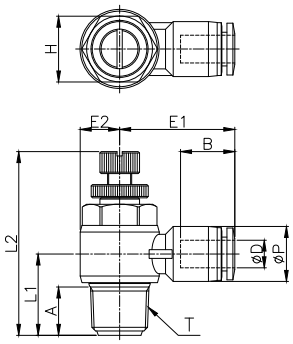

*drawings and technical data are not binding & can be changed without notice*

## MSC-R

Banjo male elbow flow regulator unidirectional, for cylinders, BSPT thread with handle regulation





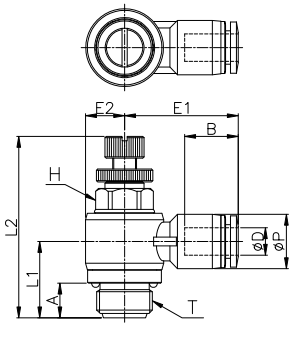

| CODE | ØD | T | ØP | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSC04R01W | 4 | R 1/8" | 9,3 | 15,0 | 35,5 | 40.7 | 20,0 | 7.0 | 8.2 | 13,0 | 11 |
| MSC04R02W | | R 1/4" | 9,3 | 18,5 | 40,3 | 46.6 | 22,0 | 9.0 | 11.0 | 13,0 | 15 |
| MSC06R01W | 6 | R 1/8" | 11,5 | 15,1 | 35,5 | 40,7 | 22,1 | 7,0 | 8,2 | 15,0 | 11 |
| MSC06R02W | | R 1/4" | 11,5 | 18,3 | 40,3 | 46,5 | 24,0 | 9,0 | 11,0 | 15,0 | 15 |
| MSC06R03W | | R 3/8" | 11,5 | 21,7 | 46,9 | 55,0 | 26,1 | 11,0 | 12,2 | 15,0 | 19 |
| MSC06R04W | | R 1/2" | 11,5 | 26,4 | 54,0 | 60,1 | 28,8 | 13,8 | 16,5 | 15,0 | 24 |
| MSC08R01W | 8 | R 1/8" | 13,6 | 16,2 | 35,5 | 40,7 | 24,2 | 7,1 | 8,2 | 17,1 | 11 |
| MSC08R02W | | R 1/4" | 13,6 | 19,2 | 40,3 | 46,6 | 26,1 | 9,0 | 11,0 | 17,1 | 15 |
| MSC08R03W | | R 3/8" | 13,6 | 21,7 | 46,9 | 54,9 | 28,2 | 11,1 | 12,2 | 17,1 | 19 |
| MSC08R04W | | R 1/2" | 13,6 | 26,4 | 54,0 | 60,1 | 30,9 | 13,8 | 16,5 | 17,1 | 24 |
| MSC10R01W | 10 | R 1/8" | 16,4 | 17,6 | 35,5 | 40,7 | 26,8 | 7,1 | 8,2 | 18,4 | 11 |
| MSC10R02W | | R 1/4" | 16,4 | 20,6 | 40,3 | 46,6 | 28,6 | 9,0 | 11,0 | 18,4 | 15 |
| MSC10R03W | | R 3/8" | 16,4 | 23,0 | 46,9 | 54,9 | 29,5 | 11,1 | 12,2 | 18,4 | 19 |
| MSC10R04W | | R 1/2" | 16,4 | 26,4 | 54,0 | 60,1 | 32,2 | 13,8 | 16,5 | 18,4 | 24 |
| MSC12R02W | 12 | R 1/4" | 19,5 | 22,1 | 40,3 | 46,6 | 30,9 | 9,0 | 11,0 | 20,4 | 15 |
| MSC12R03W | | R 3/8" | 19,5 | 23,8 | 46,9 | 54,9 | 32,7 | 11,1 | 12,2 | 20,4 | 19 |
| MSC12R04W | | R 1/2" | 19,5 | 27,9 | 54,0 | 60,1 | 35,2 | 13,8 | 16,5 | 21,4 | 24 |

## MSC-G

Banjo male swivel elbow flow regulator unidirectional, for cylinders, BSPP & metric thread with handle regulation





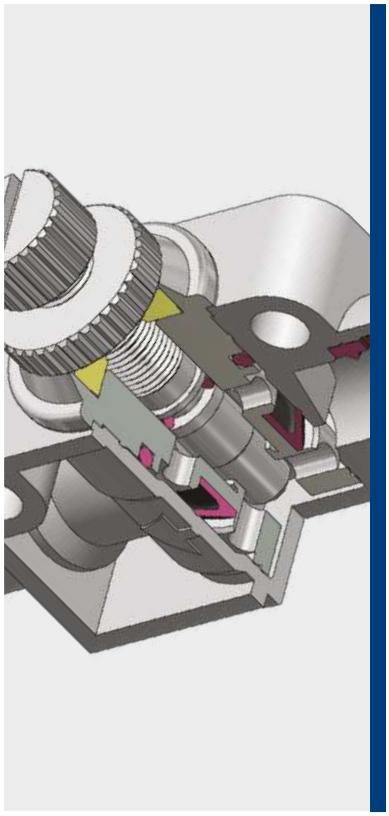




| CODE | ØD | T | ØP | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSC04M5W | 4 | M5x0.8P | 9,3 | 10,2 | 27,1 | 29,1 | 17,8 | 4,9 | 3,6 | 12,9 | 8 |
| MSC04G01W | | G 1/8" | 9,3 | 15,2 | 34,6 | 39,8 | 20,0 | 7,1 | 6,0 | 12,9 | 8 |
| MSC04G02W | | G 1/4" | 9,3 | 18,2 | 39,8 | 46,1 | 21,9 | 9,0 | 8,0 | 12,9 | 12 |
| MSC06M5W | 6 | M5x0.8P | 11,5 | 11,3 | 27,1 | 29,1 | 20,9 | 4,9 | 3,6 | 15,0 | 8 |
| MSC06G01W | | G 1/8" | 11,5 | 15,2 | 34,6 | 39,8 | 22,1 | 7,1 | 6,0 | 15,0 | 8 |
| MSC06G02W | | G 1/4" | 11,5 | 18,3 | 39,8 | 46,1 | 24,0 | 9,0 | 8,0 | 15,0 | 12 |
| MSC06G03W | | G 3/8" | 11,5 | 21,2 | 47,7 | 54,9 | 26,1 | 11,1 | 8,0 | 15,0 | 14 |
| MSC06G04W | | G 1/2" | 11,5 | 23,0 | 54,5 | 61,7 | 28,8 | 13,8 | 9,0 | 15,0 | 17 |
| MSC08G01W | 8 | G 1/8" | 13,6 | 13,9 | 34,6 | 39,8 | 24,2 | 7,1 | 6,0 | 17,1 | 8 |
| MSC08G02W | | G 1/4" | 13,6 | 17,4 | 39,8 | 46,1 | 26,1 | 9,0 | 8,0 | 17,1 | 12 |
| MSC08G03W | | G 3/8" | 13,6 | 21,2 | 47,7 | 54,9 | 28,2 | 11,1 | 8,0 | 17,1 | 14 |
| MSC08G04W | | G 1/2" | 13,6 | 23,0 | 54,5 | 61,7 | 30,9 | 13,8 | 9,0 | 17,1 | 17 |
| MSC10G01W | 10 | G 1/8" | 16,4 | 17,8 | 34,6 | 39,8 | 25,5 | 7,1 | 6,0 | 18,4 | 8 |
| MSC10G02W | | G 1/4" | 16,4 | 19,8 | 39,8 | 46,1 | 27,4 | 9,0 | 8,0 | 18,4 | 12 |
| MSC10G03W | | G 3/8" | 16,4 | 19,9 | 47,7 | 54,9 | 29,5 | 11,1 | 8,0 | 18,4 | 14 |
| MSC10G04W | | G 1/2" | 16,4 | 23,0 | 54,5 | 61,7 | 32,2 | 13,8 | 9,0 | 18,4 | 17 |
| MSC12G02W | 12 | G 1/4" | 29,5 | 21,3 | 34,6 | 39,8 | 29,4 | 9,0 | 8,0 | 20,4 | 12 |
| MSC12G03W | | G 3/8" | 29,5 | 19,1 | 47,7 | 54,9 | 32,7 | 11,1 | 8,0 | 20,4 | 14 |
| MSC12G04W | | G 1/2" | 29,5 | 21,4 | 54,5 | 61,7 | 35,2 | 13,8 | 9,0 | 21,4 | 17 |

TierreGroup®
Always a fittings solution




## FOLLOW US!



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 kPa)

Pressure peaks do not exceed the max working pressure

Compressed air & vacuum
(do not use with water)

Polyamide PA,
Polyurethane PU,
Polyethylene PE

Manual flow regulation and screwdriver

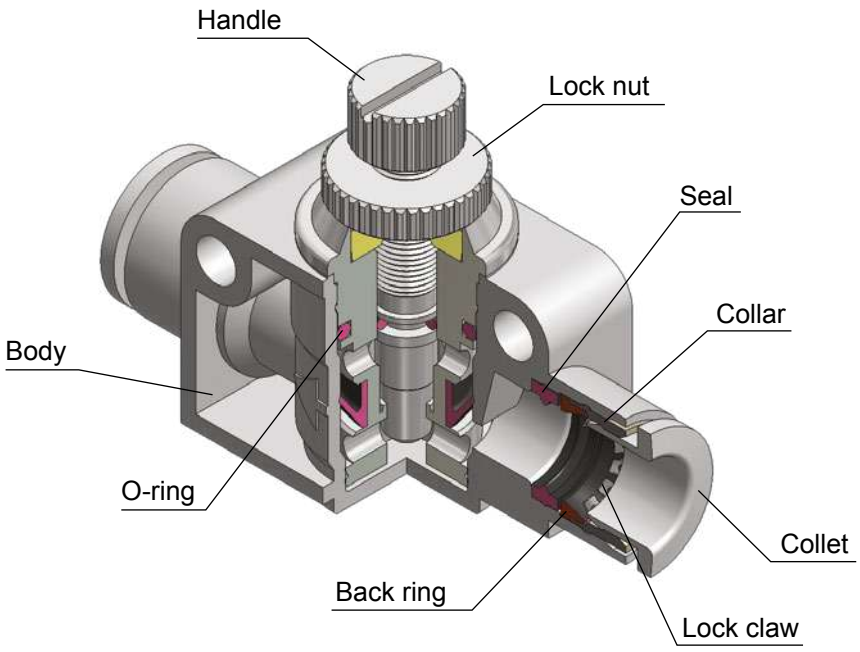
**Body:** PA66 & Nickel-plated brass
**Collet:** PA66
**Collar:** PA66
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

REACH COMPLIANT
Products in compliance with EC Regulation 1907/2006

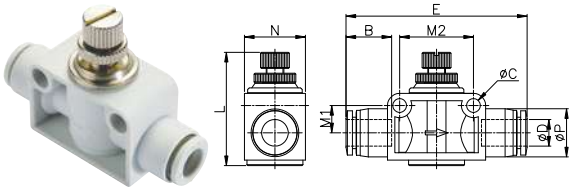
RoHS3
Products in compliance with the directive EU 2015/863

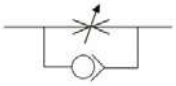
## CONSTRUCTION DETAILS



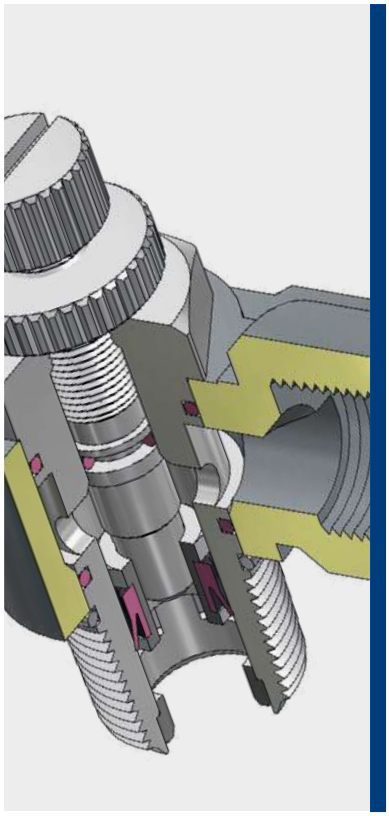
## MSF

Unidirectional flat flow regulator, in technopolymer, with handle regulation



| CODE | ØD | ØP | L MIN | L MAX | E | N | ØC | B | M1 | M2 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSF04W | 4 | 9,5 | 26,4 | 28,9 | 38,8 | 11,0 | 3,2 | 13,4 | 5,4 | 15,4 |
| MSF06W | 6 | 11,5 | 33,5 | 37,9 | 46,5 | 15,0 | 4,3 | 15,0 | 7,8 | 20,4 |
| MSF08W | 8 | 13,6 | 35,5 | 41,5 | 53,1 | 18,0 | 4,3 | 17,1 | 8,5 | 23,0 |
| MSF10W | 10 | 16,4 | 40,7 | 48,7 | 60,4 | 22,5 | 4,3 | 18,9 | 10,6 | 27,6 |
| MSF12W | 12 | 19,5 | 45,0 | 53,5 | 70,8 | 26,5 | 4,3 | 21,4 | 11,9 | 32,4 |



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 99 Kpa)

Compressed air & vacuum
(do not use with water)

Taper gas BSPT ISO 7
from R1/8" to R1/2" with teflon

Manual flow regulation and screwdriver

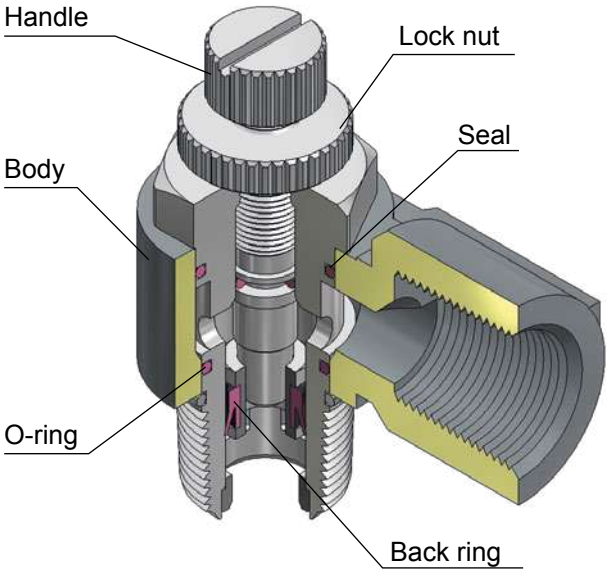
**Body:** Nickel plated brass & Zinc
**Back ring:** NBR
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel plated brass
**Lock nut:** Nickel plated brass

SILICONE FREE

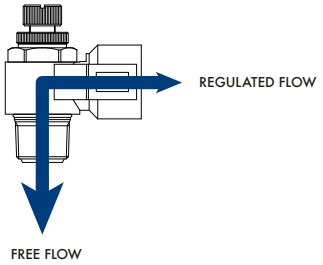
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




**EXHAUST (FOR CYLINDERS)**



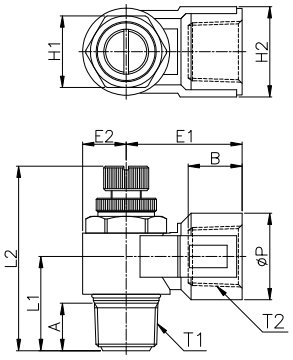

## TIGHTENING TORQUE

TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

## NSCF Unidirectional brass banjo flow regulator, BSPT thread for cylinders, with handle regulation

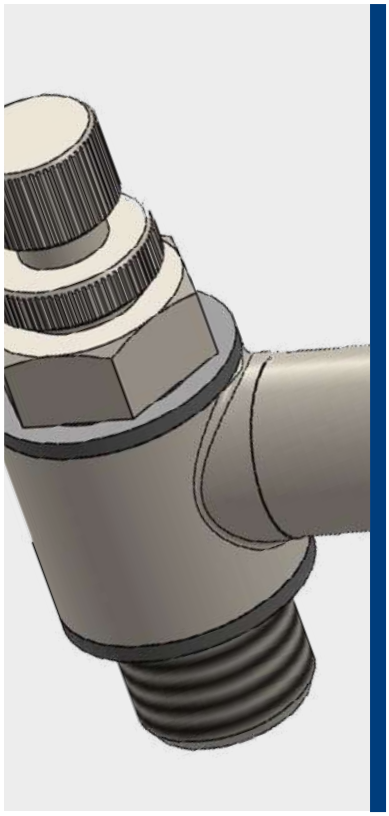








| CODE | T1 | T2 | ØP | A | B | L1 | L2 MIN | L2 MAX | E1 | E2 | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSCF-R01 | R 1/8" | RC 1/8" | 14.5 | 7.6 | 10.0 | 16.0 | 35.5 | 40.7 | 18.2 | 7.3 | 12 | 15 | 30.1 |
| NSCF-R02 | R 1/4" | RC 1/4" | 18.0 | 10.6 | 13.0 | 21.1 | 40.3 | 46.6 | 26.5 | 9.5 | 15 | 19 | 60.2 |
| NSCF-R03 | R 3/8" | RC 3/8" | 23.0 | 12.6 | 14.5 | 25.0 | 46.9 | 54.9 | 30.8 | 11.6 | 19 | 24 | 107.0 |
| NSCF-R04 | R 1/2" | RC 1/2" | 26.5 | 14.5 | 19.0 | 29.1 | 54.0 | 60.1 | 38.7 | 14.0 | 24 | 28 | 170.1 |



-20°C ÷ 70°C

**Working pressure:**
10 Bar

Compressed air
(lubricated and non-lubricated)

- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"
- Metric ISO 262
  M5

Polyamide PA,
Polyurethane PU

Manual flow regulation and screwdriver

**FLOW**
Flow data are indicated in the table

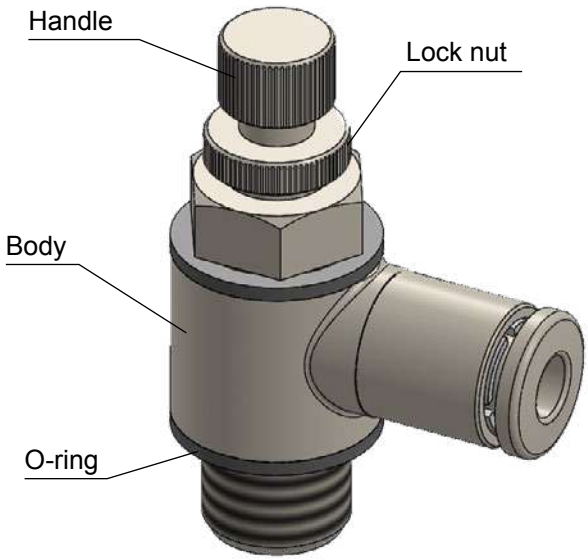
**Body:** Nickel-plated brass
UNI EN 12164 CW617N
**Collet:** Nickel-plated brass
UNI EN 12164 CW614N
**Lock claw:** Stainless steel AISI 316L
**Seal:** NBR silicone free
**O-ring:** NBR silicone free
**Handle:** Nickel-plated brass
UNI EN 12164 CW614N
**Lock nut:** Nickel-plated brass
UNI EN 12164 CW614N

SILICONE FREE

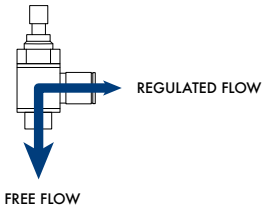
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

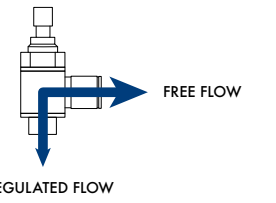
## CONSTRUCTION DETAILS



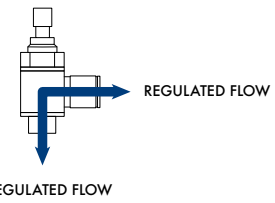

**EXHAUST (FOR CYLINDERS)**




**SUPPLY (FOR VALVES)**




**BIDIRECTIONAL**



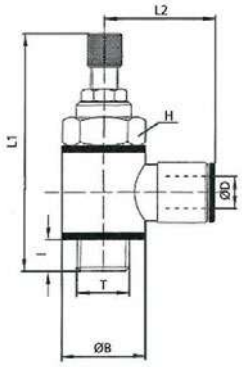

## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228

| THREAD | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|
| Nm | 0,8 | 1,2 | 1,5 | 2,5 | 3,5 |

## OTSC-G

Unidirectional swivel flow regulator, male BSPP thread for cylinders, with handle regulation







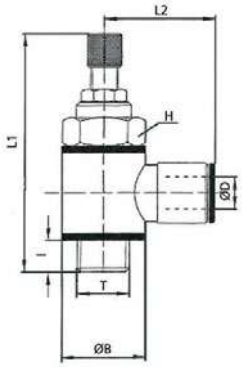


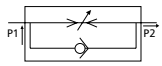
| CODE | ØD | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|---|
| OTSC04G01 | 4 | G 1/8" | 5,5 | 14 | 49,0 | 21,0 | 14 | 310 | 36,0 |
| OTSC06G01 | 6 | G 1/8" | 5 | 14 | 49,0 | 23,0 | 14 | 390 | 38,0 |
| OTSC06G02 | | G 1/4" | 6 | 18 | 56,5 | 24,0 | 17 | 710 | 65,0 |
| OTSC08G01 | 8 | G 1/8" | 5 | 14 | 49,0 | 24,5 | 14 | 390 | 39,0 |
| OTSC08G02 | | G 1/4" | 6 | 18 | 56,5 | 26,0 | 17 | 810 | 66,0 |
| OTSC10G02 | 10 | G 1/4" | 6 | 18 | 56,5 | 27,0 | 17 | 810 | 69,0 |
| OTSC12G02 | 12 | G 1/4" | 6 | 18 | 56,5 | 28,0 | 17 | 810 | 70,0 |

## OTSC-G-IN

Unidirectional swivel flow regulator, male BSPP thread for valves, with handle regulation





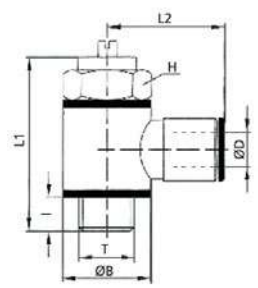



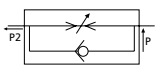

| CODE | ØD | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|---|
| OTSC04G01IN | 4 | G 1/8" | 5,5 | 14 | 49,0 | 21,0 | 14 | 310 | 36,0 |
| OTSC06G01IN | 6 | G 1/8" | 5 | 14 | 49,0 | 23,0 | 14 | 390 | 38,0 |
| OTSC06G02IN | | G 1/4" | 6 | 18 | 56,5 | 24,0 | 17 | 710 | 65,0 |
| OTSC08G01IN | 8 | G 1/8" | 5 | 14 | 49,0 | 24,5 | 14 | 390 | 39,0 |
| OTSC08G02IN | | G 1/4" | 6 | 18 | 56,5 | 26,0 | 17 | 810 | 66,0 |
| OTSC10G02IN | 10 | G 1/4" | 6 | 18 | 56,5 | 27,0 | 17 | 810 | 69,0 |
| OTSC12G02IN | 12 | G 1/4" | 6 | 18 | 56,5 | 28,0 | 17 | 810 | 70,0 |

## OTSC-G-D

Unidirectional swivel flow regulator, male BSPP & metric thread for cylinders, with screwdriver regulation





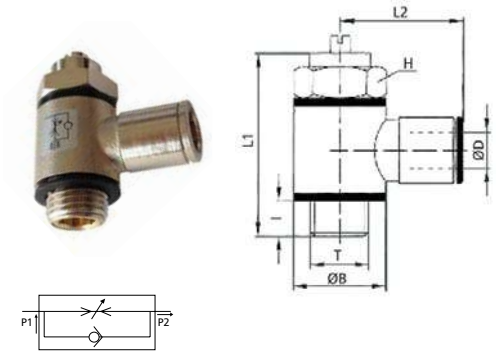




| CODE | ØD | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|---|
| OTSC04M5D | 4 | M5x0,8 | 4 | 9 | 25,0 | 18,0 | 8 | 45 | 14,0 |
| OTSC04G01D | | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 31,0 |
| OTSC06M5D | 6 | M5x0,8 | 4 | 9 | 25,5 | 21,5 | 8 | 45 | 15,5 |
| OTSC06G01D | | G 1/8" | 5 | 14 | 32,0 | 23,0 | 14 | 390 | 33,0 |
| OTSC06G02D | | G 1/4" | 6 | 18 | 37,0 | 24,0 | 17 | 710 | 55,0 |
| OTSC08G01D | 8 | G 1/8" | 5 | 14 | 32,0 | 24,5 | 14 | 390 | 34,0 |
| OTSC08G02D | | G 1/4" | 6 | 18 | 37,0 | 26,0 | 17 | 810 | 56,0 |
| OTSC08G03D | | G 3/8" | 6,5 | 21 | 46,5 | 27,0 | 20 | 1050 | 87,0 |
| OTSC10G02D | 10 | G 1/4" | 6 | 18 | 37,0 | 27,0 | 17 | 810 | 58,5 |
| OTSC10G03D | | G 3/8" | 6,5 | 21 | 46,0 | 28,5 | 20 | 1050 | 88,0 |
| OTSC12G02D | 12 | G 1/4" | 6 | 18 | 37,0 | 28,5 | 17 | 810 | 59,0 |
| OTSC12G03D | | G 3/8" | 6,5 | 21 | 46,0 | 29,5 | 20 | 1050 | 89,0 |

*drawings and technical data are not binding & can be changed without notice*

## OTSC-G-D-IN

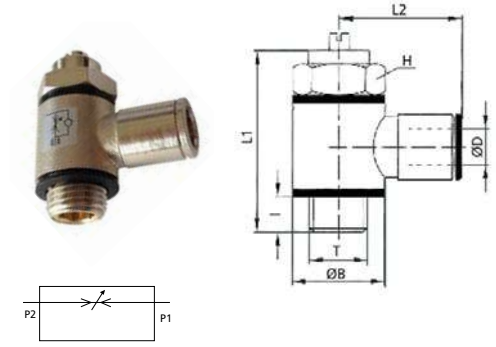
Unidirectional swivel flow regulator, male BSPP & metric thread for valves, with screwdriver regulation




| CODE | ØD | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|---|
| OTSC04M5DIN | 4 | M5x0,8 | 4 | 9 | 25,5 | 20,0 | 8 | 45 | 14 |
| OTSC04G01DIN | | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 31 |
| OTSC06M5DIN | 6 | M5x0,8 | 4 | 9 | 25,5 | 21,5 | 8 | 45 | 15,5 |
| OTSC06G01DIN | | G 1/8" | 5 | 14 | 32,0 | 23,0 | 14 | 390 | 33 |
| OTSC06G02DIN | | G1/4" | 6 | 18 | 37,0 | 34,0 | 17 | 710 | 55 |
| OTSC08G01DIN | 8 | G 1/8" | 5 | 14 | 32,0 | 24,5 | 14 | 390 | 34 |
| OTSC08G02DIN | | G 1/4" | 6 | 18 | 37,0 | 26,0 | 17 | 810 | 56 |
| OTSC08G03DIN | | G 3/8" | 6,5 | 21 | 46,0 | 27,5 | 20 | 1050 | 87 |
| OTSC10G02DIN | 10 | G 1/4" | 6 | 18 | 37,0 | 27,0 | 17 | 810 | 58,5 |
| OTSC10G03DIN | | G 3/8" | 6,5 | 21 | 46,0 | 28,5 | 20 | 1050 | 88 |
| OTSC12G02DIN | 12 | G 1/4" | 6 | 18 | 37,0 | 38,5 | 17 | 810 | 59 |
| OTSC12G03DIN | | G 3/8" | 6,5 | 21 | 46,0 | 29,5 | 20 | 1050 | 89 |

## OTSC-G-D-B

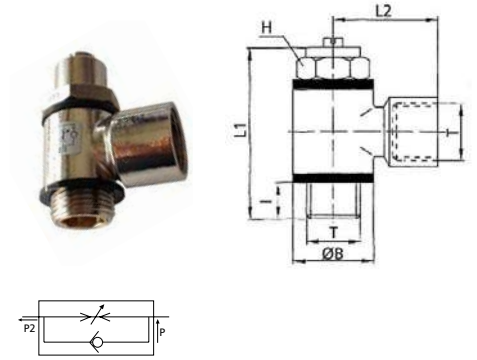
Bidirectional flow regulator, male BSPP & metric thread, with screwdriver regulation




| CODE | ØD | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|---|
| OTSC04M5DB | 4 | M5x0,8 | 4 | 9 | 25,5 | 20,0 | 8 | 45 | 14,0 |
| OTSC04G01DB | | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 31,0 |
| OTSC06M5DB | 6 | M5x0,8 | 4 | 9 | 24,5 | 21,5 | 8 | 45 | 15,5 |
| OTSC06G01DB | | G 1/8" | 5 | 14 | 32,0 | 23,0 | 14 | 390 | 33,0 |
| OTSC06G02DB | | G 1/4" | 6 | 18 | 37,0 | 24,0 | 17 | 710 | 55,0 |
| OTSC08G01DB | 8 | G 1/8" | 5 | 14 | 32,0 | 24,5 | 14 | 390 | 34,0 |
| OTSC08G02DB | | G 1/4" | 6 | 18 | 37,0 | 26,0 | 17 | 810 | 56,0 |
| OTSC08G03DB | | G 3/8" | 6,5 | 21 | 46,5 | 27,0 | 20 | 1050 | 87,0 |
| OTSC10G02DB | 10 | G 1/4" | 6 | 18 | 37,0 | 27,0 | 17 | 810 | 58,5 |

## OTSC-G-DF

Unidirectional swivel flow regulator, M/F BSPP & metric thread for cylinders, with screwdriver regulation

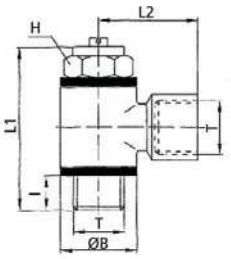


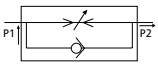

| CODE | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|
| OTSCM5DF | M5x0,8 | 4 | 9 | 25,0 | 11,5 | 8 | 45 | 10,0 |
| OTSCG01DF | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 34,0 |
| OTSCG02DF | G 1/4" | 6 | 18 | 37,0 | 25,5 | 17 | 450 | 64,0 |
| OTSCG03DF | G 3/8" | 7 | 21 | 46,0 | 26,0 | 20 | 1040 | 88,0 |
| OTSCG04DF | G 1/2" | 10 | 26 | 52,5 | 32,0 | 26 | 2200 | 187,0 |

## OTSC-G-DF-IN

Unidirectional swivel flow regulator, M/F BSPP & metric thread for valves, with screwdriver regulation





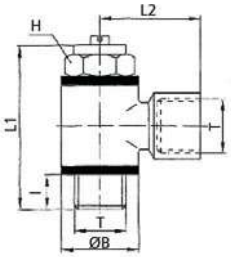



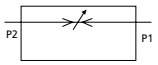

| CODE | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|
| OTSCM5DFIN | M5x0,8 | 4 | 9 | 25,0 | 11,5 | 8 | 45 | 10 |
| OTSCG01DFIN | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 34 |
| OTSCG02DFIN | G 1/4" | 6 | 18 | 37,0 | 25,5 | 14 | 450 | 64 |
| OTSCG03DFIN | G 3/8" | 7 | 21 | 46,0 | 26,0 | 20 | 1040 | 88 |
| OTSCG04DFIN | G 1/2" | 10 | 26 | 52,5 | 32,0 | 26 | 2200 | 187 |

## OTSC-G-DF-B

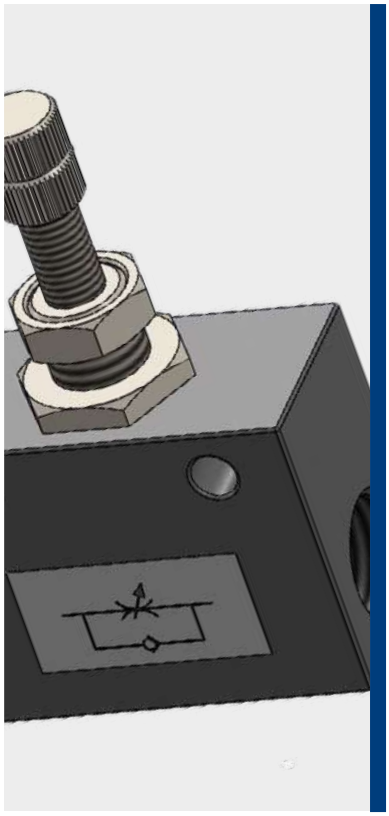
Bidirectional swivel flow regulator, M/F BSPP & metric thread, with screwdriver regulation






| CODE | T | I | ØB | L1 | L2 | H | NL/min | g |
|---|---|---|---|---|---|---|---|---|
| OTSCM5DFB | M5x0,8 | 4 | 9 | 25,0 | 11,5 | 8 | 45 | 10,0 |
| OTSCG01DFB | G 1/8" | 5 | 14 | 32,0 | 21,0 | 14 | 310 | 34,0 |
| OTSCG02DFB | G 1/4" | 6 | 18 | 37,0 | 25,5 | 17 | 450 | 64,0 |
| OTSCG03DFB | G 3/8" | 7 | 21 | 46,0 | 26,0 | 20 | 1040 | 88,0 |
| OTSCG04DFB | G 1/2" | 10 | 26 | 52,5 | 32,0 | 26 | 2200 | 187,0 |



0°C ÷ 65°C

**ASF-U working pressure:**
from 0,025 to 10 Bar
**ASF-B working pressure:**
from 0 to 10 Bar

Compressed air

Parallel gas BSPP ISO 228
from G1/8" to G1/2"

Manual flow regulation

**Body:** Aluminium 11S black anodized
**Seal:** NBR
**Handle:** Nickel-plated brass
**Regulation screw:** Nicke-plated brass

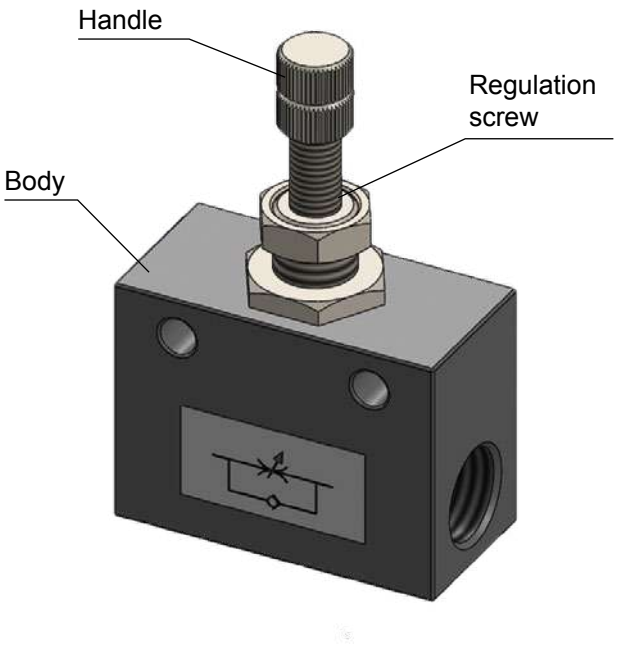
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

RoHS3

Products in compliance with the directive EU 2015/863

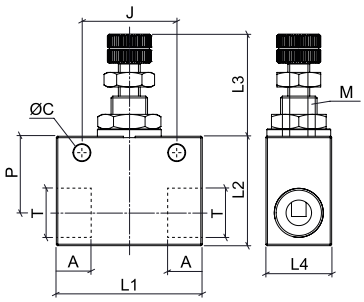
## CONSTRUCTION DETAILS



## ASF-U

Unidirectional flat flow regulator, bulkhead, female BSPP thread with manual regulation



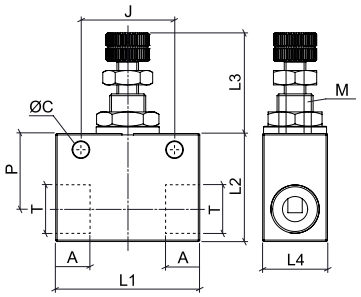



| CODE | T | M | L1 | L2 | L3 MIN | L3 MAX | L4 | A | P | ØC | J | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASF-U01N | G 1/8" | 10x1 | 35,0 | 22,0 | 24,0 | 29,0 | 15,0 | 8,0 | 15,0 | 4,5 | 24 | 52,0 |
| ASF-U02N | G 1/4" | 10x1 | 40,0 | 30,0 | 26,0 | 33,0 | 20,0 | 9,5 | 21,0 | 4,5 | 24 | 90,0 |
| ASF-U03N | G 3/8" | 15x1 | 45,0 | 35,0 | 34,0 | 43,0 | 25,0 | 10,5 | 25,0 | 6,5 | 30 | 206,0 |
| ASF-U04N | G 1/2" | 15x1 | 57,0 | 40,0 | 34,0 | 43,0 | 30,0 | 12,0 | 26,0 | 6,5 | 30 | 217,0 |

## ASF-B

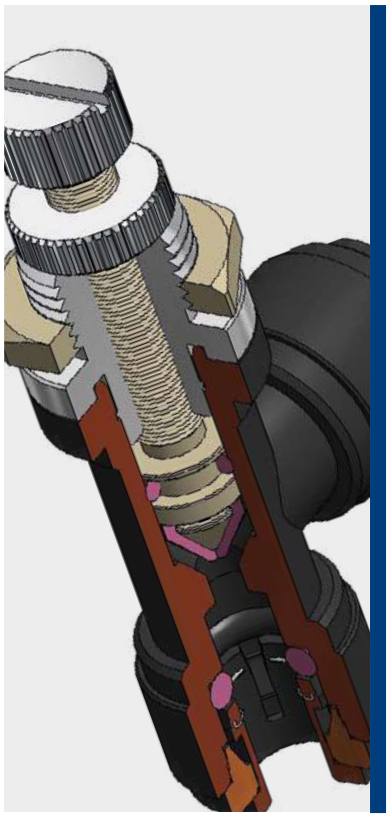
Bidirectional flat flow regulator, bulkhead, female BSPP thread, with manual regulation




| CODE | T | M | L1 | L2 | L3 MIN | L3 MAX | L4 | A | P | ØC | J | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASF-B01N | G 1/8" | 10x1 | 35,0 | 22,0 | 24,0 | 29,0 | 15,0 | 8,0 | 20,0 | 4,5 | 24 | 52,0 |
| ASF-B02N | G 1/4" | 10x1 | 40,0 | 30,0 | 26,0 | 33,0 | 20,0 | 9,5 | 21,0 | 4,5 | 24 | 90,0 |
| ASF-B03N | G 3/8" | 15x1 | 45,0 | 35,0 | 34,0 | 43,0 | 25,0 | 10,5 | 25,0 | 6,5 | 30 | 206,0 |
| ASF-B04N | G 1/2" | 15x1 | 57,0 | 40,0 | 34,0 | 43,0 | 30,0 | 12,0 | 26,0 | 6,5 | 30 | 217,0 |

*drawings and technical data are not binding & can be changed without notice*



**Dry air:** -20°C ÷ 90°C
**Air & Fluids:** 1°C ÷ 90°C
The maximum recommended working temperature for continuous use is 65°C and 90°C for a maximum use of 5 minutes.

**Working pressure:**
Up to 10 Bar
From 0 to 8 Bar with dry air
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
Data depend from the tubes and temperature

Potable water, beverages, vacuum, compressed air, gases and fluids compatible with construction materials

Polyethylene PE, polyamide PA, PTFE, FEP
**Tubes made of light metals:** Brass, copper and mild steel
**Tubes made of hard materials:** See page 84 for information on the use of hard material tubes

Manual flow regulation and screwdriver

**Body:** POM
**Collet:** POM
**Lock claw:** Acciaio inox AISI 301
**Seal:** EPDM suitable for food contact
**Nut & Locking nut:** Nickel-plated brass
**Handle:** Nickel-plated brass
**Regulation screw:** Stainless steel AISI 304

Food contact materials EC 1935/2004

D.M. 174/2004

WRAS certified product materials in contact with drinking water

ICIM certified product food contact materials

ICIM certified product water contact materials

ACS

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

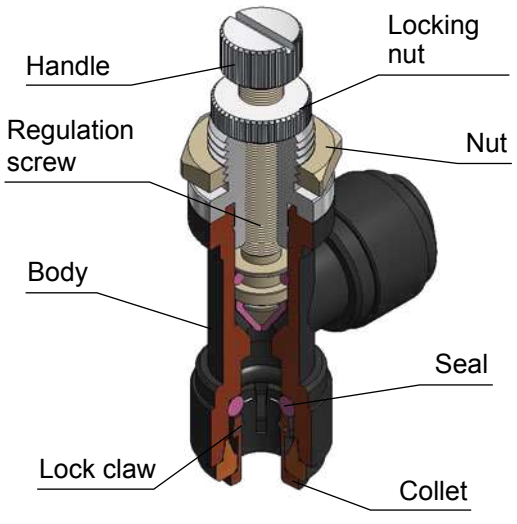
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## INSERTION - METRIC TUBE

| Ø TUBE (mm) | 6 | 10 |
|---|---|---|
| TUBE INSERTION LENGTH (mm) | 15,5 | 20,1 |

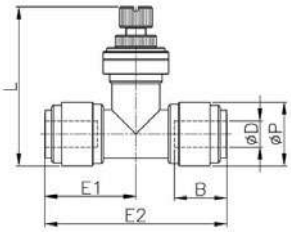
## CONSTRUCTION DETAILS



## HSTU

Bidirectional flow regulator in line, with manual regulation



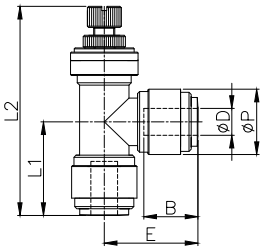




| CODE | ØD | ØP | E1 | E2 | L MIN | L MAX | B | g |
|---|---|---|---|---|---|---|---|---|
| HSTU0606B | 6 | 15,5 | 22,2 | 44,4 | 37,7 | 42,7 | 16,1 | 20,6 |
| HSTU1010B | 10 | 20 | 26,1 | 52,1 | 44,0 | 49,7 | 19,7 | 39,4 |

## HSLU

Bidirectional elbow flow regulator, with manual regulation



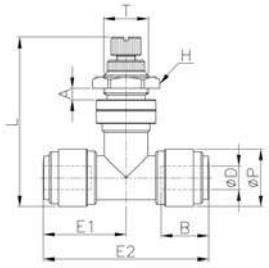




| CODE | ØD | ØP | L1 | L2 MIN | L2 MAX | E | B | g |
|---|---|---|---|---|---|---|---|---|
| HSLU0606B | 6 | 15,5 | 22,2 | 49,6 | 53,6 | 22,2 | 16,1 | 20,3 |
| HSLU1010B | 10 | 20 | 25,0 | 59,0 | 64,7 | 26,0 | 19,7 | 39,0 |

## HSTB

Bidirectional flow regulator, bulkhead, with manual regulation



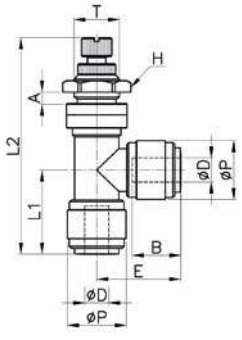




| CODE | ØD | ØP | T | E1 | E2 | L MIN | L MAX | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HSTB0606B | 6 | 15,5 | M12xP1 | 22,2 | 44,4 | 45,5 | 50,4 | 5,0 | 16,1 | 16 | 28,9 |
| HSTB1010B | 10 | 20 | M15xP1 | 26,1 | 52,1 | 52,7 | 58,4 | 6,0 | 19,7 | 19 | 54,0 |

## HSLB

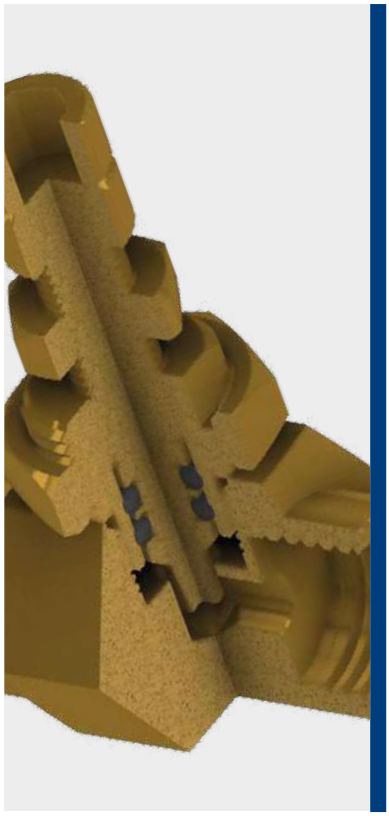
Bidirectional elbow flow regulator, bulkhead, with manual regulation




| CODE | ØD | ØP | T | L1 | L2 MIN | L2 MAX | E | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HSLB0606B | 6 | 15,5 | M12x1,0 | 22,2 | 57,1 | 61,3 | 22,2 | 5,0 | 16,1 | 16 | 28,7 |
| HSLB1010B | 10 | 20 | M15x1,0 | 25,0 | 67,7 | 73,4 | 26,0 | 6,0 | 19,7 | 19 | 54,0 |

*drawings and technical data are not binding & can be changed without notice*



-20°C ÷ 150°C

**Working pressure:**
10 Bar

Compressed air, potable water and fluids suitable with construction materials

Parallel gas BSPP ISO 228 G1/4"

Manual flow regulation

**Body**: Yellow brass CW510L NSF/ANSI 372 compliant
**Regulation screw**: Yellow brass CW510L NSF/ANSI 372 compliant
**O-ring:** FKM Perox FDA compliant
**Handle**: Yellow brass CW510L NSF/ANSI 372 compliant

Materials in compliance for food contact - EC 1935/2004 and D.M.174/2004

NSF/ANSI 169

SILICONE FREE

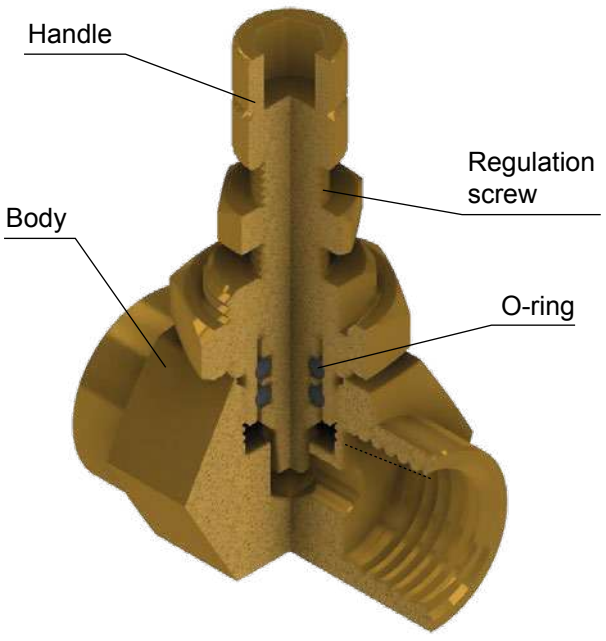
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## LEAD FREE

Complies with the lead content requirements for "LEAD FREE" plumbing (U.S. Safe Drinking Water Act).

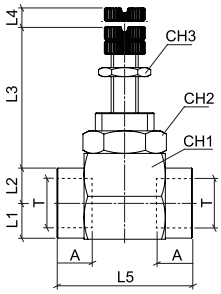
## CONSTRUCTION DETAILS



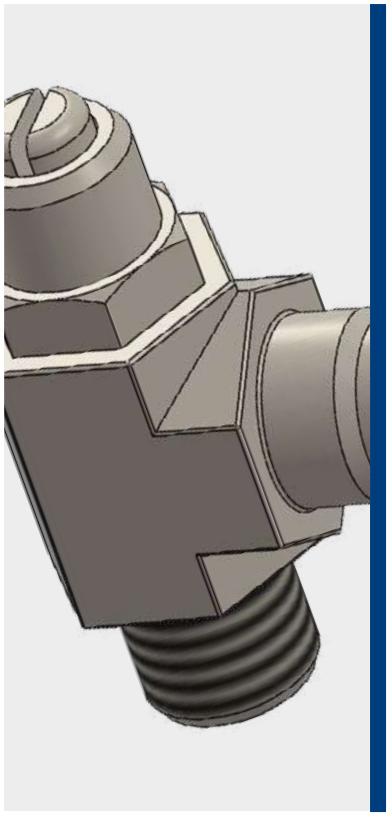
## LFSF-B

Bidirectional flow regulator, bulkhead, F/F BSPP thread, with manual regulation




| CODE | T | L1 | L2 | L3 | L4 | L5 | A | CH1 | CH2 | CH3 |
|---|---|---|---|---|---|---|---|---|---|---|
| LFSF-B02 | G 1/4" | 8,0 | 10,5 | 22,5 | 5,0 | 30,0 | 9,5 | 19 | 16 | 10 |



-20°C ÷ 120°C

**Working pressure:**
Up to 10 Bar

Compressed air and fluids suitable with construction materials

Parallel gas BSPP ISO 228 from G1/8" to G1/2" with O-ring

Polyethylene PE, Polyamide PA, PTFE, FEP

Screwdriver flow regulation

**Body:** Stainless steel AISI 316
**Lock claw:** Stainless steel AISI 316
**Seal:** Viton
**O-ring:** Viton

SILICONE FREE

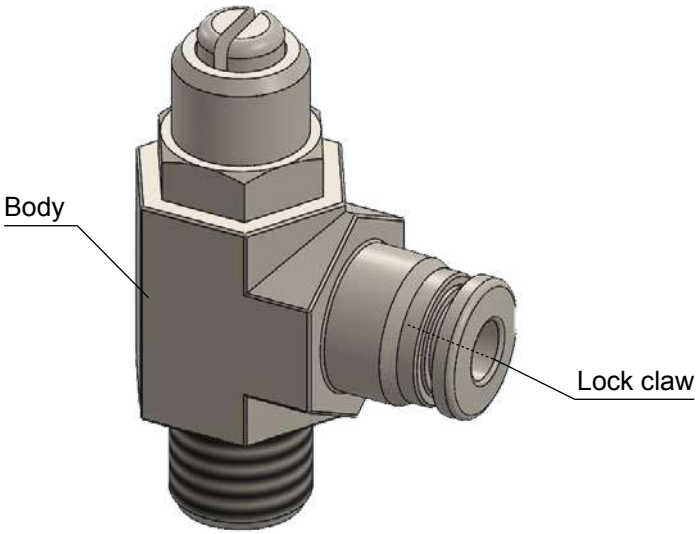
REACH COMPLIANT

Products in compliance with EC Regulation 1907/2006

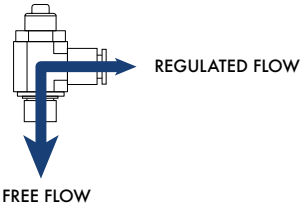
RoHS3

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



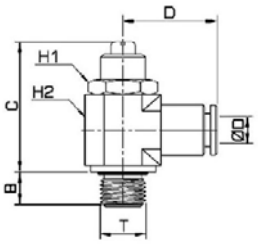

**EXHAUST (FOR CYLINDERS)**

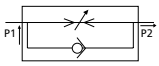


## SXSC-D

Unidirectional banjo flow regulator, BSPP thread for cylinders, with screwdriver regulation





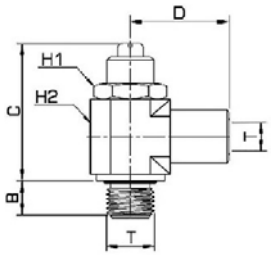



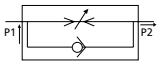

| CODE | ØD | T | B | C | D | E | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|---|
| SXSC06G01-D | 6 | G 1/8" | 6 | 36 | 24 | 8 | 14,3 | 14,3 | 44 |
| SXSC06G02-D | | G 1/4" | 8 | 42 | 27 | 12 | 17,4 | 19 | 84 |
| SXSC08G01-D | 8 | G 1/8" | 6 | 36 | 24 | 8 | 14,3 | 16 | 46 |
| SXSC08G02-D | | G 1/4" | 8 | 42 | 27 | 12 | 17,4 | 19 | 80 |
| SXSC10G02-D | 10 | G 1/4" | 8 | 42 | 27 | 12 | 17,4 | 19 | 83 |

## SXSC-DF

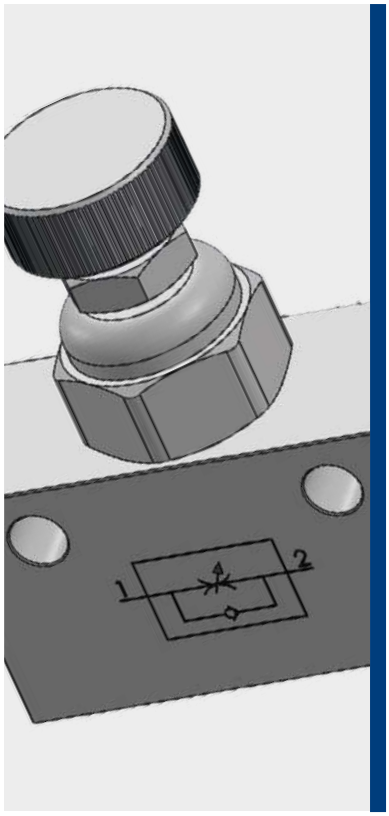
Unidirectional banjo flow regulator, M/F BSPP thread for cylinders, with screwdriver regulation






| CODE | T | B | C | D | E | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| SXSC01-DF | G 1/8" | 6 | 36 | 20 | 8 | 14,3 | 14,3 | 42 |
| SXSC02-DF | G 1/4" | 8 | 42 | 25 | 12 | 17,4 | 19 | 87 |
| SXSC03-DF | G 3/8" | 8 | 49 | 28 | 12 | 20,6 | 22 | 141 |
| SXSC04-DF | G 1/2" | 10 | 60 | 31 | 15 | 24,0 | 27 | 213 |




-10°C ÷ 120°C
for unidirectional flow regulators
-25°C ÷ 120°C
for bidirectional flow regulators

**Working pressure for unidirectional flow regulators:**
From 1 to 16 Bar
**Working pressure for bidirectional flow regulators:**
From 0 to 40 Bar

Air only for unidirectional regulator.
Air and fluids suitable with the bidirectional regulator materials

- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"
- NPT
  from N1/4" to N1/2"

Manual flow regulation with locking nut

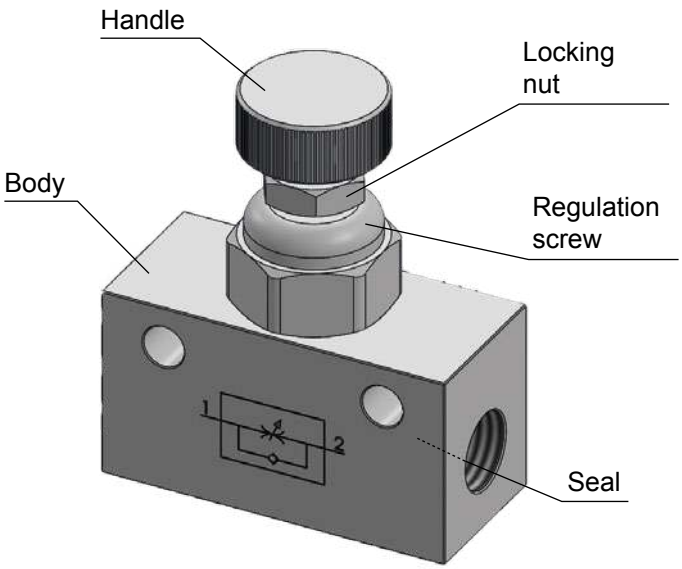
**Body:** Stainless steel AISI 316
**Handle:** Stainless steel AISI 316
**Regulation screw:** Stainless steel AISI 316
**Locking nut:** Stainless steel AISI 316
**Seal:** Viton

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

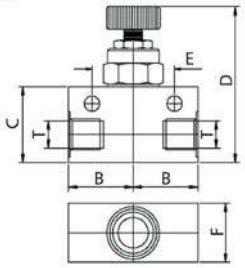
## CONSTRUCTION DETAILS



## XSFC-U

Unidirectional flat flow regulator, female BSPP thread, with manual regulation



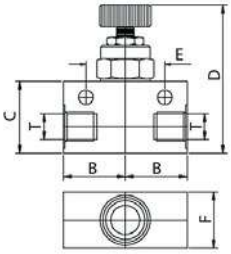



| CODE | T | B | C | D | E | F | g |
|---|---|---|---|---|---|---|---|
| XSFC-U01 | G 1/8" | 16,0 | 22,0 | 47,0 | 22,0 | 16,0 | 250 |
| XSFC-U02 | G 1/4" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 350 |
| XSFC-U03 | G 3/8" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 485 |
| XSFC-U04 | G 1/2" | 32,0 | 38,0 | 62,0 | 35,0 | 28,0 | 625 |

## XSFC-U-N

Unidirectional flat flow regulator, female NPT thread, with manual regulation



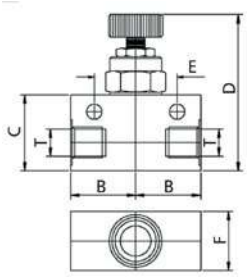



| CODE | T | B | C | D | E | F | g |
|---|---|---|---|---|---|---|---|
| XSFC-U-N02 | N 1/4" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 350 |
| XSFC-U-N04 | N 1/2" | 32,0 | 38,0 | 62,0 | 35,0 | 28,0 | 625 |

## XSFC-B

Bidirectional flat flow regulator, female BSPP thread, with manual regulation



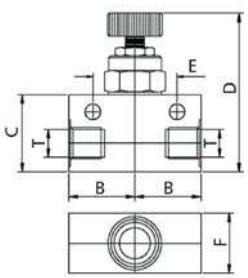




| CODE | T | B | C | D | E | F | g |
|---|---|---|---|---|---|---|---|
| XSFC-B01 | G 1/8" | 16,0 | 22,0 | 47,0 | 22,0 | 16,0 | 250 |
| XSFC-B02 | G 1/4" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 350 |
| XSFC-B03 | G 3/8" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 485 |
| XSFC-B04 | G 1/2" | 32,0 | 38,0 | 62,0 | 35,0 | 28,0 | 625 |

## XSFC-B-N

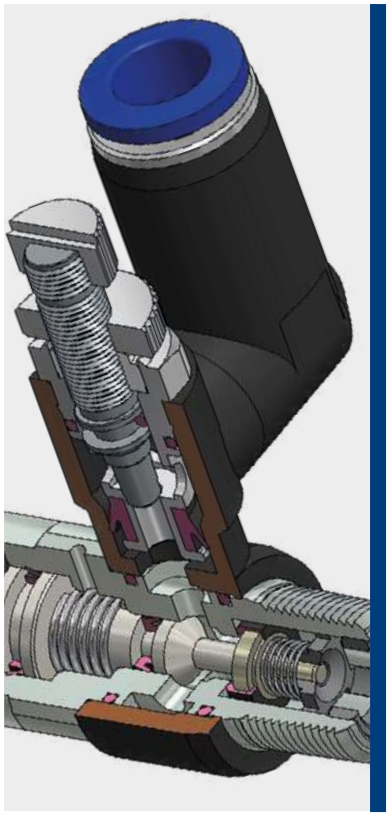
Bidirectional flat flow controller, female NPT thread, with manual regulation




| CODE | T | B | C | D | E | F | g |
|---|---|---|---|---|---|---|---|
| XSFC-B-N02 | N 1/4" | 27,5 | 32,0 | 56,0 | 31,8 | 25,0 | 350 |
| XSFC-B-N04 | N 1/2" | 32,0 | 38,0 | 62,0 | 35,0 | 28,0 | 625 |

*drawings and technical data are not binding & can be changed without notice*



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
**Min. pilot pressure:**
More than 50% of the working pressure (more than 1 Bar)

Compressed air & vacuum (do not use with water)

- Taper gas BSPT ISO 7 from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"

Polyamide PA, Polyurethane PU

Manual flow regulation

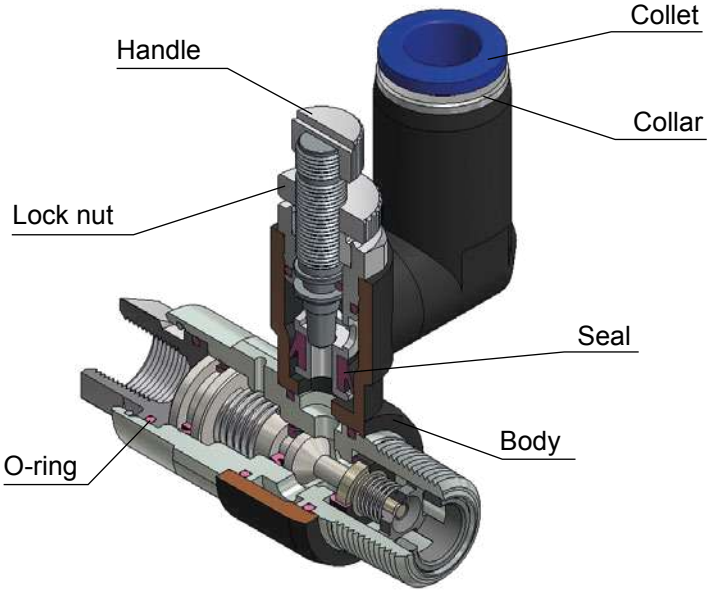
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Lock nut:** Nickel-plated brass

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

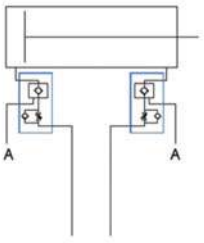
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

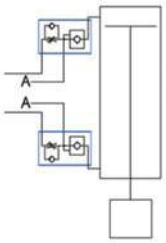



## APPLICATIONS EXAMPLES

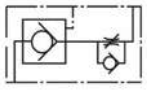
Application examples for temporary stops and emergency stops.




Assembly in pairs on cylinders that ensure the stem block in case of absence of air and at the same time the flow regulation.




Offer possibility to obtain intermited positions even with applied loads



## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

## TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 10 | 15 | 25 | 40 |

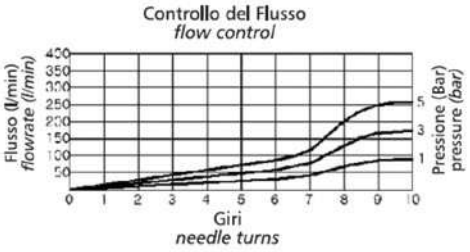
*drawings and technical data are not binding & can be changed without notice*

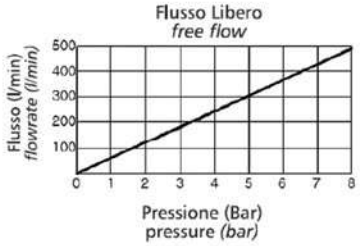
## FEATURES

Double functions flow regulators have an integrated unidirectional valve for pneumatic block.

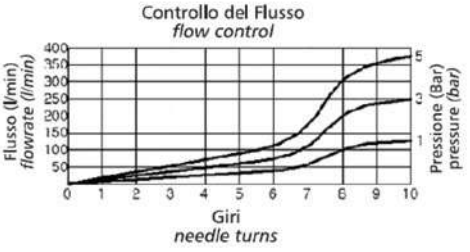
## FLOW CHARTS

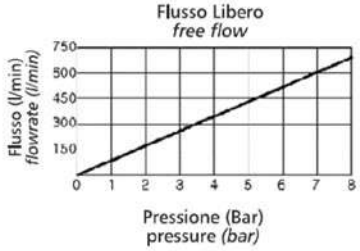
**PVSC 06-01**
**PVSC 08-01**



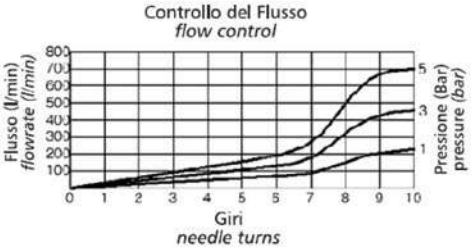



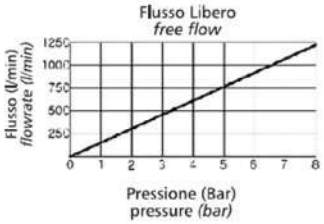

**PVSC 06-02**
**PVSC 08-02**



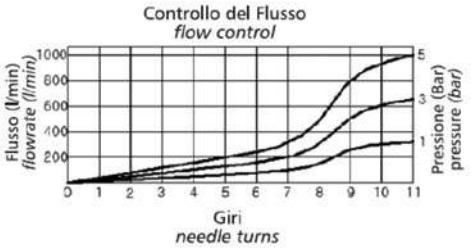



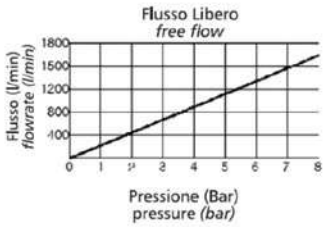

**PVSC 08-03**
**PVSC 10-03**
**PVSC 12-03**




**PVSC 10-04**
**PVSC 12-04**

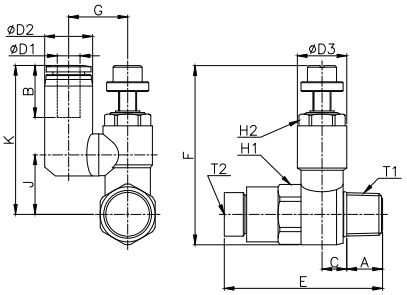


## PVSC-R

Flow regulator with pilot check valve, BSPT thread, with manual regulation



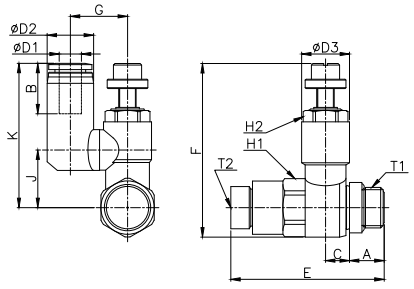



| CODE | ØD | T1 | T2 | A | B | ØD1 | ØD2 | ØD3 | C | E | F MIN | F MAX | G | J | K | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PVSC06R01 | 6 | R 1/8" | M5x0,8 | 8,0 | 17,0 | 6,0 | 12,6 | 12,1 | 8,0 | 35,4 | 43,6 | 48,4 | 16,1 | 14,9 | 38,9 | 12 | 10 | 30,4 |
| PVSC06R02 | | R 1/4" | R 1/8" | 10,5 | 17,0 | 6,0 | 12,6 | 15,4 | 7,6 | 42,0 | 55,4 | 60,4 | 19,4 | 18,4 | 44,3 | 17 | 13 | 63,5 |
| PVSC08R01 | 8 | R 1/8" | M5x0,8 | 8,0 | 19,1 | 8,0 | 14,9 | 12,1 | 8,0 | 35,4 | 43,6 | 48,4 | 17,3 | 14,9 | 39,8 | 12 | 10 | 33,6 |
| PVSC08R02 | | R 1/4" | R 1/8" | 10,5 | 19,1 | 8,0 | 14,9 | 15,4 | 7,6 | 42,0 | 55,4 | 60,4 | 18,4 | 18,4 | 46,7 | 17 | 13 | 66,3 |
| PVSC08R03 | | R 3/8" | R 1/8" | 11,4 | 19,1 | 8,0 | 15,1 | 20,3 | 9,6 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 50,7 | 19 | 17 | 101,3 |
| PVSC10R02 | 10 | R 1/4" | R 1/8" | 10,5 | 20,2 | 10,0 | 17,6 | 15,4 | 7,6 | 42,0 | 55,4 | 60,4 | 19,2 | 18,4 | 49,1 | 17 | 13 | 70,2 |
| PVSC10R03 | | R 3/8" | R 1/8" | 11,4 | 20,2 | 10,0 | 17,6 | 20,3 | 9,6 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 53,0 | 19 | 17 | 105,2 |
| PVSC10R04 | | R 1/2" | R 1/4" | 14,4 | 20,2 | 10,0 | 17,6 | 27,3 | 12,8 | 59,8 | 72,0 | 78,0 | 26,4 | 31,3 | 64,4 | 24 | 23 | 203,3 |
| PVSC12R03 | 12 | R 3/8" | R 1/8" | 11,4 | 22,7 | 12,0 | 20,6 | 20,3 | 9,6 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 54,8 | 19 | 17 | 110,0 |
| PVSC12R04 | | R 1/2" | R 1/4" | 14,4 | 22,7 | 12,0 | 20,6 | 27,3 | 12,8 | 59,8 | 72,0 | 78,0 | 26,4 | 31,3 | 67,2 | 24 | 23 | 235,0 |

## PVSC-G

Flow regulator with pilot check valve, BSPP thread, with manual regulation






| CODE | ØD | T1 | T2 | A | B | ØD1 | ØD2 | ØD3 | C | E | F MIN | F MAX | G | J | K | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PVSC06G01 | 6 | G 1/8" | M5x0,8 | 5,0 | 17,0 | 6,0 | 12,6 | 12,1 | 11,0 | 35,4 | 43,6 | 48,4 | 16,1 | 14,9 | 38,9 | 12 | 10 | 38,9 |
| PVSC06G02 | | G 1/4" | G 1/8" | 6,5 | 17,0 | 6,0 | 12,6 | 15,4 | 11,6 | 42,0 | 55,4 | 60,4 | 19,4 | 18,4 | 44,3 | 17 | 13 | 75,7 |
| PVSC08G01 | 8 | G 1/8" | M5x0,8 | 5,0 | 19,1 | 8,0 | 14,9 | 12,1 | 11,0 | 35,4 | 43,6 | 48,4 | 17,3 | 14,9 | 39,8 | 12 | 10 | 40,7 |
| PVSC08G02 | | G 1/4" | G 1/8" | 6,5 | 19,1 | 8,0 | 14,9 | 15,4 | 11,6 | 42,0 | 55,4 | 60,4 | 18,4 | 18,4 | 46,7 | 17 | 13 | 77,6 |
| PVSC08G03 | | G 3/8" | G 1/8" | 7,0 | 19,1 | 8,0 | 15,1 | 20,3 | 14,0 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 50,7 | 19 | 17 | 129,3 |
| PVSC10G02 | 10 | G 1/4" | G 1/8" | 6,5 | 20,2 | 10,0 | 17,6 | 15,4 | 11,6 | 42,0 | 55,4 | 60,4 | 19,2 | 18,4 | 49,1 | 17 | 13 | 70,2 |
| PVSC10G03 | | G 3/8" | G 1/8" | 7,0 | 20,2 | 10,0 | 17,6 | 20,3 | 14,0 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 53,0 | 19 | 17 | 131,2 |
| PVSC10G04 | | G 1/2" | G 1/4" | 8,5 | 20,2 | 10,0 | 17,6 | 27,3 | 18,7 | 59,8 | 72,0 | 78,0 | 26,4 | 31,3 | 64,4 | 24 | 23 | 240,6 |
| PVSC12G03 | 12 | G 3/8" | G 1/8" | 7,0 | 22,7 | 12,0 | 20,6 | 20,3 | 14,0 | 49,7 | 58,4 | 63,4 | 23,4 | 21,4 | 54,8 | 19 | 17 | 135,0 |
| PVSC12G04 | | G 1/2" | G 1/4" | 8,5 | 22,7 | 12,0 | 20,6 | 27,3 | 18,7 | 59,8 | 72,0 | 78,0 | 26,4 | 31,3 | 67,2 | 24 | 23 | 244,6 |

TierreGroup®

Always a fittings solution




**FOLLOW US!**

# FUNCTION FITTINGS EXHAUST VALVES

## PLUS

**WIDE RANGES OF MATERIALS AND MODELS DESIGNED FOR DIFFERENT USES IN AUTOMOTION**

**OPTIMISED EXHAUST SYSTEM**

**FLAME RESISTANT (MEV&ESC SERIES)**

**TECNOPOLYMER VERSION ARE DUAL-PURPOSE, WITH FLOW REGULATOR AND INTEGRATED SILENCER (ESC-R & ESC-G)**

## **EXHAUST VALVES /** M SERIES



p. 358 / **MEVU**



p. 358 / **MEVS**

## **EXHAUST VALVES WITH FLOW REGULATOR /** TECHNOPOLYMER



p. 360 / **ESC-M**



p. 362 / **ESC-R**



p. 362 / **ESC-G**

## **EXHAUST VALVES /** BRASS



p. 364 / **1100**



p. 364 / **1100-N**



p. 364 / **1101**



p. 364 / **1102**

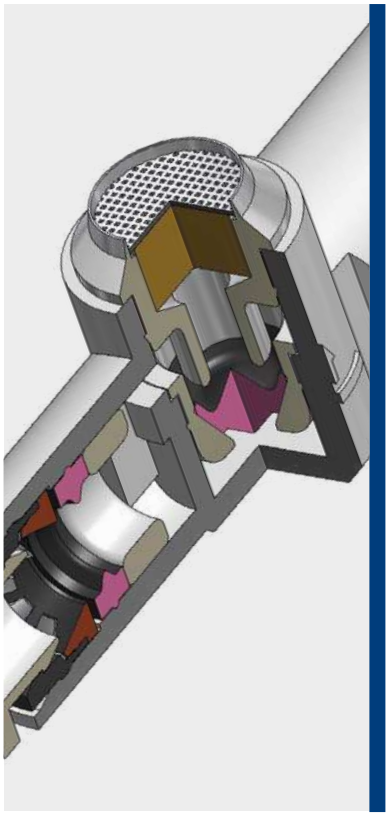
## **EXHAUST VALVES /** STAINLESS STEEL AISI 316



p. 366 / **1400**



p. 366 / **1400N**



-5°C ÷ 60°C

**Working pressure:**
10 Bar
**Min. working pressure:**
1 Bar

Pressure peaks do not exceed the max working pressure

Compressed air

Polyamide PA,
polyurethane PU,
polyethylene PE

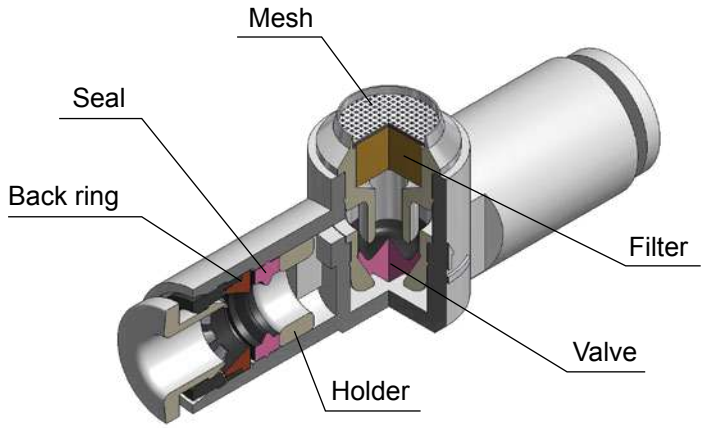
**Body:** PA66
**Mesh:** Stainless steel AISI 301
**Back ring:** PA66
**Seal:** NBR
**Lock claw:** Stainless steel AISI 301
**Collar:** PA66
**Seat ring:** Brass
**Holder:** POM
**Collet:** PA66
**Filter:** PE
**Housing:** Brass
**Valve:** NBR

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

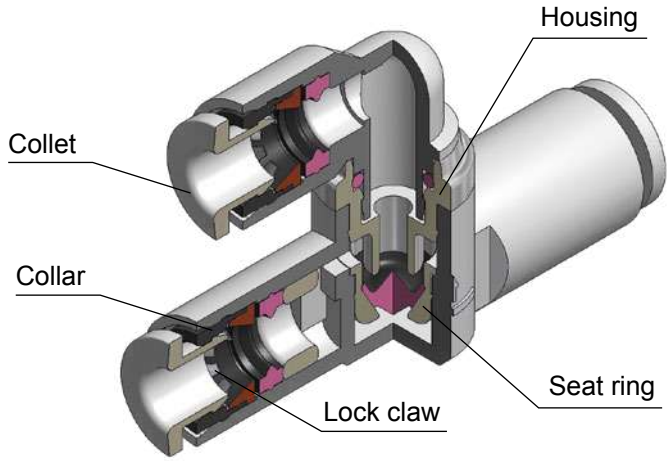



### PLUS - MEVU

Silenced exhaust to the atmosphere through the incorporated silencer.

Easy assembly thanks to push-in fittings incorporated.

Suitable for multiple applications thanks to light weight and compact size.




### PLUS - MEVS

Connection exhaust to be conveyed.

Easy assembly thanks to push-in fittings incorporated.

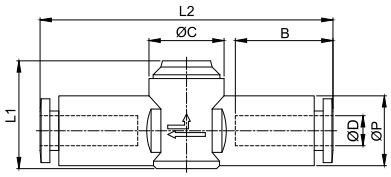
Suitable for multiple applications thanks to the light weight and compact size.

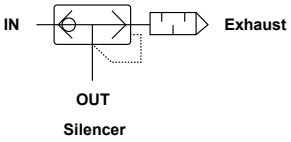
*drawings and technical data are not binding & can be changed without notice*

## MEVU

Quick exhaust valve with silencer






| CODE | ØD | ØP | ØC | B | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| MEVU04W | 4 | 9,3 | 10 | 13,0 | 14,4 | 39,0 | 4,5 |
| MEVU06W | 6 | 11,5 | 10 | 14,5 | 15,9 | 41,7 | 5,5 |

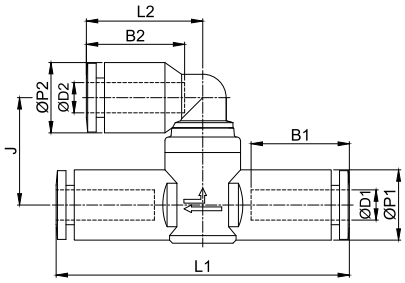
Section in mm²

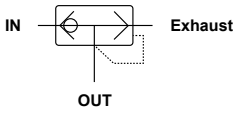
| CODE | Ø TUBE (mm) | IN - OUT | OUT - EXHAUST |
|---|---|---|---|
| MEVU04W | 4 | 1,7 | 2,5 |
| MEVU06W | 6 | 2,4 | 2,7 |

## MEVS

Quick exhaust valve with push-in fittings



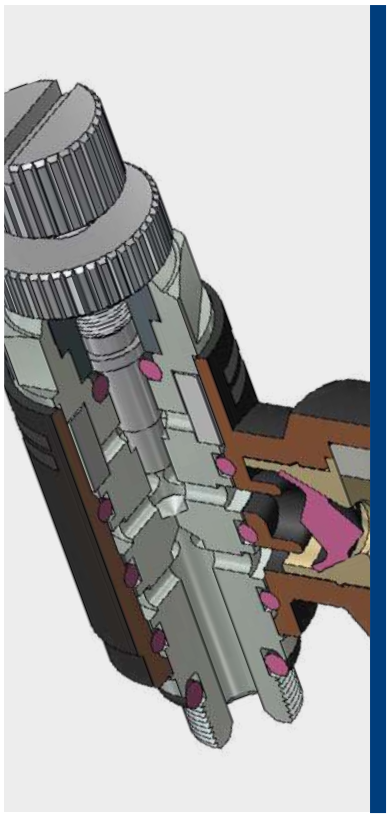



| CODE | ØD1 | ØD2 | B1 | B2 | ØP1 | ØP2 | L1 | L2 | J | g |
|---|---|---|---|---|---|---|---|---|---|---|
| MEVS04W | 4 | 4 | 13,0 | 13,0 | 9,3 | 9,3 | 39,0 | 15,4 | 14,2 | 5,9 |
| MEVS06W | 6 | 6 | 14,5 | 14,5 | 11,5 | 11,5 | 41,7 | 17,3 | 15,6 | 7,5 |

Section in mm²

| CODE | Ø TUBE (mm) | IN - OUT | OUT - EXHAUST |
|---|---|---|---|
| MEVS04W | 4 | 1,7 | 2,5 |
| MEVS06W | 6 | 2,4 | 2,7 |



0°C ÷ 60°C

**Working pressure:**
10 Bar

Compressed air
(do not use with water)

Metric ISO 262
M3 and M5

Polyamide PA, Polyurethane PU

Manual flow regulation

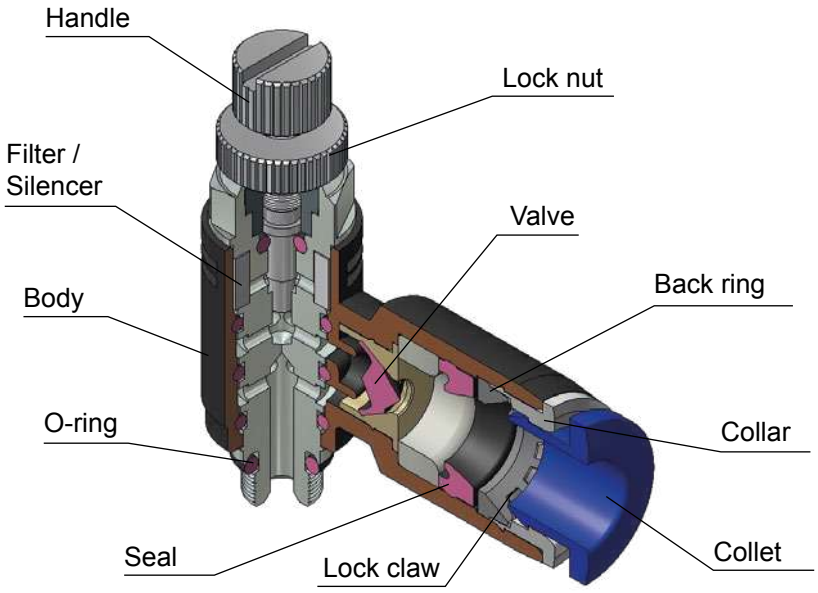
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Brass
**Lock nut:** Brass
**Valve:** HNBR
**Filter/Silencer:** PE

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### PLUS

Quick exhaust valve with flow regulator.

High-speed cylinder operation.

Complete with silencer and flow regulator.

Combines three pneumatic functions in one compact body (quick exhaust, flow regulator and silencer).

Flame resistant (UL 94 V-0).

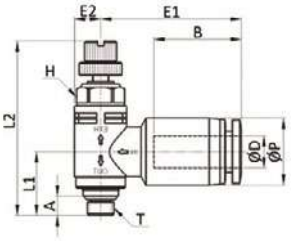
### TIGHTENING TORQUE
METRIC ISO 262

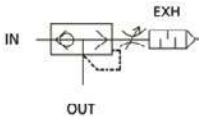
| THREAD | M3x0,5 | M5x0,8 |
|---|---|---|
| Nm | 1,5 | 1,5 |

## ESC-M

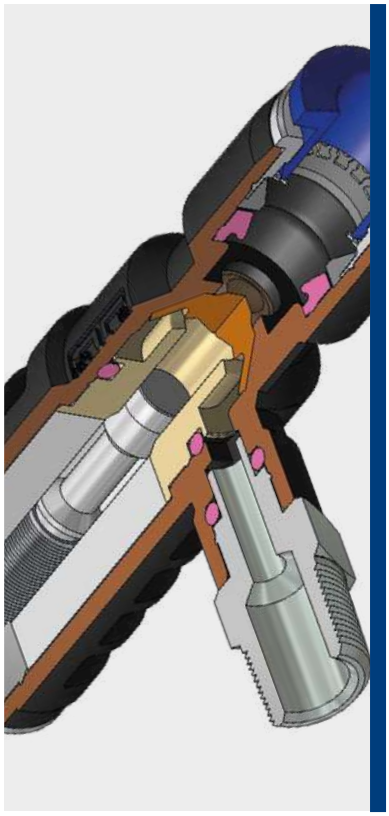
Quick exhaust valve, metric thread, with manual flow regulation






| CODE | ØD | ØP | T | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESC04M3 | 4 | 10,3 | M3x0,5 | 11,9 | 32,2 | 34,7 | 25,8 | 4,9 | 3,0 | 14,8 | 8 | 11,4 |
| ESC04M5 | | 10,3 | M5x0,8 | 11,9 | 32,2 | 34,7 | 25,8 | 4,9 | 3,6 | 14,8 | 8 | 11,3 |
| ESC06M5 | 6 | 12,5 | M5x0,8 | 11,9 | 32,2 | 34,7 | 26,4 | 4,9 | 3,6 | 16,5 | 8 | 12,3 |



0°C ÷ 60°C

**Working pressure:**
10 Bar

Compressed
(do not use with water)

Manual flow regulation

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2"

Polyamide PA, Polyurethane PU

**PLUS**

Quick exhaust valve with flow regulator.
High-speed cylinder operation.
Complete with silencer and flow regulator.
Flame resistant (UL 94 V-0).

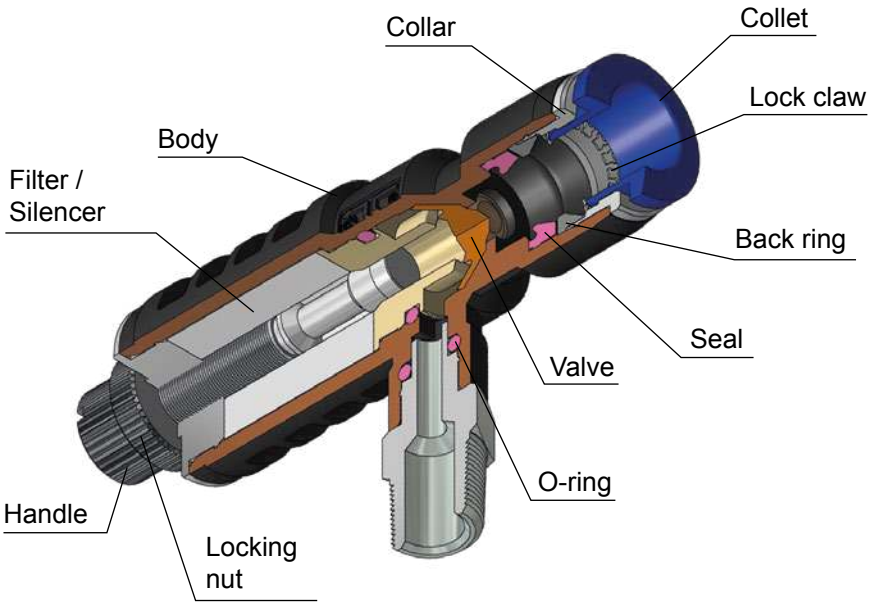
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**O-ring:** NBR
**Handle:** Nickel-plated brass
**Locking nut:** Nickel-plated brass
**Valve:** Polyurethane
**Filter/Silencer:** PE

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

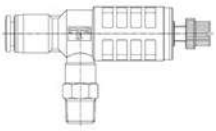
RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

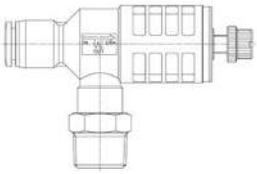



**SIZES ESC-R - ESC-G**

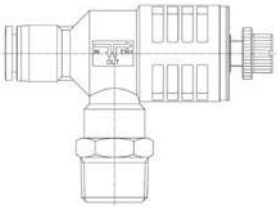
S
small



M
medium



L
large



**TIGHTENING TORQUE**
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

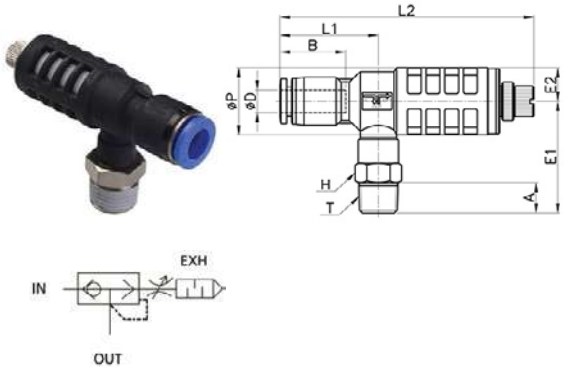
**TIGHTENING TORQUE**
PARALLEL GAS BSPP ISO 228

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 10 | 15 | 25 | 40 |

*drawings and technical data are not binding & can be changed without notice*

## ESC-R

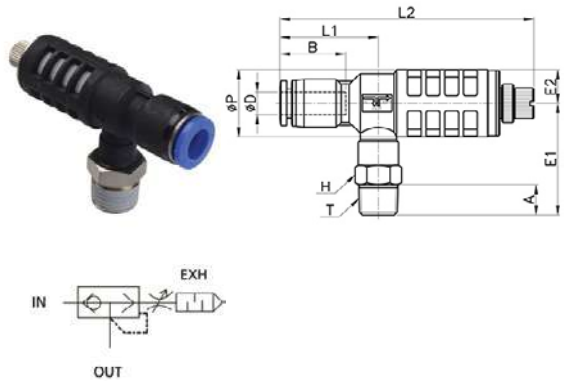
Quick exhaust valve, BSPT thread, with manual flow regulator




| CODE | ØD | ØP | T | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESC06R01-S | 6 | 12,5 | R 1/8" | 24,5 | 63,3 | 72,0 | 29,3 | 8,8 | 8,0 | 16,5 | 10 | 21,5 |
| ESC06R02-S | | 12,5 | R 1/4" | 24,5 | 63,3 | 72,0 | 31,3 | 8,8 | 10,0 | 16,5 | 14 | 26,3 |
| ESC08R01-S | 8 | 14,8 | R 1/8" | 26,5 | 65,1 | 71,7 | 29,3 | 8,8 | 8,0 | 18,3 | 10 | 22,5 |
| ESC08R02-S | | 14,8 | R 1/4" | 26,5 | 65,1 | 71,7 | 31,3 | 8,8 | 10,0 | 18,3 | 14 | 27,4 |
| ESC08R01-M | | 14,8 | R 1/8" | 29,8 | 73,2 | 82,3 | 34,5 | 12,0 | 8,0 | 18,3 | 14 | 40,0 |
| ESC08R02-M | | 14,8 | R 1/4" | 29,8 | 73,2 | 82,3 | 37,5 | 12,0 | 10,0 | 18,3 | 14 | 42,9 |
| ESC08R03-M | | 14,8 | R 3/8" | 29,8 | 73,2 | 82,3 | 38,5 | 12,0 | 11,0 | 18,3 | 17 | 48,5 |
| ESC10R01-M | 10 | 17,5 | R 1/8" | 31,7 | 75,0 | 84,1 | 34,5 | 12,0 | 8,0 | 20,1 | 14 | 41,7 |
| ESC10R02-M | | 17,5 | R 1/4" | 31,7 | 75,0 | 84,1 | 37,5 | 12,0 | 10,0 | 20,1 | 14 | 44,7 |
| ESC10R03-M | | 17,5 | R 3/8" | 31,7 | 75,0 | 84,1 | 38,5 | 12,0 | 11,0 | 20,1 | 17 | 50,2 |
| ESC10R02-L | | 17,5 | R 1/4" | 34,4 | 80,1 | 88,6 | 42,4 | 15,0 | 10,0 | 20,1 | 19 | 72,5 |
| ESC10R03-L | | 17,5 | R 3/8" | 34,4 | 80,1 | 88,6 | 43,4 | 15,0 | 11,0 | 20,1 | 19 | 76,5 |
| ESC10R04-L | | 17,5 | R 1/2" | 34,4 | 80,1 | 88,6 | 46,4 | 15,0 | 14,0 | 20,1 | 21 | 85,2 |
| ESC12R02-L | 12 | 20,5 | R 1/4" | 37,1 | 83,1 | 91,6 | 42,4 | 15,0 | 10,0 | 23,1 | 19 | 75,2 |
| ESC12R03-L | | 20,5 | R 3/8" | 37,1 | 83,1 | 91,6 | 43,4 | 15,0 | 11,0 | 23,1 | 19 | 79,2 |
| ESC12R04-L | | 20,5 | R 1/2" | 37,1 | 83,1 | 91,6 | 46,4 | 15,0 | 14,0 | 23,1 | 21 | 88,1 |

## ESC-G

Quick exhaust valve, BSPP thread, with manual flow regulator




| CODE | ØD | ØP | T | L1 | L2 MIN | L2 MAX | E1 | E2 | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESC06G01-S | 6 | 12,5 | G 1/8" | 24,5 | 63,3 | 72,0 | 26,3 | 8,8 | 5,0 | 16,5 | 14 | 24,5 |
| ESC06G02-S | | 12,5 | G 1/4" | 24,5 | 63,3 | 72,0 | 28,3 | 8,8 | 6,5 | 16,5 | 17 | 28,3 |
| ESC08G01-S | 8 | 14,8 | G 1/8" | 26,5 | 65,1 | 71,7 | 26,3 | 8,8 | 5,0 | 18,3 | 14 | 25,5 |
| ESC08G02-S | | 14,8 | G 1/4" | 26,5 | 65,1 | 71,7 | 28,3 | 8,8 | 6,5 | 18,3 | 17 | 29,4 |
| ESC08G01-M | | 14,8 | G 1/8" | 29,8 | 73,2 | 82,3 | 31,5 | 12,0 | 5,0 | 18,3 | 14 | 38,0 |
| ESC08G02-M | | 14,8 | G 1/4" | 29,8 | 73,2 | 82,3 | 33,5 | 12,0 | 6,5 | 18,3 | 17 | 41,9 |
| ESC08G03-M | | 14,8 | G 3/8" | 29,8 | 73,2 | 82,3 | 33,0 | 12,0 | 6,5 | 18,3 | 20 | 46,5 |
| ESC10G01-M | 10 | 17,5 | G 1/8" | 31,7 | 75,0 | 84,1 | 31,5 | 12,0 | 5,0 | 20,1 | 14 | 39,7 |
| ESC10G02-M | | 17,5 | G 1/4" | 31,7 | 75,0 | 84,1 | 33,5 | 12,0 | 6,5 | 20,1 | 17 | 43,7 |
| ESC10G03-M | | 17,5 | G 3/8" | 31,7 | 75,0 | 84,1 | 33,0 | 12,0 | 6,5 | 20,1 | 20 | 48,2 |
| ESC10G02-L | | 17,5 | G 1/4" | 34,4 | 80,1 | 88,6 | 38,4 | 15,0 | 6,5 | 20,1 | 19 | 68,5 |
| ESC10G03-L | | 17,5 | G 3/8" | 34,4 | 80,1 | 88,6 | 37,9 | 15,0 | 6,5 | 20,1 | 20 | 71,5 |
| ESC10G04-L | | 17,5 | G 1/2" | 34,4 | 80,1 | 88,6 | 39,4 | 15,0 | 8,0 | 20,1 | 24 | 78,2 |
| ESC12G02-L | 12 | 20,5 | G 1/4" | 37,1 | 83,1 | 91,6 | 38,4 | 15,0 | 6,5 | 23,1 | 19 | 71,2 |
| ESC12G03-L | | 20,5 | G 3/8" | 37,1 | 83,1 | 91,6 | 37,9 | 15,0 | 6,5 | 23,1 | 20 | 74,2 |
| ESC12G04-L | | 20,5 | G 1/2" | 37,1 | 83,1 | 91,6 | 39,4 | 15,0 | 8,0 | 23,1 | 24 | 81,1 |

*drawings and technical data are not binding & can be changed without notice*



-20°C ÷ 80°C

**Working pressure:**
from 0,5 to 10 Bar

Compressed air

- Parallel gas BSPP ISO 228
  from G1/8" to G1"
- Metric ISO 262
  M5
- NPT
  from N1/8" to N1/2"

**Body:** Nickel-plated brass
UNI EN 12165 CW617N

**Membrane:**
- NBR for M5 thread
- Polyurethane elastomer for all other sizes

**Seal:** Nylon

**AVAILABILITY**

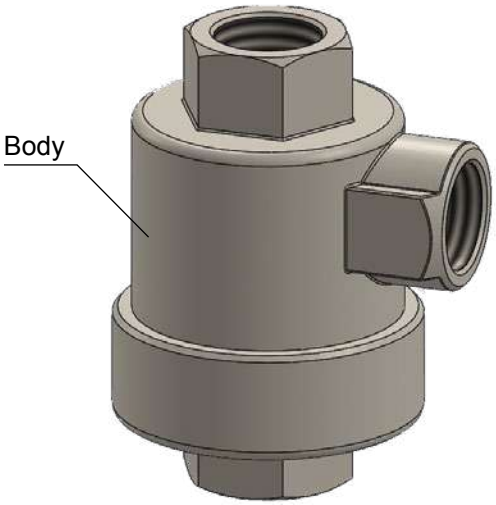
Available on request with Viton membrane from metric thread M5 to 1/2" BSPP thread

SILICONE FREE

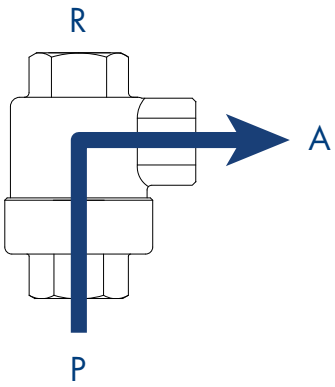
REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### FLOW EXHAUST




This valve allows the air to be quickly expelled and consequently speeds up the working time.

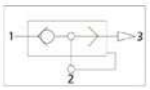
The air entering "P" displaces the membrane closing the outlet "R" and exits from outlet "A".

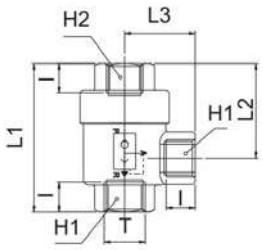
As soon as we remove the pressure coming from "P", the air at outlet "A" closes the outlet "P" due to the pressure difference, exiting quickly from exhaust outlet "R" where it is recommended to mount a silencer.

## 1100

Quick exhaust valve, BSPP & metric thread





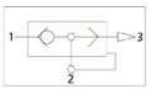


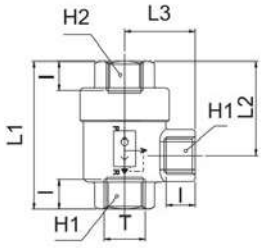

| CODE | T | I | L1 | L2 | L3 | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| 1100TRM5 | M5x0,8 | 4,5 | 24,8 | 15,6 | 10,5 | 10 | 10 | 27 |
| 1100TR18 | G 1/8" | 8,0 | 42,0 | 28,0 | 19,5 | 14 | 14 | 84 |
| 1100TR14 | G 1/4" | 11,0 | 53,0 | 34,5 | 25,0 | 19 | 19 | 146 |
| 1100TR38 | G 3/8" | 12,0 | 55,0 | 36,0 | 26,0 | 21 | 21 | 150 |
| 1100TR12 | G 1/2" | 14,0 | 71,0 | 44,0 | 35,0 | 26 | 26 | 314 |
| 1100TR34 | G 3/4" | 18,0 | 86,0 | 52,0 | 38,5 | 32 | 32 | 450 |
| 1100TR1 | G 1" | 19,0 | 94,0 | 56,0 | 42,0 | 38 | 38 | 525 |

## 1100-N

Quick exhaust valve, NPT thread





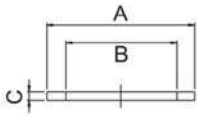



| CODE | T | I | L1 | L2 | L3 | H1 | H2 | g |
|---|---|---|---|---|---|---|---|---|
| 1100TRN18 | N 1/8" | 8,0 | 42,0 | 28,0 | 19,5 | 14 | 14 | 84 |
| 1100TRN14 | N 1/4" | 11,0 | 53,0 | 34,5 | 25,0 | 19 | 19 | 146 |
| 1100TRN38 | N 3/8" | 12,0 | 55,0 | 36,0 | 26,0 | 21 | 21 | 150 |
| 1100TRN12 | N 1/2" | 14,0 | 71,0 | 44,0 | 35,0 | 26 | 26 | 314 |

## 1101

Nylon body seal



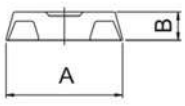



| CODE | FOR VALVE | A | B | C | g |
|---|---|---|---|---|---|
| 1101TRM5 | M5x0,8 | 17,0 | 12,4 | 0,8 | 0,080 |
| 1101TR18 | 1/8" | 23,8 | 20,0 | 1,0 | 0,014 |
| 1101TR14 | 1/4" | 28,5 | 24,0 | 1,0 | 0,018 |
| 1101TR38 | 3/8" | 28,5 | 24,0 | 1,0 | 0,018 |
| 1101TR12 | 1/2" | 38,6 | 32,0 | 1,5 | 0,030 |
| 1101TR34 | 3/4" | 45,0 | 38,0 | 1,5 | 0,760 |
| 1101TR1 | 1" | 45,0 | 38,0 | 1,5 | 0,760 |

## 1102

Membrane for valve in polyurethane elastomer

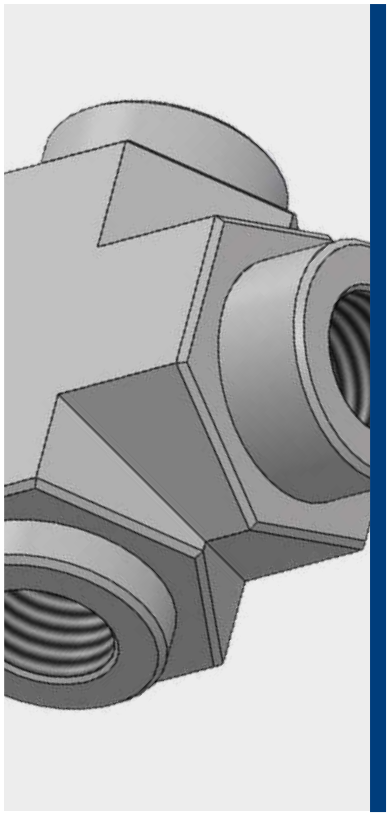





| | CODE | FOR VALVE | A | B | g |
|---|---|---|---|---|---|
| * | 1102TRM5 | M5x0,8 | 13,5 | 4,5 | 0,4 |
| | 1102TR18 | 1/8" | 20,5 | 5,0 | 1,1 |
| | 1102TR14 | 1/4" | 25,5 | 5,8 | 1,9 |
| | 1102TR38 | 3/8" | 25,5 | 5,8 | 1,9 |
| | 1102TR12 | 1/2" | 35,5 | 8,2 | 2,5 |
| | 1102TR34 | 3/4" | 40,5 | 9,0 | 7,0 |
| | 1102TR1 | 1" | 40,5 | 9,0 | 7,0 |

* Membrane in NBR

*drawings and technical data are not binding & can be changed without notice*



**VITON:**
-20°C ÷ 120°C
**POLYURETHANE:**
-20°C ÷ 82°C

**Working pressure:**
from 0 to 40 Bar

Compressed air

- Parallel gas BSPP ISO 228
  from G1/8" to G1"
- NPT
  N1/4", N1/2", N1"

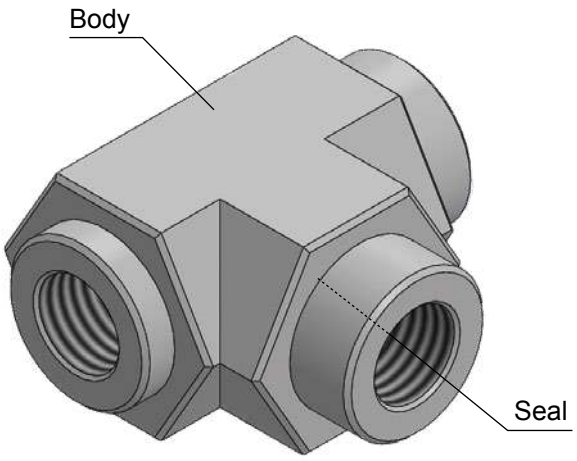
**Body:** Stainless steel AISI 316
**Seal:**
1/8" and 1/4" in Viton
from 3/8" to 1" in Polyurethane

SILICONE FREE

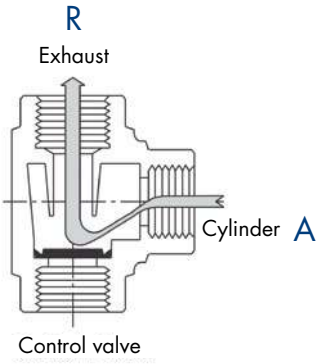
REACH COMPLIANT
Products in compliance with EC Regulation 1907/2006

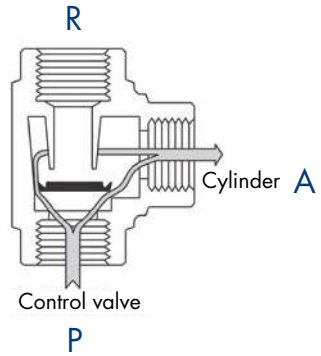
RoHS3
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




### FLOW DIRECTION

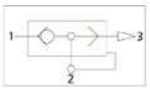


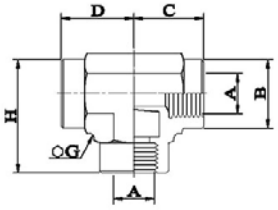



## 1400

Quick exhaust valve, BSPP thread





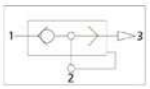



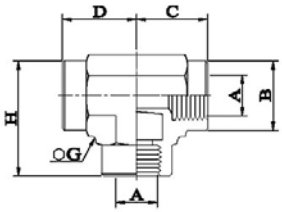

| CODE | A | B | C | D | H | G | g |
|---|---|---|---|---|---|---|---|
| 1400TR18 | G 1/8" | 17 | 21 | 16,5 | 31,5 | 22 | 125,0 |
| 1400TR14 | G 1/4" | 17 | 21 | 16,5 | 31,5 | 22 | 155,0 |
| 1400TR38 | G 3/8" | 22 | 25,5 | 19 | 37 | 27 | 202,0 |
| 1400TR12 | G 1/2" | 27 | 31 | 23 | 46 | 32 | 305,0 |
| 1400TR34 | G 3/4" | 38 | 44 | 35 | 46 | 46 | 915,0 |
| 1400TR1 | G 1" | 38 | 44 | 35 | 46 | 46 | 1380,0 |

## 1400-N

Quick exhaust valve, NPT thread






| CODE | T | I | L1 | L2 | L3 | H1 | g |
|---|---|---|---|---|---|---|---|
| 1400TRN14 | N 1/4" | 17 | 21 | 16,5 | 31,5 | 22 | 155,0 |
| 1400TRN12 | N 1/2" | 27 | 31 | 23 | 46 | 32 | 305,0 |
| 1400TRN1 | N 1" | 38 | 44 | 35 | 46 | 46 | 1380,0 |

# FUNCTION FITTINGS STOP FITTINGS

## PLUS

**IDEAL FOR PERIODIC MAINTENANCE OF EQUIPMENT**

**IMPROVES THE SECUTIRY OF THE SYSTEM**

**COMPACT SIZE AND WIDE CHOISE OF SHAPES**

**AUTOMATICALLY CLOSES THE CIRCUIT WHEN THE TUBE IS DISCONNECTED**



p. 370 / **SPC-R**



p. 370 / **SPC-G**



p. 370 / **SPUM**



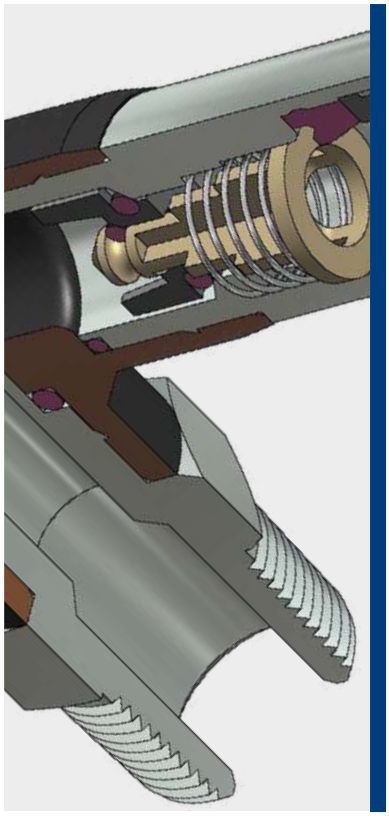
p. 371 / **SPL-R**



p. 371 / **SPL-G**



p. 371 / **SPU**



0°C ÷ 60°C

**Working pressure:**
from 0 to 10 Bar

Compressed air

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2" with o-ring
- Metric ISO 262
  M5 and M6

Polyamide PA, polyurethane PU

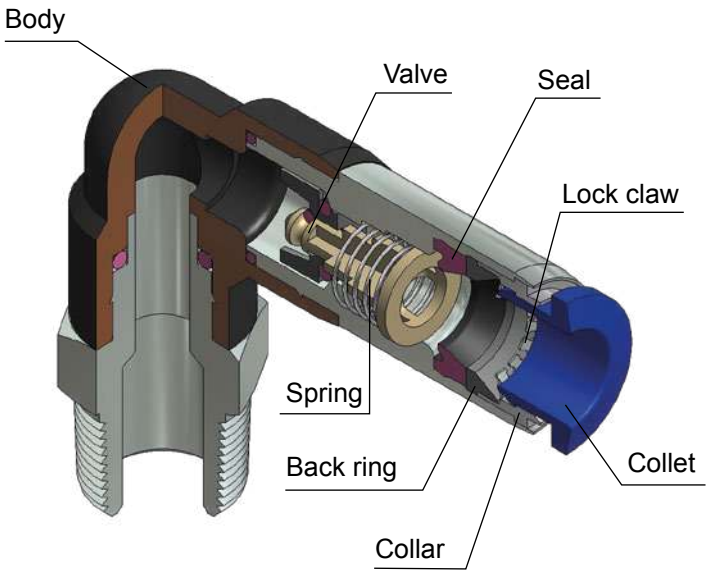
**Body:** Nickel-plated brass and PBT
**Collet:** POM
**Collar:** Zinc
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR
**Spring:** Stainless steel AISI 301
**Valve:** POM

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

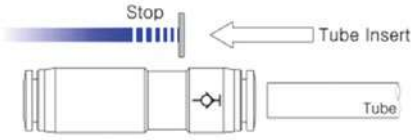
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

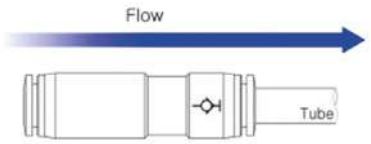



### STOP FITTINGS

Stop fittings are designed to facilitate maintenance operations. They stop the flow of fluid when disconnected from the tube, and re-establish the flow of fluid in a bidirectional sense when reconnected.




Disconnection




Connection

### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

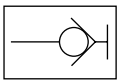
| THREAD | M5x0,8 | M6x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1,5 | 2,3 | 10 | 15 | 25 | 40 |

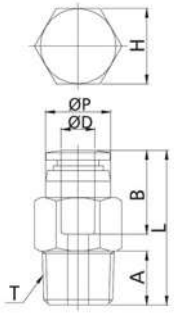
*drawings and technical data are not binding & can be changed without notice*

## SPC-R

Male connector stop fitting BSPT thread





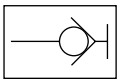


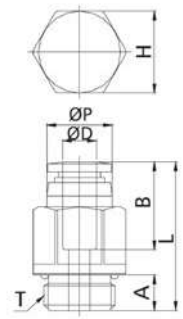

| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| SPC04R01 | 4 | R 1/8" | 10,0 | 26,1 | 8,0 | 15,3 | 10 | 10,0 |
| SPC06R01 | 6 | R 1/8" | 12,0 | 28,7 | 8,0 | 16,9 | 12 | 13,0 |
| SPC06R02 | | R 1/4" | 12,0 | 28,7 | 10,0 | 16,9 | 14 | 20,0 |
| SPC08R02 | 8 | R 1/4" | 14,0 | 33,3 | 10,0 | 18,6 | 14 | 20,0 |
| SPC08R03 | | R 3/8" | 14,0 | 33,3 | 11,0 | 18,6 | 17 | 36,0 |
| SPC10R02 | 10 | R 1/4" | 17,0 | 36,4 | 10,0 | 20,3 | 17 | 48,0 |
| SPC10R03 | | R 3/8" | 17,0 | 37,6 | 11,0 | 20,3 | 17 | 36,0 |
| SPC10R04 | | R 1/2" | 17,0 | 38,4 | 14,0 | 20,3 | 21 | 60,0 |
| SPC12R02 | 12 | R 1/4" | 19,0 | 44,7 | 10,0 | 22,6 | 19 | 48,0 |
| SPC12R03 | | R 3/8" | 19,0 | 44,6 | 11,0 | 22,6 | 19 | 49,0 |
| SPC12R04 | | R 1/2" | 19,0 | 44,6 | 14,0 | 22,6 | 21 | 64,0 |

## SPC-G

Male connector stop fitting BSPP thread





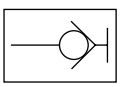


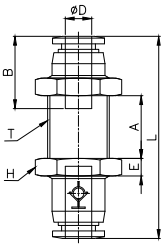

| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| SPC04G01 | 4 | G 1/8" | 10,3 | 25,5 | 5,0 | 15,3 | 12 | 10,0 |
| SPC06G01 | 6 | G 1/8" | 12,0 | 27,7 | 5,0 | 16,9 | 12 | 13,0 |
| SPC06G02 | | G 1/4" | 12,0 | 27,2 | 6,5 | 16,9 | 15 | 20,0 |
| SPC08G02 | 8 | G 1/4" | 14,0 | 31,9 | 6,5 | 18,6 | 15 | 20,0 |
| SPC08G03 | | G 3/8" | 14,0 | 31,9 | 6,5 | 18,6 | 17 | 36,0 |
| SPC10G02 | 10 | G 1/4" | 17,0 | 34,9 | 6,5 | 20,3 | 17 | 48,0 |
| SPC10G03 | | G 3/8" | 17,0 | 36,4 | 6,5 | 20,3 | 17 | 36,0 |
| SPC10G04 | | G 1/2" | 17,0 | 37,4 | 8,0 | 20,3 | 21 | 60,0 |
| SPC12G02 | 12 | G 1/4" | 19,0 | 43,2 | 6,5 | 22,6 | 19 | 48,0 |
| SPC12G03 | | G 3/8" | 19,0 | 43,2 | 6,5 | 22,6 | 21 | 49,0 |
| SPC12G04 | | G 1/2" | 19,0 | 43,7 | 8,0 | 22,6 | 21 | 64,0 |

## SPUM

Bulkhead connector stop fitting





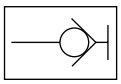


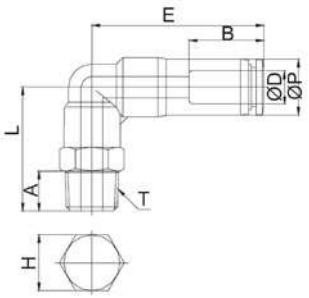

| CODE | ØD | T | L | E | A MAX | B | H | g |
|---|---|---|---|---|---|---|---|---|
| SPUM04 | 4 | M12x1 | 40,9 | 4 | 12,1 | 14,8 | 14 | 22,4 |
| SPUM06 | 6 | M14x1 | 45,9 | 4 | 14,1 | 16,4 | 17 | 32,2 |
| SPUM08 | 8 | M16x1 | 53,2 | 5 | 18,5 | 18,5 | 19 | 48,9 |
| SPUM10 | 10 | M20x1 | 58,6 | 5 | 20,8 | 20,3 | 24 | 81,2 |
| SPUM12 | 12 | M22x1 | 67,6 | 5 | 26,6 | 22,6 | 26 | |

## SPL-R

Male elbow stop fitting BSPT thread





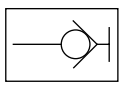


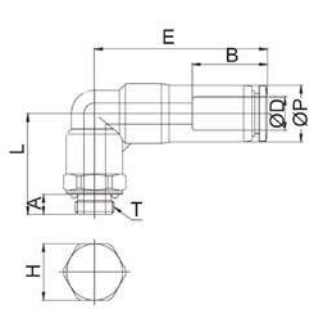

| CODE | ØD | T | ØP | L | E | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|
| SPL04R01 | 4 | R 1/8" | 10,0 | 24,5 | 29,5 | 8,0 | 14,8 | 10 | 15,0 |
| SPL06R01 | 6 | R 1/8" | 12,0 | 26,5 | 32,8 | 8,0 | 16,4 | 12 | 22,0 |
| SPL06R02 | | R 1/4" | 12,0 | 29,5 | 32,8 | 10,0 | 16,4 | 14 | 27,0 |
| SPL08R01 | 8 | R 1/8" | 14,0 | 28,0 | 42,9 | 8,0 | 18,4 | 14 | 32,0 |
| SPL08R02 | | R 1/4" | 14,0 | 31,0 | 42,9 | 10,0 | 18,4 | 14 | 38,0 |
| SPL08R03 | | R 3/8" | 14,0 | 32,0 | 42,9 | 11,0 | 18,4 | 17 | 44,0 |
| SPL10R02 | 10 | R 1/4" | 17,0 | 31,5 | 49,0 | 10,0 | 20,2 | 17 | 57,0 |
| SPL10R03 | | R 3/8" | 17,0 | 32,5 | 49,0 | 11,0 | 20,2 | 17 | 64,0 |
| SPL10R04 | | R 1/2" | 17,0 | 35,5 | 49,0 | 14,0 | 20,2 | 21 | 80,0 |
| SPL12R03 | 12 | R 3/8" | 19,0 | 35,4 | 57,5 | 11,0 | 22,4 | 19 | 78,0 |
| SPL12R04 | | R 1/2" | 19,0 | 38,4 | 57,5 | 14,0 | 22,4 | 21 | 91,0 |

## SPL-G

Male elbow stop fitting BSPP & metric thread





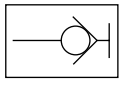


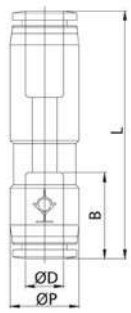

| CODE | ØD | T | ØP | L | E | A | B | H | g |
|---|---|---|---|---|---|---|---|---|---|
| SPL04M5 | 4 | M5x0,8 | 10,0 | 20,5 | 29,5 | 4,0 | 14,8 | 10 | 13,0 |
| SPL04M6 | | M6x1,0 | 10,0 | 20,6 | 29,5 | 4,1 | 14,8 | 10 | 14,0 |
| SPL04G01 | | G 1/8" | 10,0 | 21,5 | 29,5 | 5,0 | 14,8 | 14 | 15,0 |
| SPL06M5 | 6 | M5x0,8 | 12,0 | 22,5 | 32,8 | 4,0 | 16,4 | 12 | 19,0 |
| SPL06G01 | | G 1/8" | 12,0 | 23,5 | 32,8 | 5,0 | 16,4 | 14 | 22,0 |
| SPL06G02 | | G 1/4" | 12,0 | 25,5 | 32,8 | 6,5 | 16,4 | 17 | 27,0 |
| SPL08G02 | 8 | G 1/4" | 14,0 | 27,0 | 42,9 | 6,5 | 18,4 | 17 | 38,0 |
| SPL08G03 | | G 3/8" | 14,0 | 26,5 | 42,9 | 6,5 | 18,4 | 20 | 44,0 |
| SPL10G02 | 10 | G 1/4" | 17,0 | 27,5 | 49,0 | 6,5 | 20,2 | 17 | 57,0 |
| SPL10G03 | | G 3/8" | 17,0 | 27,0 | 49,0 | 6,5 | 20,2 | 20 | 64,0 |
| SPL10G04 | | G 1/2" | 17,0 | 28,5 | 49,0 | 8,0 | 20,2 | 24 | 80,0 |
| SPL12G03 | 12 | G 3/8" | 19,0 | 29,9 | 57,5 | 6,5 | 22,4 | 20 | 78,0 |
| SPL12G04 | | G 1/2" | 19,0 | 31,4 | 57,5 | 8,0 | 22,4 | 24 | 91,0 |

## SPU

Union connector stop fitting








| CODE | ØD | ØP | L | B | g |
|---|---|---|---|---|---|
| SPU04 | 4 | 10,5 | 41,7 | 16,2 | 5,0 |
| SPU06 | 6 | 12,5 | 45,9 | 17,4 | 8,0 |
| SPU08 | 8 | 14,8 | 52,8 | 18,9 | 11,0 |
| SPU10 | 10 | 17,5 | 58,3 | 20,4 | 19,0 |
| SPU12 | 12 | 20,5 | 67,1 | 23,0 | 30,0 |

*drawings and technical data are not binding & can be changed without notice*

TierreGroup®

Always a fittings solution




## FOLLOW US!

# FUNCTION FITTINGS CHECK VALVES

## PLUS

**AVAILABLE IN DIFFERENT MATERIALS TO BE USED IN MULTIPLE APPLICATIONS**

**DIFFERENT TECHNOLOGIES TO GUARANTEE MORE SOLUTIONS**

**INDICATOR OF FLOW DIRECTION ON VALVE BODY**

**FULL PASSAGE GUARANTEE**

**ALSO AVAILABLE FOR FOOD FLUIDS AND POTABLE WATER CONTACT (1700LF & HCVU)**

Check valves are actuated directly by the fluid being conveyed, allowing it to flow in only one direction.
They are used to keep a part of the circuit under pressure even in the absence of supply pressure.

## **CHECK VALVES /** CDC PNEUMATICS



p. 378 / **CVPC-R**



p. 378 / **CVPC-R-IN**



p. 378 / **CVPC-G**



p. 379 / **CVPC-G-IN**



p. 379 / **CVPU**



p. 379 / **CVPF-R**



p. 380 / **CVPF-R-IN**



p. 380 / **CVPF-G**



p. 380 / **CVPF-G-IN**



p. 380 / **CVFF**

## **CHECK VALVES /** NICKEL-PLATED BRASS PN 10



p. 381 / **1700L**

## **CHECK VALVES /** YELLOW BRASS PN 16



p. 384 / **1705L**

## **CHECK VALVES /** FLUIDFIT



p. 386 / **HCVU**

## **CHECK VALVES PN20 /** YELLOW BRASS, STAINLESS STEEL AISI 303 & STAINLESS STEEL AISI 316L



p. 389 / **1705**



p. 390 / **1710**



p. 391 / **1730**

## **PILOT CHECK VALVES /** BRASS



p. 394 / **PVSF-R**



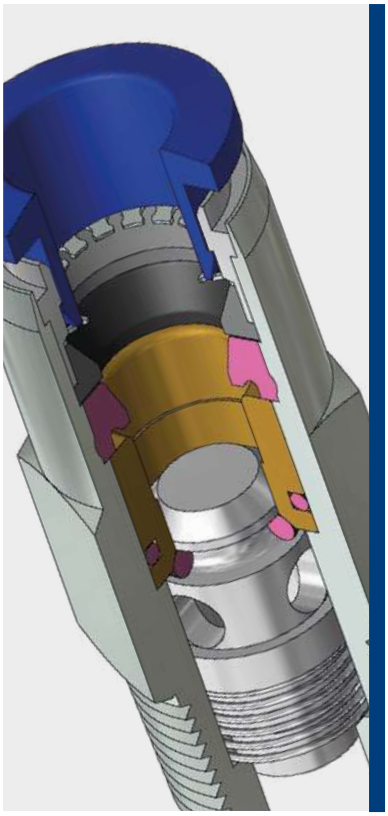
p. 394 / **PVSF-G**

TierreGroup®

Always a fittings solution




## FOLLOW US!



0°C ÷ 60°C

**Working pressure:**
From 0 to 10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
**Min. opening pressure:**
0,1 - 0,2 Bar

Compressed air & vacuum
(do not use with water)

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2" with o-ring
- Metric ISO 262
  M5 and M6

Polyamide PA, Polyurethane PU

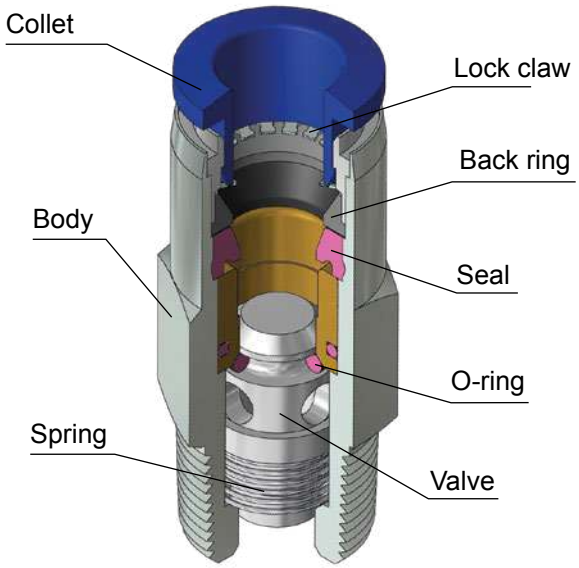
**Body:**
CVPC: Brass from Ø4 to Ø8
Alluminium from Ø10 to Ø12
CVPU: PBT from Ø4 to Ø8
Alluminium from Ø10 to Ø12
CVPF: Nickel-plated brass
CVFF: Nickel-plated brass
**Collet:** POM
**Lock claw:** Stainless steel AISI 301
**Back ring:** POM
**Seal:** NBR silicone free
**O-ring:** NBR silicone free
**Spring:** Stainless steel AISI 301
**Valve:** Aluminium

SILICONE FREE

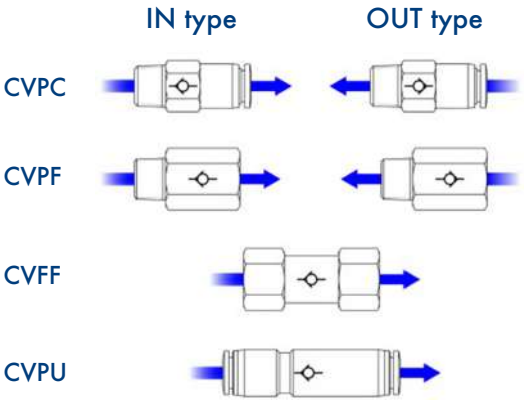
REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




**FLOW**




**TIGHTENING TORQUE**
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

**TIGHTENING TORQUE**
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

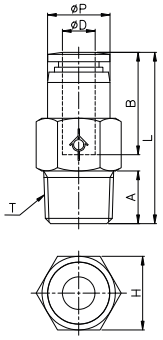
| THREAD | M5x0,8 | M6x1 | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|---|---|
| Nm | 1,5 | 2,3 | 10 | 15 | 25 | 40 |

*drawings and technical data are not binding & can be changed without notice*

## CVPC-R

Male connector check valve BSPT thread - OUT type



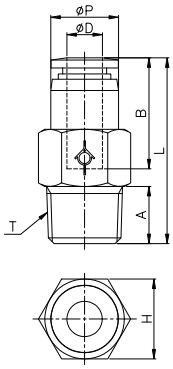



| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| CVPC04R01 | 4 | R 1/8" | 10,0 | 27,3 | 8,0 | 14,8 | 10 | 11,0 |
| CVPC06R01 | 6 | R 1/8" | 11,9 | 32,5 | 8,0 | 16,4 | 12 | 16,0 |
| CVPC06R02 | | R 1/4" | 11,9 | 32,5 | 10,0 | 16,4 | 14 | 24,0 |
| CVPC08R01 | 8 | R 1/8" | 14,0 | 34,9 | 8,0 | 18,4 | 14 | 21,0 |
| CVPC08R02 | | R 1/4" | 14,0 | 37,2 | 10,0 | 18,4 | 14 | 24,0 |
| CVPC10R03 | 10 | R 3/8" | 23,0 | 56,3 | 11,0 | 20,2 | 22 | 35,0 |
| CVPC10R04 | | R 1/2" | 23,0 | 58,3 | 14,0 | 20,2 | 22 | 41,0 |
| CVPC12R03 | 12 | R 3/8" | 25,0 | 62,2 | 11,0 | 22,9 | 24 | 40,0 |
| CVPC12R04 | | R 1/2" | 25,0 | 65,2 | 14,0 | 22,9 | 24 | 40,0 |

## CVPC-R-IN

Male connector check valve BSPT thread - IN type



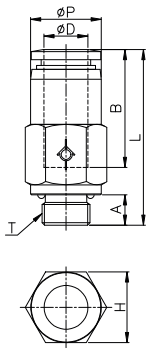



| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| CVPC04R01-IN | 4 | R 1/8" | 10,0 | 27,3 | 8,0 | 15,3 | 10 | 9,8 |
| CVPC06R01-IN | 6 | R 1/8" | 11,9 | 32,6 | 8,0 | 16,3 | 12 | 12,8 |
| CVPC06R02-IN | | R 1/4" | 11,9 | 32,6 | 10,0 | 16,3 | 14 | 19,8 |
| CVPC08R01-IN | 8 | R 1/8" | 14,0 | 34,9 | 8,0 | 18,3 | 14 | 18,7 |
| CVPC08R02-IN | | R 1/4" | 14,0 | 37,2 | 10,0 | 18,3 | 14 | 20,7 |
| CVPC10R03-IN | 10 | R 3/8" | 23,0 | 56,3 | 11,0 | 20,3 | 22 | 45,5 |
| CVPC10R04-IN | | R 1/2" | 23,0 | 58,3 | 14,0 | 20,3 | 22 | 63,5 |
| CVPC12R03-IN | 12 | R 3/8" | 25,0 | 62,3 | 12,0 | 23,3 | 24 | 48,3 |
| CVPC12R04-IN | | R 1/2" | 25,0 | 65,3 | 14,0 | 23,3 | 24 | 68,3 |

## CVPC-G

Male connector check valve BSPP & metric thread - OUT type





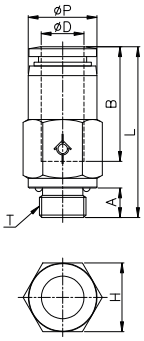

| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| CVPC04M5 | 4 | M5x0,8 | 10,0 | 31,4 | 3,6 | 14,8 | 10 | 11,0 |
| CVPC04M6 | | M6x1,0 | 10,0 | 30,4 | 4,6 | 14,8 | 10 | 11,0 |
| CVPC04G01 | | G 1/8" | 10,0 | 27,3 | 6,0 | 14,8 | 10 | 11,0 |
| CVPC06G01 | 6 | G 1/8" | 11,9 | 32,5 | 6,0 | 16,4 | 12 | 16,0 |
| CVPC06G02 | | G 1/4" | 11,9 | 32,5 | 7,0 | 16,4 | 15 | 24,0 |
| CVPC08G01 | 8 | G 1/8" | 14,0 | 34,8 | 6,0 | 18,4 | 14 | 21,0 |
| CVPC08G02 | | G 1/4" | 14,0 | 36,9 | 7,0 | 18,4 | 15 | 24,0 |
| CVPC10G03 | 10 | G 3/8" | 23,0 | 54,0 | 8,0 | 20,2 | 22 | 35,0 |
| CVPC10G04 | | G 1/2" | 23,0 | 55,3 | 9,0 | 20,2 | 24 | 41,0 |
| CVPC12G03 | 12 | G 3/8" | 25,0 | 58,9 | 8,0 | 22,9 | 24 | 40,0 |
| CVPC12G04 | | G 1/2" | 25,0 | 60,2 | 9,0 | 22,9 | 24 | 40,0 |

*drawings and technical data are not binding & can be changed without notice*

## CVPC-G-IN

Male connector check valve BSPP & metric thread - IN type



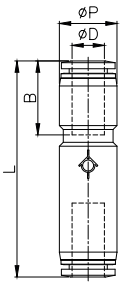



| CODE | ØD | T | ØP | L | A | B | H | g |
|---|---|---|---|---|---|---|---|---|
| CVPC04M5-IN | 4 | M5x0,8 | 10,0 | 31,4 | 3,6 | 14,8 | 10 | 11,0 |
| CVPC04M6-IN | | M6x1,0 | 10,0 | 30,4 | 4,6 | 14,8 | 10 | 11,0 |
| CVPC04G01-IN | | G 1/8" | 10,0 | 27,3 | 6,0 | 14,8 | 10 | 11,0 |
| CVPC06G01-IN | 6 | G 1/8" | 11,9 | 32,5 | 6,0 | 16,4 | 12 | 16,0 |
| CVPC06G02-IN | | G 1/4" | 11,9 | 32,5 | 7,0 | 16,4 | 15 | 24,0 |
| CVPC08G01-IN | 8 | G 1/8" | 14,0 | 34,3 | 6,0 | 18,4 | 14 | 21,0 |
| CVPC08G02-IN | | G 1/4" | 14,0 | 36,9 | 7,0 | 18,4 | 15 | 24,0 |
| CVPC10G03-IN | 10 | G 3/8" | 23,0 | 54,0 | 8,0 | 20,2 | 22 | 35,0 |
| CVPC10G04-IN | | G 1/2" | 23,0 | 55,3 | 9,0 | 20,2 | 24 | 41,0 |
| CVPC12G03-IN | 12 | G 3/8" | 25,0 | 58,9 | 8,0 | 22,9 | 24 | 40,0 |
| CVPC12G04-IN | | G 1/2" | 25,0 | 60,2 | 9,0 | 22,9 | 24 | 40,0 |

## CVPU

Union connector check valve - PBT






| CODE | ØD | ØP | L | B | g |
|---|---|---|---|---|---|
| CVPU04 | 4 | 10,5 | 41,9 | 14,8 | 4,9 |
| CVPU06 | 6 | 12,5 | 47,4 | 16,4 | 8,2 |
| CVPU08 | 8 | 14,8 | 55,5 | 18,3 | 12,9 |

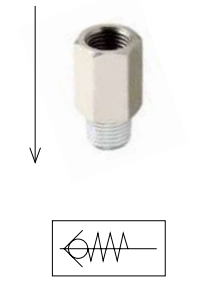
Union connector check valve - Alluminium

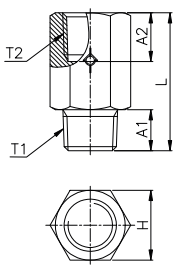


| CODE | ØD | ØP | L | B | g |
|---|---|---|---|---|---|
| CVPU10 | 10 | 23,0 | 65,2 | 20,2 | 43,5 |
| CVPU12 | 12 | 25,0 | 72,9 | 22,9 | 58,1 |

## CVPF-R

M/F connector check valve BSPT thread - OUT type



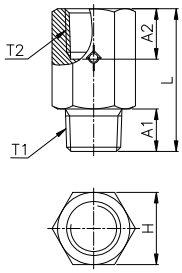



| CODE | T1 | T2 | L | A1 | A2 | H | g |
|---|---|---|---|---|---|---|---|
| CVPF01R01 | R 1/8" | R 1/8" | 27,6 | 8 | 8,5 | 12 | 16,0 |
| CVPF02R02 | R 1/4" | R 1/4" | 33,6 | 10 | 11 | 17 | 38,0 |
| CVPF03R03 | R 3/8" | R 3/8" | 53,3 | 12 | 13 | 22 | 107,0 |
| CVPF04R04 | R 1/2" | R 1/2" | 61,5 | 14 | 15 | 24 | 131,0 |

## CVPF-R-IN

M/F connector check valve BSPT thread - IN type



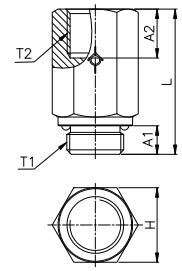



| CODE | T1 | T2 | L | A1 | A2 | H | g |
|---|---|---|---|---|---|---|---|
| CVPF01R01-IN | R 1/8" | R 1/8" | 27,6 | 8 | 8,5 | 12 | 16,0 |
| CVPF02R02-IN | R 1/4" | R 1/4" | 33,6 | 10 | 11 | 17 | 38,0 |
| CVPF03R03-IN | R 3/8" | R 3/8" | 53,3 | 12 | 13 | 22 | 107,0 |
| CVPF04R04-IN | R 1/2" | R 1/2" | 61,5 | 14 | 15 | 24 | 131,0 |

## CVPF-G

M/F connector check valve BSPP thread - OUT type



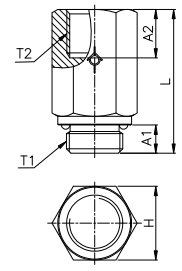



| CODE | T1 | T2 | L | A1 | A2 | H | g |
|---|---|---|---|---|---|---|---|
| CVPF01G01 | G 1/8" | G 1/8" | 27, | 5,0 | 8,5 | 14 | 23,0 |
| CVPF02G02 | G 1/4" | G 1/4" | 33,3 | 6,5 | 11 | 17 | 39,0 |
| CVPF03G03 | G 3/8" | G 3/8" | 50,5 | 6,5 | 13 | 22 | 102,0 |
| CVPF04G04 | G 1/2" | G 1/2" | 56,7 | 8,0 | 15 | 24 | 121,0 |

## CVPF-G-IN

M/F connector check valve BSPP thread - IN type



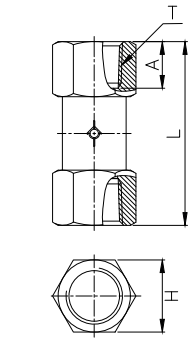



| CODE | T1 | T2 | L | A1 | A2 | H | g |
|---|---|---|---|---|---|---|---|
| CVPF01G01-IN | G 1/8" | G 1/8" | 27,6 | 5,0 | 8,5 | 14 | 23,0 |
| CVPF02G02-IN | G 1/4" | G 1/4" | 33,3 | 6,5 | 11 | 17 | 39,0 |
| CVPF03G03-IN | G 3/8" | G 3/8" | 50,5 | 6,5 | 13 | 22 | 102,0 |
| CVPF04G04-IN | G 1/2" | G 1/2" | 56,7 | 8,0 | 15 | 24 | 121,0 |

## CVFF

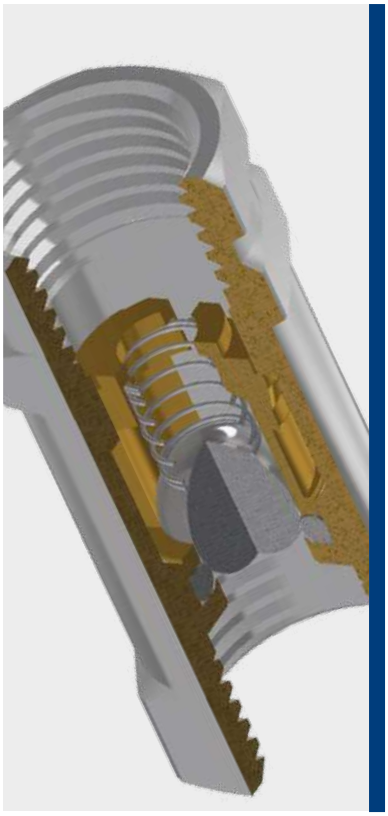
Female check valve BSPT thread






| CODE | T | L | A | H | g |
|---|---|---|---|---|---|
| CVFF-R01 | R 1/8" | 35,6 | 9,0 | 12 | 20,0 |
| CVFF-R02 | R 1/4" | 43,3 | 11,0 | 17 | 49,2 |
| CVFF-R03 | R 3/8" | 53,2 | 12,0 | 22 | 93,9 |
| CVFF-R04 | R 1/2" | 60,5 | 14,0 | 24 | 113,7 |

*drawings and technical data are not binding & can be changed without notice*



**NBR:** -5°C ÷ 70°C
**EPDM:** -40°C ÷ 140°C

**Working pressure:**
from 0,5 to 10 Bar
**Min. opening pressure:**
0,025 Bar
**Max. opening pressure:**
0,07 Bar

Compressed air and fluids suitable with construction materials

Fluid flow in one direction only. Flow direction marked on the body

- Parallel gas BSPP ISO 228 from G1/8" to G1/2"
- Metric ISO 262 M5

**Body:** Nickel-plated brass
**Shutter with ball:** Stainless steel AISI 304
**Spring:** Stainless steel AISI 302
**O-ring:** NBR 70

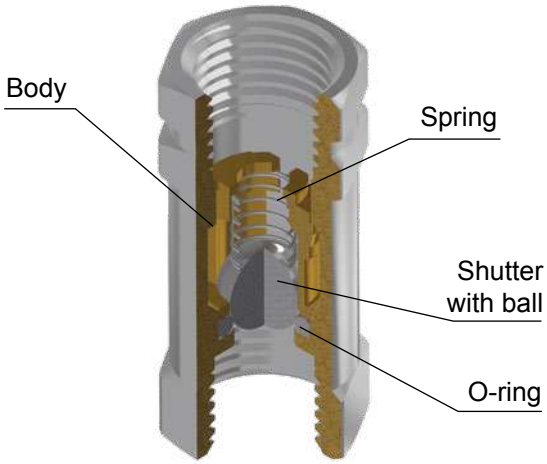
**PLUS**
Made with a ball shutter, which guarantees the advantage of eliminating the friction of the components and, at the same time, increases the lifetime.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

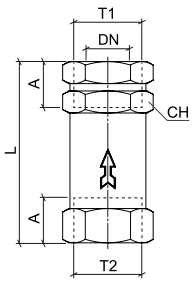
## CONSTRUCTION DETAILS



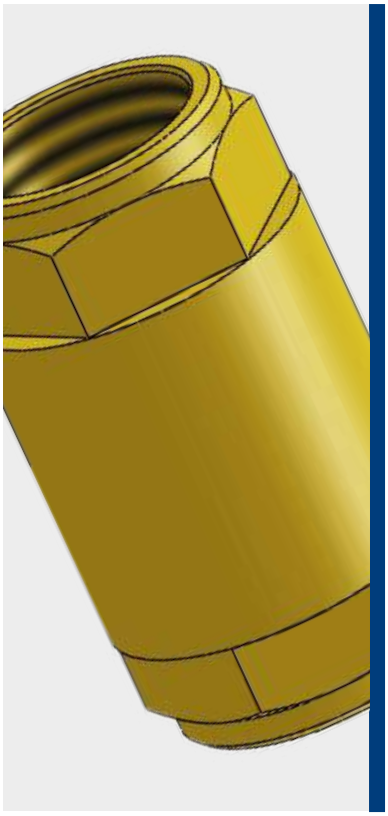

## 1700L

Female check valve BSPP & metric thread






| CODE | T1 | T2 | ØD | L | A | CH | g |
|---|---|---|---|---|---|---|---|
| 1700TRM5L | M5x0,8 | M5x0,8 | 2,8 | 24,0 | 6,0 | 10 | 13,0 |
| 1700TR18L | G 1/8" | G 1/8" | 5,0 | 31,0 | 8,0 | 13 | 28,0 |
| 1700TR14L | G 1/4" | G 1/4" | 7,0 | 37,0 | 9,5 | 16 | 35,0 |
| 1700TR38L | G 3/8" | G 3/8" | 8,5 | 42,0 | 10,5 | 20 | 59,0 |
| 1700TR12L | G 1/2" | G 1/2" | 10,0 | 50,0 | 21,0 | 25 | 78,0 |



0°C ÷ 90°C

**Working pressure:**
from G3/8" to G1": 16 Bar
from G1"-1/4" to G2": 10 Bar
from G2"-1/2" to G4": 8 Bar

Air, neutral gases and water

Fluid flow in one direction only. Flow direction marked on the body

Parallel gas BSPP ISO 228
from G3/8" to G4"

**Body:** Yellow brass CW617N UNI EN 12165/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Shutter:** Acetal resin
**Spring:** Stainless steel AISI 302
**Seal:** NBR

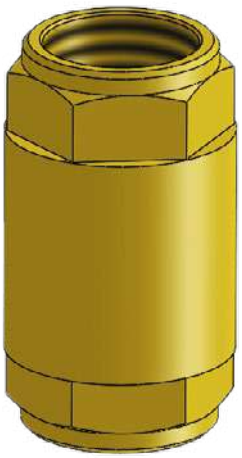
## AVAILABILITY

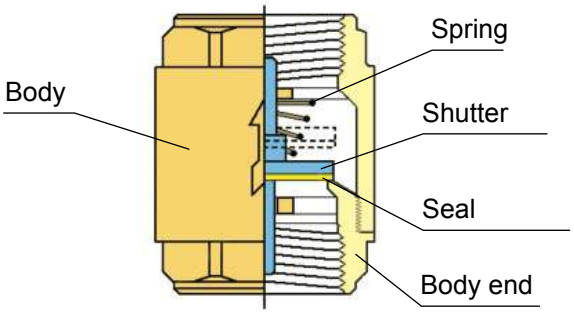
Available on request with shutter in stainless steel AISI 304

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

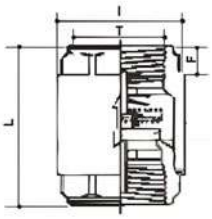




## 1705L

Check valve BSPP thread - yellow brass

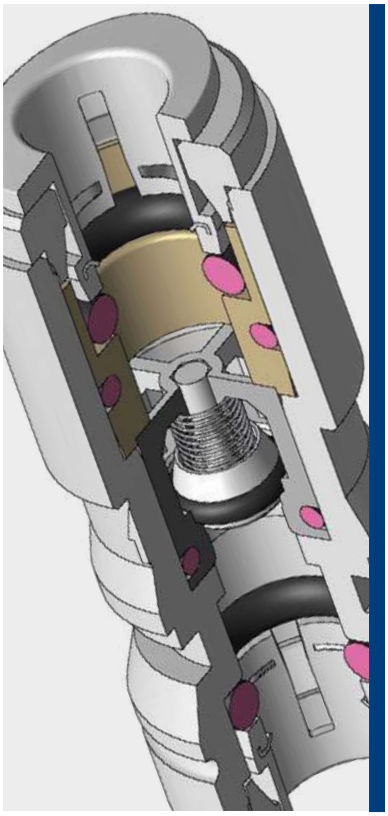







| CODE | T | F | I | L | g |
|---|---|---|---|---|---|
| 1705TR38L | G 3/8" | 12 | 29 | 46,0 | 35,0 |
| 1705TR12L | G 1/2" | 12 | 30 | 48,0 | 110,0 |
| 1705TR34L | G 3/4" | 14 | 37 | 53,0 | 150,0 |
| 1705TR1L | G 1" | 15 | 44 | 59,0 | 240,0 |
| 1705TR114L | G 1"-1/4" | 14 | 56 | 66,0 | 360,0 |
| 1705TR112L | G 1"-1/2" | 15 | 63 | 71,0 | 480,0 |
| 1705TR2L | G 2" | 14 | 78 | 80,0 | 700,0 |
| 1705TR212L | G 1"-1/2" | 16 | 103 | 93,0 | 380,0 |
| 1705TR3L | G 3" | 18 | 120 | 104,0 | 850,0 |
| 1705TR4L | G 4" | 20 | 155 | 115,0 | 1050,0 |

*drawings and technical data are not binding & can be changed without notice*



**Dry air:** -20°C ÷ 90°C
**Air & Fluids:** 1°C ÷ 90°C
The maximum recommended working temperature for continuous use is 65°C and 90°C for a maximum use of 5 minutes.

**Working pressure:**
Up to 10 Bar
From 0 to 8 Bar with dry air
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
Data depend from the tubes and temperature used
**Opening pressure:**
0,02 Bar

Potable water, beverages, vacuum, compressed air, gases and fluids compatible with construction materials

Polyethylene PE, polyamide PA, PTFE, FEP
**Tubes made of light metals:**
Brass, copper and mild steel
**Tubes made of hard materials:**
See page 84 for information on the use of hard material tubes

**Body:** POM
**Collet:** POM
**Lock claw:** Stainless steel AISI 301
**Seal:** EPDM suitable for food contact
**Guide:** POM
**Valve:** POM, Stainless steel AISI 301 and EPDM

Food contact materials EC 1935/2004

D.M. 174/2004

ICIM certified product food contact materials

ICIM certified product water contact materials

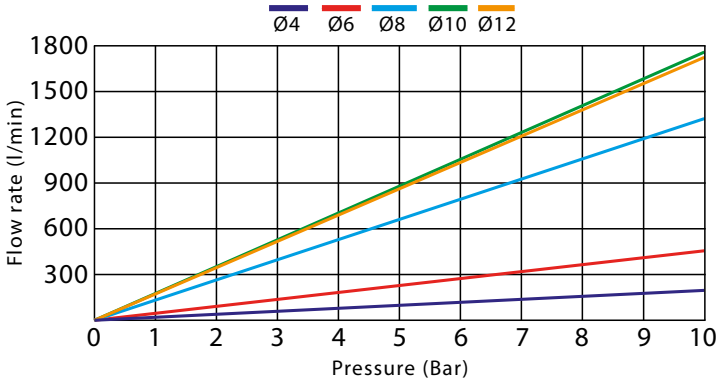
ACS

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

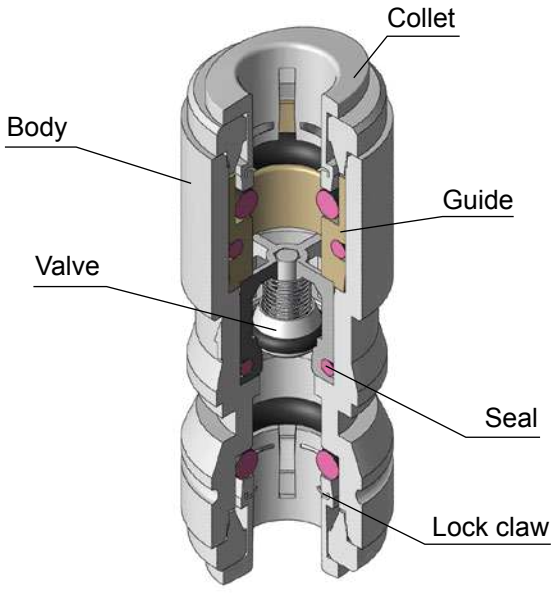
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## FLOW CHART




## CONSTRUCTION DETAILS



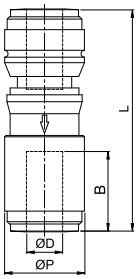

*drawings and technical data are not binding & can be changed without notice*

## HCVU

Union connector check valve - acetal resin








| CODE | ØD | ØP | L | B | g |
|---|---|---|---|---|---|
| HCVU0404W | 4 | 13,2 | 44,4 | 14,7 | 6,1 |
| HCVU0606W | 6 | 15,5 | 45,5 | 16,1 | 7,4 |
| HCVU0808W | 8 | 17,6 | 48,6 | 17,5 | 10,0 |
| HCVU1010W | 10 | 20,0 | 57,6 | 19,4 | 14,5 |
| HCVU1212W | 12 | 23,6 | 67,5 | 23,9 | 22,1 |

# FUNCTION FITTINGS CHECK VALVES PN20

## PLUS

- POSSIBILITY TO ASSEMBLE DIFFERENT SPRINGS FOR DIFFERENT OPENING PRESSURES
- MAXIMUM CAPACITY WITH MINIMUM PRESSURE LOSS
- INDICATOR OF FLOW ON VALVE BODY
- STRONG DESPITE COMPACT SIZE
- POSSIBILITY TO ASSEMBLE SEALS IN NBR, FKM AND EPDM



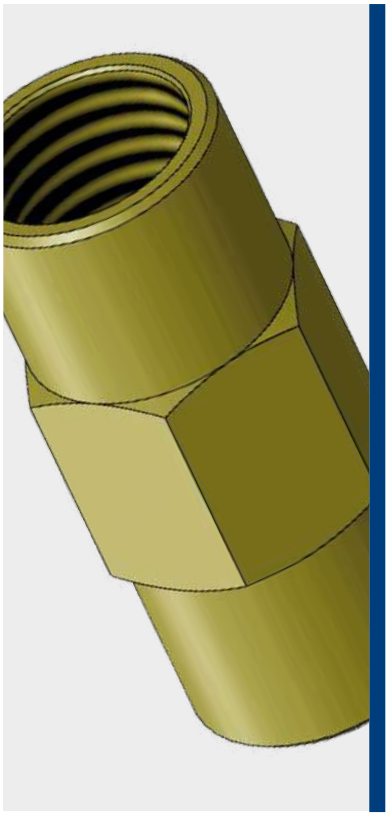
p. 389 / **1705**



p. 390 / **1710**



p. 391 / **1730**



**NBR:** -20°C ÷ 100°C
**FKM:** -20°C ÷ 205°C
**EPDM:** -40°C ÷ 130°C

**Working pressure:**
20 Bar

Compressed air, water, gases, mineral or synthetic non-aggressive oils in non-corrosive environments and fluids compatible with construction materials

Fluid flow in one direction only. Flow direction marked on the body

Parallel gas BSPP ISO 228 from G1/8" to G1"

**Body:** Yellow brass OT 58
**Shutter:** Yellow brass OT 58
**Shutter support:** Yellow brass OT 58
**Spring:** Stainless steel AISI 302
**O-ring:** NBR
**Retaining ring:** Stainless steel AISI 302

## AVAILABILITY

- Can be fitted with O-rings made of FKM or EPDM;
- Different opening pressures on request;

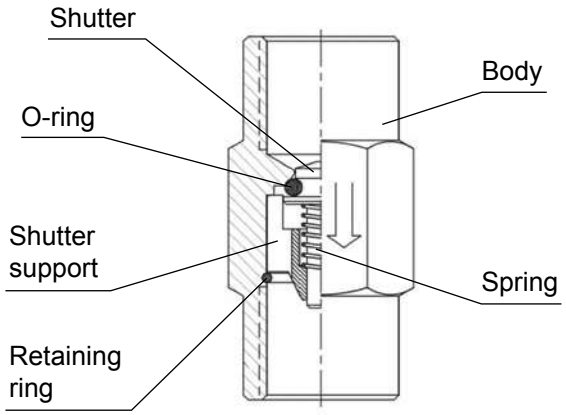
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## MINIMUM OPENING PRESSURE

| THREAD | G 1/8" | G 1/4" | G 3/8" | G 1/2" | G 3/4" | G 1" |
|---|---|---|---|---|---|---|
| Bar | 0,35 | 0,30 | 0,25 | 0,08 | 0,10 | 0,80 |

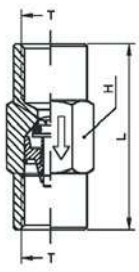
## CONSTRUCTION DETAILS




## 1705

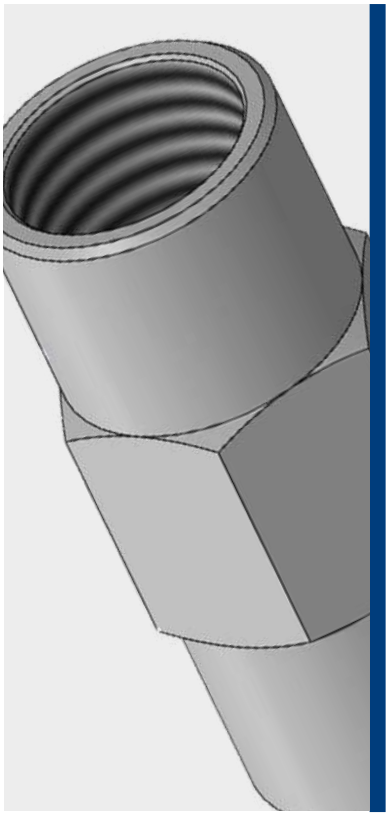
Female check valve BSPP threa - yellow brass PN 20






| CODE | T | L | H | g |
|---|---|---|---|---|
| 1705TR18 | G 1/8" | 36,0 | 17 | 52,0 |
| 1705TR14 | G 1/4" | 38,5 | 17 | 45,0 |
| 1705TR38 | G 3/8" | 45,0 | 22 | 90,0 |
| 1705TR12 | G 1/2" | 56,0 | 27 | 153,0 |
| 1705TR34 | G 3/4" | 66,5 | 34 | 285,0 |
| 1705TR1 | G 1" | 79,0 | 40 | 388,0 |

*drawings and technical data are not binding & can be changed without notice*



**NBR:** -20°C ÷ 100°C
**FKM:** -20°C ÷ 205°C
**EPDM:** -40°C ÷ 130°C

**Working pressure:**
20 Bar

Compressed air, water, gases, mineral or synthetic non-aggressive oils in non-corrosive environments and fluids compatible with construction materials

Fluid flow in one direction only. Flow direction marked on the body

Parallel gas BSPP ISO 228 from G1/8" to G1"

**Body:** Stainless steel AISI 303
**Shutter:** Stainless steel AISI 303
**Shutter support:** Acciaio inox AISI 303
**Spring:** Stainless steel AISI 302
**O-ring:** FKM
**Retaining ring:** Stainless steel AISI 302

## AVAILABILITY

- Can be fitted with NBR or EPDM O-rings;
- Different opening pressures on request;

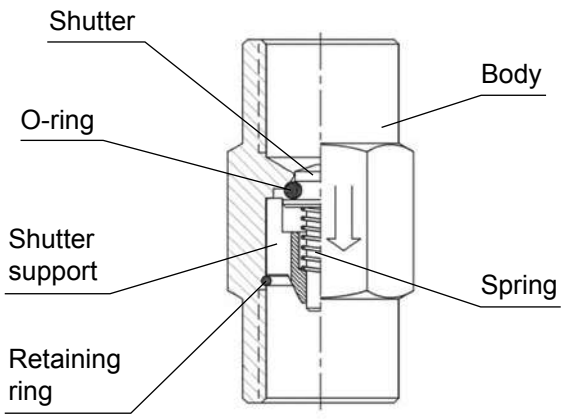
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## MINIMUM OPENING PRESSURE

| THREAD | G 1/8" | G 1/4" | G 3/8" | G 1/2" | G 3/4" | G 1" |
|---|---|---|---|---|---|---|
| Bar | 0,35 | 0,30 | 0,25 | 0,08 | 0,10 | 0,80 |

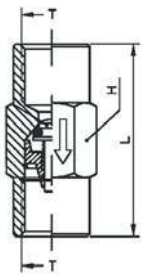
## CONSTRUCTION DETAILS




## 1710

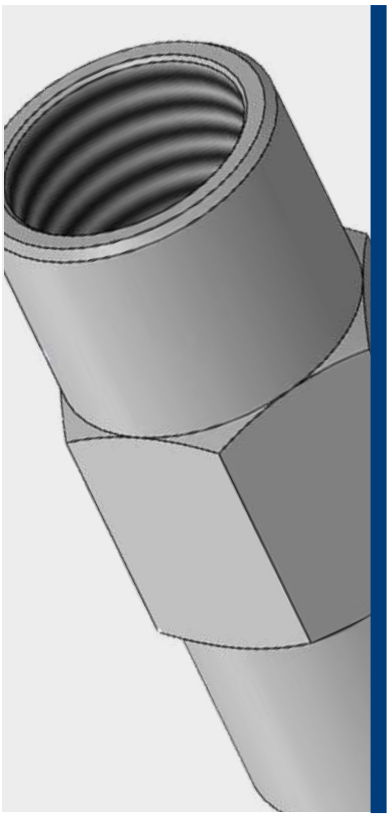
Female check valve BSPP thread - stainless steel AISI 303 PN 20






| CODE | T | L | H | g |
|---|---|---|---|---|
| 1710TR18 | G 1/8" | 36,0 | 17 | 48,0 |
| 1710TR14 | G 1/4" | 38,5 | 17 | 43,0 |
| 1710TR38 | G 3/8" | 45,0 | 22 | 82,0 |
| 1710TR12 | G 1/2" | 56,0 | 27 | 143,0 |
| 1710TR34 | G 3/4" | 66,5 | 36 | 325,0 |
| 1710TR1 | G 1" | 79,0 | 41 | 388,0 |

*drawings and technical data are not binding & can be changed without notice*



**NBR:** -20°C ÷ 100°C
**FKM:** -20°C ÷ 205°C
**EPDM:** -40°C ÷ 130°C

**Working pressure:**
20 Bar

Compressed air, oxidising, corrosive environments and fluids compatible with construction materials

Fluid flow in one direction only. Flow direction marked on the body

Parallel gas BSPP ISO 228 from G1/8" to G1"

**Body:** Stainless steel AISI 316L
**Shutter:** Stainless steel AISI 316L
**Shutter support:** Stainless steel AISI 316L
**Spring:** Stainless steel AISI 302
**O-ring:** FKM
**Retaining ring:** Stainless steel AISI 302

Food contact materials EC 1935/2004

D.M. 174/2004

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

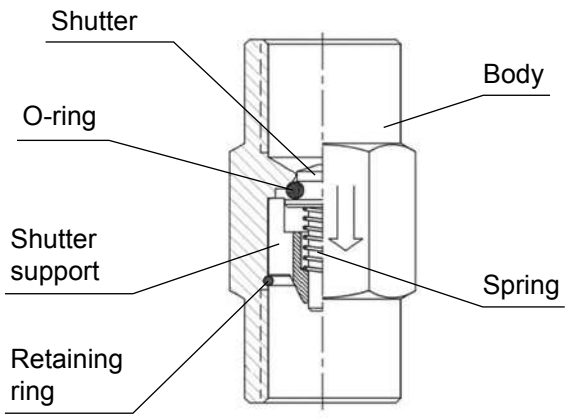
## MINIMUM OPENING PRESSURE

| FILETTO | G 1/8" | G 1/4" | G 3/8" | G 1/2" | G 3/4" | G 1" |
|---|---|---|---|---|---|---|
| Bar | 0,35 | 0,30 | 0,25 | 0,08 | 0,10 | 0,80 |

## AVAILABILITY

- Can be fitted with NBR and EPDM O-rings;
- Different opening pressures on request;

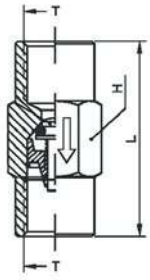
## CONSTRUCTION DETAILS

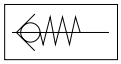



## 1730

Female check valve BSPP thread - stainless steel AISI 316L PN 20





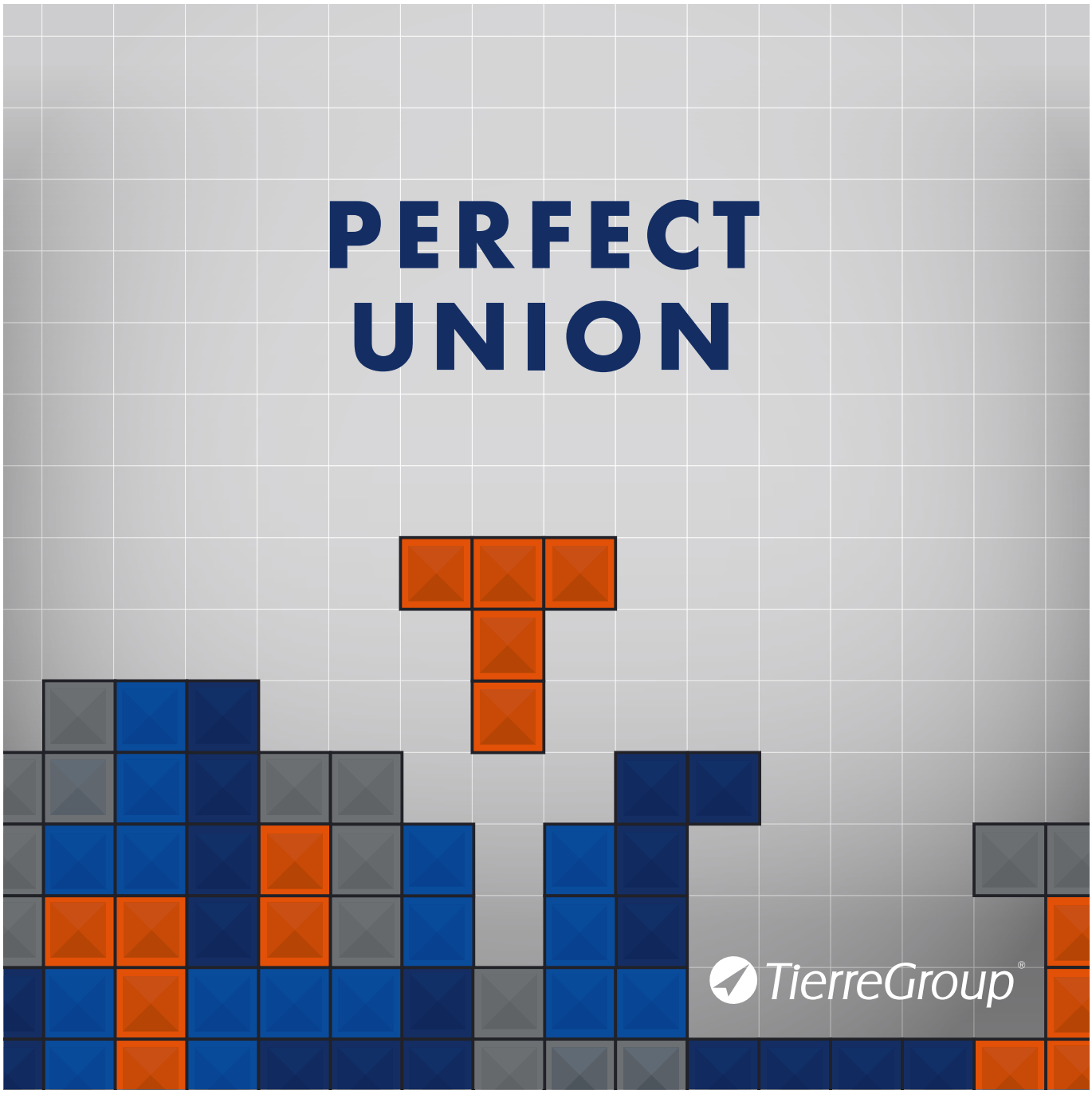



| CODE | T | L | H | g |
|---|---|---|---|---|
| 1730TR18 | G 1/8" | 36,0 | 17 | 48,0 |
| 1730TR14 | G 1/4" | 38,5 | 17 | 43,0 |
| 1730TR38 | G 3/8" | 45,0 | 22 | 84,0 |
| 1730TR12 | G 1/2" | 56,0 | 27 | 143,0 |
| 1730TR34 | G 3/4" | 66,5 | 36 | 330,0 |
| 1730TR1 | G 1" | 79,0 | 41 | 388,0 |

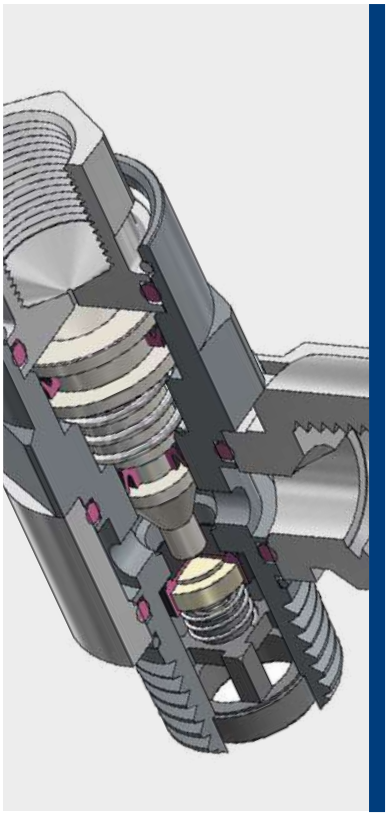
*drawings and technical data are not binding & can be changed without notice*

TierreGroup®

Always a fittings solution




## FOLLOW US!



0°C ÷ 60°C

**Working pressure:**
10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
**Min. pilot pressure:**
More than 50% of the working pressure (more than 1 Bar)

Compressed air & vacuum
(do not use with water)

- Taper gas BSPT ISO 7
from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
from G1/8" to G1/2"

**Body:** Nickel-plated brass and zinc
**Shaft rod:** Brass
**Valve:** NBR and Stainless steel
**Valve holder:** Brass
**O-ring:** NBR
**Seal:** NBR
**Spring:** Stainless steel AISI 301
**Retaining ring:** Stainless steel AISI 301

SILICONE FREE

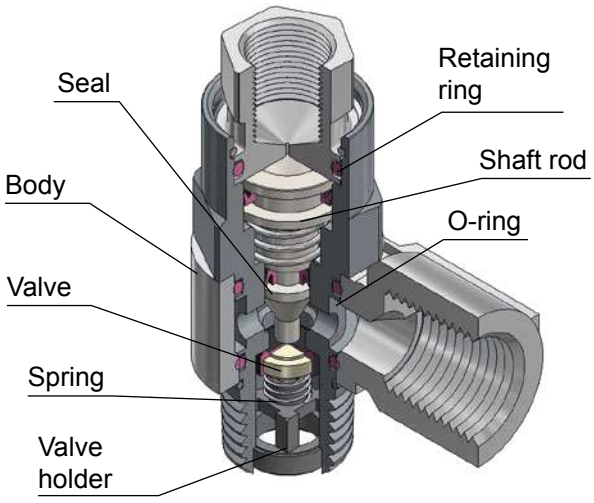
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

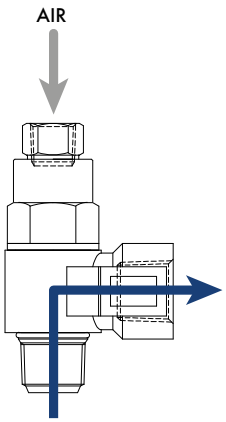
## FEATURES

They are also used as stop valves, mounted directly on the cylinders to block stem travel in the event of a pilot pressure drop. They ensure that the stem is blocked in the event of a tube breakage or lack of air and can be used to block the stem in intermediate positions depending on the application.

## CONSTRUCTION DETAILS




### PILOTING




### TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 7 | 12 | 22 | 28 |

### TIGHTENING TORQUE
PARALLEL GAS BSPP ISO 228 & METRIC ISO 262

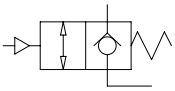
| THREAD | 1/8" | 1/4" | 3/8" | 1/2" |
|---|---|---|---|---|
| Nm | 10 | 15 | 25 | 40 |

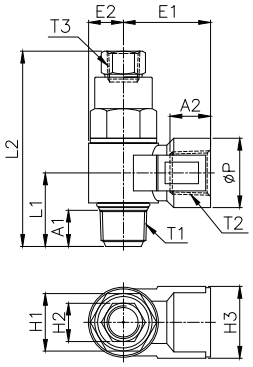
*drawings and technical data are not binding & can be changed without notice*

## PVSF-R

Pilot check valve, BSPT thread





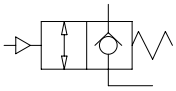


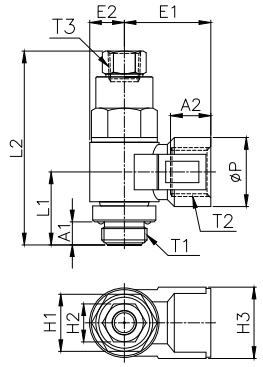

| CODE | ØP | T1 | A1 | T2 | A2 | T3 | L1 | L2 | E1 | E2 | H1 | H2 | H3 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PVSF-R01 | 14,5 | R 1/8" | 7,6 | R 1/8" | 10,0 | M5x0,8 | 15,4 | 40,8 | 18,2 | 7,3 | 12 | 8 | 15 | 34,5 |
| PVSF-R02 | 18,0 | R 1/4" | 10,6 | R 1/4" | 13,0 | R 1/8" | 21,1 | 48,9 | 26,5 | 9,5 | 17 | 12 | 19 | 74,6 |
| PVSF-R03 | 23,0 | R 3/8" | 12,6 | R 3/8" | 14,5 | R 1/8" | 24,8 | 56,7 | 30,8 | 11,6 | 20 | 12 | 24 | 123,4 |
| PVSF-R04 | 26,5 | R 1/2" | 14,5 | R 1/2" | 19,0 | R 1/4" | 31,0 | 70,6 | 38,7 | 14,0 | 24 | 17 | 28 | 207,2 |

## PVSF-G

Pilot check valve, BSPP thread



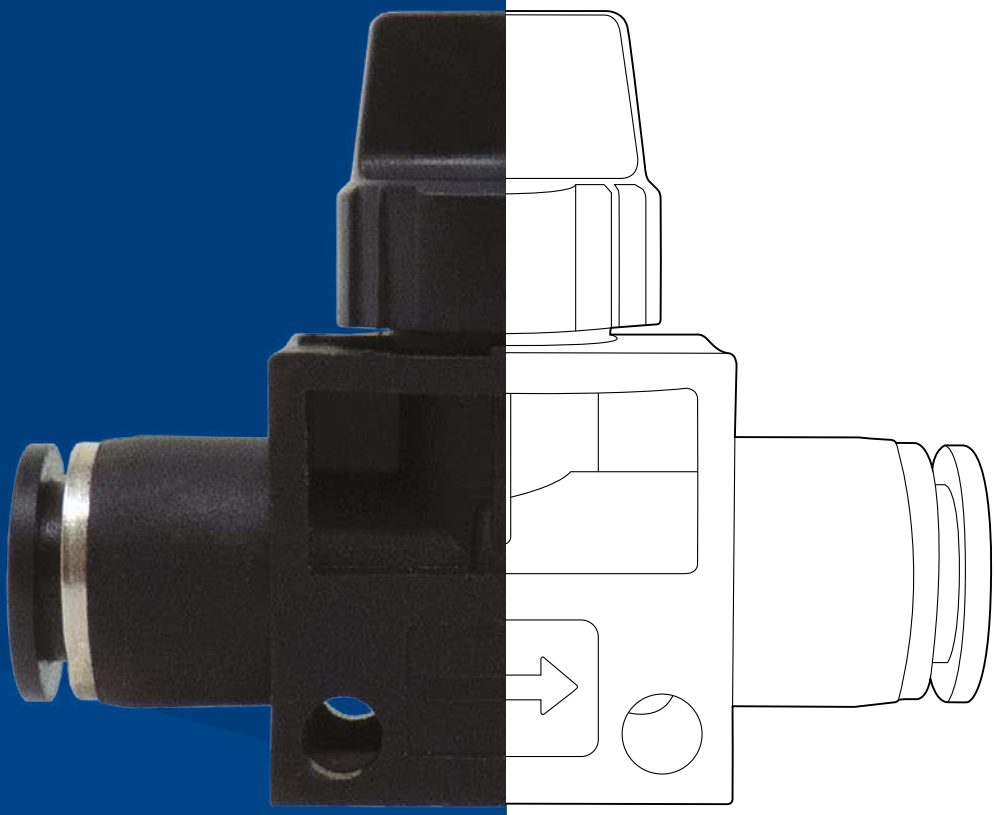





| CODE | ØP | T1 | T2 | T3 | A1 | A2 | L1 | L2 | E1 | E2 | H1 | H2 | H3 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PVSF-G01 | 14,5 | G 1/8" | G 1/8" | M5x0,8 | 5,1 | 9,5 | 16,2 | 40,8 | 17,7 | 7,3 | 12 | 8 | 15 | 35,4 |
| PVSF-G02 | 18,0 | G 1/4" | G 1/4" | G 1/8" | 6,6 | 12,5 | 21,3 | 48,9 | 26,0 | 9,5 | 17 | 12 | 19 | 77,3 |
| PVSF-G03 | 23,0 | G 3/8" | G 3/8" | G 1/8" | 7,2 | 14,0 | 24,8 | 56,7 | 30,3 | 11,6 | 20 | 12 | 24 | 127,7 |
| PVSF-G04 | 26,5 | G 1/2" | G 1/2" | G 1/4" | 8,7 | 18,5 | 29,6 | 70,6 | 38,2 | 14,0 | 24 | 17 | 28 | 218,8 |

*drawings and technical data are not binding & can be changed without notice*

# HAND VALVES



# TECHNICAL INDEX



p. 397

**SLIDE VALVES**

**Materials:** Chromed brass
**Pressure:** from 0 to 10 Bar
**Temperature:** from -5°C to 70°C
**Range:** M5 to G3/4" (1610)
G1/4" to G1/2" (1605)
N1/8" to N1/2" (1620)



p. 403

**WTR SERIES VALVES**

**Materials:** Nickel-plated brass and PBT
**Pressure:** from 0 to 16 Bar
**Temperature:** from 0°C to 80°C
**Range:** Ø6 - Ø12 / R1/8" to R1/2"
Ø6 - Ø12 / G1/8" to G1/2"



p. 411

**DUALTECH VALVES**

**Materials:** POM and PVDF
**Pressure:** from 0 to 16 Bar
**Temperature:** from -20°C to 90°C
**Range:** R1/4"



p. 415

**TRIOTECH VALVES**

**Materials:** Polypropylene + 30% GF
**Pressure:** from 0 to 10 Bar
**Temperature:** from -5°C to 60°C
**Range:** R1/8" to R1/4"



p. 419

**FLUIDFIT VALVES**

**Materials:** POM
**Pressure:** from 0 to 20 Bar
**Temperature:** from -20°C to 98°C
**Range:** Ø6 - Ø12 (HBVU)
Ø10 / R3/8" (HBVL-R)

*disegni e dati tecnici non sono vincolanti e possono essere modificati senza preavviso*

# HAND VALVES SLIDE VALVES

## PLUS

**SIMPLE AND INTUITIVE TO USE**

**ALLOWS TO CLOSE AND DISCHARGE THE PRESSURE DOWNSTREAM**

**WIDE RANGE AVAILABLE**

**AVAILABLE WITH SAFETY SYSTEM WHICH PREVENTS ACCIDENTAL OPERATIONS IN CASE OF VIBRATIONS**

## **HAND VALVES /** SLIDE VALVES



p. 400 / **1610**

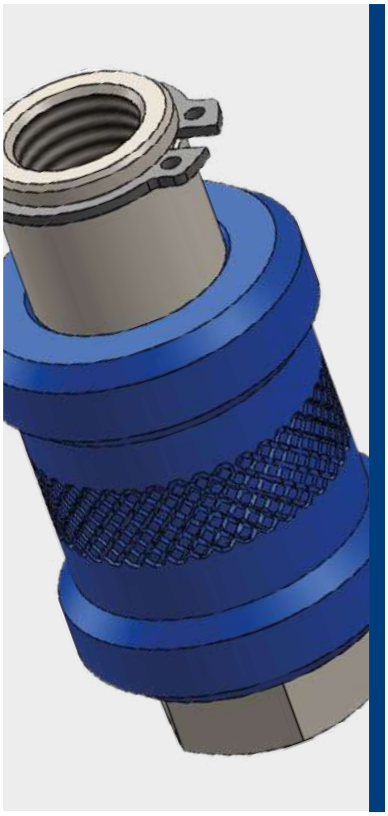


p. 400 / **1620**

## **HAND VALVES /** SLIDE VALVES WITH SECURITY BLOCK



p. 402 / **1605**



-5°C ÷ 70°C

**Working pressure:**
from 0 to 10 Bar

Compressed air, lubricated compressed air, various gases suitable with construction materials (gases which when discharged into the atmosphere are not dangerous to persons or property)

- Parallel gas BSPP ISO 228
  from G1/8" to G3/4" (1610)
- NPT
  from N1/8" to N1/2" (1620)

**Body:** Chromed brass CW614N

**Slider:** Blue anodized aluminium

**Seal:** NBR 70

**Elastic ring:** Stainless steel

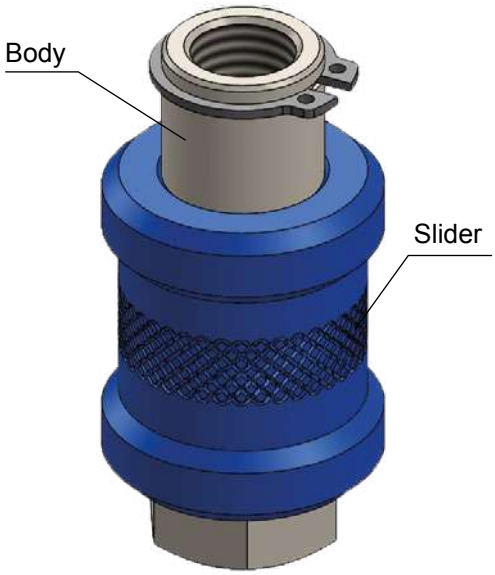
### FLOW DIRECTION

Flow direction indication engraved on the valve body

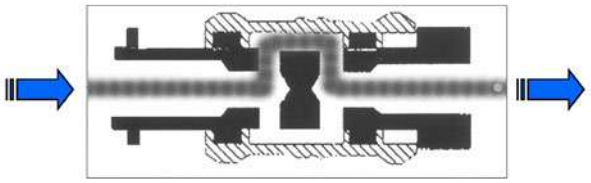
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

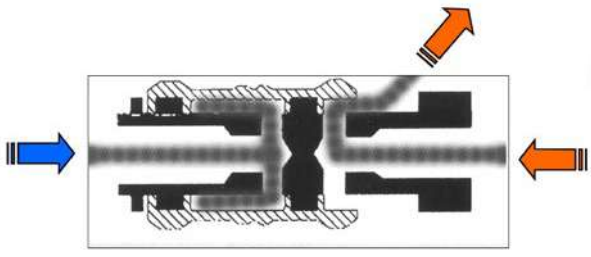
## CONSTRUCTION DETAILS




### FLOW DIRECTION



Slide in OPEN position



Slide in CLOSED position

### AIR FLOW RATE

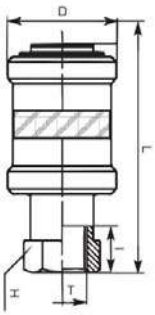
SLIDE VALVE - 1610

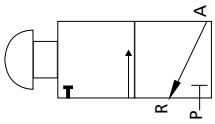
| FLOW | M5x0,8 | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" |
|---|---|---|---|---|---|---|
| Nl/min | 100 | 680 | 1300 | 2100 | 3800 | 5700 |

## 1610

Slide valve BSPP & metric thread





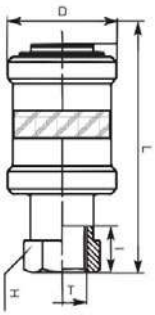



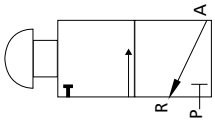

| CODE | T | D | I | L | H | g |
|---|---|---|---|---|---|---|
| 1610TRM5 | M5x0,8 | 14 | 5,0 | 30,5 | 10 | 11 |
| 1610TR18 | G 1/8" | 25 | 9,0 | 48,0 | 14 | 51 |
| 1610TR14 | G 1/4" | 30 | 11,5 | 58,0 | 19 | 98 |
| 1610TR38 | G 3/8" | 35 | 12,0 | 70,0 | 22 | 156 |
| 1610TR12 | G 1/2" | 40 | 15,0 | 75,0 | 27 | 212 |
| 1610TR34 | G 3/4" | 50 | 16,5 | 83,0 | 32 | 317 |

## 1620

Slide valve NPT thread






| CODE | T | D | I | L | H | g |
|---|---|---|---|---|---|---|
| 1620TR18 | N 1/8" | 25 | 8 | 55,5 | 14 | 51 |
| 1620TR14 | N 1/4" | 30 | 11 | 69,0 | 19 | 98 |
| 1620TR38 | N 3/8" | 35 | 12 | 81,5 | 22 | 156 |
| 1620TR12 | N 1/2" | 40 | 15 | 90,0 | 27 | 212 |




-5°C ÷ 70°C

**Working pressure:**
from 0 to 10 Bar

Compressed air, lubricated compressed air, various gases suitable with construction materials (gases which when discharged into the atmosphere are not dangerous to persons or property)

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

**Body:** Chromed brass CW614N
**Slider:** Red painted aluminium
**Seal:** NBR 70
**Elastic ring:** Stainless steel AISI 302
**Cursor:** Chromed brass
**Spring:** Stainless steel AISI 302

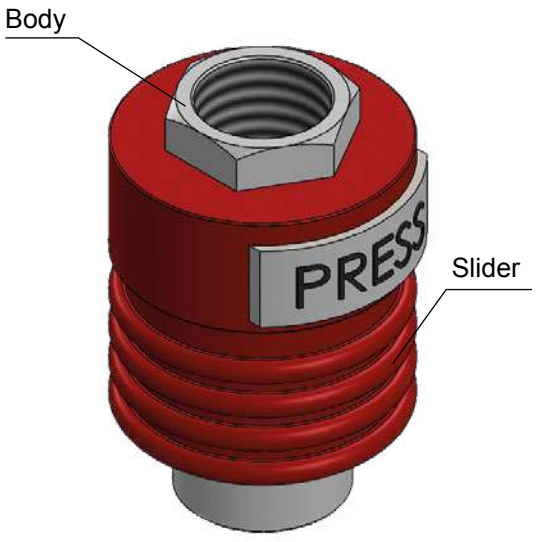
### FLOW DIRECTION

Flow direction indication engraved on the valve body

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

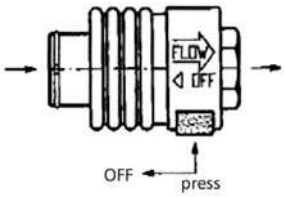
## CONSTRUCTION DETAILS



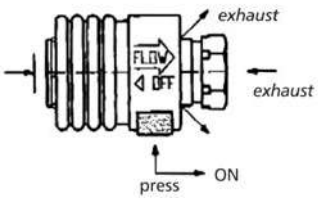

### SAFETY

The double locking system is designed to prevent the valve from closing or opening accidentally.

**Open**



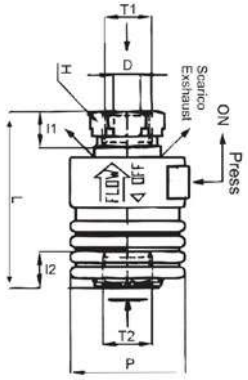

**Closed**

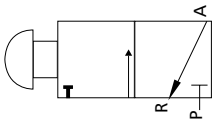


## 1605

Slide valves with security block BSPP thread




| CODE | T1 | T2 | L | I1 | I2 | D | P | H | g |
|---|---|---|---|---|---|---|---|---|---|
| 1605TR14 | G 1/4" | G 1/4" | 46,0 | 9,5 | 9,5 | 8 | 30 | 17 | 86,0 |
| 1605TR38 | G 3/8" | G 3/8" | 52,0 | 10,5 | 10,5 | 10 | 35 | 21 | 127,0 |
| 1605TR12 | G 1/2" | G 1/2" | 62,0 | 12,0 | 12,0 | 12,5 | 40 | 26 | 204,0 |

# HAND VALVES
## WTR SERIES VALVES

## PLUS

- COMPACT AND EXTREMLY LIGHT
- GREAT VACUUM RESISTANCE
- AVAILABLE IN VARIOUS CONFIGURATIOS
- ALLOWS TO CLOSE AND DISCHARGE THE PRESSURE DOWNSTREAM



p. 406 / **WTRFS-R**



p. 406 / **WTRFS-G**



p. 407 / **WTRSF-R**



p. 407 / **WTRSF-G**



p. 408 / **WTRSS-R**



p. 408 / **WTRSS-G**



p. 409 / **WTRFF**



0°C ÷ 80°C

**Working pressure:**
from 0 to 16 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & vacuum
(do not use with water)

- Taper gas BSPT ISO 7
  from R1/8" to R1/2" with teflon
- Parallel gas BSPP ISO 228
  from G1/8" to G1/2" with o-ring

Polyamide PA, Polyurethane PU

## AVAILABILITY

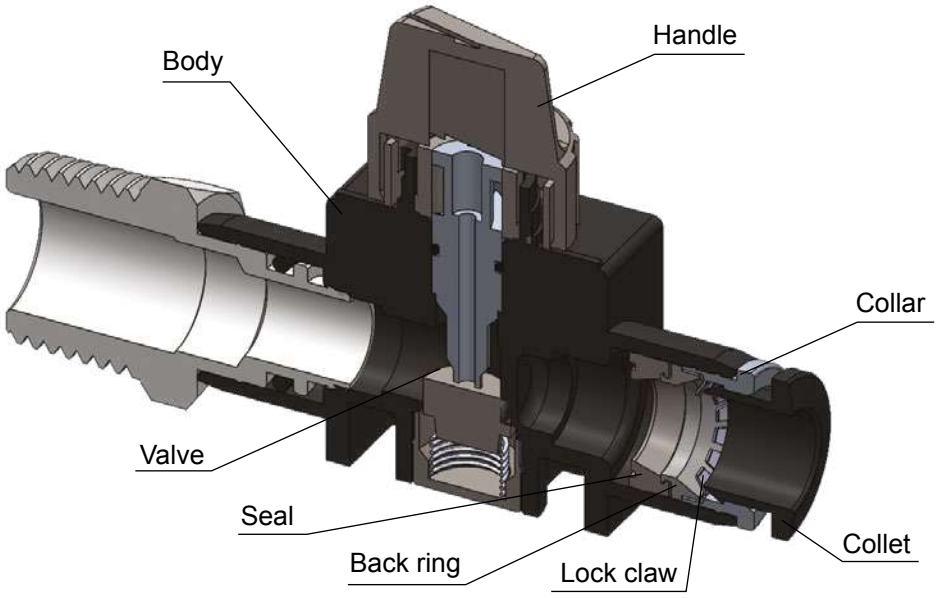
Available in 2-way version (with blue handle)

**Body:** Nickel-plated brass and PBT
**Lock claw:** Stainless steel AISI 301
**Seal:** NBR silicone free
**Collet:** POM
**Valve:** POM
**Handle:** POM (Black)
**Back ring:** POM
**Collar:** Nickel-plated zinc

Products in compliance with EC Regulation 1907/2006

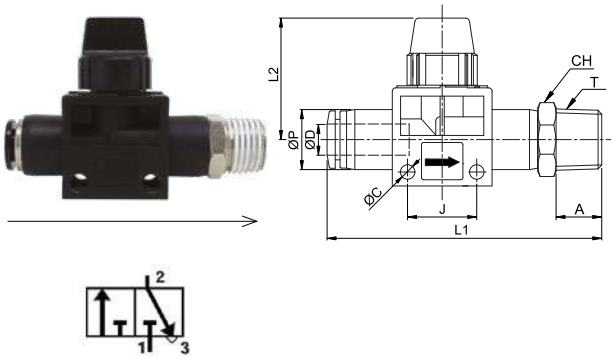
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## WTRFS-R

Male hand valve BSPT thread, flow tube-thread



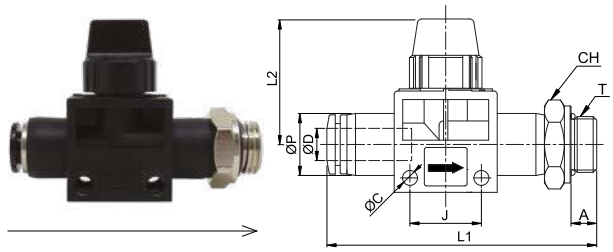


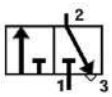


| CODE | ØD | T | ØP | ØC | A | L1 | L2 | J | CH |
|---|---|---|---|---|---|---|---|---|---|
| WTRFS06R01 | 6 | R 1/8" | 14,5 | 4,2 | 7 | 58,3 | 29,5 | 16,5 | 14 |
| WTRFS06R02 | | R 1/4" | 14,5 | 4,2 | 9,5 | 60,8 | 29,5 | 16,5 | 14 |
| WTRFS06R03 | | R 3/8" | 14,5 | 4,2 | 10,5 | 62,3 | 29,5 | 16,5 | 17 |
| WTRFS08R01 | 8 | R 1/8" | 14,5 | 4,2 | 7 | 59,4 | 29,5 | 16,5 | 17 |
| WTRFS08R02 | | R 1/4" | 14,5 | 4,2 | 9,5 | 61,9 | 29,5 | 16,5 | 17 |
| WTRFS08R03 | | R 3/8" | 14,5 | 4,2 | 10,5 | 62,9 | 29,5 | 16,5 | 17 |
| WTRFS10R02 | 10 | R 1/4" | 20,9 | 4,2 | 9,5 | 73,8 | 31 | 21,5 | 20 |
| WTRFS10R03 | | R 3/8" | 20,9 | 4,2 | 10,5 | 74,8 | 31 | 21,5 | 20 |
| WTRFS10R04 | | R 1/2" | 20,9 | 4,2 | 13,5 | 77,8 | 31 | 21,5 | 21 |
| WTRFS12R02 | 12 | R 1/4" | 20,9 | 4,2 | 9,5 | 73,4 | 31 | 21,5 | 21 |
| WTRFS12R03 | | R 3/8" | 20,9 | 4,2 | 10,5 | 74,4 | 31 | 21,5 | 21 |
| WTRFS12R04 | | R 1/2" | 20,9 | 4,2 | 13,5 | 77,4 | 31 | 21,5 | 21 |

## WTRFS-G

Male hand valve BSPP thread, flow tube-thread



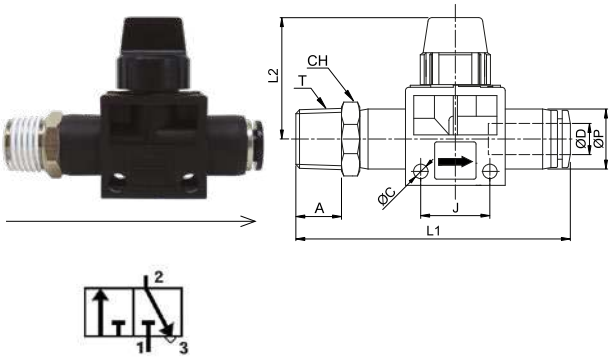




| CODE | ØD | T | ØP | ØC | A | L1 | L2 | J | CH |
|---|---|---|---|---|---|---|---|---|---|
| WTRFS06G01 | 6 | G 1/8" | 14,5 | 4,2 | 5 | 57,8 | 29,5 | 16,5 | 14 |
| WTRFS06G02 | | G 1/4" | 14,5 | 4,2 | 5,8 | 59,1 | 29,5 | 16,5 | 14 |
| WTRFS06G03 | | G 3/8" | 14,5 | 4,2 | 6,8 | 60,6 | 29,5 | 16,5 | 17 |
| WTRFS08G01 | 8 | G 1/8" | 14,5 | 4,2 | 5 | 58,9 | 29,5 | 16,5 | 17 |
| WTRFS08G02 | | G 1/4" | 14,5 | 4,2 | 5,8 | 59,7 | 29,5 | 16,5 | 17 |
| WTRFS08G03 | | G 3/8" | 14,5 | 4,2 | 6,8 | 61,2 | 29,5 | 16,5 | 20 |
| WTRFS10G02 | 10 | G 1/4" | 20,9 | 4,2 | 5,8 | 72,1 | 31 | 21,5 | 20 |
| WTRFS10G03 | | G 3/8" | 20,9 | 4,2 | 6,8 | 73,1 | 31 | 21,5 | 20 |
| WTRFS10G04 | | G 1/2" | 20,9 | 4,2 | 8 | 74,8 | 31 | 21,5 | 24 |
| WTRFS12G02 | 12 | G 1/4" | 20,9 | 4,2 | 5,8 | 71,7 | 31 | 21,5 | 21 |
| WTRFS12G03 | | G 3/8" | 20,9 | 4,2 | 6,8 | 72,7 | 31 | 21,5 | 21 |
| WTRFS12G04 | | G 1/2" | 20,9 | 4,2 | 8 | 74,4 | 31 | 21,5 | 24 |

*drawings and technical data are not binding & can be changed without notice*

## WTRSF-R

Male hand valve BSPT thread, flow thread-tube



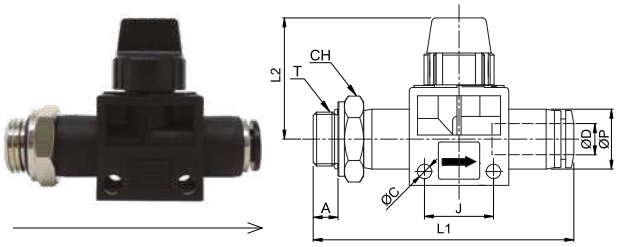


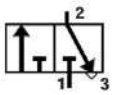


| CODE | ØD | T | ØP | ØC | A | L1 | L2 | J | CH |
|---|---|---|---|---|---|---|---|---|---|
| WTRSF06R01 | 6 | R 1/8" | 14,5 | 4,2 | 7 | 58,3 | 29,5 | 16,5 | 14 |
| WTRSF06R02 | | R 1/4" | 14,5 | 4,2 | 9,5 | 60,8 | 29,5 | 16,5 | 14 |
| WTRSF06R03 | | R 3/8" | 14,5 | 4,2 | 10,5 | 62,3 | 29,5 | 16,5 | 17 |
| WTRSF08R01 | 8 | R 1/8" | 14,5 | 4,2 | 7 | 59,4 | 29,5 | 16,5 | 17 |
| WTRSF08R02 | | R 1/4" | 14,5 | 4,2 | 9,5 | 61,9 | 29,5 | 16,5 | 17 |
| WTRSF08R03 | | R 3/8" | 14,5 | 4,2 | 10,5 | 62,9 | 29,5 | 16,5 | 17 |
| WTRSF10R02 | 10 | R 1/4" | 20,9 | 4,2 | 9,5 | 73,8 | 31 | 21,5 | 20 |
| WTRSF10R03 | | R 3/8" | 20,9 | 4,2 | 10,5 | 74,8 | 31 | 21,5 | 20 |
| WTRSF10R04 | | R 1/2" | 20,9 | 4,2 | 13,5 | 77,8 | 31 | 21,5 | 21 |
| WTRSF12R02 | 12 | R 1/4" | 20,9 | 4,2 | 9,5 | 73,4 | 31 | 21,5 | 21 |
| WTRSF12R03 | | R 3/8" | 20,9 | 4,2 | 10,5 | 74,4 | 31 | 21,5 | 21 |
| WTRSF12R04 | | R 1/2" | 20,9 | 4,2 | 13,5 | 77,4 | 31 | 21,5 | 21 |

## WTRSF-G

Male hand valve BSPP thread, flow thread-tube



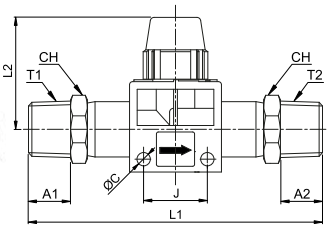

| CODE | ØD | T | ØP | ØC | A | L1 | L2 | J | CH |
|---|---|---|---|---|---|---|---|---|---|
| WTRSF06G01 | 6 | G 1/8" | 14,5 | 4,2 | 5 | 57,8 | 29,5 | 16,5 | 14 |
| WTRSF06G02 | | G 1/4" | 14,5 | 4,2 | 5,8 | 59,1 | 29,5 | 16,5 | 14 |
| WTRSF06G03 | | G 3/8" | 14,5 | 4,2 | 6,8 | 60,6 | 29,5 | 16,5 | 17 |
| WTRSF08G01 | 8 | G 1/8" | 14,5 | 4,2 | 5 | 58,9 | 29,5 | 16,5 | 17 |
| WTRSF08G02 | | G 1/4" | 14,5 | 4,2 | 5,8 | 59,7 | 29,5 | 16,5 | 17 |
| WTRSF08G03 | | G 3/8" | 14,5 | 4,2 | 6,8 | 61,2 | 29,5 | 16,5 | 20 |
| WTRSF10G02 | 10 | G 1/4" | 20,9 | 4,2 | 5,8 | 72,1 | 31 | 21,5 | 20 |
| WTRSF10G03 | | G 3/8" | 20,9 | 4,2 | 6,8 | 73,1 | 31 | 21,5 | 20 |
| WTRSF10G04 | | G 1/2" | 20,9 | 4,2 | 8 | 74,8 | 31 | 21,5 | 24 |
| WTRSF12G02 | 12 | G 1/4" | 20,9 | 4,2 | 5,8 | 71,7 | 31 | 21,5 | 21 |
| WTRSF12G03 | | G 3/8" | 20,9 | 4,2 | 6,8 | 72,7 | 31 | 21,5 | 21 |
| WTRSF12G04 | | G 1/2" | 20,9 | 4,2 | 8 | 74,4 | 31 | 21,5 | 24 |

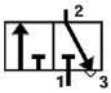
*drawings and technical data are not binding & can be changed without notice*

## WTRSS-R

Male hand valve BSPT thread, flow thread-thread





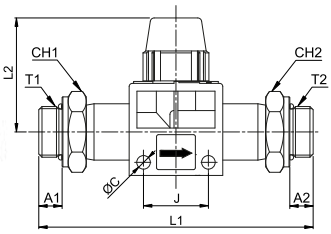



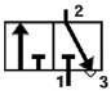

| CODE | T1 | T2 | ØC | A1 | A2 | L1 | L2 | J | CH1 | CH2 |
|---|---|---|---|---|---|---|---|---|---|---|
| WTRSS01R01 | R 1/8" | R 1/8" | 4,2 | 7 | 7 | 65 | 29,5 | 16,5 | 14 | 14 |
| WTRSS02R02 | R 1/4" | R 1/4" | 4,2 | 9,5 | 9,5 | 70 | 29,5 | 16,5 | 14 | 14 |
| WTRSS03R03 | R 3/8" | R 3/8" | 4,2 | 10,5 | 10,5 | 74 | 29,5 | 16,5 | 17 | 17 |
| WTRSS04R04 | R 1/2" | R 1/2" | 4,2 | 13,5 | 13,5 | 90,5 | 31 | 21,5 | 21 | 21 |
| REDUCED MALE HAND VALVE BSPT THREAD, FLOW THREAD-THREAD | | | | | | | | | | |
| WTRSS02R01 | R 1/4" | R 1/8" | 4,2 | 9,5 | 7 | 67,5 | 29,5 | 16,5 | 14 | 14 |
| WTRSS03R02 | R 3/8" | R 1/4" | 4,2 | 10,5 | 9,5 | 73 | 29,5 | 16,5 | 17 | 17 |
| WTRSS04R03 | R 1/2" | R 3/8" | 4,2 | 13,5 | 10,5 | 87,5 | 31 | 21,5 | 21 | 21 |

## WTRSS-G

Male hand valve BSPP thread, flow thread-thread





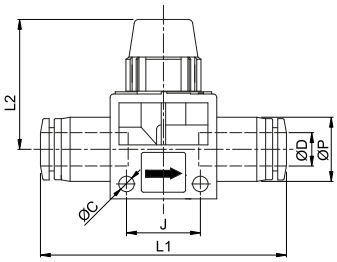



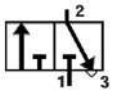

| CODE | T1 | T2 | ØC | A1 | A2 | L1 | L2 | J | CH1 | CH2 |
|---|---|---|---|---|---|---|---|---|---|---|
| WTRSS01G01 | G 1/8" | G 1/8" | 4,2 | 5 | 5 | 64 | 29,5 | 16,5 | 14 | 14 |
| WTRSS02G02 | G 1/4" | G 1/4" | 4,2 | 5,8 | 5,8 | 66,6 | 29,5 | 16,5 | 17 | 17 |
| WTRSS03G03 | G 3/8" | G 3/8" | 4,2 | 6,8 | 6,8 | 70,6 | 29,5 | 16,5 | 20 | 20 |
| WTRSS04G04 | G 1/2" | G 1/2" | 4,2 | 8 | 8 | 84,5 | 31 | 16,5 | 24 | 24 |
| REDUCED HAND VALVE BSPP THREAD, FLOW THREAD-THREAD | | | | | | | | | | |
| WTRSS02G01 | G 1/4" | G 1/8" | 4,2 | 5,8 | 5 | 65,3 | 29,5 | 16,5 | 17 | 14 |
| WTRSS03G02 | G 3/8" | G 1/4" | 4,2 | 6,8 | 5,8 | 69,6 | 29,5 | 16,5 | 20 | 17 |
| WTRSS04G03 | G 1/2" | G 3/8" | 4,2 | 8 | 6,8 | 82,8 | 31 | 21,5 | 24 | 20 |

## WTRFF

Union hand valve, flow tube-tube






| CODE | ØD | ØP | ØC | L1 | L2 | J |
|---|---|---|---|---|---|---|
| WTRFF0606 | 6 | 14,5 | 4,2 | 51,6 | 29,5 | 16,5 |
| WTRFF0808 | 8 | 14,5 | 4,2 | 52,8 | 29,5 | 16,5 |
| WTRFF1010 | 10 | 20,9 | 4,2 | 65,1 | 31 | 21,5 |
| WTRFF1212 | 12 | 20,9 | 4,2 | 64,3 | 31 | 21,5 |

TierreGroup®

Always a fittings solution




## FOLLOW US!

# HAND VALVES DUALTECH VALVES

## PLUS

- LIMITED PRESSURE LOSSES
- SIMPLE AND FAST TO INSTALL
- ECO-FRIENDLY AND NON-TOXIC
- EXCELLENT CHEMICAL RESISTANCE IN PVDF VERSION
- WIDE RANGE OF TEMPERATURES IN PVDF VERSION



p. 413 / **9020**



p. 414 / **9020-PVDF**



-20°C ÷ 90°C

**Working pressure:**
from 0 to 16 Bar

Water and fluids suitable with construction materials

Taper gas BSPT ISO 7
R1/4"

**Body:** POM
**Handle:** POM
**O-ring:** NBR

Product certified WRAS water contact materials

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



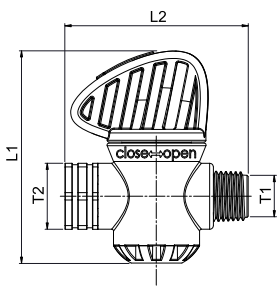

**HANDLE**
Two-position handle: opening and closing



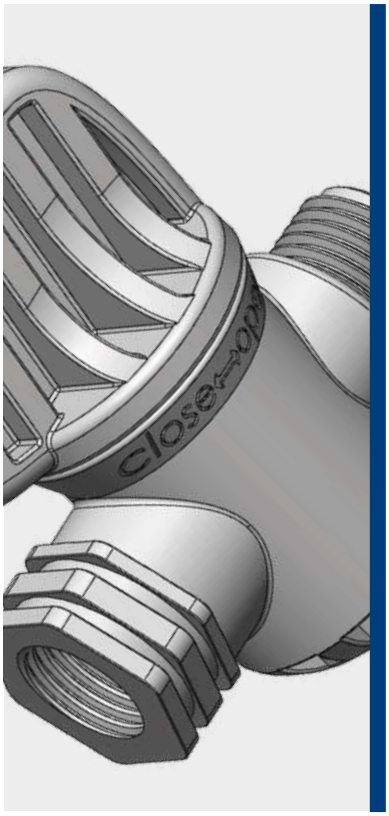
## 9020

Two-way valve in POM M/F, BSPT thread






| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 9020TR14 | R 1/4" | R 1/4" | 57,6 | 51,2 | 70,0 |



-20°C ÷ 110°C

**Working pressure:**
from 0 to 16 Bar

Water and fluids suitable with construction materials

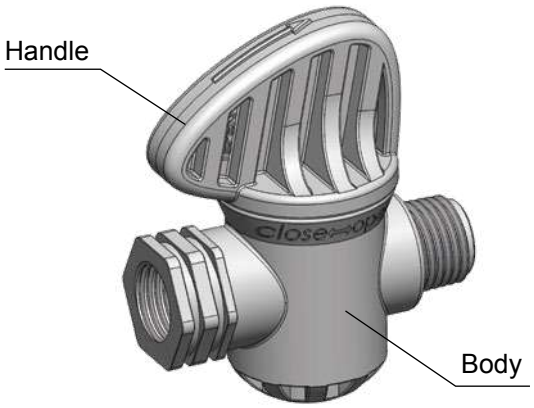
Taper gas BSPT ISO 7
R1/4"

**Body:** PVDF
**Handle:** PVDF
**O-ring:** Viton

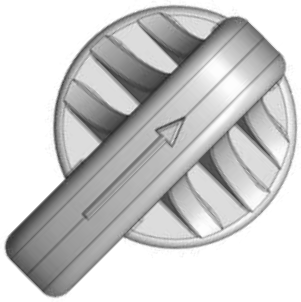
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



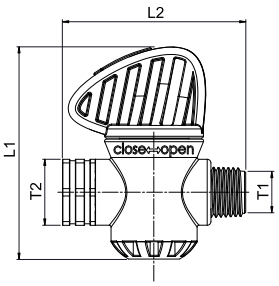

**HANDLE**
Two-position handle: opening and closing



## 9020-PVDF

Two-way valve in PVDF M/F, BSPT thread






| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 9020TR14-PVDF | R 1/4" | R 1/4" | 59,0 | 51,8 | 36,0 |

*drawings and technical data are not binding & can be changed without notice*

# HAND VALVES TRIOTECH VALVES

## PLUS

**GOOD RESISTANCE TO AGGRESSIVE FLUIDS**

**SUITABLE FOR APPLICATIONS ON FILTRATION PLANTS**



p. 418 / **9030**



p. 418 / **9031**



-5°C ÷ 60°C

**Working pressure:**
from 0 to 16 Bar

Water and fluids suitable with construction materials

**FLOW DROP**

12 % approximated

Taper gas BSPT ISO 7
R1/8" and R1/4"

**Body:** Polypropylene
**Handle:** Polypropylene
**Nut:** Polypropylene
**O-ring:** EPDM

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



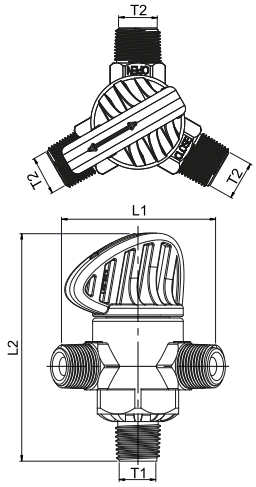

**HANDLE**
Three-position handle.
In the intermediate positions the valve is totally closed.



## 9030

Triotech polypropylene valve, male BSPT thread



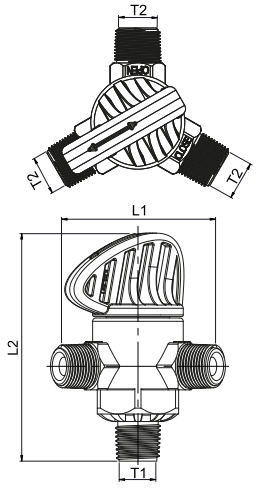



| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 9030TR18 | R 1/4" | R 1/8" | 49,7 | 68,3 | 70,0 |
| 9030TR14 | R 1/4" | R 1/4" | 52,0 | 68,3 | 70,0 |

## 9031

Triotech polypropylene valve, BSPT thread for 8/5.5 tubes






| CODE | T1 | T2 | L1 | L2 | g |
|---|---|---|---|---|---|
| 9031TR8 | R 1/4" | 8/5,5 | 51,7 | 58,8 | 70,0 |

# HAND VALVES FLUIDFIT VALVES

## PLUS

- SUITABLE FOR AIR AND FLUIDS USES
- COMPACT SIZE, CAN BE USED IN LIMITED SPACES
- FULL PASSAGE TO ENSURE AN EXCELLENT FLOW RATE
- IDEAL FOR WATER TREATMENT IN VENDING SECTORS



p. 422 / **HBVU**



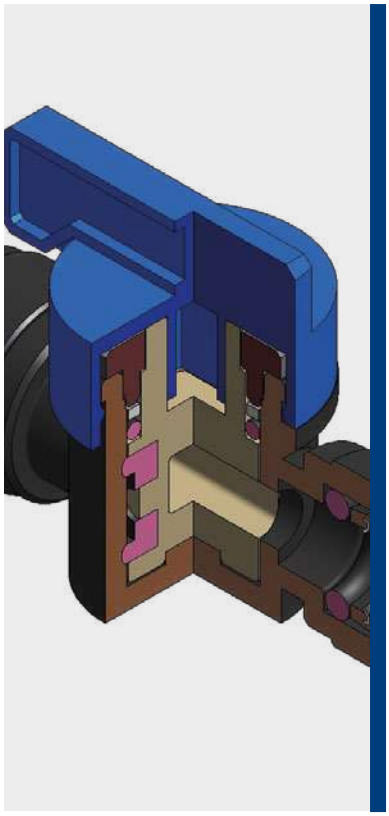
p. 422 / **HBVL-R**



p. 422 / **HBVU-S**



p. 422 / **HMCP**



**Dry air:** -20°C ÷ 90°C
**Air & Fluids:** 1°C ÷ 90°C
The maximum recommended working temperature for continuous use is 65°C and 90°C for a maximum use of 5 minutes.

**Working pressure:**
Up to 10 Bar
From 0 to 8 Bar with dry air
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)
Data depend from the tubes and temperature

Potable water, beverages, vacuum, compressed air, selected gases and liquids, compatible fluids with construction materials

Polyethylene PE, polyamide PA, polyurethane PU, PTFE, FEP
**Tubes made of light metals:** Brass, copper and mild steel
**Tubes made of hard materials:** See page 84 for information on the use of hard material tubes

**HBVL-R:**
Taper gas BSPT ISO 7 R3/8"

**Body:** POM
**Collet:** POM
**Lock claw:** Stainless steel AISI 301
**Seal:** EPDM suitable for food contact
**Handle:** POM
**Shaft:** POM

Food contact materials EC 1935/2004

D.M. 174/2004

WRAS certified product materials in contact with drinking water

ICIM certified product food contact materials

ICIM certified product water contact materials

ACS

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

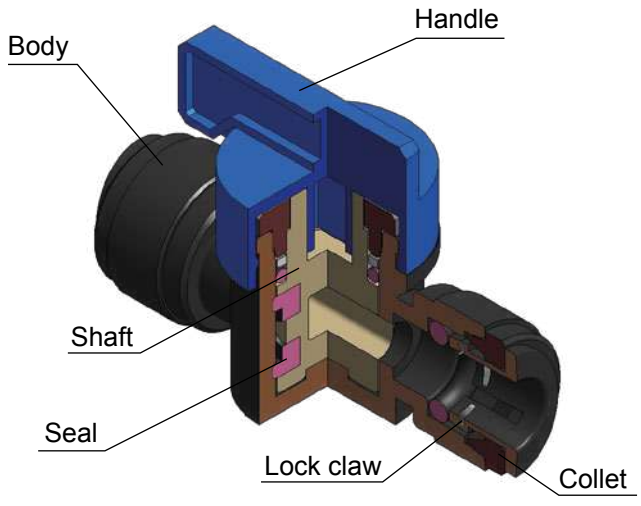
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## INSERTION - METRIC TUBE

| Ø TUBE (mm) | 6 | 8 | 10 | 12 |
|---|---|---|---|---|
| TUBE INSERTION LENGTH (mm) | 15,5 | 17,5 | 20,1 | 24,7 |

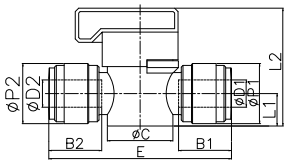
## CONSTRUCTION DETAILS

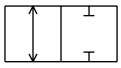


## HBVU

Two-ways union hand valve, flow tube-tube





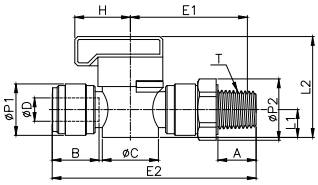



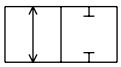
| CODE | ØD1 | ØD2 | B1 | B2 | ØP1 | ØP2 | L1 | L2 | E | ØC | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HBVU0606B | 6 | 6 | 16,1 | 16,1 | 15,5 | 15,5 | 9,5 | 34,5 | 51,7 | 19,2 | 16 |
| HBVU0808B | 8 | 8 | 17,5 | 17,5 | 17,6 | 17,6 | 9,5 | 34,5 | 53,5 | 19,2 | 17,4 |
| HBVU1010B | 10 | 10 | 20,1 | 20,1 | 20,0 | 20,0 | 12,5 | 42,3 | 63,0 | 24,2 | 29 |
| HBVU1212B | 12 | 12 | 23,7 | 23,7 | 23,0 | 23,0 | 12,5 | 42,3 | 70,4 | 24,2 | 35,4 |

## HBVL-R

Two-ways hand valve BSPT thread, flow tube-thread





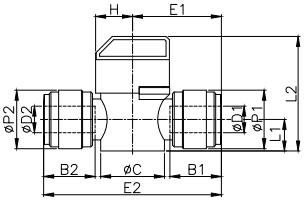
| CODE | ØD | T | B | A | ØP1 | ØP2 | L1 | L2 | E1 | E2 | H | ØC | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HBVL10R03B | 10 | R 3/8" | 20,1 | 13,5 | 20 | 23 | 12,5 | 42,3 | 48,3 | 79,8 | 26,3 | 24,2 | 34,3 |

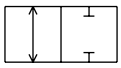
**HBVL-R:** product without WRAS certification

## HBVU-S

Two-ways union hand valve with short handle, flow tube-tube





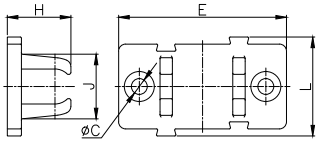
| CODE | ØD1 | ØD2 | B1 | B2 | ØP1 | ØP2 | L1 | L2 | E1 | E2 | H | ØC | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HBVU-S0606B | 6 | 6 | 16,1 | 16,1 | 15,5 | 15,5 | 9,5 | 34,5 | 25,9 | 51,7 | 11,1 | 19,2 | 15,8 |
| HBVU-S0808B | 8 | 8 | 17,5 | 17,5 | 17,6 | 17,6 | 9,5 | 34,5 | 26,8 | 53,5 | 11,1 | 19,2 | 17,2 |
| HBVU-S1010B | 10 | 10 | 20,1 | 20,1 | 20,0 | 20,0 | 12,5 | 42,3 | 31,5 | 63,0 | 13,7 | 24,2 | 28,6 |
| HBVU-S1212B | 12 | 12 | 23,7 | 23,7 | 23,0 | 23,0 | 12,5 | 42,3 | 35,2 | 70,4 | 13,7 | 24,2 | 35,0 |

**HBVU-S:** product without WRAS certification

## HMCP

Modular brackets








| CODE | E | L | H | J | ØC | g |
|---|---|---|---|---|---|---|
| HMCP06-1/4 | 47,5 | 28,0 | 18,0 | 18,3 | 4,5 | 3,8 |
| HMCP10-3/8 | 55,2 | 34,0 | 22,0 | 22,0 | 4,5 | 6,3 |

**HMCP06-1/4:** compliant with HBVU-S Ø6
**HMCP10-3/8:** compliant with HBVU-S Ø10

| SIZES | WHITE | BLACK | GREY |
|---|---|---|---|
| 06-1/4 | HMCP06-1/4W | HMCP06-1/4B | HMCP06-1/4G |
| 10-3/8 | HMCP10-3/8W | HMCP10-3/8B | HMCP10-3/8G |

# ACCESSORIES & AIR GUNS



# TECHNICAL INDEX



p. 425
**SILENCERS**



p. 435
**DISTRIBUTION MANIFOLDS**



p. 441
**PRESSURE GAUGES**



p. 451
**TANKS**
**PED**



p. 455
**SEALING FOR THREADED ELEMENTS**



p. 467
**AIR GUN - CAF**



p. 471
**AIR GUN - CB WITH HIGH FLOWRATE**



p. 475
**AIR GUN - ALUMINUM PSF**



p. 479
**UGPT-7 BLOW COMB COMPRESSED AIR**

# ACCESSORIES & AIR GUNS SILENCERS

## PLUS

**WIDE TEMPERATURE RANGE THANKS TO MULTIPLE CONSTRUCTION MATERIALS**

**FILTRATION DEGREES BETWEEN 5 AND 120 NM RESULT SUITABLE FOR PNEUMATIC APPLICATIONS**

**CONSTRUCTION QUALITY GUARANTEED BY RAW MATERIALS USED AND THE METICOLOUS CONTROLS PERFORMED**

**EXCELLENT NOISE REDUCTION IN AUTOMATIC SYSTEMS**

**ALSO USED FOR SAFETY APPLICATIONS IN PNEUMATIC EQUIPMENT**



p. 428 / **6100**



p. 428 / **6150**



p. 428 / **6200**



p. 428 / **6250**



p. 429 / **6300**



p. 429 / **6350**



p. 429 / **6400**



p. 429 / **6450**



p. 430 / **6500**



p. 430 / **6550**



p. 430 / **6600**



p. 430 / **6650**



p. 431 / **6655**



p. 431 / **6670**



p. 431 / **6700**



p. 431 / **6750**



p. 432 / **6780**



p. 432 / **6820**



p. 432 / **6850**



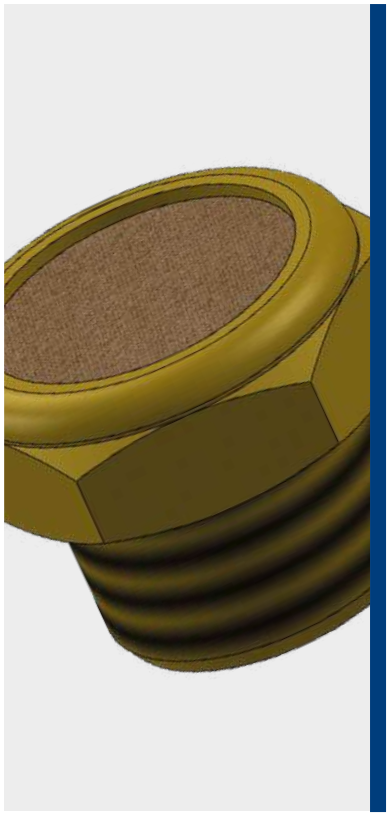
p. 432 / **6880**



p. 433 / **6882**



p. 433 / **6885**



-20°C ÷ 80°C
-10°C ÷ 80°C (6650)
-10°C ÷ 50°C (6700 & 6750)
-40°C ÷ 200°C (6885)
-20°C ÷ 300°C (6880 & 6882)

**Working pressure:**
10 Bar
6 Bar (6700, 6750 and 6780)

Compressed air

**NOISE LEVEL**
Noise level in dB 4 & 6 Bar, indicated in the tables.

- Parallel gas BSPP ISO 228
  from G1/8" to G1"
- Metric ISO 262
  M5
- NPT
  from N1/8" to N1"

**6100, 6150, 6550, 6600:** Sintered spherical bronze on copper-plated steel hexagonal base

**6200, 6250, 6300, 6350, 6400, 6650, 6670:** Sintered spherical bronze on brass hexagonal base

**6420, 6500:** Stainless steel AISI 304 wire on brass base

**6700, 6750:** Acetal resin

**6780, 6655:** Polyethylene

**6820:** Stainless steel AISI 304 wire on nylon base

**6850:** Stainless steel AISI 304

**6885:** Stainless steel AISI 316

**6880, 6882:** Stainless steel AISI 316L

Products in compliance with EC Regulation 1907/2006

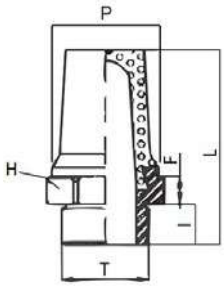
Products in compliance with the directive EU 2015/863

**FEATURES**
Silencers are use to reduce the noise levels in a pneumatic system, silencing the discharges of compressed air in the environment and reducing the valves noise during the operation.

## 6100

Sintered spherical bronze cone silencer on copper-plated steel hexagonal base



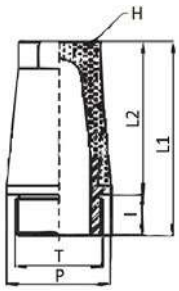



| CODE | T | P | I | F | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6100TRM5 | M5x0,8 | 5,5 | 3,5 | 4,0 | 17,0 | 7 | - | - | 2,0 |
| 6100TR18 | G 1/8" | 10,5 | 4,5 | 3,8 | 21,0 | 12 | 76 | 79 | 6,0 |
| 6100TR14 | G 1/4" | 12,5 | 6,0 | 4,5 | 27,0 | 15 | 75 | 78 | 12,5 |
| 6100TR38 | G 3/8" | 17,0 | 7,0 | 5,4 | 35,0 | 19 | 81 | 82 | 23,0 |
| 6100TR12 | G 1/2" | 20,5 | 8,0 | 6,0 | 41,5 | 23 | 84 | 85 | 39,0 |
| 6100TR34 | G 3/4" | 26,5 | 9,0 | 7,5 | 54,0 | 30 | 90 | 94 | 78,5 |
| 6100TR1 | G 1" | 33,0 | 11,0 | 9,0 | 66,0 | 36 | 92 | 95 | 149,5 |

## 6150

Sintered spherical bronze silencer with hexagonal cone on round copper-plated steel base



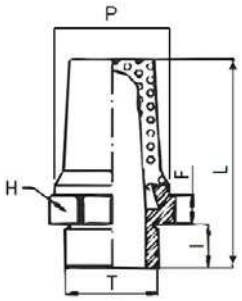



| CODE | T | P | I | L1 | L2 | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6150TR18 | G 1/8" | 11,5 | 4,5 | 22,5 | 18,0 | 8 | 77 | 80 | 6,5 |
| 6150TR14 | G 1/4" | 15,0 | 6,0 | 28,5 | 23,5 | 10 | 76 | 79 | 12,5 |
| 6150TR38 | G 3/8" | 19,0 | 7,0 | 36,0 | 29,0 | 13 | 82 | 83 | 23,5 |
| 6150TR12 | G 1/2" | 23,0 | 8,0 | 44,0 | 36,0 | 15 | 84 | 85 | 39,0 |
| 6150TR34 | G 3/4" | 30,0 | 9,0 | 56,0 | 47,0 | 19 | 91 | 95 | 77,5 |
| 6150TR1 | G 1" | 37,0 | 11,0 | 69,0 | 58,0 | 24 | 92 | 95 | 139,0 |

## 6200

Sintered spherical bronze silencer with rebated cone on brass hexagonal base



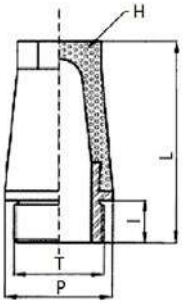



| CODE | T | P | I | F | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6200TRM5 | M5x0,8 | 4,0 | 3,5 | 3,0 | 17,0 | 8 | - | - | 2,5 |
| 6200TR18 | G 1/8" | 8,5 | 6,0 | 4,0 | 26,0 | 13 | 70 | 75 | 9,5 |
| 6200TR14 | G 1/4" | 10,5 | 8,0 | 5,0 | 34,0 | 16 | 75 | 81 | 16,5 |
| 6200TR38 | G 3/8" | 13,0 | 8,0 | 5,0 | 41,0 | 19 | 78 | 82 | 26,5 |
| 6200TR12 | G 1/2" | 18,0 | 10,0 | 6,0 | 46,0 | 24 | 81 | 85 | 46,5 |
| 6200TR34 | G 3/4" | 25,5 | 10,0 | 6,0 | 56,0 | 30 | 83 | - | 81,5 |
| 6200TR1 | G 1" | 30,5 | 10,0 | 6,0 | 66,0 | 36 | 84 | - | 134,0 |

## 6250

Sintered spherical bronze silencer with hexagonal cone head rebated on circular brass base





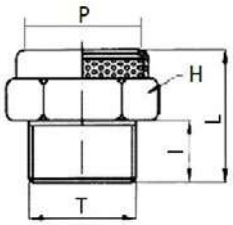

| CODE | T | P | I | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|
| 6250TR18 | G 1/8" | 13,0 | 7,0 | 27,0 | 6,0 | 70 | 75 | 8,5 |
| 6250TR14 | G 1/4" | 16,0 | 8,0 | 30,0 | 7,0 | 75 | 81 | 13 |
| 6250TR38 | G 3/8" | 19,0 | 8,0 | 40,0 | 10,0 | 78 | 82 | 23 |
| 6250TR12 | G 1/2" | 24,0 | 10,0 | 46,0 | 13,0 | 81 | 85 | 40 |
| 6250TR34 | G 3/4" | 30,0 | 10,0 | 54,0 | 17,0 | 83 | - | 73,5 |
| 6250TR1 | G 1" | 38,0 | 10,0 | 61,0 | 22,0 | 84 | - | 145 |

*drawings and technical data are not binding & can be changed without notice*

## 6300

Sintered spherical bronze silencer with riveted pastille on brass hexagonal base



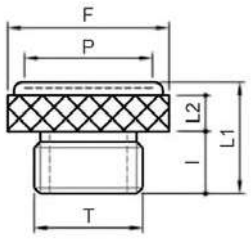



| CODE | T | P | I | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|
| 6300TRM5 | M5x0,8 | 5,0 | 4,0 | 8,5 | 8 | - | - | 2,0 |
| 6300TR18 | G 1/8" | 9,0 | 6,0 | 12,0 | 13 | 70 | 73 | 6,5 |
| 6300TR14 | G 1/4" | 11,0 | 8,0 | 16,0 | 16 | 71 | 74 | 11,0 |
| 6300TR38 | G 3/8" | 14,0 | 8,0 | 17,0 | 19 | 83 | 85 | 16,5 |
| 6300TR12 | G 1/2" | 19,0 | 10,0 | 18,0 | 24 | 85 | 89 | 26,0 |
| 6300TR34 | G 3/4" | 25,0 | 10,0 | 19,0 | 30 | 87 | 89 | 39,5 |
| 6300TR1 | G 1" | 31,0 | 10,0 | 20,0 | 36 | 87 | 90 | 60,0 |

## 6350

Sintered spherical bronze silencer with riveted pastille on circular knurled brass base



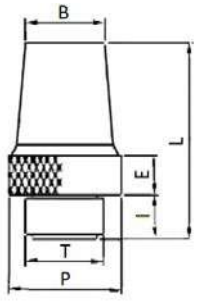



| CODE | T | P | F | I | L1 | L2 | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6350TR18 | G 1/8" | 8,0 | 13,0 | 7,0 | 13,0 | 4,0 | 70 | 73 | 7,0 |
| 6350TR14 | G 1/4" | 12,0 | 16,0 | 8,0 | 16,0 | 4,5 | 71 | 74 | 7,0 |
| 6350TR38 | G 3/8" | 15,0 | 19,0 | 8,0 | 14,0 | 5,0 | 83 | 85 | 10,0 |
| 6350TR12 | G 1/2" | 19,0 | 24,0 | 10,0 | 18,0 | 5,0 | 85 | 89 | 10,0 |
| 6350TR34 | G 3/4" | 24,0 | 30,0 | 10,0 | 18,0 | 5,0 | 87 | 89 | 12,0 |
| 6350TR1 | G 1" | 30,0 | 38,0 | 10,0 | 19,0 | 6,0 | 87 | 90 | 12,0 |

## 6400

Sintered spherical bronze silencer with rebated cone on circular knurled brass base



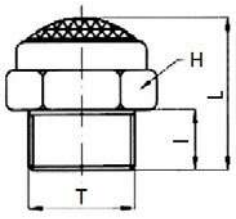



| CODE | T | P | I | B | E | L | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6400TR18 | G 1/8" | 13,0 | 7,0 | 8,5 | 4,0 | 27,0 | 70 | 75 | 9 |
| 6400TR14 | G 1/4" | 16,0 | 8,0 | 11,0 | 4,5 | 34,0 | 75 | 81 | 13,5 |
| 6400TR38 | G 3/8" | 19,0 | 8,0 | 14,0 | 5,0 | 41,0 | 78 | 82 | 23 |
| 6400TR12 | G 1/2" | 24,0 | 10,0 | 17,0 | 5,0 | 46,0 | 81 | 85 | 45 |
| 6400TR34 | G 3/4" | 30,0 | 10,0 | 21,0 | 5,0 | 56,0 | 83 | - | 80 |
| 6400TR1 | G 1" | 38,0 | 10,0 | 26,5 | 6,0 | 66,0 | 84 | - | 133,5 |

## 6450

Silencer with stainless steel AISI 304 wire mesh on brass hexagonal





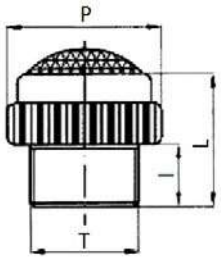

| CODE | T | I | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6450TRM5 | M5x0,8 | 4,0 | 8,8 | 8,0 | - | - | 1,5 |
| 6450TR18 | G 1/8" | 6,0 | 15,0 | 13,0 | 70 | 74 | 6,0 |
| 6450TR14 | G 1/4" | 8,0 | 18,0 | 16,0 | 69 | 72 | 10,5 |
| 6450TR38 | G 3/8" | 8,0 | 20,0 | 19,0 | 85 | 88 | 16,5 |
| 6450TR12 | G 1/2" | 10,0 | 22,0 | 24,0 | 85 | 90 | 24,5 |
| 6450TR34 | G 3/4" | 10,0 | 26,0 | 30,0 | 86 | 90 | 37,0 |
| 6450TR1 | G 1" | 10,0 | 28,0 | 36,0 | 88 | 92 | 56,5 |

*drawings and technical data are not binding & can be changed without notice*

## 6500

Silencer with stainless steel AISI 304 wire mesh on circular knurled brass base



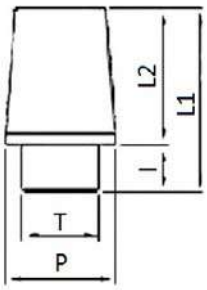



| CODE | T | P | I | L | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6500TR18 | G 1/8" | 13,0 | 7,0 | 14,0 | 70 | 74 | 5 |
| 6500TR14 | G 1/4" | 16,0 | 8,0 | 18,0 | 69 | 72 | 8,5 |
| 6500TR38 | G 3/8" | 19,0 | 8,0 | 20,0 | 85 | 88 | 13,5 |
| 6500TR12 | G 1/2" | 24,0 | 10,0 | 22,0 | 85 | 90 | 23,5 |
| 6500TR34 | G 3/4" | 30,0 | 10,0 | 24,0 | 86 | 90 | 30,5 |
| 6500TR1 | G 1" | 38,0 | 10,5 | 27,0 | 88 | 92 | 57,5 |

## 6550

Sintered spherical bronze cone silencer on circular copper-plated steel base



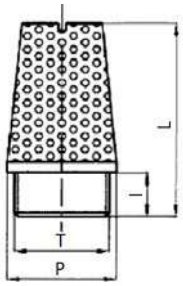



| CODE | T | P | I | L1 | L2 | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|
| 6550TR18 | G 1/8" | 11,5 | 4,5 | 21,0 | 16,5 | 68 | 60 | 6,0 |
| 6550TR14 | G 1/4" | 15,0 | 6,0 | 25,0 | 19,0 | 65 | 67 | 11,5 |
| 6550TR38 | G 3/8" | 19,0 | 7,0 | 34,5 | 27,5 | 74 | 77 | 24,0 |
| 6550TR12 | G 1/2" | 23,0 | 8,0 | 43,0 | 35,0 | 76 | 80 | 44,5 |
| 6550TR34 | G 3/4" | 30,0 | 9,0 | 50,0 | 41,0 | 80 | 84 | 73,0 |
| 6550TR1 | G 1" | 37,0 | 11,0 | 60,5 | 49,5 | 82 | 85 | 137,5 |

## 6600

Sintered spherical bronze silencer with screwdriver-cut cone on round copper-plated steel base



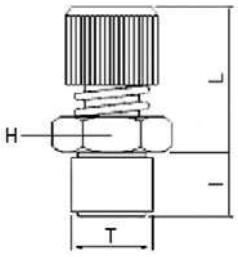



| CODE | T | P | I | L | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6600TR18 | G 1/8" | 11,5 | 4,5 | 22,0 | 68 | 70 | 6,0 |
| 6600TR14 | G 1/4" | 15,0 | 6,0 | 26,0 | 65 | 67 | 13,0 |
| 6600TR38 | G 3/8" | 19,0 | 7,0 | 34,5 | 75 | 77 | 24,5 |
| 6600TR12 | G 1/2" | 23,0 | 8,0 | 43,0 | 76 | 80 | 42,0 |
| 6600TR34 | G 3/4" | 30,0 | 9,0 | 50,0 | 80 | 84 | 75,0 |
| 6600TR1 | G 1" | 37,0 | 11,0 | 60,5 | 82 | 85 | 136,0 |

## 6650

Regulated silencer with sintered bronze pastille





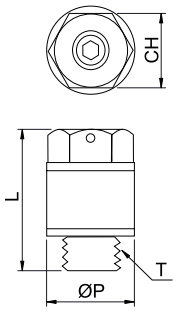

| CODE | T | L MIN | L MAX | I | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|
| 6650TR18 | G 1/8" | 20,0 | 22,0 | 6,0 | 13 | 69 | 72 | 16,0 |
| 6650TR14 | G 1/4" | 22,0 | 24,0 | 8,0 | 15 | 70 | 73 | 23,0 |
| 6650TR38 | G 3/8" | 25,0 | 28,0 | 10,0 | 22 | 82 | 84 | 48,0 |
| 6650TR12 | G 1/2" | 26,0 | 29,0 | 11,0 | 22 | 84 | 88 | 59,0 |

*drawings and technical data are not binding & can be changed without notice*

## 6655

Silencer with a regulated flow in polyethylene



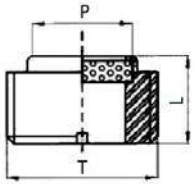



| CODE | T | ØP | L | CH | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6655TR18 | G 1/8" | 15 | 20,5 | 13 | - | - | 3,0 |
| 6655TR14 | G 1/4" | 18 | 29,0 | 15 | - | - | 6,0 |
| 6655TR38 | G 3/8" | 24 | 28,0 | 20 | - | - | 18,0 |
| 6655TR12 | G 1/2" | 30 | 50,0 | 25 | - | - | 45,0 |

## 6670

Sintered spherical bronze silencer with screwdriver



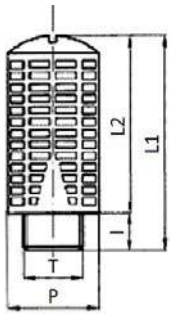



| CODE | T | ØP | L | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|
| 6670TR18 | G 1/8" | 6,0 | 5,0 | 69 | 72 | 1,37 |
| 6670TR14 | G 1/4" | 8,0 | 6,0 | 70 | 73 | 2,91 |
| 6670TR38 | G 3/8" | 10,0 | 7,0 | 82 | 84 | 6,33 |
| 6670TR12 | G 1/2" | 15,0 | 8,0 | 84 | 88 | 11,69 |
| 6670TR34 | G 3/4" | 20,0 | 9,0 | 85 | 88 | 14,56 |
| 6670TR1 | G 1" | 26,0 | 10,0 | 85 | 89 | 28,26 |

## 6700

Dynamic acetal resin silencer with balls



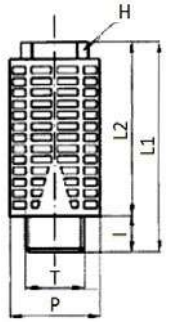



| CODE | T | P | I | L1 | L2 | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|
| 6700TR18 | G 1/8" | 15 | 6 | 32,5 | 26,5 | 84 | 87 | 4,0 |
| 6700TR14 | G 1/4" | 19,5 | 8 | 43 | 35 | 81 | 84 | 8,0 |
| 6700TR38 | G 3/8" | 24,5 | 11 | 58 | 47 | 83 | 90 | 18,0 |
| 6700TR12 | G 1/2" | 24,5 | 11 | 58 | 47 | 83 | 90 | 19,0 |
| 6700TR34 | G 3/4" | 48 | 18 | 115 | 97 | 85 | 91 | 115,0 |
| 6700TR1 | G 1" | 48 | 18 | 115 | 97 | 85 | 90 | 115,0 |

## 6750

Static acetal resin silencer with felt inside





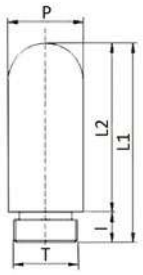

| CODE | T | P | I | L1 | L2 | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6750TR18 | G 1/8" | 16 | 6 | 34 | 28 | 10 | 85 | 87 | 4,0 |
| 6750TR14 | G 1/4" | 19 | 8 | 44 | 36 | 12 | 86 | 90 | 7,0 |
| 6750TR38 | G 3/8" | 24 | 10 | 56 | 47 | 16 | 87 | 92 | 14,0 |
| 6750TR12 | G 1/2" | 24 | 10 | 56 | 47 | 16 | 87 | 92 | 15,0 |

*drawings and technical data are not binding & can be changed without notice*

## 6780

Polyethylene silencer



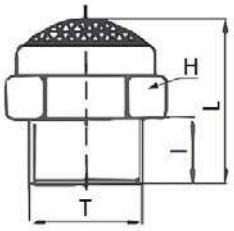



| CODE | T | ØP | I | L1 | L2 | g |
|---|---|---|---|---|---|---|
| 6780TRM5 | M5x0,8 | 7,0 | 4,0 | 24,5 | 20,5 | 2,8 |
| 6780TR18 | G 1/8" | 13,0 | 7,5 | 32,5 | 25,0 | 3,7 |
| 6780TR14 | G 1/4" | 17,0 | 8,0 | 39,0 | 31,0 | 10,0 |
| 6780TR38 | G 3/8" | 25,0 | 11,0 | 65,0 | 54,0 | 13,5 |
| 6780TR12 | G 1/2" | 25,0 | 11,0 | 69,0 | 58,0 | 37,0 |
| 6780TR34 | G 3/4" | 37,0 | 15,5 | 138,0 | 122,5 | 47,0 |
| 6780TR1 | G 1" | 48,0 | 19,5 | 157,0 | 137,5 | 90,0 |

## 6820

Silencer with stainless steel AISI 304 wire mesh on nylon base



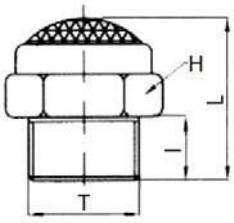



| CODE | T | I | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6820TR18 | G 1/8" | 6 | 15 | 13 | 70 | 74 | 1,5 |
| 6820TR14 | G 1/4" | 8 | 20 | 16 | 69 | 72 | 2,8 |
| 6820TR38 | G 3/8" | 8 | 20 | 19 | 85 | 88 | 4,5 |
| 6820TR12 | G 1/2" | 10 | 22 | 24 | 85 | 90 | 7,5 |

## 6850

Silencer with stainless steel AISI 304 wire mesh on an stainless steel AISI 304 hexagonal



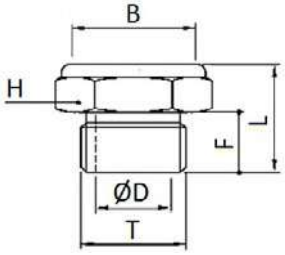



| CODE | T | I | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|
| 6850TR18 | G 1/8" | 6 | 15 | 13 | 70 | 74 | 5,0 |
| 6850TR14 | G 1/4" | 7 | 18 | 16 | 69 | 72 | 1,0 |
| 6850TR38 | G 3/8" | 8 | 20 | 19 | 85 | 88 | 1,5 |
| 6850TR12 | G 1/2" | 10 | 22 | 24 | 85 | 90 | 2,5 |
| 6850TR34 | G 3/4" | 10 | 26 | 30 | 86 | 90 | 4,0 |
| 6850TR1 | G 1" | 12 | 28 | 36 | 88 | 92 | 9,5 |

## 6880

Silencer with stainless steel AISI 316L mesh on stainless steel AISI 316L base - BSPP thread



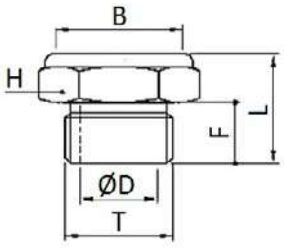



| CODE | T | ØD | B | F | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6880TR18 | G 1/8" | 6,0 | 10,0 | 8,0 | 15,0 | 14,0 | - | - | 8,0 |
| 6880TR14 | G 1/4" | 8,0 | 12,5 | 8,0 | 15,0 | 17,0 | - | - | 12,0 |
| 6880TR38 | G 3/8" | 12,0 | 17,5 | 10,0 | 18,0 | 22,0 | - | - | 20,0 |
| 6880TR12 | G 1/2" | 15,0 | 21,5 | 12,0 | 22,0 | 27,0 | - | - | 38,0 |
| 6880TR34 | G 3/4" | 20,0 | 28,0 | 15,0 | 27,0 | 32,0 | - | - | 62,0 |
| 6880TR1 | G 1" | 26,0 | 34,0 | 18,0 | 32,0 | 41,0 | - | - | 118,0 |

*drawings and technical data are not binding & can be changed without notice*

## 6882 Silencer with stainless steel AISI 316L mesh on stainless steel AISI 316L base - NPT thread

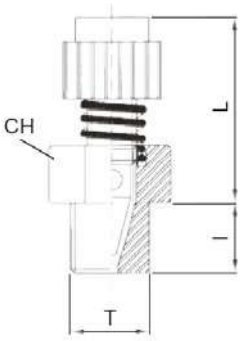





| CODE | T | ØD | B | F | L | H | dB 4 Bar | dB 6 Bar | g |
|---|---|---|---|---|---|---|---|---|---|
| 6882TR18 | N 1/8" | 6,0 | 9,0 | 7,0 | 14,0 | 14,0 | - | - | 8,0 |
| 6882TR14 | N 1/4" | 8,0 | 13,0 | 11,0 | 18,0 | 17,0 | - | - | 12,0 |
| 6882TR38 | N 3/8" | 12,0 | 18,0 | 11,0 | 18,0 | 22,0 | - | - | 20,0 |
| 6882TR12 | N 1/2" | 15,0 | 22,5 | 15,0 | 25,0 | 27,0 | - | - | 38,0 |
| 6882TR34 | N 3/4" | 20,0 | 28,0 | 16,0 | 27,0 | 32,0 | - | - | 62,0 |
| 6882TR1 | N 1" | 26,0 | 34,0 | 19,0 | 32,0 | 41,0 | - | - | 118,0 |

## 6885 Regulated silencer with stainless steel AISI 316 wire mesh on stainless steel AISI 316 hexagonal






| CODE | T | I | L min | L max | CH | dB 4 Bar | dB 6 Bar |
|---|---|---|---|---|---|---|---|
| 6885TR18 | G 1/8" | 6 | 20,0 | 22,0 | 13 | 69 | 72 |
| 6885TR14 | G 1/4" | 8 | 22,0 | 24,0 | 15 | 70 | 73 |



# ACCESSORIES & AIR GUNS DISTRIBUTION MANIFOLDS

## PLUS

**AVAILABLE IN TWO DIFFERENT MATERIALS DEPENDING ON APPLICATIONS**

**LIGHT AND COMPACT ALLUMINIUM MANIFOLDS, AVAILABLE IN SEVERAL VERSIONS**

**STRONG AND SUITABLE STAINLESS STEEL COLLECTORS FOR INDUSTRIAL APPLICATIONS**

## **DISTRIBUTION MANIFOLDS /** ALUMINIUM



p. 438 / **4100**



p. 438 / **4150**

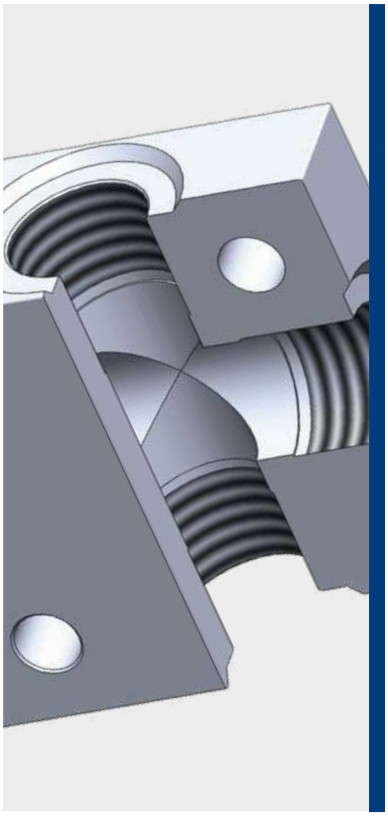


p. 439 / **4200**

## **DISTRIBUTION MANIFOLDS /** STAINLESS STEEL AISI 304



p. 440 / **4150TRX**



-10°C ÷ 80°C

**Working pressure:**
20 Bar

Compressed air and fluids suitable with construction materials

- Parallel gas BSPP ISO 228 from G1/8" to G1/2"
- Metric ISO 262 M5

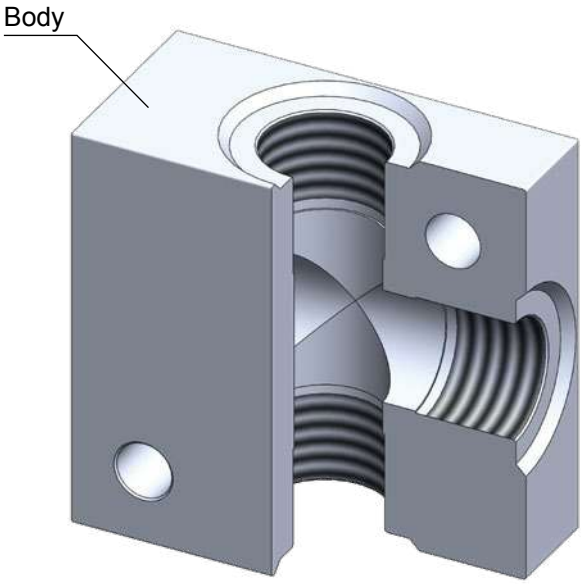
**Body:** Anodized aluminium (4100)
Aluminium (4150 and 4200)

**AVAILABILITY:**
Customized manifolds available on request

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

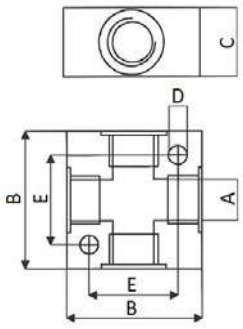
## CONSTRUCTION DETAILS



## 4100

Anodized aluminium cross manifold



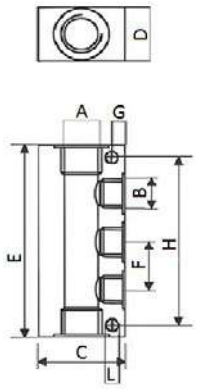



| CODE | A | B | C | D | E | g |
|---|---|---|---|---|---|---|
| 4100TR18-A | G 1/8" | 25,0 | 15,0 | 4,5 | 17,0 | 17,5 |
| 4100TR14-A | G 1/4" | 40,0 | 20,0 | 5,5 | 26,0 | 60,0 |
| 4100TR38 | G 3/8" | 40,0 | 25,0 | 5,5 | 26,0 | 70,0 |
| 4100TR38-A | G 3/8" | 50,0 | 25,0 | 5,5 | 34,0 | 95,0 |
| 4100TR12-A | G 1/2" | 50,0 | 30,0 | 5,5 | 34,0 | 129,0 |

## 4150

Aluminium distribution manifold with single outputs





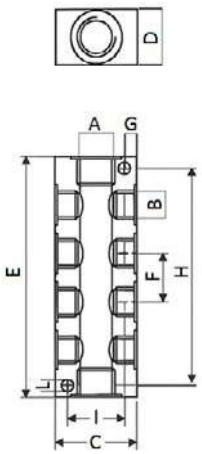

| CODE | A | B | C | D | E | F | G | H | L | g |
|---|---|---|---|---|---|---|---|---|---|---|
| 4150TR18M52 | G 1/8" | M5-2 | 25,0 | 15,0 | 45,0 | 15,0 | 3,5 | 33,0 | 4,5 | 38,0 |
| 4150TR18M53 | G 1/8" | M5-3 | 25,0 | 15,0 | 60,0 | 15,0 | 3,5 | 48,0 | 4,5 | 50,0 |
| 4150TR18M54 | G 1/8" | M5-4 | 25,0 | 15,0 | 75,0 | 15,0 | 3,5 | 63,0 | 4,5 | 64,0 |
| 4150TR18M55 | G 1/8" | M5-5 | 25,0 | 15,0 | 90,0 | 15,0 | 3,5 | 78,0 | 4,5 | 79,0 |
| 4150TR18M56 | G 1/8" | M5-6 | 25,0 | 15,0 | 105,0 | 15,0 | 3,5 | 93,0 | 4,5 | 90,0 |
| 4150TR14182 | G 1/4" | G 1/8"-2 | 30,0 | 20,0 | 54,0 | 18,0 | 4,5 | 45,0 | 4,5 | 64,0 |
| 4150TR14183 | G 1/4" | G 1/8"-3 | 30,0 | 20,0 | 72,0 | 18,0 | 4,5 | 63,0 | 4,5 | 86,0 |
| 4150TR14184 | G 1/4" | G 1/8"-4 | 30,0 | 20,0 | 90,0 | 18,0 | 4,5 | 81,0 | 4,5 | 110,0 |
| 4150TR14185 | G 1/4" | G 1/8"-5 | 30,0 | 20,0 | 108,0 | 18,0 | 4,5 | 99,0 | 4,5 | 130,0 |
| 4150TR14186 | G 1/4" | G 1/8"-6 | 30,0 | 20,0 | 126,0 | 18,0 | 4,5 | 117,0 | 4,5 | 154,0 |
| 4150TR38142 | G 3/8" | G 1/4"-2 | 40,0 | 25,0 | 68,0 | 24,0 | 6,0 | 51,0 | 5,5 | 136,0 |
| 4150TR38143 | G 3/8" | G 1/4"-3 | 40,0 | 25,0 | 92,0 | 24,0 | 6,0 | 75,0 | 5,5 | 184,0 |
| 4150TR38144 | G 3/8" | G 1/4"-4 | 40,0 | 25,0 | 116,0 | 24,0 | 6,0 | 99,0 | 5,5 | 238,0 |
| 4150TR38145 | G 3/8" | G 1/4"-5 | 40,0 | 25,0 | 140,0 | 24,0 | 6,0 | 123,0 | 5,5 | 298,0 |
| 4150TR38146 | G 3/8" | G 1/4"-6 | 40,0 | 25,0 | 164,0 | 24,0 | 6,0 | 147,0 | 5,5 | 338,0 |
| 4150TR12382 | G 1/2" | G 3/8"-2 | 50,0 | 30,0 | 78,0 | 26,0 | 6,5 | 59,0 | 5,5 | 228,0 |
| 4150TR12383 | G 1/2" | G 3/8"-3 | 50,0 | 30,0 | 104,0 | 26,0 | 6,5 | 85,0 | 5,5 | 304,0 |
| 4150TR12384 | G 1/2" | G 3/8"-4 | 50,0 | 30,0 | 130,0 | 26,0 | 6,5 | 111,0 | 5,5 | 380,0 |
| 4150TR12385 | G 1/2" | G 3/8"-5 | 50,0 | 30,0 | 156,0 | 26,0 | 6,5 | 137,0 | 5,5 | 456,0 |
| 4150TR12386 | G 1/2" | G 3/8"-6 | 50,0 | 30,0 | 182,0 | 26,0 | 6,5 | 163,0 | 5,5 | 530,0 |
| 4150TR12122 | G 1/2" | G 1/2"-2 | 50,0 | 30,0 | 102,0 | 34,0 | 6,5 | 83,0 | 5,5 | 292,0 |
| 4150TR12123 | G 1/2" | G 1/2"-3 | 50,0 | 30,0 | 136,0 | 34,0 | 6,5 | 117,0 | 5,5 | 392,0 |
| 4150TR12124 | G 1/2" | G 1/2"-4 | 50,0 | 30,0 | 170,0 | 34,0 | 6,5 | 151,0 | 5,5 | 488,0 |
| 4150TR12125 | G 1/2" | G 1/2"-5 | 50,0 | 30,0 | 204,0 | 34,0 | 6,5 | 185,0 | 5,5 | 584,0 |
| 4150TR12126 | G 1/2" | G 1/2"-6 | 50,0 | 30,0 | 238,0 | 34,0 | 6,5 | 219,0 | 5,5 | 682,0 |

*drawings and technical data are not binding & can be changed without notice*

## 4200

Aluminium distribution manifold with double outputs






| CODE | A | B | C | D | E | F | G | H | L | I | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4200TR18M522 | G 1/8" | M5-2+2 | 25,0 | 15,0 | 45,0 | 15,0 | 3,5 | 33,0 | 4,5 | 18,0 | 37,0 |
| 4200TR18M533 | G 1/8" | M5-3+3 | 25,0 | 15,0 | 60,0 | 15,0 | 3,5 | 48,0 | 4,5 | 18,0 | 50,0 |
| 4200TR18M544 | G 1/8" | M5-4+4 | 25,0 | 15,0 | 75,0 | 15,0 | 3,5 | 63,0 | 4,5 | 18,0 | 62,0 |
| 4200TR18M555 | G 1/8" | M5-5+5 | 25,0 | 15,0 | 90,0 | 15,0 | 3,5 | 78,0 | 4,5 | 18,0 | 74,0 |
| 4200TR18M566 | G 1/8" | M5-6+6 | 25,0 | 15,0 | 105,0 | 15,0 | 3,5 | 93,0 | 4,5 | 18,0 | 98,0 |
| 4200TR141822 | G 1/4" | G 1/8"-2+2 | 30,0 | 20,0 | 54,0 | 18,0 | 4,5 | 45,0 | 4,5 | 21,0 | 60,0 |
| 4200TR141833 | G 1/4" | G 1/8"-3+3 | 30,0 | 20,0 | 72,0 | 18,0 | 4,5 | 63,0 | 4,5 | 21,0 | 81,0 |
| 4200TR141844 | G 1/4" | G 1/8"-4+4 | 30,0 | 20,0 | 90,0 | 18,0 | 4,5 | 81,0 | 4,5 | 21,0 | 100,0 |
| 4200TR141855 | G 1/4" | G 1/8"-5+5 | 30,0 | 20,0 | 108,0 | 18,0 | 4,5 | 99,0 | 4,5 | 21,0 | 122,0 |
| 4200TR141866 | G 1/4" | G 1/8"-6+6 | 30,0 | 20,0 | 126,0 | 18,0 | 4,5 | 117,0 | 4,5 | 21,0 | 142,0 |
| 4200TR381422 | G 3/8" | G 1/4"-2+2 | 40,0 | 25,0 | 68,0 | 24,0 | 6 | 51,0 | 5,5 | 28,0 | 127,0 |
| 4200TR381433 | G 3/8" | G 1/4"-3+3 | 40,0 | 25,0 | 92,0 | 24,0 | 6 | 75,0 | 5,5 | 28,0 | 170,0 |
| 4200TR381444 | G 3/8" | G 1/4"-4+4 | 40,0 | 25,0 | 116,0 | 24,0 | 6 | 99,0 | 5,5 | 28,0 | 216,0 |
| 4200TR381455 | G 3/8" | G 1/4"-5+5 | 40,0 | 25,0 | 140,0 | 24,0 | 6 | 123,0 | 5,5 | 28,0 | 266,0 |
| 4200TR381466 | G 3/8" | G 1/4"-6+6 | 40,0 | 25,0 | 164,0 | 24,0 | 6 | 147,0 | 5,5 | 28,0 | 312,0 |
| 4200TR123822 | G 1/2" | G 3/8"-2+2 | 50,0 | 30,0 | 78,0 | 26,0 | 6,5 | 59,0 | 5,5 | 37,0 | 210,0 |
| 4200TR123833 | G 1/2" | G 3/8"-3+3 | 50,0 | 30,0 | 104,0 | 26,0 | 6,5 | 85,0 | 5,5 | 37,0 | 278,0 |
| 4200TR123844 | G 1/2" | G 3/8"-4+4 | 50,0 | 30,0 | 130,0 | 26,0 | 6,5 | 111,0 | 5,5 | 37,0 | 344,0 |
| 4200TR123855 | G 1/2" | G 3/8"-5+5 | 50,0 | 30,0 | 156,0 | 26,0 | 6,5 | 137,0 | 5,5 | 37,0 | 412,0 |
| 4200TR123866 | G 1/2" | G 3/8"-6+6 | 50,0 | 30,0 | 182,0 | 26,0 | 6,5 | 163,0 | 5,5 | 37,0 | 478,0 |
| 4200TR121222 | G 1/2" | G 1/2"-2+2 | 50,0 | 30,0 | 102,0 | 34,0 | 6,5 | 83,0 | 5,5 | 37,0 | 268,0 |
| 4200TR121233 | G 1/2" | G 1/2"-3+3 | 50,0 | 30,0 | 136,0 | 34,0 | 6,5 | 117,0 | 5,5 | 37,0 | 348,0 |
| 4200TR121244 | G 1/2" | G 1/2"-4+4 | 50,0 | 30,0 | 170,0 | 34,0 | 6,5 | 151,0 | 5,5 | 37,0 | 430,0 |
| 4200TR121255 | G 1/2" | G 1/2"-5+5 | 50,0 | 30,0 | 204,0 | 34,0 | 6,5 | 185,0 | 5,5 | 37,0 | 512,0 |
| 4200TR121266 | G 1/2" | G 1/2"-6+6 | 50,0 | 30,0 | 238,0 | 34,0 | 6,5 | 219,0 | 5,5 | 37,0 | 596,0 |



-25°C ÷ 100°C
Below 0°C in the presence of water with antifreeze glycol

**Working pressure:**
Up to 25 Bar

Compressed air, water, oil and fluids suitable with construction materials

**Inlet thread:**
Parallel gas BSPP ISO 228
from G1-1/2" to G2"
**Outlet thread:**
Taper gas BSPT ISO 7
R3/4"
**Pressure Gauge thread:**
Parallel gas BSPP ISO 228
G1/2"

**Body:** Stainless steel AISI 304 with treatment of electropolishing

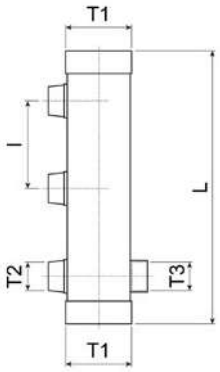
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## 4150TRX

Stainless steel AISI 304 distribution manifold






| CODE | T1 | T2 | T3 | I | L | N°HOLES |
|---|---|---|---|---|---|---|
| 4150TRX112344 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 291,0 | 4 |
| 4150TRX112345 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 361,0 | 5 |
| 4150TRX112346 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 431,0 | 6 |
| 4150TRX112347 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 501,0 | 7 |
| 4150TRX112348 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 571,0 | 8 |
| 4150TRX112349 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 641,0 | 9 |
| 4150TRX1123410 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 711,0 | 10 |
| 4150TRX1123411 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 781,0 | 11 |
| 4150TRX1123412 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 851,0 | 12 |
| 4150TRX1123413 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 921,0 | 13 |
| 4150TRX1123414 | G 1-1/2" | R 3/4" | G 1/2" | 70,0 | 991,0 | 14 |
| 4150TRX2344 | G 2" | R 3/4" | G 1/2" | 70,0 | 299,0 | 4 |
| 4150TRX2345 | G 2" | R 3/4" | G 1/2" | 70,0 | 369,0 | 5 |
| 4150TRX2346 | G 2" | R 3/4" | G 1/2" | 70,0 | 439,0 | 6 |
| 4150TRX2347 | G 2" | R 3/4" | G 1/2" | 70,0 | 509,0 | 7 |
| 4150TRX2348 | G 2" | R 3/4" | G 1/2" | 70,0 | 579,0 | 8 |
| 4150TRX2349 | G 2" | R 3/4" | G 1/2" | 70,0 | 649,0 | 9 |
| 4150TRX23410 | G 2" | R 3/4" | G 1/2" | 70,0 | 719,0 | 10 |
| 4150TRX23411 | G 2" | R 3/4" | G 1/2" | 70,0 | 789,0 | 11 |
| 4150TRX23412 | G 2" | R 3/4" | G 1/2" | 70,0 | 859,0 | 12 |
| 4150TRX23413 | G 2" | R 3/4" | G 1/2" | 70,0 | 929,0 | 13 |
| 4150TRX23414 | G 2" | R 3/4" | G 1/2" | 70,0 | 999,0 | 14 |

T1 & T3: Female thread
T2: Male thread

*drawings and technical data are not binding & can be changed without notice*

# ACCESSORIES & AIR GUNS PRESSURE GAUGES

## PLUS

**WIDE RANGE TO SATISFY MULTIPLE USES IN INDUSTRIAL SECTOR**

**POSSIBILITY OF CHOICE WITH A WIDE PRESSURE RANGE**

**DESIGN IN DIFFERENT MATERIALS FOR DIFFERENT USES**



p. 443 / **MABR**



p. 444 / **MABP**



p. 446 / **MXBR**



p. 447 / **MXBP**



p. 448 / **MXBF**



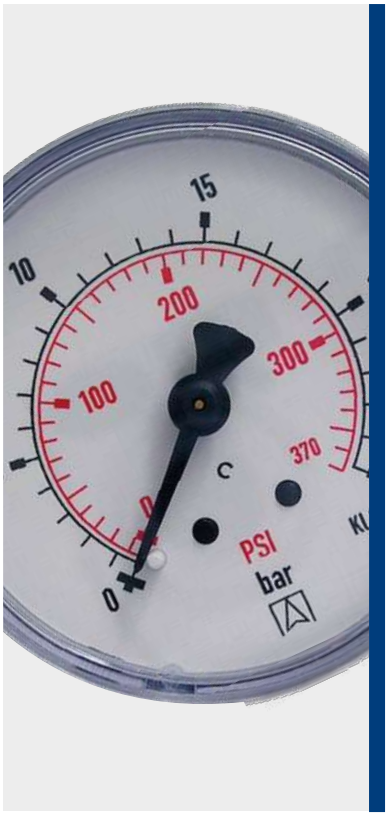
p. 448 / **MXBS**



p. 450 / **MXXR**



p. 450 / **MXXP**




-20°C ÷ 60°C

**Working pressure:**
Max. 3/4 of full scale value for static pressure.
100% of full scale value for short time.

Air, gases and fluids suitable with construction materials

Taper gas BSPT ISO 7
R1/8" and R1/4"

**DEGREE PROTECTION***
IP 32 (EN 60 529)
*To be requested when you order

**Connection:** Brass
**Measuring element:** Copper alloy
**Movement:** Brass
**Dial:** Plastic with white background
**Pointer:** Black plastic
**Case:** ABS shock-resistant
**Window:** Plastic

## APPLICATIONS

- For gases and liquids which are not highly viscous, do not crystallize and are not aggressive to copper alloys.
- For measuring points subject to vibration and high pressures.
- To measure gases or vapor, these instruments must be used in compliance with the standards EN 837-2.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## MABR

Dry pressure gauge for industry with ABS case, EN 837-1, radial connection, BSPT thread



| | CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|---|
| * | MABR40R0120 | R 1/8" | 40 | -1-0 | |
| | MABR40R0132 | R 1/8" | 40 | 0-1 | |
| | MABR40R0133 | R 1/8" | 40 | 0-1,6 | |
| | MABR40R0134 | R 1/8" | 40 | 0-2,5 | |
| | MABR40R0135 | R 1/8" | 40 | 0-4 | |
| | MABR40R0136 | R 1/8" | 40 | 0-6 | |
| | MABR40R0137 | R 1/8" | 40 | 0-10 | |
| | MABR40R0138 | R 1/8" | 40 | 0-12 | |
| | MABR40R0139 | R 1/8" | 40 | 0-16 | |
| | MABR40R0140 | R 1/8" | 40 | 0-25 | |
| | MABR50R0234 | R 1/4" | 50 | 0-2,5 | |
| | MABR50R0235 | R 1/4" | 50 | 0-4 | |
| | MABR50R0236 | R 1/4" | 50 | 0-6 | CLASS 2,5 |
| | MABR50R0238 | R 1/4" | 50 | 0-12 | |
| | MABR50R0239 | R 1/4" | 50 | 0-16 | |
| | MABR50R0240 | R 1/4" | 50 | 0-25 | |
| | MABR63R0220 | R 1/4" | 63 | -1-0 | |
| | MABR63R0232 | R 1/4" | 63 | 0-1,0 | |
| | MABR63R0233 | R 1/4" | 63 | 0-1,6 | |
| | MABR63R0234 | R 1/4" | 63 | 0-2,5 | |
| | MABR63R0235 | R 1/4" | 63 | 0-4 | |
| | MABR63R0236 | R 1/4" | 63 | 0-6 | |
| | MABR63R0237 | R 1/4" | 63 | 0-10 | |
| | MABR63R0238 | R 1/4" | 63 | 0-12 | |
| | MABR63R0239 | R 1/4" | 63 | 0-16 | |
| | MABR63R0240 | R 1/4" | 63 | 0-25 | |

* Vacuum gauge

*drawings and technical data are not binding & can be changed without notice*

## MABP

Dry pressure gauge for industry with ABS case, EN 837-1, back connection, BSPT thread



| CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|
| * MABP40R0120 | R 1/8" | 40 | -1-0 | |
| MABP40R0132 | R 1/8" | 40 | 0-1,0 | |
| MABP40R0133 | R 1/8" | 40 | 0-1,6 | |
| MABP40R0134 | R 1/8" | 40 | 0-2,5 | |
| MABP40R0135 | R 1/8" | 40 | 0-4 | |
| MABP40R0136 | R 1/8" | 40 | 0-6 | |
| MABP40R0137 | R 1/8" | 40 | 0-10 | |
| MABP40R0138 | R 1/8" | 40 | 0-12 | |
| MABP40R0139 | R 1/8" | 40 | 0-16 | |
| MABP40R0140 | R 1/8" | 40 | 0-25 | |
| MABP40R0143 | R 1/8" | 40 | 0-100 | |
| MABP50R0120 | R 1/8" | 50 | -1-0 | |
| MABP50R0132 | R 1/8" | 50 | 0-1,0 | |
| MABP50R0133 | R 1/8" | 50 | 0-1,6 | |
| MABP50R0134 | R 1/8" | 50 | 0-2,5 | |
| MABP50R0135 | R 1/8" | 50 | 0-4 | |
| MABP50R0136 | R 1/8" | 50 | 0-6 | |
| MABP50R0138 | R 1/8" | 50 | 0-12 | |
| MABP50R0139 | R 1/8" | 50 | 0-16 | CLASS 2,5 |
| MABP50R0140 | R 1/8" | 50 | 0-25 | |
| MABP50R0234 | R 1/4" | 50 | 0-2,5 | |
| MABP50R0235 | R 1/4" | 50 | 0-4 | |
| MABP50R0236 | R 1/4" | 50 | 0-6 | |
| MABP50R0238 | R 1/4" | 50 | 0-12 | |
| MABP50R0239 | R 1/4" | 50 | 0-16 | |
| MABP50R0240 | R 1/4" | 50 | 0-25 | |
| MABP63R0220 | R 1/4" | 63 | -1-0 | |
| MABP63R0232 | R 1/4" | 63 | 0-1,0 | |
| MABP63R0233 | R 1/4" | 63 | 0-1,6 | |
| MABP63R0234 | R 1/4" | 63 | 0-2,5 | |
| MABP63R0235 | R 1/4" | 63 | 0-4 | |
| MABP63R0236 | R 1/4" | 63 | 0-6 | |
| MABP63R0237 | R 1/4" | 63 | 0-10 | |
| MABP63R0238 | R 1/4" | 63 | 0-12 | |
| MABP63R0239 | R 1/4" | 63 | 0-16 | |
| MABP63R0240 | R 1/4" | 63 | 0-25 | |
| MABP63R0245 | R 1/4" | 63 | 0-250 | |

* Vacuum gauge




-20°C ÷ 60°C

**Working pressure:**
Max 3/4 of full scale value for static pressures.
Max. 2/3 of full scale value for water hammer pressures.
100% of full scale value for short time.

Air, gases and fluids suitable for construction materials

Parallel gas BSPP ISO 228
G1/8" and G1/4"

**DEGREE PROTECTION***
IP 65 (EN 60 529)
IP 54 (25 Bar) plug allows air release from the case
*To be requested when you order

**Connection:** Brass
**Measuring element:** Copper alloy
**Movement:** Brass
**Dial:** Plastic with white background
**Pointer:** Black aluminium
**Case:** Stainless steel AISI 304
**Ring:** Stainless steel AISI 304
**Window:** Plastic

## APPLICATIONS

- For gases and liquids which are not highly viscous, do not crystallize and are not aggressive to copper alloys.
- For measuring points subject to vibration and high pressures.
- To measure gases or vapor, these instruments must be used in compliance with the standards EN 837-2.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## MXBR Glycerine pressure gauge with case stainless steel AISI 304, EN 837-1, radial connection, BSPP thread



| CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|
| MXBR40G0135 | G 1/8" | 40 | 0-4 | |
| MXBR40G0136 | G 1/8" | 40 | 0-6 | |
| MXBR40G0137 | G 1/8" | 40 | 0-10 | |
| MXBR40G0139 | G 1/8" | 40 | 0-16 | |
| MXBR40G0140 | G 1/8" | 40 | 0-25 | |
| MXBR40G0142 | G 1/8" | 40 | 0-60 | |
| MXBR40G0143 | G 1/8" | 40 | 0-100 | |
| MXBR40G0144 | G 1/8" | 40 | 0-160 | |
| MXBR40G0145 | G 1/8" | 40 | 0-250 | |
| MXBR40G0147 | G 1/8" | 40 | 0-400 | |
| MXBR50G0234 | G 1/4" | 50 | 0-2,5 | CLASS 2,5 |
| MXBR50G0235 | G 1/4" | 50 | 0-4 | |
| MXBR50G0236 | G 1/4" | 50 | 0-6 | |
| MXBR50G0237 | G 1/4" | 50 | 0-10 | |
| MXBR50G0239 | G 1/4" | 50 | 0-16 | |
| MXBR50G0240 | G 1/4" | 50 | 0-25 | |
| MXBR50G0241 | G 1/4" | 50 | 0-40 | |
| MXBR50G0242 | G 1/4" | 50 | 0-60 | |
| MXBR50G0243 | G 1/4" | 50 | 0-100 | |
| MXBR50G0244 | G 1/4" | 50 | 0-160 | |
| MXBR50G0245 | G 1/4" | 50 | 0-250 | |
| MXBR50G0247 | G 1/4" | 50 | 0-400 | |
| MXBR63G0220 | G 1/4" | 63 | -1-0 | CLASS 1,6 |
| MXBR63G0232 | G 1/4" | 63 | 0-1,0 | |
| MXBR63G0233 | G 1/4" | 63 | 0-1,6 | |
| MXBR63G0234 | G 1/4" | 63 | 0-2,5 | |
| MXBR63G0235 | G 1/4" | 63 | 0-4 | |
| MXBR63G0236 | G 1/4" | 63 | 0-6 | |
| MXBR63G0237 | G 1/4" | 63 | 0-10 | |
| MXBR63G0239 | G 1/4" | 63 | 0-16 | |
| MXBR63G0240 | G 1/4" | 63 | 0-25 | |
| MXBR63G0241 | G 1/4" | 63 | 0-40 | |
| MXBR63G0242 | G 1/4" | 63 | 0-60 | |
| MXBR63G0243 | G 1/4" | 63 | 0-100 | |
| MXBR63G0244 | G 1/4" | 63 | 0-160 | |
| MXBR63G0245 | G 1/4" | 63 | 0-250 | |
| MXBR63G0246 | G 1/4" | 63 | 0-315 | |
| MXBR63G0247 | G 1/4" | 63 | 0-400 | |
| MXBR63G0248 | G 1/4" | 63 | 0-600 | |
| MXBR63G0250 | G 1/4" | 63 | 0-1000 | |

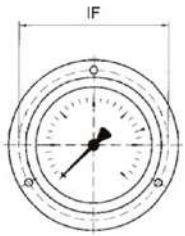
## **MXBP** Glycerine pressure gauge with stainless steel case AISI 304, EN 837-1, back connection, BSPP thread



| CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|
| MXBP40G0135 | G 1/8" | 40 | 0-4 | |
| MXBP40G0136 | G 1/8" | 40 | 0-6 | |
| MXBP40G0137 | G 1/8" | 40 | 0-10 | |
| MXBP40G0139 | G 1/8" | 40 | 0-16 | |
| MXBP40G0140 | G 1/8" | 40 | 0-25 | |
| MXBP40G0142 | G 1/8" | 40 | 0-60 | |
| MXBP40G0143 | G 1/8" | 40 | 0-100 | |
| MXBP40G0144 | G 1/8" | 40 | 0-160 | |
| MXBP40G0145 | G 1/8" | 40 | 0-250 | |
| MXBP40G0147 | G 1/8" | 40 | 0-400 | |
| MXBP40G0148 | G 1/8" | 40 | 0-600 | |
| MXBP50G0234 | G 1/4" | 50 | 0-2,5 | CLASS 2,5 |
| MXBP50G0235 | G 1/4" | 50 | 0-4 | |
| MXBP50G0236 | G 1/4" | 50 | 0-6 | |
| MXBP50G0237 | G 1/4" | 50 | 0-10 | |
| MXBP50G0239 | G 1/4" | 50 | 0-16 | |
| MXBP50G0240 | G 1/4" | 50 | 0-25 | |
| MXBP50G0241 | G 1/4" | 50 | 0-40 | |
| MXBP50G0242 | G 1/4" | 50 | 0-60 | |
| MXBP50G0243 | G 1/4" | 50 | 0-100 | |
| MXBP50G0244 | G 1/4" | 50 | 0-160 | |
| MXBP50G0245 | G 1/4" | 50 | 0-250 | |
| MXBP63G0220 | G 1/4" | 63 | -1-0 | |
| MXBP63G0232 | G 1/4" | 63 | 0-1,0 | |
| MXBP63G0233 | G 1/4" | 63 | 0-1,6 | |
| MXBP63G0234 | G 1/4" | 63 | 0-2,5 | |
| MXBP63G0235 | G 1/4" | 63 | 0-4 | |
| MXBP63G0236 | G 1/4" | 63 | 0-6 | |
| MXBP63G0237 | G 1/4" | 63 | 0-10 | |
| MXBP63G0239 | G 1/4" | 63 | 0-16 | |
| MXBP63G0240 | G 1/4" | 63 | 0-25 | CLASS 1,6 |
| MXBP63G0241 | G 1/4" | 63 | 0-40 | |
| MXBP63G0242 | G 1/4" | 63 | 0-60 | |
| MXBP63G0243 | G 1/4" | 63 | 0-100 | |
| MXBP63G0244 | G 1/4" | 63 | 0-160 | |
| MXBP63G0245 | G 1/4" | 63 | 0-250 | |
| MXBP63G0246 | G 1/4" | 63 | 0-315 | |
| MXBP63G0247 | G 1/4" | 63 | 0-400 | |
| MXBP63G0248 | G 1/4" | 63 | 0-600 | |

## MXBF Glycerine pressure gauge with 3 holes flange and case stainless steel AISI 304, EN 837-1, BSPP thread





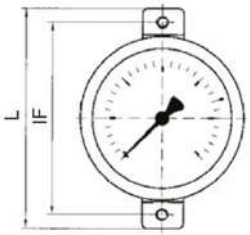

| | CODE | CONNECTION THREAD | Ø CASE | SCALE | IF WHEELBASES | ACCURACY |
|---|---|---|---|---|---|---|
| * | MXBF63G0220 | G 1/4" | 63 | -1-0 | 75,0 | CLASS 1,6 |
| | MXBF63G0232 | G 1/4" | 63 | 0-1,0 | 75,0 | |
| | MXBF63G0233 | G 1/4" | 63 | 0-1,6 | 75,0 | |
| | MXBF63G0234 | G 1/4" | 63 | 0-2,5 | 75,0 | |
| | MXBF63G0235 | G 1/4" | 63 | 0-4 | 75,0 | |
| | MXBF63G0236 | G 1/4" | 63 | 0-6 | 75,0 | |
| | MXBF63G0237 | G 1/4" | 63 | 0-10 | 75,0 | |
| | MXBF63G0239 | G 1/4" | 63 | 0-16 | 75,0 | |
| | MXBF63G0240 | G 1/4" | 63 | 0-25 | 75,0 | |
| | MXBF63G0241 | G 1/4" | 63 | 0-40 | 75,0 | |
| | MXBF63G0242 | G 1/4" | 63 | 0-60 | 75,0 | |
| | MXBF63G0243 | G 1/4" | 63 | 0-100 | 75,0 | |
| | MXBF63G0244 | G 1/4" | 63 | 0-160 | 75,0 | |
| | MXBF63G0245 | G 1/4" | 63 | 0-250 | 75,0 | |
| | MXBF63G0246 | G 1/4" | 63 | 0-315 | 75,0 | |
| | MXBF63G0247 | G 1/4" | 63 | 0-400 | 75,0 | |
| | MXBF63G0248 | G 1/4" | 63 | 0-600 | 75,0 | |
| | MXBF63G0250 | G 1/4" | 63 | 0-1000 | 75,0 | |

* Vacuum gauge

**Flange fixing holes Ø:** 3,6 mm

## MXBS Glycerine pressure gauge with bracket, case stainless steel AISI 304, EN 837-1, BSPP thread






| | CODE | CONNECTION THREAD | Ø CASE | SCALE | IF WHEELBASES | L | ACCURACY |
|---|---|---|---|---|---|---|---|
| * | MXBS63G0220 | G 1/4" | 63 | -1-0 | 82,0 | 94,0 | CLASS1,6 |
| | MXBS63G0232 | G 1/4" | 63 | 0-1,0 | 82,0 | 94,0 | |
| | MXBS63G0233 | G 1/4" | 63 | 0-1,6 | 82,0 | 94,0 | |
| | MXBS63G0234 | G 1/4" | 63 | 0-2,5 | 82,0 | 94,0 | |
| | MXBS63G0235 | G 1/4" | 63 | 0-4 | 82,0 | 94,0 | |
| | MXBS63G0236 | G 1/4" | 63 | 0-6 | 82,0 | 94,0 | |
| | MXBS63G0237 | G 1/4" | 63 | 0-10 | 82,0 | 94,0 | |
| | MXBS63G0239 | G 1/4" | 63 | 0-16 | 82,0 | 94,0 | |
| | MXBS63G0240 | G 1/4" | 63 | 0-25 | 82,0 | 94,0 | |
| | MXBS63G0241 | G 1/4" | 63 | 0-40 | 82,0 | 94,0 | |
| | MXBS63G0242 | G 1/4" | 63 | 0-60 | 82,0 | 94,0 | |
| | MXBS63G0243 | G 1/4" | 63 | 0-100 | 82,0 | 94,0 | |
| | MXBS63G0244 | G 1/4" | 63 | 0-160 | 82,0 | 94,0 | |
| | MXBS63G0245 | G 1/4" | 63 | 0-250 | 82,0 | 94,0 | |
| | MXBS63G0246 | G 1/4" | 63 | 0-315 | 82,0 | 94,0 | |
| | MXBS63G0247 | G 1/4" | 63 | 0-400 | 82,0 | 94,0 | |
| | MXBS63G0248 | G 1/4" | 63 | 0-600 | 82,0 | 94,0 | |
| | MXBS63G0250 | G 1/4" | 63 | 0-1000 | 82,0 | 94,0 | |

* Vacuum gauge

**Flange fixing holes Ø:** 3,6 mm

*drawings and technical data are not binding & can be changed without notice*




**Environment temperature:**
Max 150°C
**Working temperature:**
-20°C ÷ 60°C

**Working pressure:**
Max 3/4 of full scale value for static pressures.
Max. 2/3 of full scale value for water hammer pressures (when using a glycerine bath pressure gauge) .
100% of full scale value for short time.

Air, gases and fluids suitable with construction materials

Parallel gas BSPP ISO 228
G1/8" and R1/4"

**Connection:** Stainless steel AISI 316L
**Measuring elements:** Stainless steel AISI 316L
**Movement:** Stainless steel
**Dial:** Plastic with white background
**Pointer:** Black aluminium
**Case:** Stainless steel AISI 304
**Ring Ø63:** Stainless steel AISI 304
**Ring Ø100:** Bayonet in stainless steel AISI 304
**Window:** Double-layer safety glass

## APPLICATIONS

- For gases and liquids which are not highly viscous, do not crystallize and are not aggressive to copper alloys.
- For measuring points subject to vibration and high pressures.
- To measure gases or vapor, these instruments must be used in compliance with the standards EN 837-2.

## AVAILABILITY

Available on request with glycerine bath

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## DEGREE PROTECTION*

IP 65 (EN 60 529)
IP 54 (25 Bar) plug allows air release from the case
*To be requested when you order

## MXXR

All stainless steel dry pressure gauge, EN 837-1, radial connection, BSPP thread



| CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|
| * MXXR63G0220 | G 1/4" | 63 | -1-0 | CLASS 1,6 |
| MXXR63G0232 | G 1/4" | 63 | 0-1,0 | |
| MXXR63G0233 | G 1/4" | 63 | 0-1,6 | |
| MXXR63G0234 | G 1/4" | 63 | 0-2,5 | |
| MXXR63G0235 | G 1/4" | 63 | 0-4 | |
| MXXR63G0236 | G 1/4" | 63 | 0-6 | |
| MXXR63G0237 | G 1/4" | 63 | 0-10 | |
| MXXR63G0239 | G 1/4" | 63 | 0-16 | |
| MXXR63G0240 | G 1/4" | 63 | 0-25 | |
| MXXR63G0241 | G 1/4" | 63 | 0-40 | |
| MXXR63G0242 | G 1/4" | 63 | 0-60 | |
| MXXR63G0243 | G 1/4" | 63 | 0-100 | |
| MXXR63G0244 | G 1/4" | 63 | 0-160 | |
| MXXR63G0245 | G 1/4" | 63 | 0-250 | |
| MXXR100G0220 | G 1/2" | 100 | -1-0 | CLASS 1,0 |
| MXXR100G0432 | G 1/2" | 100 | 0-1,0 | |
| MXXR100G0433 | G 1/2" | 100 | 0-1,6 | |
| MXXR100G0434 | G 1/2" | 100 | 0-2,5 | |
| MXXR100G0435 | G 1/2" | 100 | 0-4 | |
| MXXR100G0436 | G 1/2" | 100 | 0-6 | |
| MXXR100G0437 | G 1/2" | 100 | 0-10 | |
| MXXR100G0439 | G 1/2" | 100 | 0-16 | |
| MXXR100G0440 | G 1/2" | 100 | 0-25 | |
| MXXR100G0441 | G 1/2" | 100 | 0-40 | |
| MXXR100G0442 | G 1/2" | 100 | 0-60 | |
| MXXR100G0443 | G 1/2" | 100 | 0-100 | |

* Vacuum gauge

## MXXP

All stainless steel dry pressure gauge, EN 837-1, back connection, BSPP thread



| CODE | CONNECTION THREAD | Ø CASE | SCALE | ACCURACY |
|---|---|---|---|---|
| * MXXP63G0220 | G 1/4" | 63 | -1-0 | CLASS 1,6 |
| MXXP63G0232 | G 1/4" | 63 | 0-1,0 | |
| MXXP63G0233 | G 1/4" | 63 | 0-1,6 | |
| MXXP63G0234 | G 1/4" | 63 | 0-2,5 | |
| MXXP63G0235 | G 1/4" | 63 | 0-4 | |
| MXXP63G0236 | G 1/4" | 63 | 0-6 | |
| MXXP63G0237 | G 1/4" | 63 | 0-10 | |
| MXXP63G0239 | G 1/4" | 63 | 0-16 | |
| MXXP63G0240 | G 1/4" | 63 | 0-25 | |
| MXXP63G0241 | G 1/4" | 63 | 0-40 | |
| MXXP63G0242 | G 1/4" | 63 | 0-60 | |
| MXXP63G0243 | G 1/4" | 63 | 0-100 | |
| MXXP63G0244 | G 1/4" | 63 | 0-160 | |
| MXXP63G0245 | G 1/4" | 63 | 0-250 | |

* Vacuum gauge

*drawings and technical data are not binding & can be changed without notice*

# ACCESSORIES & AIR GUNS TANK

## PLUS

**AVAILABLE WITH DIFFERENT CAPACITIES AND FIXINGS FOR VARIOUS MACHINE AND SYSTEM TYPES**

**IN ORDER TO GUARANTEE LONGEVITY AND RESISTANCE, OUR TANKS ARE PICKLED SO THE IMPURITIES RESULTING FROM OXIDATION AND THE MANUFACTURING PROCESSES ARE ELIMINATED**

**TESTED TO GUARANTEE MAXIMUM QUALITY AND SECURITY**



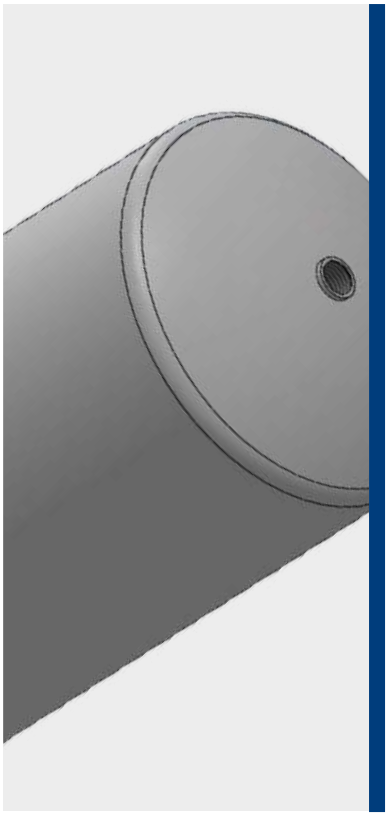
p. 454 / **SB304TR**



p. 454 / **SB304TR-STL**



p. 454 / **SB304TR-STC**



-40°C ÷ 100°C

**Working pressure:**
Up to 10 Bar

Compressed air

Parallel gas BSPP ISO 228
G1/2" and G1"

**Body:** Stainless steel AISI 304 with pickling treatment

## AVAILABILITY

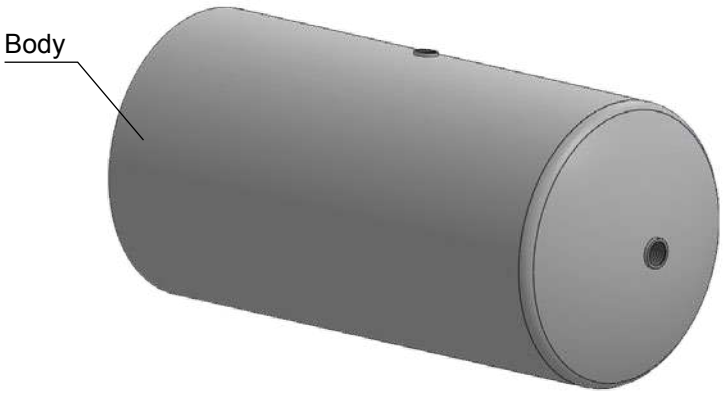
Available on demand in stainless steel AISI 316 with electropolishing and pickling treatment

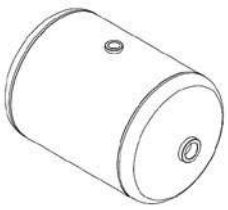
**PED** PED 2014/68/UE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

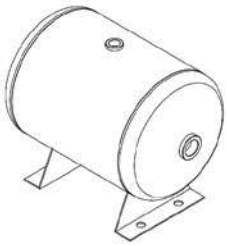


**STANDARD TANK**
without brackets



**STL TANK**
aluminium brackets supplied separately with assembly fittings



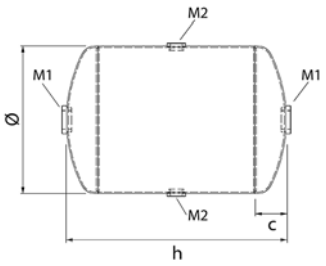
**STC TANK**
brackets welded on the shell

*drawings and technical data are not binding & can be changed without notice*

## SB304TR

Stainless steel AISI 304 tank without brackets



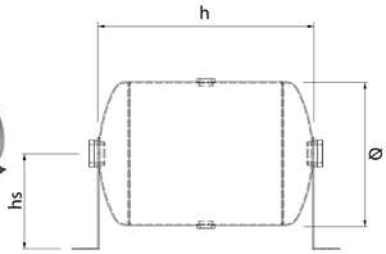


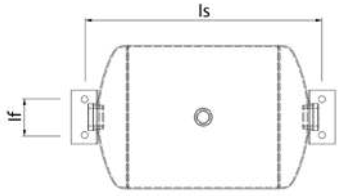

| CODE | Ø | H | VOLUME | C | M1 | M2 | Kg |
|---|---|---|---|---|---|---|---|
| SB304TR130175-DP | 130 | 175 | 2 | 87,5 | 2x1/2" | 2x1/4" | 1,00 |
| SB304TR150350-DP | 150 | 350 | 5 | 45 | 2x1/2" | 2x1/4" | 2,20 |
| SB304TR170560-DP | 170 | 560 | 10 | 50 | 2x1/2" | 2x1/4" | 3,80 |
| SB304TR220540-DP | 220 | 540 | 19 | 60 | 2x1/2" | 2x1/4" | 4,85 |

## SB304TR-STL

Stainless steel AISI 304 tank with L-brackets and assembly fittings





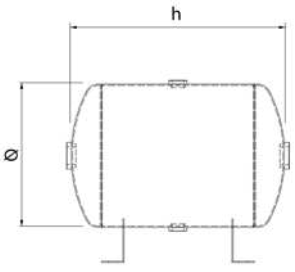

| CODE | Ø | H | VOLUME | IF | IS | HS | IS |
|---|---|---|---|---|---|---|---|
| SB304TR130175-STL-DP | 130 | 175 | 2 | 40 | 2x15MM | 120 | 1,00 |
| SB304TR150350-STL-DP | 150 | 350 | 5 | 40 | 2x15MM | 120 | 2,20 |
| SB304TR170560-STL-DP | 170 | 560 | 10 | 40 | 2x15MM | 175 | 3,80 |
| SB304TR220540-STL-DP | 220 | 540 | 19 | 40 | 2x15MM | 175 | 4,85 |

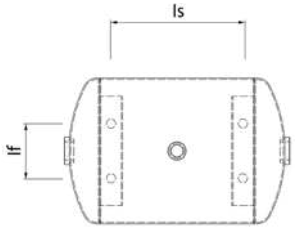
**IF (Bracket hole distance):**
The brackets are supplied with two taper reductions for assembly: M 1/2" - F 1/2"

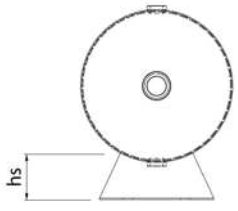
## SB304TR-STC

Stainless steel AISI 304 tank with cradle brackets welded onto the shell






| CODE | Ø | H | VOLUME | IF | IS | HS | Kg |
|---|---|---|---|---|---|---|---|
| SB304TR130175-STC-DP | 130 | 175 | 2 | 60 | 60 | 35 | 1,00 |
| SB304TR150350-STC-DP | 150 | 350 | 5 | 60 | 80 | 35 | 2,20 |
| SB304TR170560-STC-DP | 170 | 560 | 10 | 60 | 220 | 40 | 3,80 |
| SB304TR220540-STC-DP | 220 | 540 | 19 | 80 | 225 | 45 | 4,85 |

**IF (Bracket hole distance)**

*drawings and technical data are not binding & can be changed without notice*

# ACCESSORIES & AIR GUNS
## SEALING FOR THREADED ELEMENTS

**PLUS**

**DIFFERENT CATEGORIES AVAILABLE WHICH ALLOW A PERFECT SEAL ON MOST OF OUR FITTINGS**

**WASHERS OF DIFFERENT MATERIALS TO SATISFY COUNTLESS NEEDS IN THE INDUSTRIAL SECTOR**



p. 457 / **LOX1810**



p. 458 / **LOX5811**



p. 459 / **LOX5314**



p. 460 / **LOX5503**



p. 461 / **LOX5920**



p. 462 / **IS43S**



p. 463 / **LOC5331**



p. 464 / **R-PTFE**



p. 464 / **R-PTFE-PROF**



p. 465 / **2605**



p. 465 / **2610**



p. 465 / **2612**



p. 465 / **2615**



p. 466 / **2620**




-55°C ÷ 150°C
-20°C ÷ 150°C (Natural gas)
-10°C ÷ 150°C (LP gas)

## FEATURES

Anaerobic adhesive for sealing of metal thread pipe joints. Suitable for gas, LP gas, compressed air, gasoline and oil, industrial fluids, CFC, water and several chemicals. Low friction coefficient will assure easy assembly. Thixotropic property prevents migration from thread of the sealant before or during curing. It replaces P.T.F.E. tape and yarn. Cured product provides elastic film. Shocks and vibrations resistant; unaffected sealing properties in the temperature range from -55 to +150°C. Easy dismantling is assured even after years.

## CURING PERFORMANCE

Curing rate depends on the assembly clearance, material surfaces and temperature. Functional strength is usually reached in 1 - 3 hours and full curing takes 24 - 36 hours.

**Composition:** anaerobic methacrylate

## PROPERTIES

**Handling cure time:** 20 - 40 minutes
**Functional cure time:** 1 - 3 hours
**Full cure time:** 5 - 10 hours
**Locking torque breakaway (ISO 10964):** 6 - 11 Nm
**Locking torque prevailing (ISO 10964):** 2 - 5 Nm
**Shear strength (ISO 10123):** 4 - 6 Nm
**Tensile strength (ASTM D2095):** 3 - 5 N/mm$^2$
**Elongation at break:** over 100%
**Viscosity (25°C-mPa s):** 17.000 - 70.000 thixotropic
**Max Ø of thread/gap filling:** 2"/0,30 mm

DVGW — Product approved by DIN-DVGW according to EN 751-1 (use with natural gas)

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## LOX1810

PTFE anaerobic adhesive for fittings and tubes with low mechanical resistance




| CODE | QUANTITY |
|---|---|
| LOX1810 | 75 ml |




-55°C ÷ 150°C
-20°C ÷ 150°C (Natural gas)
-10°C ÷ 150°C (LP gas)

## FEATURES

Anaerobic curing adhesive for sealing of metal thread joints only.
It replaces PTFE tape and yarn and gives instant sealing against moderate pressure.
It seals against gas, water, LPG, hydrocarbons, oils and other chemicals.
Thixotropic property prevents migration of sealant from thread before or during curing.
Shock and vibrations resistant, sealing properties unaffected over the temperature range from -55°C to +150°C.

## CURING PERFORMANCE

The curing rate depends on the clearance between the parts, the type of material and the temperature. Functional strength is usually reached after 1 - 3 hours. Final strength takes 24 - 36 hours.

## USE WITH POTABLE WATER

WRAS approved for use with cold and hot water up to +85°C.
The following cure times are recommended for contact with potable water:
- For brass, copper and cast iron allow 24 hours at +21.1°C
- For stainless steel and aluminium allow 7 days at +21.1°C

**Composition:** anaerobic methacrylate

## PROPERTIES

**Handling cure time:** 15 - 30 minutes
**Functional cure time:** 1 - 2 hours
**Full cure time:** 3 - 6 hours
**Locking torque breakaway (ISO 10964):** 18 - 24 Nm
**Locking torque prevailing (ISO 10964):** 7 - 14 Nm
**Shear strength (ISO 10123):** 6 - 13 Nm/mm²
**Viscosity (25°C-mPa s):** 20.000 - 80.000 thixotropic
**Max Ø of thread/gap filling:** M56/2"/0,30 mm

Product approved WRAS for contact with potable water

NSF registered in cat. S4 as acceptable for use as an adhesive in and around food processing area.
NSF certificate on behalf of Loxeal S.r.l.

Product approved by DIN-DVGW according to EN 751-1
(use with natural gas)

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## LOX5811

Medium strength anaerobic curing adhesive for sealing of metallic threaded joints up to 2"




| CODE | QUANTITY |
|---|---|
| LOX5811 | 75 ml |




-55°C ÷ 150°C
-20°C ÷ 150°C (Natural gas)

## FEATURES

Medium strength anaerobic adhesive for sealing hydraulic and pneumatic threads connectors up to 3/4" and small pipes.
To replace P.T.F.E. tapes in the sealing of gases, water, LPG, hydrocarbons, oils and other chemicals.
Highly resistant to heat, corrosion, shocks and vibrations.

## CURING PERFORMANCE

Curing rate depends on the assembly clearance, material surfaces and temperature.
Functional strength is usually reached in 1 - 3 hours and full curing takes 24 - 36 hours.

**Composition:** Anaerobic methacrylic resin

## PROPERTIES

**Handling cure time:** 10 - 20 minutes
**Functional cure time:** 1 - 3 hours
**Full cure time:** 3 - 6 hours
**Locking torque - breakaway (ISO 10964):** 12 - 18 Nm
**Locking torque - prevailing (ISO 10964):** 10 - 20 Nm
**Shear strength (ISO 10123):** 8 - 12 Nm
**Viscosity (25°C-mPa s):** 430 - 630
**Max Ø of thread/gap filling:** M20/3/4"/0,15mm

DVGW — Product approved by DIN-DVGW according to EN 751-1 (use with natural gas)

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## LOX5314

Medium strength anaerobic liquid adhesive sealant for pneumatic and hydraulic fittings up to 3/4"




| CODE | QUANTITY |
|---|---|
| LOX5314 | 50 ml |




-55°C ÷ 200°C
-20°C ÷ 150°C (Natural gas)

## FEATURES

Medium strength anaerobic adhesive for thread locking of nuts and bolts of all types that require to be dismantled.
Suitable to be used on oily surfaces.
Highly resistant to heat, corrosion, vibrations, water, gas, oils, hydrocarbons and many chemicals.
Proven unscrewing resistance at +200°C.
It keeps sealing properties unchanged between -55°C/+200°C and up to +250°C for short times.

## CURING PERFORMANCE

Curing rate depends on the assembly gap, substrates and temperature.
Functional strength is usually reached in 1 - 3 hours and full curing takes 24 - 36 hours.

**Composition:** Anaerobic methacrylic resin

## PROPERTIES

**Handling cure time:** 10 - 20 minutes
**Functional cure time:** 1 - 3 hours
**Full cure time:** 3 - 6 hours
**Locking torque - breakaway (ISO 10964):** 18 - 23 Nm
**Locking torque - prevailing (ISO 10964):** 9 - 16 Nm
**Shear strength (ISO 10123):** 9 - 13 N/mm²
**Viscosity (25°C-mPa s):** 1.700 - 9.000 thixo
**Max Ø of thread/gap filling:** M36/0,25 mm

WRAS — Product approved WRAS for contact with potable water

DVGW — Product approved by DIN-DVGW according to EN 751-1 (use with natural gas)

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## LOX5503

Medium strength anaerobic adhesive for thread locking of nuts and bolts




| CODE | QUANTITY |
|---|---|
| LOX5503 | 50 ml |




-50°C ÷ 180°C

## FEATURES

One component moisture curing silicone based sealant and adhesive releasing non corrosive and low-odour by products.
Provides an extremely flexible gasket between surfaces made of various materials (metal, plastics, glass, ceramics).
Suitable for sealing gear boxes, pumps and motors flanges, oil and water containers, air forced pipes.
Resistant to vibrations, thermal shocks, pressurized air, water, oils and several chemicals.
Sealed parts can be disassembled using normal tools.

## CURING PROPERTIES

**Tack free time (+20°C):** 15 - 30 minutes
**Functional curing time:** 3 - 6 hours
**Final curing time:** 24 - 36 hours

**Composition:** Silicon neutral curing

## PROPERTIES (AFTER 7 DAYS - 23°C)

**Hardness Shore A (ASTM D-2240):**
25 ± 5
**Tensile strength (ASTM D-412):**
0,5 - 1,0 MPa
**Elongation at break (ASTM D-412):**
400% - 600%
**Joint movement capability (ASTM C-290):**
± 25%

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## LOX5920

Highly oil resistant transparent sealant silicone




| CODE | QUANTITY |
|---|---|
| LOX5920 | 310 ml |




-55°C ÷ 120°C

## FEATURES

General purpose, surface insensitive medium viscosity instant adhesive based on ethyl cyanoacrylate.
Insensitive to acidic surfaces, it is recommended for bonding of leather, wood and metals.
Proven temperature strength up to +120°C with peaks for short times up to +150°C.

## CURING PROPERTIES

Curing rate depends on the substrate used, on the gap, on the temperature and on the environmental humidity.

MATERIAL FIXING TIMES:
- **Plastics:** 2 - 10 seconds
- **Steel:** 5 - 20 seconds
- **Aluminum:** 2 - 10 seconds
- **Zinc:** 10 - 20 seconds

**Composition:** Modified ethyl cyanoacrylate

## PROPERTIES

**Tensile strength ISO 6922:**
15 - 25 N/mm$^2$
**Shear strength ISO 4587:**
15 - 20 N/mm$^2$
**Softening range:**
+160°C - +170°C

NSF registered as acceptable for use as an instant adhesive (cat. S4) in and around food processing area.
NSF certificate on behalf of Loxeal S.r.l.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## IS43S

Universal fast setting cyanoacrylate adhesive




| CODE | QUANTITY |
|---|---|
| IS43S | 20 g |




-50°C ÷ 150°C

## FEATURES

Recommended for use on plastic pipe threaded fittings carrying hot or cold water.
This product cures at ambient temperatures under the influence of atmospheric moisture to form a low strength flexible seal against hot and cold water.
This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

## ENVIRONMENTAL RESISTANCE

The low strength of this sealant is maintained at temperatures up to 150 °C.
Sealing capability is maintained up to 0.3 MPa in water at 90 °C.
Tests on steel fittings using water/glycol maintained seals cycling 20 to 90 °C for 12 months without leaking.

## CURING PERFORMANCE

The cure speed of this product is independent of substrates but requires atmospheric humidity 40% minimum to develop full sealing capability (0.3 MPa) within 12 hours.
Instant seal capability is 0.05 MPa water pressure as measured on 25.4 mm fittings.
Low temperatures do not reduce the effectiveness of this sealant unless the atmospheric moisture is also low.

**Composition:** Anaerobic silicone

## PROPERTIES (AFTER 72 HOURS - 22°C)

**Breakaway Torque (ISO 10964):** 1,5 Nm

**Prevail Torque (ISO 10964):** 0,5 Nm

**Breakloose Torque (ISO 10964):** 4,5 Nm

**Max. Prevail Torque (ISO 10964):** 1,0 Nm

**Viscosity (25°C-mPa s):** 50.000

**Max Ø of thread/gap filling:** M80/3”

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## LOC5331

Anaerobic adhesive for fittings




| CODE | QUANTITY |
|---|---|
| LOC5331 | 100 ml |




-200°C ÷ 260°C

## FEATURES

The PTFE thread sealing tape of unsintered PTFE is mainly used as a thread sealing element. It resists all known chemical compound and solvents, with the exception of gaseous Flourine at high temperature, Trifluoro Chlorine, alkali metals either molten or in solution. It can be used in a temperature range: -200°C to +260°C; has a low coefficient of friction, is tasteless, insolubile, and doesn't smell.
The tapes are normally available on plastic reels. Is compounded from virgin material and is produced through a process called "Paste Extrusion".

## RESISTANCE

- **Pressure resistance:** 210 Bar
- **Chemical resistance:** pH 0 - 14

**Composition:** PTFE resin (teflon)

### R-PTFE

- **Width:** 1/2"
- **Length:** 12 m
- **Thickness:** 0,1 mm

### R-PTFE-PROF

- **Width:** 3/4"
- **Length:** 15 m
- **Thickness:** 0,2 mm

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## R-PTFE

Teflon tape




| CODE | QUANTITY |
|---|---|
| R-PTFE12012 | 12 m |

## R-PTFE-PROF

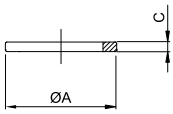
Teflon tape for professional use




| CODE | QUANTITY |
|---|---|
| R-PTFE190215-PROF | 15 m |

## 2605 Metal-nitrile composite gasket

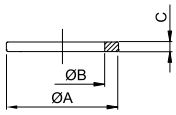





| CODE | T | ØA | C | g |
|---|---|---|---|---|
| 2605TR18 | 1/8" | 14,0 | 1,0 | - |
| 2605TR14 | 1/4" | 17,0 | 1,0 | - |
| 2605TR38 | 3/8" | 22,0 | 1,3 | - |
| 2605TR12 | 1/2" | 26,0 | 1,6 | - |
| 2605TR34 | 3/4" | 32,0 | 1,6 | - |
| 2605TR1 | 1" | 39,0 | 3,5 | - |

## 2610 Notched nylon washer

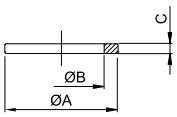





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2610TRM5 | M5 | 8,0 | 5,2 | 1,0 | 2,0 |
| 2610TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 26,0 |
| 2610TR14 | G 1/4" | 18,0 | 13,5 | 1,5 | 42,0 |
| 2610TR38 | G 3/8" | 21,0 | 16,8 | 2,0 | 28,0 |
| 2610TR12 | G 1/2" | 26,0 | 21,1 | 2,0 | 38,0 |

## 2612 PVC washer

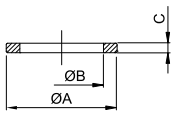





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2612TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 18,0 |
| 2612TR14 | G 1/4" | 17,5 | 13,5 | 1,5 | 18,0 |
| 2612TR38 | G 3/8" | 21,0 | 16,7 | 1,5 | 18,0 |
| 2612TR12 | G 1/2" | 26,0 | 21,3 | 1,5 | 18,0 |

## 2615 Nylon washer

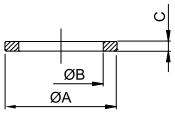





| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2615TRM5 | M5 | 8,5 | 5,0 | 1,5 | 4,0 |
| 2615TR18 | G 1/8" | 14,0 | 9,8 | 1,5 | 24,0 |
| 2615TR14 | G 1/4" | 18,0 | 13,2 | 1,5 | 40,0 |
| 2615TR38 | G 3/8" | 21,0 | 16,7 | 1,5 | 20,0 |
| 2615TR12 | G 1/2" | 26,0 | 21,1 | 2,0 | 38,0 |
| 2615TR34 | G 3/4" | 32,0 | 26,7 | 2,5 | 62,0 |

## 2620 Aluminium washer






| CODE | T | ØA | ØB | C | g |
|---|---|---|---|---|---|
| 2620TR18 | G 1/8" | 14,0 | 10,0 | 1,5 | 58,0 |
| 2620TR14 | G 1/4" | 17,3 | 13,3 | 1,5 | 76,0 |
| 2620TR38 | G 3/8" | 21,0 | 16,9 | 1,5 | 46,0 |
| 2620TR12 | G 1/2" | 26,0 | 21,1 | 1,5 | 70,0 |

*drawings and technical data are not binding & can be changed without notice*

# ACCESSORIES & AIR GUNS
CAF

## PLUS

**VARIABLE FLOW THROUGH PROGRESSIVE CONTROL TO REDUCE AIR CONSUMPTION**

**DESIGN STUDIED FOR A COMFORTABLE HANDLING THAT FACILITATES PROLONGED USE**

**DESIGNED WITH MATERIALS THAT MAKE THEM LIGHTWEIGHT AND IMPACT RESISTANT**

**THANKS TO FOUR NOZZLE TYPES IT CAN BE USED IN DIFFERENT APPLICATIONS**



p. 470 / **CAF**



0°C ÷ 60°C

**Working pressure:**
from 0 to 10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & Vacuum
(do not use with water)

Parallel gas BSPP ISO 228
G1/4"

**Body:** POM (black)
**Nozzle:** Stainless steel AISI 304

**SUPPLY**

Progressive

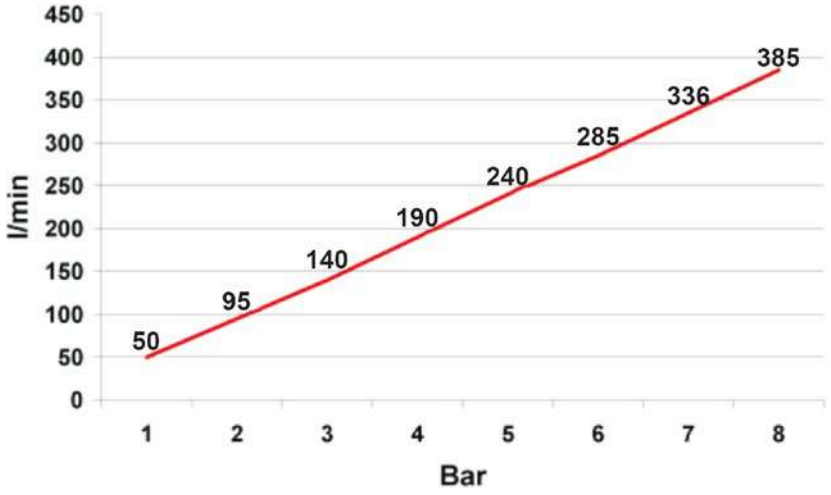
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## FLOWRATE
CAF AIR GUNS

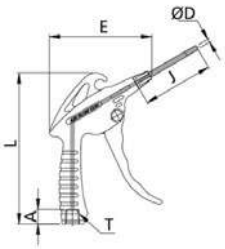



## NOZZLE LENGTH
CAF AIR GUNS

| CODE | CAF0055FG | CAF010FG | CAF020FG | CAF030FG |
|---|---|---|---|---|
| LENGTH (mm) | 50 | 100 | 200 | 300 |
| CAF |  |  |  |  |

## CAF
Air gun with female BSPP thread






| CODE | ØD | T | L | E | A | J | g |
|---|---|---|---|---|---|---|---|
| CAF005FG | 3,0 | G 1/4" | 142,1 | 96,8 | 13,5 | 50,0 | 93,0 |
| CAF010FG | 3,0 | G 1/4" | 142,1 | 96,8 | 13,5 | 100,0 | 106,0 |
| CAF020FG | 3,0 | G 1/4" | 142,1 | 96,8 | 13,5 | 200,0 | 113,0 |
| CAF030FG | 3,0 | G 1/4" | 142,1 | 96,8 | 13,5 | 300,0 | 128,0 |

*drawings and technical data are not binding & can be changed without notice*

# ACCESSORIES & AIR GUNS
## CB WITH HIGH FLOWRATE

## PLUS

**VARIABLE FLOW THROUGH PROGRESSIVE CONTROL TO REDUCE AIR CONSUMPTION**

**DESIGNED TO GUARANTEE A HIGH AIR FLOW**

**DESIGN STUDIED FOR A COMFORTABLE HANDLING THAT FACILITATES PROLONGED USE**

**DESIGNED WITH MATERIALS THAT MAKE THEM LIGHTWEIGHT AND IMPACT RESISTANT**

**THREE NOZZLE TYPOLOGIES AVAILABLE TO MEET MULTIPLE NEEDS**



p. 474 / **CB01**



0°C ÷ 60°C

**Working pressure:**
from 0 to 10 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & Vacuum
(do not use with water)

Parallel gas BSPP ISO 228
G1/4"

**Body:** POM blu
**Nozzle:** Stainless steel AISI 304

**SUPPLY**
Progressive

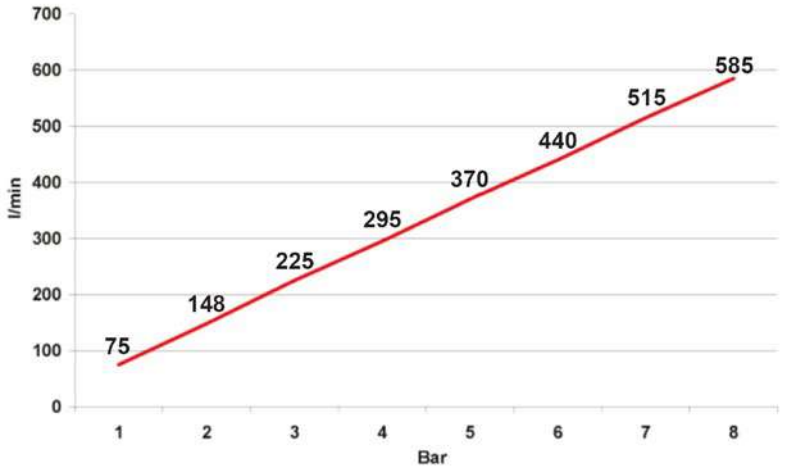
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## FLOWRATE
CB01 AIR GUNS

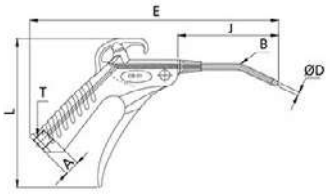



## NOZZLE LENGTH
CB01 AIR GUNS

| CODE | CB01F010FG | CB01F020FG | CB01F030FG |
|---|---|---|---|
| LENGTH (mm) | 100 | 200 | 300 |
| CB01 |  |  |  |

## CB01
Air gun with high flowrate, female BSPP thread






| CODE | ØD | T | L | E | A | J | B | g |
|---|---|---|---|---|---|---|---|---|
| CB01F010FG | 3,5 | G 1/4" | 143,6 | 242,7 | 13,5 | 100,0 | BENT | 118,0 |
| CB01F020FG | 3,5 | G 1/4" | 143,6 | 342,7 | 13,5 | 200,0 | STRAIGHT | 132,0 |
| CB01F030FG | 3,5 | G 1/4" | 143,6 | 442,7 | 13,5 | 300,0 | STRAIGHT | 147,0 |

# ACCESSORIES & AIR GUNS
## PSF ALUMINIUM

## PLUS

**EASY TO USE THANKS TO PUSH-BUTTON OPERATION REDUCING FATIGUE**

**BODY MADE ENTIRELY FROM PAINTED ALUMINIUM WHICH MAKES IT PARTICULARLY STRONG**

**POSSIBILITY TO ASSEMBLY EXTENDED BRASS NOZZLES FOR MULTIPLE USES**



p. 478 / **PSF**



p. 478 / **L150&L225**



p. 478 / **PSF1010-4**




0°C ÷ 60°C

**Working pressure:**
12 Bar

Compressed air, water, grease, oil and fluids compatible with construction materials

Parallel gas BSPP ISO 228
G1/4"

**Body:** Painted aluminium
**Standard nozzle:** NBR
**Button:** PA-11
**Seals:** NBR
**Spring:** Stainless steel AISI 302

**L150&L225:** Brass
**PSF1010-4:** NBR

## FLOWRATE

210 l/min at 6 Bar

## FEATURES

It is suitable for any type of use in industry, as its main function is the cleaning of elements containing dust, bacterial and oil.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## PSF

Aluminium air gun with female BSPP thread



| CODE | THREAD | SIZES | g |
|---|---|---|---|
| PSF1010 | G 1/4" | 120 x 62 x 25 | 110,0 |

## L150&L225

Brass nozzles for PSF1010



| CODE | THREAD | LENGTH | g |
|---|---|---|---|
| L-150 | G 1/8" | 158,0 | 35,0 |
| L-225 | G 1/8" | 233,0 | 45,0 |

## PSF1010-4

NBR nozzle for PSF1010



| CODE | THREAD | LENGTH | g |
|---|---|---|---|
| PSF1010-4 | G 1/8" | 20,0 | 2,0 |

# ACCESSORIES & AIR GUNS

## UGPT-7 BLOW COMB COMPRESSED AIR

## PLUS

**SUITABLE FOR COOLING SYSTEM WITH AIR, FOR MATERIAL HANDLING AND CLEANING OPERATIONS**

**UNIFORM JET WITH EXCELLENT AIR FLOW**

**INTERNAL HOLES IN THE COMB TO PREVENT CLOGGING**

**THESE NOZZLES ENSURE AN UNIFORM DISTRIBUTION AT LOW PRESSURE (7 BAR)**



p. 482 / **UGPT7**



0°C ÷ 77°C

Working pressure:
7 Bar

Compressed air

Taper gas BSPT ISO 7
R1/4"

**Body:** ABS plastic

## FLOWRATE - CAPACITY

**0,7 Bar:** 193 Nlpm
**2 Bar:** 357 Nlpm
**4 Bar:** 586 Nlpm
**6 Bar:** 816 Nlpm

## FEATURES

Generate efficient, controlled flat fan air pattern for a uniform spray distribution.
Recessed orifices protect against external damage and offer air escape should the nozzles accidentally be placed against a flat surface.
Low noise levels.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

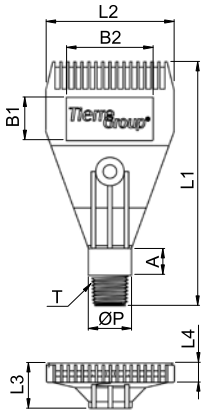
## CONSTRUCTION DETAILS



## UGPT7

Blow comb compressed air with male BSPT thread

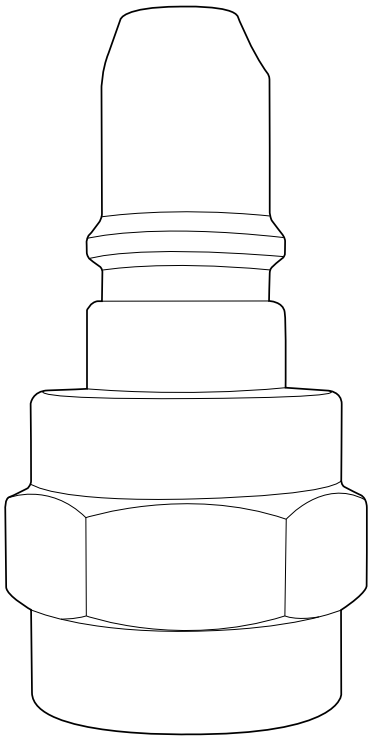





| CODE | T | ØP | A | B1 | B2 | L1 | L2 | L3 | L4 |
|---|---|---|---|---|---|---|---|---|---|
| UGPT-7 | G 1/4" | 15,8 | 10 | 16 | 32 | 90,5 | 47,4 | 16,5 | 7,0 |

# QUICK COUPLINGS





# TECHNICAL INDEX



p. 485
**NYLON**



p. 489
**ACETAL RESIN**



p. 497
**COMPRESSED AIR**



p. 533
**AIR&FLUIDS HIGH PERFORMANCE SERIE CD**



p. 563
**AIR&FLUIDS HIGH PERFORMANCE**

# QUICK COUPLINGS NYLON

## PLUS

**AUTOMATIC AND FAST CONNECTION SYSTEM**

**A VARIETY OF PLUGS IS AVAILABLE TO OPTIMISE CONNECTIONS WITH THE TUBES**

**LIGHTWEIGHT AND STRONG MATERIALS**

**CAN BE USE FOR HYDRAULIC AND PNEUMATIC APPLICATIONS**



p. 488 / **8001**



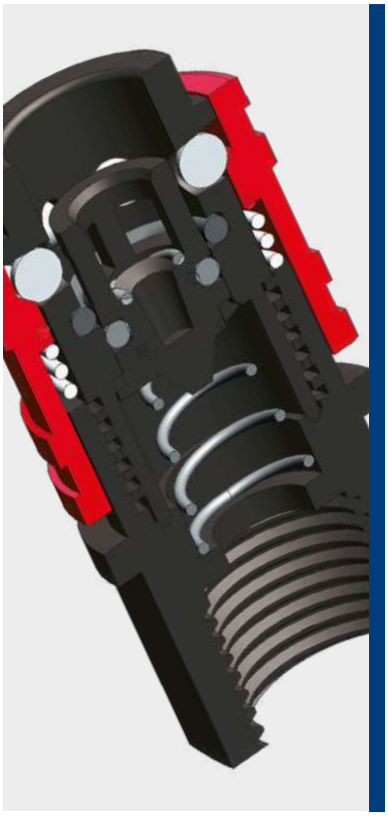
p. 488 / **8006**



p. 488 / **8007**



p. 488 / **8008**



+4°C ÷ +90°C
subject to application

**Working pressure:**
14 Bar (at 20°C)
depending on the tube used

Compressed air, water and fluids suitable with construction materials

Taper gas BSPT ISO 7
R1/4"

**Body:** Nylon 66
**Seal:** NBR
**Internal parts:** Acetal resin
**Spring:** Stainless steel AISI 316
**Connection:** Acetal resin

## FEATURES

The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before to use it in order to prevent any type of loss.

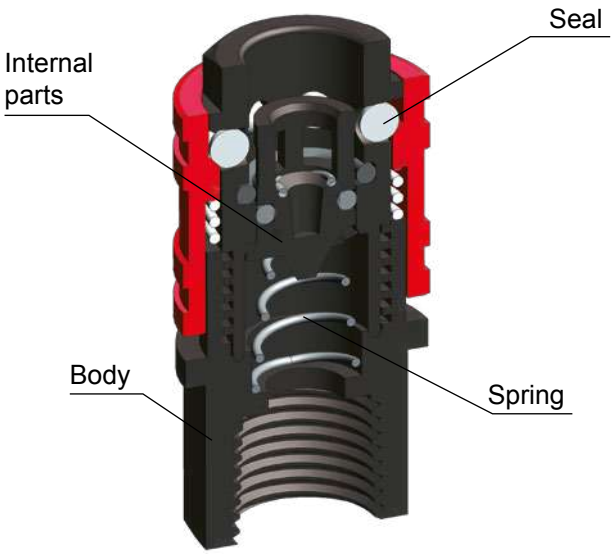
## AVAILABILITY

EPDM seals available on request

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

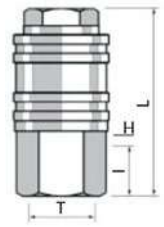



## TIGHTENING TORQUE
TAPER GAS BSPT ISO 7

| | |
|---|---|
| THREAD | 1/4" |
| Nm | 0,8 |

## 8001 Female nylon quick coupling BSPT thread

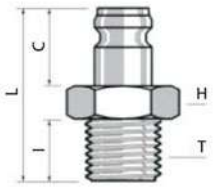





| CODE | T | I | L | H | g |
|---|---|---|---|---|---|
| 8001TR14 | R 1/4" | 10,0 | 44,0 | 19 | 14,2 |

## 8006 Male acetal resin connection BSPT thread

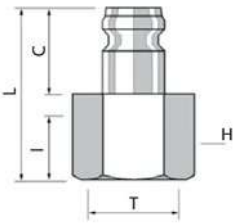





| CODE | T | I | L | C | H | g |
|---|---|---|---|---|---|---|
| 8006TR14 | R 1/4" | 10,0 | 31,2 | 14,0 | 17 | 3,9 |

## 8007 Female acetal resin connection BSPT thread

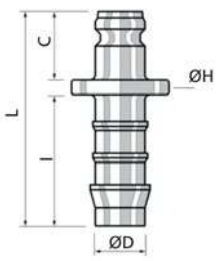





| CODE | T | I | L | C | H | g |
|---|---|---|---|---|---|---|
| 8007TR14 | R 1/4" | 10,0 | 28,6 | 14,0 | 17 | 3,6 |

## 8008 Acetal resin connection with barb connector






| CODE | ØD | BARB | I | L | C | ØH | g |
|---|---|---|---|---|---|---|---|
| 8008TR5 | 5 | 6,0 | 22,0 | 37,8 | 14,0 | 16,7 | 2,1 |
| 8008TR6 | 6 | 8,0 | 24,0 | 39,8 | 14,0 | 16,7 | 2,35 |
| 8008TR8 | 8 | 10,0 | 26,0 | 43,2 | 14,0 | 16,8 | 3,25 |
| 8008TR10 | 10 | 12,0 | 26,0 | 43,2 | 14,0 | 16,8 | 3,85 |
| 8008TR12 | 12 | 14,0 | 28,0 | 43,2 | 14,0 | 16,8 | 4,15 |

*drawings and technical data are not binding & can be changed without notice*

# QUICK COUPLINGS ACETAL RESIN

## PLUS

**DESIGNED TO LAST IN TIME AND TO RESIST TO MOST CHEMICALS**

**AVAILABLE IN BOTH VALVED AND NON-VALVED CONFIGURATIONS**

**EASY CONNECTION AND DISCONNETION**

**A CLICK WARNS OF THE PERFECT CONNECTION BETWEEN COUPLING AND PLUG**



p. 492 / **20AC100**



p. 492 / **40AC100**



p. 492 / **20AC110**



p. 492 / **40AC110**



p. 493 / **20AC120**



p. 493 / **40AC120**



p. 493 / **20AC101**



p. 493 / **40AC101**



p. 494 / **20AC111**



p. 494 / **40AC111**



p. 494 / **20AC121**



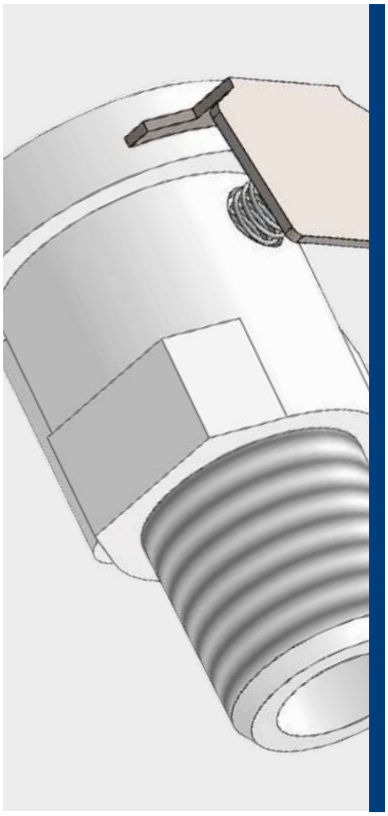
p. 494 / **40AC121**



p. 495 / **20AC131**



p. 495 / **40AC131**



-40°C ÷ +82°C

**Working pressure:**
8 Bar
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

**20AC series:**
3,0 mm
**40AC series:**
6,2 mm

Compressed air, vacuum, water and fluids suitable with construction materials

Taper gas BSPT ISO 7 from R1/8" to R3/8"

**Body:** POM
**Internal valve:** POM
**Internal valve spring:** Stainless steel AISI 316
**Seals:** BUNA-N FDA & NSF compliant
**Thumb-latch:** Stainless steel
**Exsternal spring & PIN:** Stainless steel

## FEATURES

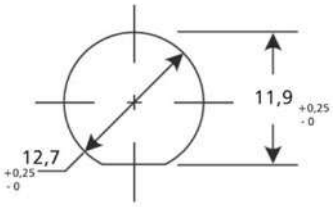
The fittings of this series have plastic thread and consecuently we reccomended to avoid excessive force during screwing and to teflon the thread before use in order to prevent any type of loss.

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

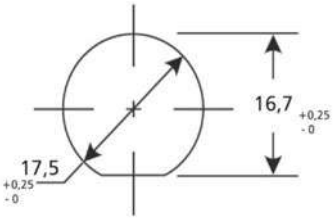
## DIMENSIONS FOR PANEL MOUNTING
QUICK COUPLINGS ACETAL RESIN - 20AC

| | MIN. WALL THICKNESS (mm) | MAX. WALL THICKNESS (mm) | PANEL NUT HEX SIZE (mm) | PANEL NUT THREAD |
|---|---|---|---|---|
| COUPLING | 1,3 | 12,7 | 16 | Ø12,7mm (1/2" - 24 UNS) |
| CONNECTOR | 1,3 | 7,6 | 16 | Ø12,7mm (1/2" - 24 UNS) |




## DIMENSIONS FOR PANEL MOUNTING
QUICK COUPLINGS ACETAL RESIN - 40AC

| | MIN. WALL THICKNESS (mm) | MAX. WALL THICKNESS (mm) | PANEL NUT HEX SIZE (mm) | PANEL NUT THREAD |
|---|---|---|---|---|
| COUPLING | 1,3 | 12,7 | 21 | Ø17,5mm (11/16" - 24 UNS) |
| CONNECTOR | 1,3 | 7,6 | 21 | Ø17,5mm (11/16" - 24 UNS) |

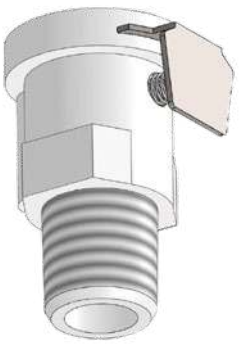



## BARB Ø
ACETAL RESIN BARB CONNECTOR

| | | | | | |
|---|---|---|---|---|---|
| ØD (mm) | 3,2 | 4,8 | 6,4 | 8,0 | 9,5 |
| ØB (mm) | 4,8 | 6,3 | 7,6 | 9,1 | 10,7 |



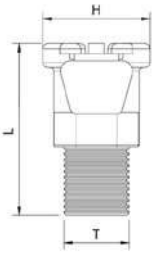

## VIEW - QUICK COUPLING 20AC100



## 20AC100

Male quick coupling BSPT thread, DN 3,0mm



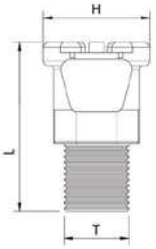



| CODE | INTERCEPTED | T | L | H |
|---|---|---|---|---|
| 20AC100L-R01 | NO | R 1/8" | 25,4 | 15,8 |
| 20AC100V-R01 | YES | R 1/8" | 25,4 | 15,8 |
| 20AC100L-R02 | NO | R 1/4" | 27,9 | 15,8 |
| 20AC100V-R02 | YES | R 1/4" | 27,9 | 15,7 |

## 40AC100

Male quick coupling BSPT thread, DN 6,2mm



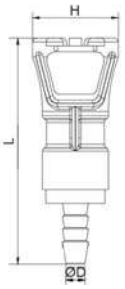



| CODE | INTERCEPTED | T | L | H |
|---|---|---|---|---|
| 40AC100L-R02 | NO | R 1/4" | 29,2 | 19,1 |
| 40AC100V-R02 | YES | R 1/4" | 29,2 | 19,1 |
| 40AC100L-R03 | NO | R 3/8" | 29,2 | 19,1 |
| 40AC100V-R03 | YES | R 3/8" | 29,2 | 19,1 |

## 20AC110

Quick coupling with barb connector, DN 3,0mm



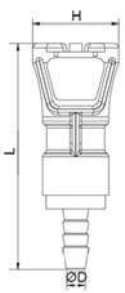



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 20AC110L-48 | NO | 3,2 | 4,8 | 41,7 | 15,8 |
| 20AC110V-48 | YES | 3,2 | 4,8 | 41,7 | 15,8 |
| 20AC110L-63 | NO | 4,8 | 6,4 | 45,7 | 15,8 |
| 20AC110V-63 | YES | 4,8 | 6,4 | 45,7 | 15,8 |
| 20AC110L-76 | NO | 6,4 | 7,6 | 45,7 | 15,8 |
| 20AC110V-76 | YES | 6,4 | 7,6 | 45,7 | 15,8 |

## 40AC110

Quick coupling with barb connector, DN 6,2mm





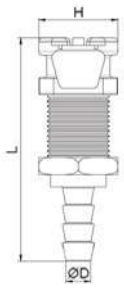

| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 40AC110L-76 | NO | 6,4 | 7,6 | 48,3 | 19,1 |
| 40AC110V-76 | YES | 6,4 | 7,6 | 48,3 | 19,1 |
| 40AC110L-91 | NO | 8,0 | 9,1 | 49,3 | 19,1 |
| 40AC110V-91 | YES | 8,0 | 9,1 | 49,3 | 19,1 |
| 40AC110L-107 | NO | 9,5 | 10,7 | 48,3 | 19,1 |
| 40AC110V-107 | YES | 9,5 | 10,7 | 48,3 | 19,1 |

*drawings and technical data are not binding & can be changed without notice*

## 20AC120

Bulkhead quick coupling with barb connector, DN 3,0mm



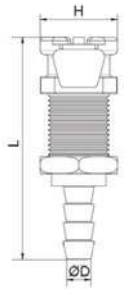



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 20AC120L-48 | NO | 3,2 | 4,8 | 41,9 | 15,8 |
| 20AC120V-48 | YES | 3,2 | 4,8 | 41,9 | 15,8 |
| 20AC120L-63 | NO | 4,8 | 6,4 | 46,0 | 15,8 |
| 20AC120V-63 | YES | 4,8 | 6,4 | 46,0 | 15,8 |
| 20AC120L-76 | NO | 6,4 | 7,6 | 45,7 | 15,8 |
| 20AC120V-76 | YES | 6,4 | 7,6 | 45,7 | 15,8 |

## 40AC120

Bulkhead quick coupling with barb connector, DN 6,2mm



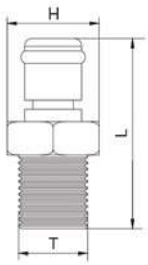



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 40AC120L-76 | NO | 6,4 | 7,6 | 48,3 | 19,1 |
| 40AC120V-76 | YES | 6,4 | 7,6 | 48,3 | 19,1 |
| 40AC120V-91 | YES | 8,0 | 9,1 | 49,0 | 20,4 |
| 40AC120L-107 | NO | 9,5 | 10,6 | 48,3 | 20,4 |
| 40AC120V-107 | YES | 9,5 | 10,6 | 48,3 | 20,4 |

## 20AC101

Male connection BSPT thread, DN 3,0mm



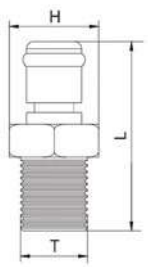



| CODE | INTERCEPTED | T | L | H |
|---|---|---|---|---|
| 20AC101L-R01 | NO | R 1/8" | 26,2 | 12,7 |
| 20AC101V-R01 | YES | R 1/8" | 34,8 | 12,7 |

## 40AC101

Male connection BSPT thread, DN 6,2mm



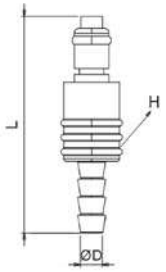



| CODE | INTERCEPTED | T | L | H |
|---|---|---|---|---|
| 40AC101L-R02 | NO | R 1/4" | 31,8 | 16,0 |
| 40AC101L-R03 | NO | R 3/8" | 32,0 | 19,1 |

## 20AC111

Connection with barb connector, DN 3,0mm



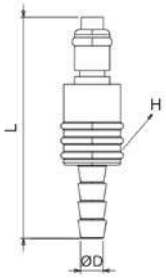



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 20AC111L-48 | NO | 3,2 | 4,8 | 24,7 | 12,7 |
| 20AC111V-48 | YES | 3,2 | 4,8 | 41,9 | 14,0 |
| 20AC111L-63 | NO | 4,8 | 6,4 | 28,8 | 12,7 |
| 20AC111V-63 | YES | 4,8 | 6,4 | 46,0 | 14,0 |
| 20AC111L-76 | NO | 6,4 | 7,6 | 28,8 | 12,7 |
| 20AC111V-76 | YES | 6,4 | 7,6 | 46,0 | 14,0 |

## 40AC111

Connection with barb connector, DN 6,2mm



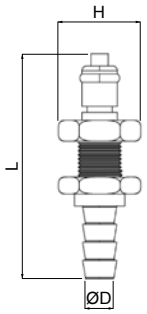



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 40AC111L-76 | NO | 6,4 | 7,6 | 31,8 | 15,6 |
| 40AC111V-76 | YES | 6,4 | 7,6 | 49,3 | 17,8 |
| 40AC111L-91 | NO | 8,0 | 9,1 | 32,8 | 15,6 |
| 40AC111V-91 | YES | 8,0 | 9,1 | 50,5 | 17,9 |
| 40AC111L-107 | NO | 9,5 | 10,6 | 32,2 | 16,6 |
| 40AC111V-107 | YES | 9,5 | 10,6 | 46,2 | 17,9 |

## 20AC121

Bulkhead connection with barb connector, DN 3,0mm



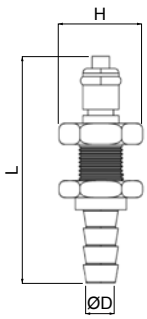



| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 20AC121L-48 | NO | 3,2 | 4,8 | 40,4 | 15,8 |
| 20AC121V-48 | YES | 3,2 | 4,8 | 43,2 | 15,8 |
| 20AC121L-63 | NO | 4,8 | 6,4 | 45,0 | 15,8 |
| 20AC121V-63 | YES | 4,8 | 6,4 | 47,4 | 15,8 |
| 20AC121V-76 | YES | 6,4 | 7,6 | 47,2 | 15,8 |

## 40AC121

Bulkhead connection with barb connector, DN 6,2mm





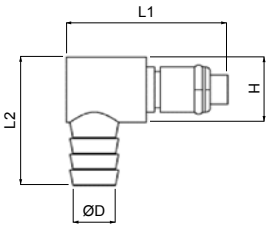

| CODE | INTERCEPTED | ØD | BARB | L | H |
|---|---|---|---|---|---|
| 40AC121L-76 | NO | 6,4 | 7,6 | 47,2 | 20,4 |
| 40AC121V-76 | YES | 6,4 | 7,6 | 50,8 | 20,4 |
| 40AC121V-91 | YES | 8,0 | 9,1 | 52,1 | 19,0 |

*drawings and technical data are not binding & can be changed without notice*

## 20AC131

Elbow connection with barb connector, DN 3,0mm



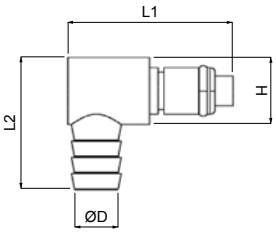



| CODE | INTERCEPTED | ØD | BARB | L1 | L2 | H |
|---|---|---|---|---|---|---|
| 20AC131L-48 | NO | 3,2 | 4,8 | 21,7 | 25,4 | 12,7 |
| 20AC131V-48 | YES | 3,2 | 4,8 | 30,3 | 24,2 | 12,7 |
| 20AC131L-76 | NO | 6,4 | 7,6 | 25,4 | 29,2 | 12,7 |
| 20AC131V-76 | YES | 6,4 | 7,6 | 30,3 | 28,0 | 12,7 |

## 40AC131

Elbow connection with barb connector, DN 6,2mm






| CODE | INTERCEPTED | ØD | BARB | L1 | L2 | H |
|---|---|---|---|---|---|---|
| 40AC131L-76 | NO | 6,4 | 7,6 | 27,9 | 32,3 | 16,0 |
| 40AC131V-76 | YES | 6,4 | 7,6 | 34,1 | 31,1 | 16,0 |
| 40AC131L-107 | NO | 9,5 | 10,6 | 27,9 | 32,3 | 16,0 |
| 40AC131V-107 | YES | 9,5 | 10,6 | 35,2 | 31,3 | 16,0 |

TierreGroup®

Always a fittings solution




## FOLLOW US!

# QUICK COUPLINGS COMPRESSED AIR

## PLUS

**SIMPLE CONNECTION AND DISCONNETION WHICH CAN BE DONE ONE HANDED**

**COMPACT AND LIGHTWEIGHT**

**MANY THREADED CONNECTIONS TO CONNECT DIFFERENT TYPES OF TUBES**

**MULTISOCKET VERSION COMPATIBLE WITH FOUR DIFFERENT NORMALIZED PROFILES**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** MINI SERIES


p. 502 / **8110FM**


p. 502 / **8120FF**


p. 502 / **8130RE**


p. 502 / **8140CA**


p. 503 / **8150MO**


p. 503 / **8155BU**


p. 503 / **8160MM**


p. 503 / **8170FM**


p. 504 / **8180RE**


p. 504 / **8190CA**


p. 504 / **8195MO**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** TIERRE UNIVERSAL SERIES


p. 506 / **8410FM**


p. 506 / **8420FF**


p. 506 / **8430RE**


p. 506 / **8440PO**


p. 507 / **8450MO**


p. 507 / **8410FM-LU**


p. 507 / **8420FF-LU**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** ITALY SERIES


p. 510 / **8210FM**


p. 510 / **8220FF**


p. 510 / **8240PO**


p. 511 / **8250MO**


p. 511 / **8260MM**


p. 511 / **8270FM**


p. 512 / **8230PO**


p. 512 / **8285BM**


p. 512 / **8295MO**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** GERMANY SERIES


p. 514 / **8310FM**


p. 514 / **8320FF**


p. 514 / **8330RE**


p. 515 / **8390PO**


p. 515 / **8350MO**


p. 515 / **8360MM**


p. 515 / **8370FM**


p. 516 / **8340PO**


p. 516 / **8380RE**


p. 516 / **8395MO**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** USA SERIES - ISO 6150-B12


p. 518 / **8060MM**


p. 518 / **8070FM**


p. 518 / **8080RE**


p. 519 / **8085PO**


p. 519 / **8090MO**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** SWISS SERIES


p. 522 / **8460MM**


p. 522 / **8470FM**


p. 522 / **8480RE**


p. 523 / **8485PO**


p. 523 / **8490MO**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** LARGE SERIES


p. 526 / **8215FM**


p. 526 / **8225FF**


p. 526 / **8235PO**


p. 527 / **8245PO**


p. 527 / **8255MM**

## **QUICK COUPLINGS FOR COMPRESSED AIR /** JAPAN SERIES



p. 530 / **8910FM**



p. 530 / **8920FF**



p. 530 / **8930RE**



p. 531 / **8960MM**



p. 531 / **8970FM**



p. 531 / **8980RE**



p. 531 / **PCP**



-18°C ÷ +80°C

**Working pressure:**
12 Bar

Compressed air

Parallel gas BSPP ISO 228
G1/8" and G1/4"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

## PROFILE - MINI SERIES



## NOMINAL DIAMETER

4,8 mm

## AIR FLOWRATE

1100 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - QUICK COUPLING 8110FM



## 8110FM

Male quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8110FM01 | G 1/8" | 38,9 | 14 |
| 8110FM02 | G 1/4" | 37,7 | 14 |

## 8120FF

Female quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8120FF01 | G 1/8" | 38,9 | 14 |
| 8120FF02 | G 1/4" | 40,7 | 15 |

## 8130RE

Quick coupling with barb connector



| CODE | INTERNAL TUBE Ø | BARB | LENGTH | WRENCH |
|---|---|---|---|---|
| 8130RE06 | 6 | 6,3 | 49,0 | 14 |
| 8130RE08 | 8 | 8,3 | 49,0 | 14 |

## 8140CA

Quick coupling with push-on connector



| CODE | Ø | LENGTH | WRENCH |
|---|---|---|---|
| 8140CA46 | 4x6 | 42,9 | 14 |
| 8140CA68 | 6x8 | 43,6 | 14 |
| 8140CA810 | 8x10 | 45,0 | 14 |

*drawings and technical data are not binding & can be changed without notice*

## 8150MO

Quick coupling with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8150MO46 | 4x6 | 115,6 | 14 | 12 |
| 8150MO68 | 6x8 | 128,3 | 14 | 13 |
| 8150MO810 | 8x10 | 129,2 | 14 | 15 |

## 8155BU

Bulkhead quick coupling with push-on connector




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8155BU46 | 4x6 | 57,7 | 14 | 12 |
| 8155BU68 | 6x8 | 58,0 | 17 | 14 |

## 8160MM

Male connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8160MM01 | G 1/8" | 26,0 | 12 |
| 8160MM02 | G 1/4" | 28,4 | 14 |

## 8170FM

Female connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8170FM01 | G 1/8" | 26,0 | 12 |
| 8170FM02 | G 1/4" | 28,4 | 14 |

## 8180RE

Connection with barb connector



| CODE | INTERNAL TUBE Ø | BARB | LENGTH |
|---|---|---|---|
| 8180RE06 | 6 | 6,4 | 33,0 |
| 8180RE08 | 8 | 8,5 | 34,5 |

## 8190CA

Connection with push-on connector



| CODE | Ø | LENGTH | WRENCH |
|---|---|---|---|
| 8190CA46 | 4x6 | 32,5 | 12 |
| 8190CA68 | 6x8 | 33,1 | 12 |
| 8190CA810 | 8x10 | 34,7 | 14 |

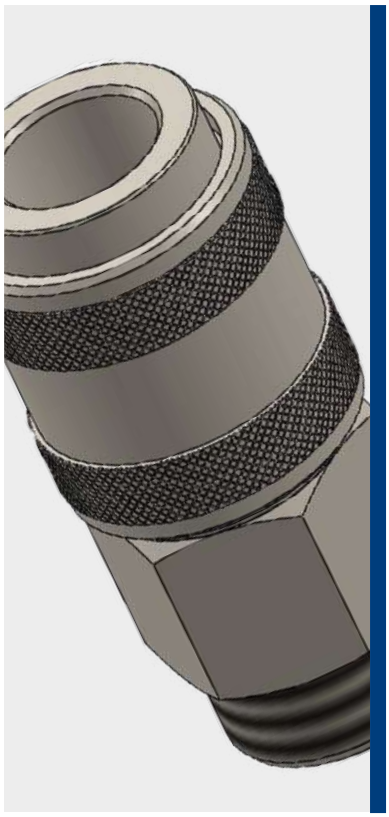
## 8195MO

Connection with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8195MO46 | 4x6 | 104,3 | 12 | 12 |
| 8195MO68 | 6x8 | 117,0 | 12 | 12 |
| 8195MO810 | 8x10 | 120,4 | 14 | 15 |

*drawings and technical data are not binding & can be changed without notice*



-15°C ÷ +80°C

**Working pressure:**
16 Bar (High Flow)
12 Bar (Light Flow)

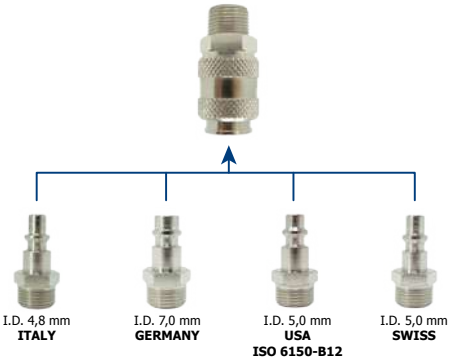
- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

Compressed air

**High Flow:** Nickel-plated brass with 6 stainless steel spheres
**Light Flow::** Nickel-plated brass

## PROFILE - TIERRE UNIVERSAL SERIES

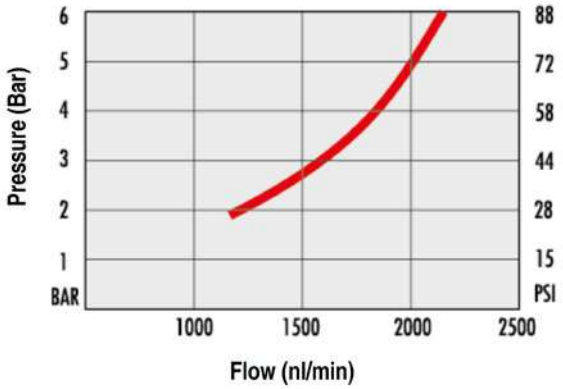
The 8400 Series multi-socket allows 4 different profiles to be used while managing a single quick coupling. A simple solution for handling profiles that are not compatible with each other.



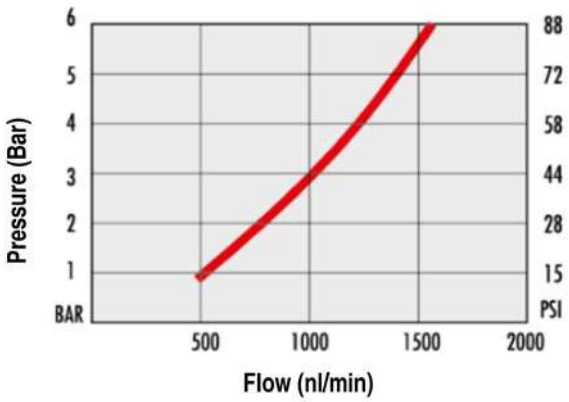

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

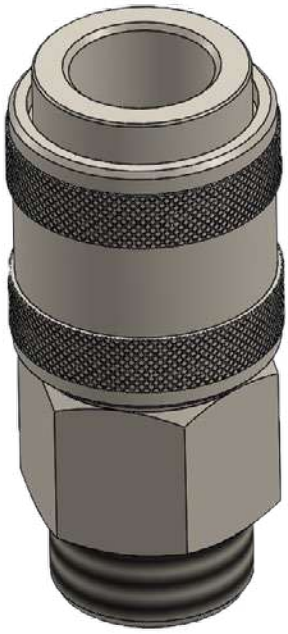
## AIR FLOWRATE - HIGH FLOW
TIERRE UNIVERSAL SERIES




## AIR FLOWRATE - LIGHT FLOW
TIERRE UNIVERSAL SERIES - 8410FM-LU & 8420FF-LU



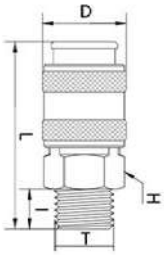

## VIEW - QUICK COUPLING 8410FM



## 8410FM

Male quick coupling BSPT thread



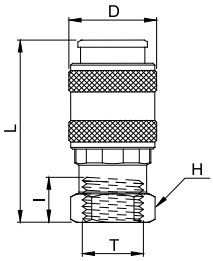



| CODE | T | I | D | L | H |
|---|---|---|---|---|---|
| 8410FM02 | R 1/4" | 11,0 | 24,0 | 58,0 | 20 |
| 8410FM03 | R 3/8" | 11,5 | 24,0 | 54,0 | 20 |
| 8410FM04 | R 1/2" | 14,0 | 24,0 | 56,5 | 22 |

## 8420FF

Female quick coupling BSPP thread



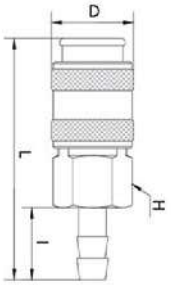



| CODE | T | I | D | L | H |
|---|---|---|---|---|---|
| 8420FF02 | G 1/4" | 11,0 | 24,0 | 51,0 | 20 |
| 8420FF03 | G 3/8" | 12,0 | 24,0 | 51,0 | 20 |
| 8420FF04 | G 1/2" | 14,0 | 28,0 | 55,0 | 25 |

## 8430RE

Quick coupling with barb connector



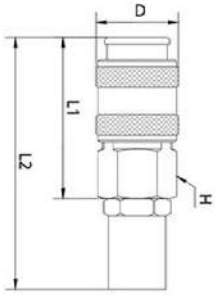



| CODE | INT. TUBE Ø | I | BARB | D | L | H |
|---|---|---|---|---|---|---|
| 8430RE06 | 6 | 20,0 | 6,5 | 24,0 | 67,0 | 20 |
| 8430RE08 | 8 | 20,0 | 9,0 | 24,0 | 67,0 | 20 |
| 8430RE10 | 10 | 20,0 | 11,5 | 24,0 | 67,0 | 20 |
| 8430RE12 | 12 | 24,0 | 13,5 | 24,0 | 71,0 | 20 |

## 8440PO

Quick coupling with hose connector





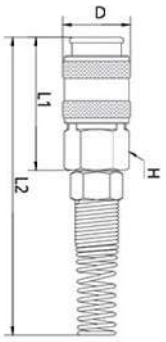

| CODE | Ø | D | L1 | L2 | H |
|---|---|---|---|---|---|
| 8440PO610 | 6x10 | 24 | 47,0 | 73,0 | 20 |
| 8440PO612 | 6x12 | 24 | 47,0 | 73,0 | 20 |
| 8440PO614 | 6x14 | 24 | 47,0 | 73,5 | 20 |
| 8440PO812 | 8x12 | 24 | 47,0 | 73,0 | 20 |
| 8440PO814 | 8x14 | 24 | 47,0 | 73,5 | 20 |
| 8440PO817 | 8x17 | 24 | 47,0 | 73,5 | 20 |
| 8440PO10145 | 10x14,5 | 24 | 47,0 | 73,5 | 20 |
| 8440PO1017 | 10x17 | 24 | 47,0 | 73,5 | 20 |
| 8440PO1019 | 10x19 | 24 | 47,0 | 77,0 | 20 |

*drawings and technical data are not binding & can be changed without notice*

## 8450MO

Quick coupling with push-on connector and spring



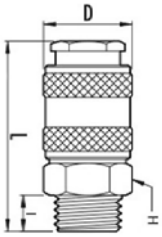



| CODE | Ø | D | L1 | L2 | H |
|---|---|---|---|---|---|
| 8450MO58 | 5x8 | 24,0 | 47,0 | 148,0 | 20 |
| 8450MO68 | 6x8 | 24,0 | 47,0 | 148,0 | 20 |
| 8450MO6510 | 6,5x10 | 24,0 | 47,0 | 148,0 | 20 |
| 8450MO810 | 8x10 | 24,0 | 47,0 | 148,0 | 20 |
| 8450MO812 | 8x12 | 24,0 | 38,0 | 155,0 | 20 |
| 8450MO1012 | 10x12 | 24,0 | 38,0 | 155,0 | 20 |

## 8410FM-LU

Male quick coupling BSPP thread - LIGHT FLOW



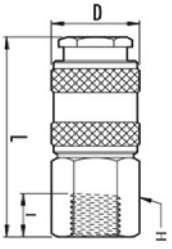



| CODE | T | l | D | L | H |
|---|---|---|---|---|---|
| 8410FM02LU | G 1/4" | 9,0 | 22,0 | 46,0 | 19 |
| 8410FM03LU | G 3/8" | 9,0 | 22,0 | 47,5 | 19 |
| 8410FM04LU | G 1/2" | 10,5 | 22,0 | 48,5 | 22 |

## 8420FF-LU

Female quick coupling BSPP thread - LIGHT FLOW






| CODE | T | l | D | L | H |
|---|---|---|---|---|---|
| 8420FF02LU | G 1/4" | 11,0 | 22,0 | 52,5 | 19 |
| 8420FF03LU | G 3/8" | 12,0 | 22,0 | 52,5 | 19 |

TierreGroup®

Always a fittings solution




## FOLLOW US!



-18°C ÷ +80°C

**Working pressure:**
12 Bar

Compressed air

Parallel gas BSPP ISO 228
from G1/8" to G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

## PROFILE - ITALY SERIES



## NOMINAL DIAMETER

4,8 mm

## AIR FLOWRATE

1600 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - QUICK COUPLING 8210FM



## 8210FM

Male quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8210FM01 | G 1/8" | 51,9 | 19 |
| 8210FM02 | G 1/4" | 52,1 | 19 |
| 8210FM03 | G 3/8" | 52,2 | 19 |
| 8210FM04 | G 1/2" | 55,5 | 22 |

## 8220FF

Female quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8220FF01 | G 1/8" | 52,3 | 19 |
| 8220FF02 | G 1/4" | 52,2 | 19 |
| 8220FF03 | G 3/8" | 58,0 | 19 |
| 8220FF04 | G 1/2" | 58,1 | 25 |

## 8240PO

Quick coupling with hose connector




| CODE | TUBE Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8240PO610 | 6x10 | 70,5 | 19 | 15 |
| 8240PO612 | 6x12 | 72,0 | 19 | 15 |
| 8240PO613 | 6x13 | 70,5 | 19 | 16 |
| 8240PO614 | 6x14 | 70,5 | 19 | 17 |
| 8240PO716 | 7x16 | 73,2 | 19 | 19 |
| 8240PO812 | 8x12 | 70,5 | 19 | 15 |
| 8240PO813 | 8x13 | 70,5 | 19 | 15 |
| 8240PO815 | 8x15 | 70,5 | 19 | 15 |
| 8240PO817 | 8x17 | 71,1 | 19 | 20 |
| 8240PO1017 | 10x17 | 76,2 | 19 | 18 |
| 8240PO1019 | 10x19 | 77,8 | 19 | 20 |

*drawings and technical data are not binding & can be changed without notice*

## 8250MO

Quick coupling with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8250MO46 | 4x6 | 131,1 | 19 | 12 |
| 8250MO58 | 5x8 | 140,5 | 19 | 13 |
| 8250MO68 | 6x8 | 138,7 | 19 | 12 |
| 8250MO6510 | 6,5x10 | 140,0 | 19 | 15 |
| 8250MO810 | 8x10 | 144,3 | 19 | 15 |
| 8250MO1012 | 10x12 | 148,7 | 19 | 17 |

## 8260MM

Male connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8260MM01 | G 1/8" | 34,7 | 13 |
| 8260MM02 | G 1/4" | 37,9 | 14 |
| 8260MM03 | G 3/8" | 38,2 | 17 |
| 8260MM04 | G 1/2" | 42,1 | 22 |

## 8270FM

Female connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8270FM01 | G 1/8" | 29,0 | 13 |
| 8270FM02 | G 1/4" | 37,0 | 15 |
| 8270FM03 | G 3/8" | 38,1 | 19 |
| 8270FM04 | G 1/2" | 42,0 | 25 |

## 8230PO

Connection with hose connector




| CODE | ØD | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8230PO610 | 6x10 | 55,5 | 13 | 15 |
| 8230PO612 | 6x12 | 55,5 | 13 | 15 |
| 8230PO613 | 6x13 | 54,8 | 13 | 16 |
| 8230PO614 | 6x14 | 55,7 | 12 | 17 |
| 8230PO716 | 7x16 | 55,1 | 13 | 19 |
| 8230PO812 | 8x12 | 55,0 | 13 | 15 |
| 8230PO813 | 8x13 | 55,0 | 13 | 16 |
| 8230PO815 | 8x15 | 55,0 | 13 | 18 |
| 8230PO817 | 8x17 | 55,4 | 13 | 20 |
| 8230PO1017 | 10x17 | 57,9 | 13 | 20 |
| 8230PO1019 | 10x19 | 59,8 | 13 | 22 |

## 8285BM

Bayonet male connection



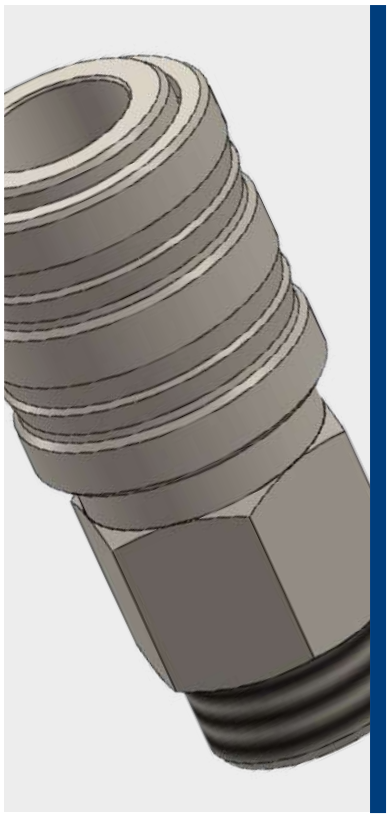
| CODE | ØD | LENGTH |
|---|---|---|
| 8285BM55 | 5,5 | 155,8 |

## 8295MO

Connection with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8295MO46 | 4x6 | 112,1 | 12 | 12 |
| 8295MO58 | 5x8 | 125,5 | 13 | 13 |
| 8295MO68 | 6x8 | 124,9 | 13 | 13 |
| 8295MO6510 | 6,5x10 | 126,0 | 12 | 15 |
| 8295MO810 | 8x10 | 123,7 | 13 | 15 |
| 8295MO812 | 8x12 | 125,5 | 15 | 17 |
| 8295MO1012 | 10x12 | 127,5 | 15 | 17 |



-18°C ÷ +80°C

**Working pressure:**
12 Bar

Compressed air

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

## PROFILE - GERMANY SERIES



## NOMINAL DIAMETER

7,0 mm

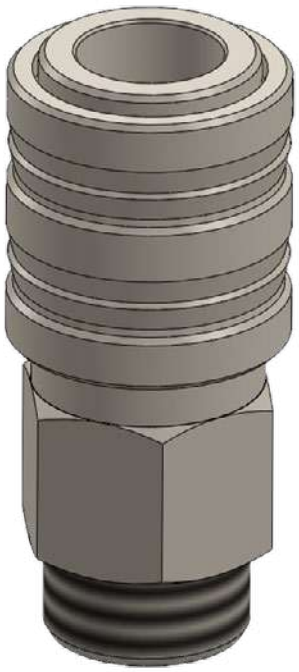
## AIR FLOWRATE

2000 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - QUICK COUPLING 8310FM



## 8310FM

Male quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8310FM01 | G 1/8" | 50,0 | 19 |
| 8310FM02 | G 1/4" | 51,5 | 19 |
| 8310FM03 | G 3/8" | 51,5 | 19 |
| 8310FM04 | G 1/2" | 54,5 | 22 |

## 8320FF

Female quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8320FF02 | G 1/4" | 51,4 | 19 |
| 8320FF03 | G 3/8" | 57,0 | 19 |
| 8320FF04 | G 1/2" | 54,3 | 25 |

## 8330RE

Quick coupling with barb connector



| CODE | INT. TUBE Ø | LENGTH | WRENCH |
|---|---|---|---|
| 8330RE06 | 6 | 38,5 | 19 |
| 8330RE07 | 7 | 61,5 | 19 |
| 8330RE08 | 8 | 63,1 | 19 |
| 8330RE09 | 9 | 63,3 | 19 |
| 8330RE10 | 10 | 65,7 | 19 |
| 8330RE11 | 11 | 66,0 | 19 |
| 8330RE12 | 12 | 66,7 | 19 |
| 8330RE13 | 13 | 66,3 | 19 |
| 8330RE14 | 14 | 66,5 | 19 |

## 8390PO

Quick coupling with hose connector




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8390PO610 | 6x10 | 72,5 | 19 | 15 |
| 8390PO612 | 6x12 | 72,5 | 19 | 15 |
| 8390PO614 | 6x14 | 73,2 | 19 | 20 |
| 8390PO716 | 7x16 | 72,5 | 19 | 20 |
| 8390PO812 | 8x12 | 70,0 | 19 | 15 |
| 8390PO815 | 8x15 | 70,0 | 19 | 20 |
| 8390PO817 | 8x17 | 70,3 | 19 | 20 |
| 8390PO1019 | 10x19 | 76,4 | 19 | 20 |

## 8350MO

Quick coupling with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8350MO46 | 4x6 | 129,0 | 19 | 12 |
| 8350MO58 | 5x8 | 139,0 | 19 | 13 |
| 8350MO68 | 6x8 | 137,0 | 19 | 13 |
| 8350MO6510 | 6,5x10 | 140,0 | 19 | 15 |
| 8350MO810 | 8x10 | 139,5 | 19 | 15 |
| 8350MO812 | 8x12 | 142,5 | 19 | 17 |
| 8350MO1012 | 10x12 | 144,7 | 19 | 17 |

## 8360MM

Male connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8360MM01 | G 1/8" | 32,0 | 12 |
| 8360MM02 | G 1/4" | 33,5 | 14 |
| 8360MM03 | G 3/8" | 35,5 | 17 |
| 8360MM04 | G 1/2" | 38,4 | 22 |

## 8370FM

Female connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8370FM02 | G 1/4" | 33,1 | 15 |
| 8370FM03 | G 3/8" | 35,0 | 19 |
| 8370FM04 | G 1/2" | 38,0 | 25 |

## 8340PO

Connection with hose connector




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH2 |
|---|---|---|---|---|
| 8340PO610 | 6x10 | 54,0 | 13 | 15 |
| 8340PO612 | 6x12 | 54,0 | 13 | 15 |
| 8340PO614 | 6x14 | 53,0 | 13 | 17 |
| 8340PO716 | 7x16 | 53,0 | 13 | 18 |
| 8340PO812 | 8x12 | 54,0 | 13 | 15 |
| 8340PO815 | 8x15 | 54,0 | 13 | 18 |
| 8340PO817 | 8x17 | 54,0 | 13 | 20 |
| 8340PO1019 | 10x19 | 58,0 | 13 | 22 |

## 8380RE

Connection with barb connector



| CODE | INTERNAL TUBE Ø | LENGTH |
|---|---|---|
| 8380RE06 | 6 | 39,4 |
| 8380RE07 | 7 | 59,0 |
| 8380RE08 | 8 | 63,4 |
| 8380RE09 | 9 | 41,3 |
| 8380RE10 | 10 | 63,5 |
| 8380RE11 | 11 | 63,5 |
| 8380RE12 | 12 | 63,6 |
| 8380RE13 | 13 | 66,3 |
| 8380RE14 | 14 | 66,7 |

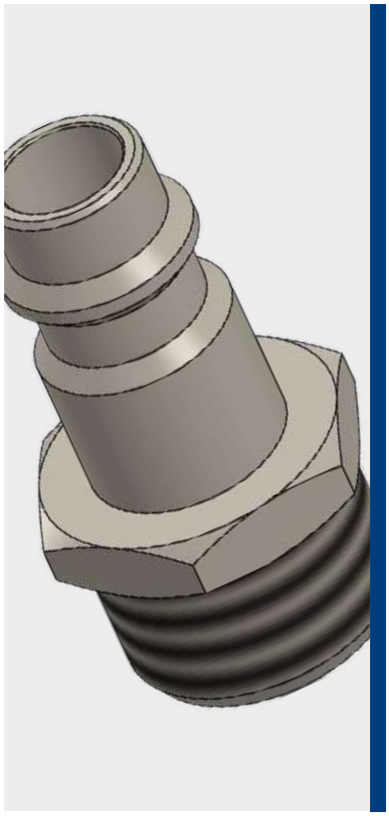
## 8395MO

Connection with push-on connector and spring




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8395MO46 | 4x6 | 110,0 | 13 | 12 |
| 8395MO58 | 5x8 | 119,5 | 13 | 13 |
| 8395MO68 | 6x8 | 120,0 | 13 | 13 |
| 8395MO6510 | 6,5x10 | 121,0 | 13 | 15 |
| 8395MO810 | 8x10 | 121,0 | 13 | 15 |
| 8395MO812 | 8x12 | 123,0 | 15 | 17 |
| 8395MO1012 | 10x12 | 121,0 | 15 | 17 |

*drawings and technical data are not binding & can be changed without notice*



-18°C ÷ +80°C

**Working pressure:**
12 Bar

Compressed air

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

**PROFILE - USA ISO 6150-B12**



**NOMINAL DIAMETER**

5,0 mm

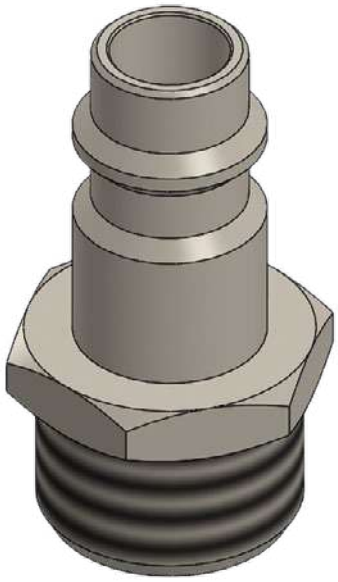
**AIR FLOWRATE**

1600 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - CONNECTION 8060MM



## 8060MM

Male connection BSPP thread



| CODE | THREAD |
|---|---|
| 8060MM02 | G 1/4" |
| 8060MM03 | G 3/8" |
| 8060MM04 | G 1/2" |

## 8070FM

Female connection BSPP thread



| CODE | THREAD |
|---|---|
| 8070FM02 | G 1/4" |
| 8070FM03 | G 3/8" |
| 8070FM04 | G 1/2" |

## 8080RE

Connection with barb connector



| CODE | INTERNAL TUBE Ø |
|---|---|
| 8080RE06 | 6 |
| 8080RE08 | 8 |
| 8080RE10 | 10 |
| 8080RE12 | 12 |

## 8085PO

Connection with hose connector



| CODE | Ø |
|---|---|
| 8085PO610 | 6x10 |
| 8085PO612 | 6x12 |
| 8085PO614 | 6x14 |
| 8085PO812 | 8x12 |
| 8085PO814 | 8x14 |
| 8085PO817 | 8x17 |
| 8085PO10145 | 10x14,5 |
| 8085PO1017 | 10x17 |
| 8085PO1019 | 10x19 |

## 8090MO

Connection with push-on connector and spring



| CODE | Ø |
|---|---|
| 8090MO46 | 4x6 |
| 8090MO58 | 5x8 |
| 8090MO68 | 6x8 |
| 8090MO6510 | 6,5x10 |
| 8090MO810 | 8x10 |
| 8090MO812 | 8x12 |
| 8090MO1012 | 10x12 |

TierreGroup®
Always a fittings solution

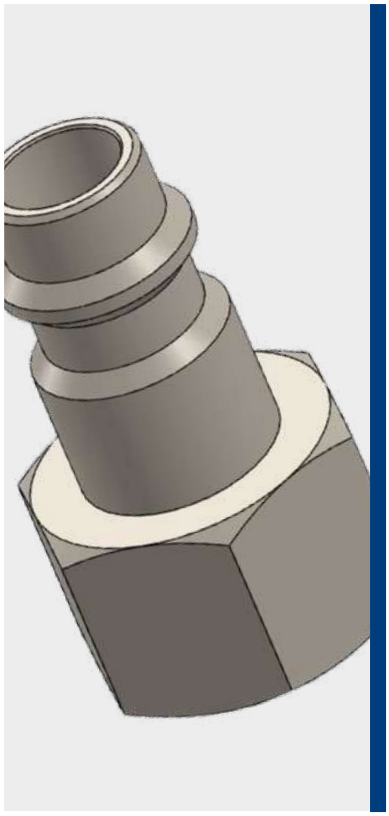




**Raccordi per un'unione perfetta**

TierreGroup®
Always a fitting solution

## FOLLOW US!



-15°C ÷ +80°C

**Working pressure:**
16 Bar

Compressed air

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

**PROFILE - SWISS**



**NOMINAL DIAMETER**

5,0 mm

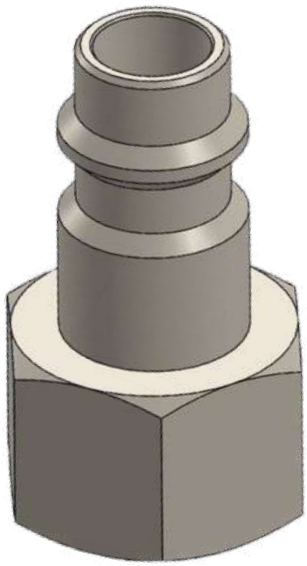
**AIR FLOWRATE**

2000 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - CONNECTION 8470FM



## 8460MM

Male connection BSPP thread



| CODE | THREAD |
|---|---|
| 8460MM02 | G 1/4" |
| 8460MM03 | G 3/8" |
| 8460MM04 | G 1/2" |

## 8470FM

Female connection BSPP thread



| CODE | THREAD |
|---|---|
| 8470FM02 | G 1/4" |
| 8470FM03 | G 3/8" |
| 8470FM04 | G 1/2" |

## 8480RE

Connection with barb connector



| CODE | INTERNAL TUBE Ø |
|---|---|
| 8480RE06 | 6 |
| 8480RE08 | 8 |
| 8480RE10 | 10 |
| 8480RE12 | 12 |

*drawings and technical data are not binding & can be changed without notice*

## 8485PO

Connection with hose connector



| CODE | Ø |
|---|---|
| 8485PO610 | 6x10 |
| 8485PO612 | 6x12 |
| 8485PO614 | 6x14 |
| 8485PO812 | 8x12 |
| 8485PO814 | 8x14 |
| 8485PO817 | 8x17 |
| 8485PO10145 | 10x14,5 |
| 8485PO1017 | 10x17 |
| 8485PO1019 | 10x19 |

## 8490MO

Connection with push-on connector and spring



| CODE | Ø |
|---|---|
| 8490MO46 | 4x6 |
| 8490MO58 | 5x8 |
| 8490MO68 | 6x8 |
| 8490MO6510 | 6,5x10 |
| 8490MO810 | 8x10 |
| 8490MO812 | 8x12 |
| 8490MO1012 | 10x12 |

TierreGroup®
Always a fittings solution





**Raccordi per un'unione perfetta**

TierreGroup®
Always a fitting solution

**FOLLOW US!**



-18°C ÷ +80°C

**Working pressure:**
12 Bar

Compressed air

Parallel gas BSPP ISO 228
G3/8" and G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

**PROFILE - LARGE SERIES**



**NOMINAL DIAMETER**

9,2 mm

**AIR FLOWRATE**

2500 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - QUICK COUPLING 8215FM



## 8215FM

Large male quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8215FM03 | G 3/8" | 62,5 | 26 |
| 8215FM04 | G 1/2" | 65,0 | 26 |

## 8225FF

Large female quick coupling BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8225FF03 | G 3/8" | 62,0 | 26 |
| 8225FF04 | G 1/2" | 65,0 | 26 |

## 8235PO

Large quick coupling with hose connector




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8235PO1019 | 10x19 | 96,0 | 26 | 24 |
| 8235PO1020 | 10x20 | 96,0 | 26 | 25 |
| 8235PO1021 | 10x21 | 96,0 | 26 | 25 |
| 8235PO1022 | 10x22 | 96,5 | 26 | 26 |
| 8235PO1023 | 10x23 | 96,5 | 26 | 27 |
| 8235PO1319 | 13x19 | 97,5 | 26 | 24 |
| 8235PO1320 | 13x20 | 97,5 | 26 | 25 |
| 8235PO1321 | 13x21 | 97,5 | 26 | 25 |
| 8235PO1323 | 13x23 | 98,0 | 26 | 27 |
| 8235PO1324 | 13x24 | 97,5 | 26 | 30 |
| 8235PO1325 | 13x25 | 97,5 | 26 | 30 |

*drawings and technical data are not binding & can be changed without notice*

## 8245PO

Large connection with hose connector




| CODE | Ø | LENGTH | WRENCH 1 | WRENCH 2 |
|---|---|---|---|---|
| 8245PO1019 | 10x19 | 95,0 | 26 | 25 |
| 8245PO1020 | 10x20 | 95,5 | 26 | 25 |
| 8245PO1021 | 10x21 | 96,0 | 26 | 25 |
| 8245PO1022 | 10x22 | 96,0 | 26 | 25 |
| 8245PO1023 | 10x23 | 96,0 | 26 | 27 |
| 8245PO1319 | 13x19 | 97,5 | 26 | 25 |
| 8245PO1320 | 13x20 | 97,5 | 26 | 25 |
| 8245PO1321 | 13x21 | 97,5 | 26 | 25 |
| 8245PO1323 | 13x23 | 97,5 | 26 | 27 |
| 8245PO1324 | 13x24 | 97,5 | 26 | 27 |
| 8245PO1325 | 13x25 | 97,5 | 26 | 30 |

## 8255MM

Large male connection BSPP thread



| CODE | THREAD | LENGTH | WRENCH |
|---|---|---|---|
| 8255MM03 | G 3/8" | 47,5 | 19 |
| 8255MM04 | G 1/2" | 50,5 | 22 |

TierreGroup®
Always a fittings solution

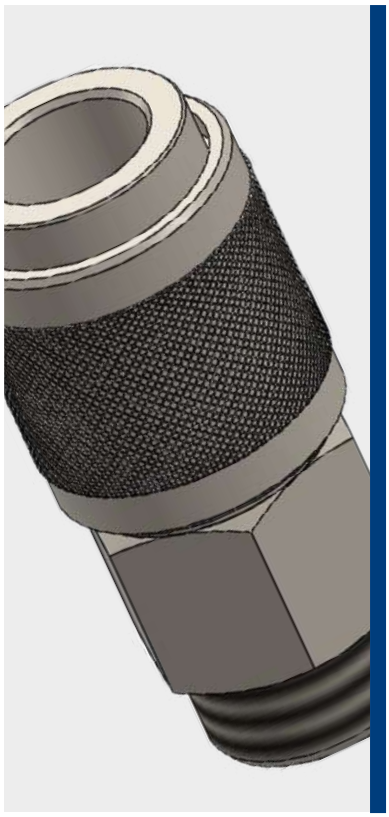




**Raccordi per un'unione perfetta**

TierreGroup®
Always a fitting solution

## FOLLOW US!



-18°C ÷ +80°C

**Working pressure:**
12 Bar
10 Bar (if connected with PCP)

Compressed air

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

**Body:** Nickel-plated brass
**Spring:** Nickel-plated steel

## PROFILE - JAPAN SERIES



## NOMINAL DIAMETER

7,5 mm

## AIR FLOWRATE

2000 l/min

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

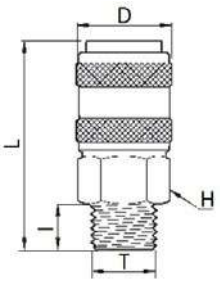
## VIEW - QUICK COUPLING 8910FM



## 8910FM

Male quick coupling BSPP thread



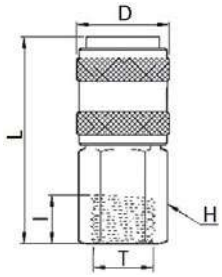



| CODE | T | I | D | L | H |
|---|---|---|---|---|---|
| 8910FM02 | G 1/4" | 11,0 | 24,0 | 56,5 | 20 |
| 8910FM03 | G 3/8" | 11,5 | 24,0 | 53,0 | 20 |
| 8910FM04 | G 1/2" | 14,0 | 24,0 | 55,0 | 22 |

## 8920FF

Female quick coupling BSPP thread



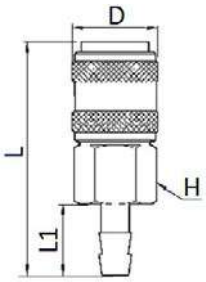



| CODE | T | I | D | L | H |
|---|---|---|---|---|---|
| 8920FF02 | G 1/4" | 11,0 | 24,0 | 54,0 | 20 |
| 8920FF03 | G 3/8" | 12,0 | 24,0 | 54,0 | 20 |
| 8920FF04 | G 1/2" | 14,0 | 24,0 | 55,0 | 20 |

## 8930RE

Quick coupling with barb connector





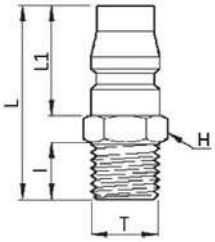

| CODE | Ø | D | L1 | L | H |
|---|---|---|---|---|---|
| 8930RE08 | 8 | 24,0 | 20,0 | 67,0 | 19 |
| 8930RE10 | 10 | 24,0 | 20,0 | 67,0 | 19 |
| 8930RE12 | 12 | 24,0 | 20,0 | 67,0 | 19 |

*drawings and technical data are not binding & can be changed without notice*

## 8960MM

Male connection BSPP thread



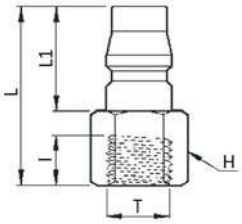



| CODE | T | I | L | L1 | H |
|---|---|---|---|---|---|
| 8960MM02 | G 1/4" | 11,0 | 37,0 | 21,0 | 14 |
| 8960MM03 | G 3/8" | 11,5 | 37,5 | 21,0 | 17 |
| 8960MM04 | G 1/2" | 14,0 | 40,5 | 21,0 | 22 |

## 8970FM

Female connection BSPP thread



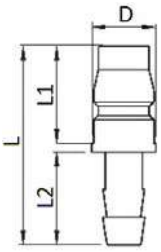



| CODE | T | I | L | L1 | H |
|---|---|---|---|---|---|
| 8970FM02 | G 1/4" | 12,0 | 36,0 | 21,0 | 17 |
| 8970FM03 | G 3/8" | 13,0 | 37,0 | 21,0 | 19 |
| 8970FM04 | G 1/2" | 14,0 | 38,0 | 21,0 | 22 |

## 8980RE

Connection with barb connector



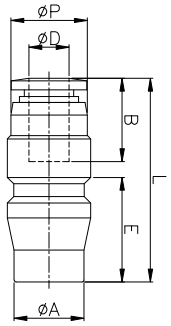



| CODE | Ø | D | L | L1 | L2 |
|---|---|---|---|---|---|
| 8980RE06 | 6 | 20 | 43,0 | 14,0 | 21,0 |
| 8980RE08 | 8 | 20 | 43,0 | 14,0 | 21,0 |
| 8980RE10 | 10 | 20 | 43,0 | 14,0 | 21,0 |

## PCP

Push-in fitting connection for tube






| CODE | ØD | DN | ØP | ØA | L | E | B |
|---|---|---|---|---|---|---|---|
| PCP04N | 4 | 3,0 | 10,0 | 10,9 | 31,0 | 16,3 | 14,8 |
| PCP06N | 6 | 5,0 | 11,9 | 10,9 | 31,7 | 16,3 | 17,4 |
| PCP08N | 8 | 6,0 | 14,0 | 10,9 | 34,9 | 16,3 | 18,4 |
| PCP10N | 10 | 8,0 | 16,0 | 10,9 | 42,4 | 16,3 | 19,7 |
| PCP12N | 12 | 8,0 | 19,0 | 10,9 | 45,4 | 16,3 | 21,9 |
| PCP16N | 16 | 8,0 | 24,0 | 10,9 | 49,3 | 16,3 | 24,5 |

*drawings and technical data are not binding & can be changed without notice*

TierreGroup®
Always a fittings solution





L'unione che rende tutto perfetto.

TierreGroup®
Always a fitting solution

## FOLLOW US!

# QUICK COUPLINGS AIR&FLUIDS HIGH PERFORMANCE CD SERIES

## PLUS

**PATTENTED RANGE PROFILE**

**EXCELLENT SEALING GUARANTEED BY LIP SEAL**

**AVAILABLE IN FOUR MATERIALS: STEEL, BRASS, STAINLESS STEEL AISI 303 AND STAINLESS STEEL AISI 316**

**WIDE RANGE OF PASSAGES AVAILABLE: FROM DN 4,2 TO DN 14**

**AVAILABLE WITH DOUBLE SHUTTER CONFIGURATION**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-12


p. 538 / **CD-12M**


p. 538 / **CD-12H**


p. 538 / **CD-12E**


p. 539 / **ACD-12M**


p. 539 / **ACD-12H**


p. 539 / **ACD-12E**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-25


p. 542 / **CD-25**


p. 542 / **ACD-25M**


p. 543 / **ACD-25H**


p. 543 / **ACD-25E**


p. 543 / **ACD-25PM**


p. 544 / **ACLD-25**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-25N & CD-25S


p. 546 / **CD-25N-M**


p. 546/ **CD-25N-H**


p. 546 / **CD-25N-E**


p. 547 / **CD-25N-PM**


p. 547 / **CD-25S-M**


p. 547 / **CD-25S-H**


p. 548 / **CD-25S-E**


p. 548 / **CD-25S-PM**


p. 548 / **ACD-25M**


p. 549 / **ACD-25H**


p. 549 / **ACD-25E**


p. 549 / **ACD-25PM**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-50


p. 552 / **CD-50**


p. 552 / **ACD-50M**


p. 553 / **ACD-50H**


p. 553 / **ACD-50E**


p. 553 / **ACLD-50**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-100



p. 556 / **CD-100**



p. 556 / **ACD-100M**



p. 557 / **ACD-100H**



p. 557 / **ACD-100E**



p. 557 / **ACLD-100**

## **QUICK COUPLINGS HIGH PERFORMANCE - CD SERIES /** CD-150



p. 560 / **CD-150**



p. 560 / **ACD-150M**



p. 561 / **ACD-150H**

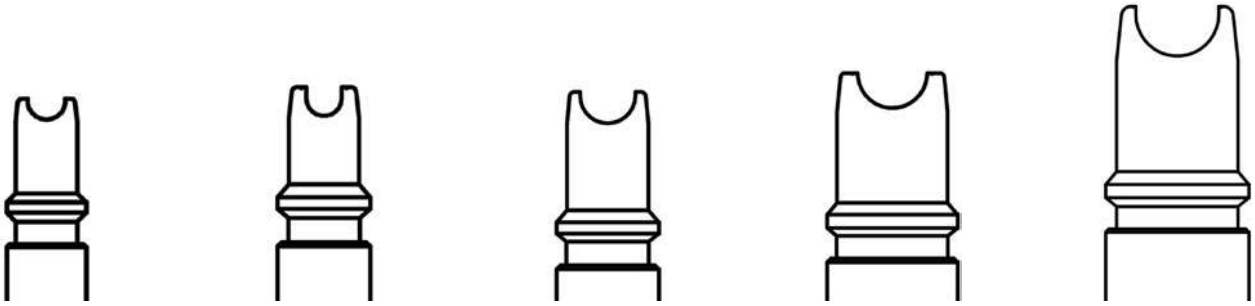


p. 561 / **ACD-150E**



p. 561 / **ACLD-150**

## CONNECTION PROFILES



**CD-12**
DN 4,2

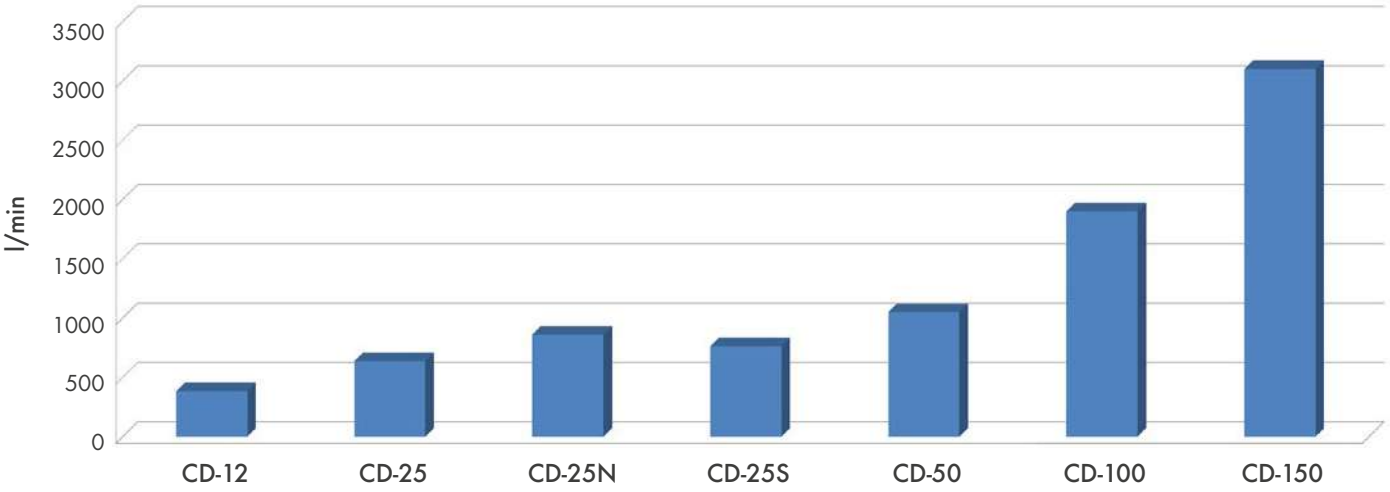
**CD-25**
DN 5,2

**CD-50**
DN 7

**CD-100**
DN 10,5

**CD-150**
DN 14

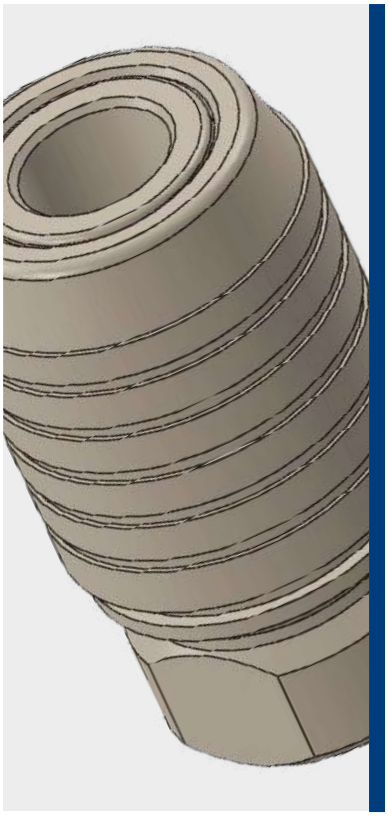
## FLOW CHART




## MATERIALS TABLE

| MATERIALS SERIES | BRASS | STEEL | STAINLESS STEEL AISI 303 | STAINLESS STEEL AISI 316 | SAFETY | PL | SO | DO |
|---|---|---|---|---|---|---|---|---|
| CD-12 | | ✓ | ✓ | | | ✓ | ✓ | |
| CD-25 | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| CD-25N | | ✓ | | | | ✓ | ✓ | |
| CD-25S | | ✓ | | | ✓ | | ✓ | |
| CD-50 | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| CD-100 | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| CD-150 | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ |

*drawings and technical data are not binding & can be changed without notice*



**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
**EPDM:** -40°C ÷ 95°C
Standard version: NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

**CD-12:** Compressed air
**CD-12-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials

- Taper gas BSPT ISO 7
  R1/8" and R1/4"
- Parallel gas BSPP ISO 228
  G1/8" and G1/4"

## NOMINAL DIAMETER

4,2 mm

## FLOWRATE

384 l/min

## CONFIGURATIONS



PL
Free
Passage

SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

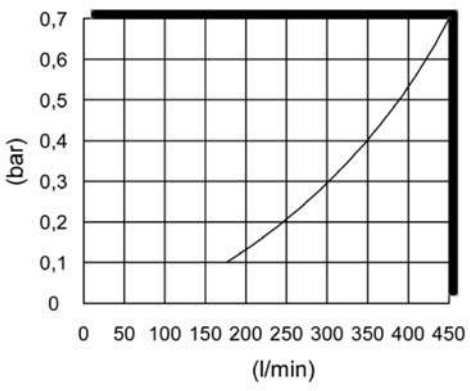
Products in compliance with the directive EU 2015/863

| COMPONENTS | CD-12 | CD-12-X |
|---|---|---|
| Body | Nickel-plated steel | Stainless steel AISI 303 |
| Slide | Nickel-plated steel | Stainless steel AISI 303 |
| Adapter | Nickel-plated steel | Stainless steel AISI 303 |
| Valve | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 | Stainless steel AISI 304 |
| Clip | Stainless steel AISI 301 | Stainless steel AISI 301 |
| Pins | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM |

| CONNECTION | ACD-12 | ACD-12-X |
|---|---|---|
| Body | Nickel-plated steel | Stainless steel AISI 303 |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## VIEW - QUICK COUPLING CD SERIES

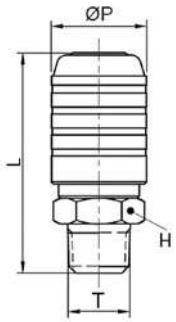


*drawings and technical data are not binding & can be changed without notice*

## CD-12M

Male quick coupling BSPT thread





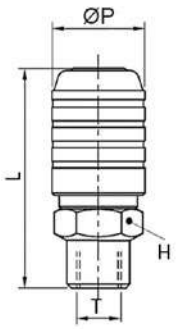

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-12M1 | R 1/8" | 20,5 | 45,5 | 17 |
| CD-12M1-PL | R 1/8" | 20,5 | 45,5 | 17 |
| CD-12M1-X | R 1/8" | 20,5 | 45,5 | 17 |
| CD-12M1-X-PL | R 1/8" | 20,5 | 45,5 | 17 |
| CD-12M | R 1/4" | 20,5 | 47,0 | 17 |
| CD-12M-PL | R 1/4" | 20,5 | 47,0 | 17 |
| CD-12M-X | R 1/4" | 20,5 | 47,0 | 17 |
| CD-12M-X-PL | R 1/4" | 20,5 | 47,0 | 17 |

**-PL:** Free passage

## CD-12H

Female quick coupling BSPP thread





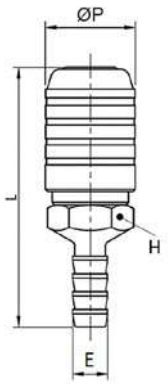

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-12H1 | G 1/8" | 20,5 | 48,5 | 17 |
| CD-12H1-PL | G 1/8" | 20,5 | 48,5 | 17 |
| CD-12H1-X | G 1/8" | 20,5 | 48,5 | 17 |
| CD-12H1-X-PL | G 1/8" | 20,5 | 48,5 | 17 |
| CD-12H | G 1/4" | 20,5 | 51,5 | 17 |
| CD-12H-PL | G 1/4" | 20,5 | 51,5 | 17 |
| CD-12H-X | G 1/4" | 20,5 | 51,5 | 17 |
| CD-12H-X-PL | G 1/4" | 20,5 | 51,5 | 17 |

**-PL:** Free passage

## CD-12E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| CD-12E6 | 7,2 | 20,5 | 58,5 | 17 |
| CD-12E6-PL | 7,2 | 20,5 | 58,5 | 17 |
| CD-12E6-X | 7,2 | 20,5 | 58,5 | 17 |
| CD-12E6-X-PL | 7,2 | 20,5 | 58,5 | 17 |
| CD-12E8 | 9,2 | 20,5 | 58,0 | 17 |
| CD-12E8-PL | 9,2 | 20,5 | 58,0 | 17 |
| CD-12E8-X | 9,2 | 20,5 | 58,0 | 17 |
| CD-12E8-X-PL | 9,2 | 20,5 | 58,0 | 17 |

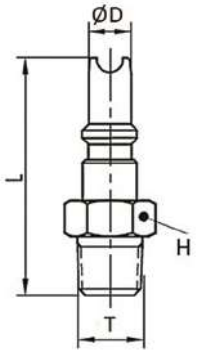
**-PL:** Free passage

*drawings and technical data are not binding & can be changed without notice*

## ACD-12M

Male connection BSPT thread



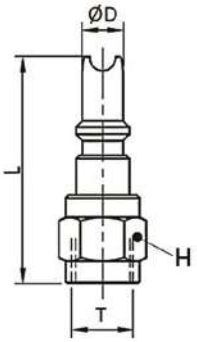



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-12M1 | R 1/8" | 6,5 | 36,3 | 12 |
| ACD-12M1-X | R 1/8" | 6,5 | 36,3 | 12 |
| ACD-12M | R 1/4" | 6,5 | 38,3 | 12 |
| ACD-12M-X | R 1/4" | 6,5 | 38,3 | 14 |

## ACD-12H

Female connection BSPP thread



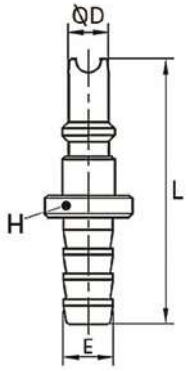



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-12H1 | G 1/8" | 6,5 | 35,8 | 12 |
| ACD-12H1-X | G 1/8" | 6,5 | 35,8 | 12 |
| ACD-12H | G 1/4" | 6,5 | 37,8 | 12 |
| ACD-12H-X | G 1/4" | 6,5 | 37,8 | 17 |

## ACD-12E

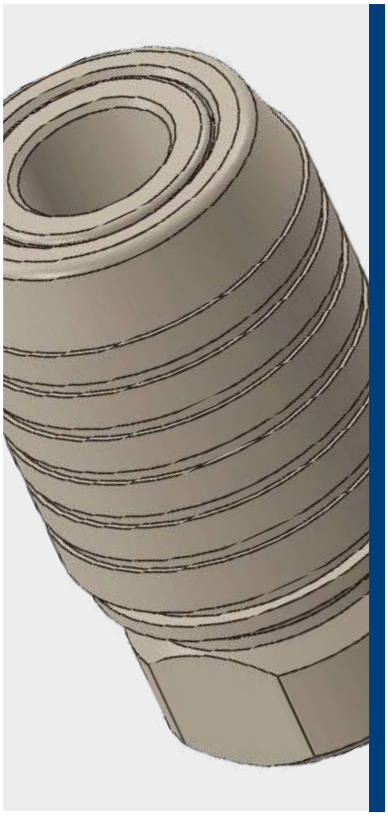
Connection with barb connector






| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-12E6 | 7,2 | 6,5 | 42,3 | 14 |
| ACD-12E6-X | 7,2 | 6,5 | 42,3 | 14 |
| ACD-12E8 | 9,2 | 6,5 | 42,3 | 14 |
| ACD-12E8-X | 9,2 | 6,5 | 42,3 | 14 |





**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
**EPDM:** -40°C ÷ 95°C
Standard version: NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)
**Working pressure ACLD-25:**
0-12 Bar (suggested)
20 Bar (max)
0,30 Bar (min. opening pressure)

- Taper gas BSPT ISO 7
  R1/4" and R3/8"
- Parallel gas BSPP ISO 228
  G1/4" and G3/8"

**CD-25:** Compressed air
**CD-25-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils and fluids suitable with construction materials
**CD-25-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials

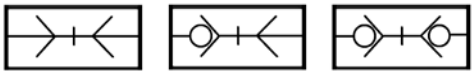
## NOMINAL DIAMETER

5,2 mm

## FLOWRATE

636 l/min

## CONFIGURATIONS



PL Free Passage | SO Single Shutter | DO Double Shutter

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

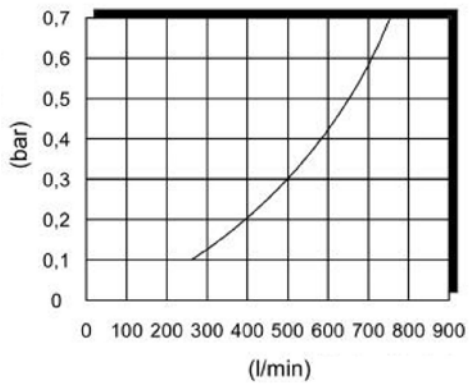
| COMPONENTS | CD-25 | CD-25-L | CD-25-X |
|---|---|---|---|
| Body | Nickel-plated steel | Brass | Stainless steel AISI 303 |
| Slide | Nickel-plated steel | Brass | Stainless steel AISI 303 |
| Valve | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 | Stainless steel AISI 304 | Stainless steel AISI 304 |
| Clip | Stainless steel AISI 301 | Stainless steel AISI 301 | Stainless steel AISI 301 |
| Pins | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM |

| CONNECTION | ACD-25 | ACD-25-L | ACD-25-X |
|---|---|---|---|
| Body | Hardened nickel-plated steel | Brass | Stainless steel AISI 303 |

| ACLD CONNECTION | | ACLD-25-L | ACLD-25-X |
|---|---|---|---|
| Body | | Brass | Stainless steel AISI 303 |
| Spring | | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Retaining ring | | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Wrench | | Brass | Stainless steel AISI 303 |
| Wrench support | | Brass | Stainless steel AISI 303 |
| Seal | | NBR - FKM - EPDM | NBR - FKM - EPDM |

## FLOWRATE

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



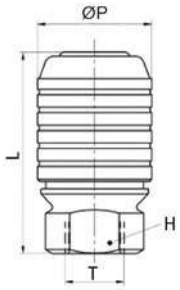

## VIEW - QUICK COUPLING CD-25



## CD-25

Female quick couplings BSPP thread





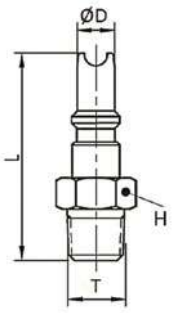

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-25 | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-PL | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-L | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-L-PL | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-X | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-X-PL | G 1/4" | 25,5 | 45,0 | 19 |
| CD-25-3/8 | G 3/8" | 25,5 | 45,0 | 19 |
| CD-25-3/8-PL | G 3/8" | 25,5 | 45,0 | 19 |
| CD-25-3/8X | G 3/8" | 25,5 | 45,0 | 19 |
| CD-25-3/8X-PL | G 3/8" | 25,5 | 45,0 | 19 |

**-PL:** Free passage

## ACD-25M

Male connection BSPT thread





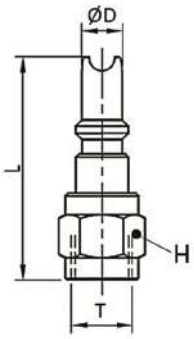

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-25M | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-L | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-X | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-3/8 | R 3/8" | 7,9 | 42,8 | 17 |
| ACD-25M-3/8-X | R 3/8" | 7,9 | 42,8 | 17 |

*drawings and technical data are not binding & can be changed without notice*

## ACD-25H

Female connection BSPP thread



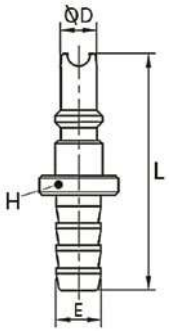



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-25H | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-L | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-X | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-3/8 | G 3/8" | 7,9 | 41,8 | 20 |

## ACD-25E

Connection with barb connector



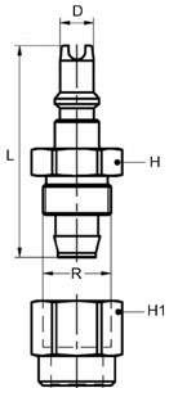



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-25E | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-L | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-X | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-10 | 11,2 | 7,9 | 47,0 | 15 |

## ACD-25PM

Connection with push-on connector





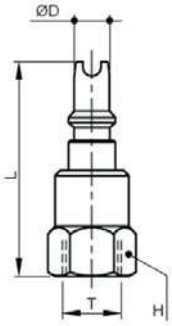

| CODE | TUBE Ø | R | D | L | H | H1 |
|---|---|---|---|---|---|---|
| ACD-25-PM08 | 8x12 | M16x1 | 7,9 | 50,0 | 19 | 19 |
| ACD-25-PM10 | 10x15 | M20x1 | 7,9 | 54,7 | 22 | 22 |

Recommended for use with PU-PVC tube on page 751

## ACLD-25

Female unidirectional connection BSPP thread

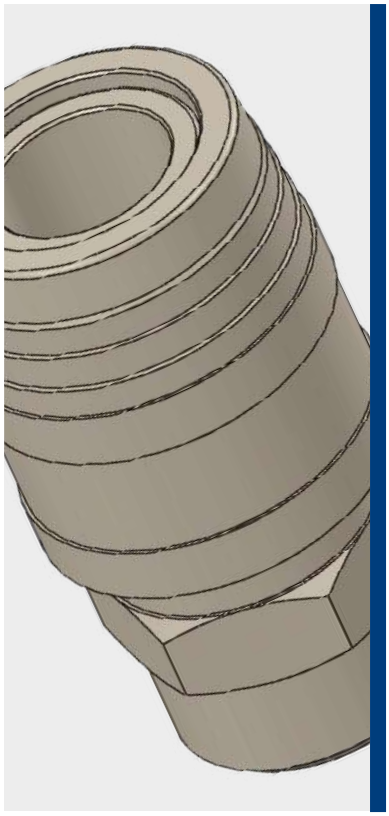





| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACLD-25-L | G 1/4" | 7,9 | 48,0 | 17 |
| ACLD-25-X | G 1/4" | 7,9 | 48,0 | 17 |

Do not use with CD-25N & CD-25S quick couplings

**ACLD-25:** Minimum opening pressure 0,30 Bar



CD-25N:
NBR: -10°C ÷ 95°C
FKM: -15°C ÷ 200°C
EPDM: -40°C ÷ 95°C
CD-25S - SAFETY:
NBR: -10°C ÷ 95°C
Standard version: NBR

Working pressure CD-25N:
0-12 Bar (suggested)
35 Bar (max)
Working pressure CD-25S:
0-7 Bar (suggested)

CD-25N: Compressed air
CD-25S: Compressed air

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

## NOMINAL DIAMETER

5,2 mm

## FLOWRATE

860 l/min (CD-25N)
762 l/min (CD-25S - SAFETY)

## CONFIGURAZIONI

CD-25N
PL
Free
Passage

CD-25N
CD-25S
SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

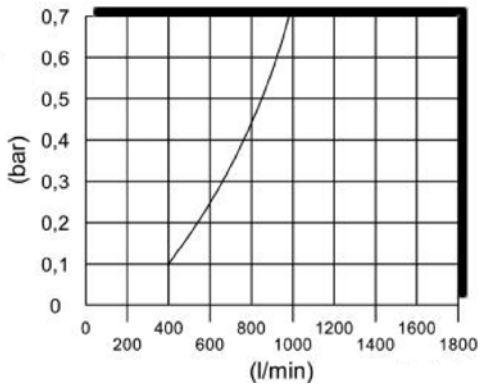
Products in compliance with the directive EU 2015/863

| COMPONENTS | CD-25N | CD-25S - SAFETY |
|---|---|---|
| Body | Nickel-plated steel | Nickel-plated steel |
| Slide | Nickel-plated steel | Nickel-plated steel |
| Adapter | Nickel-plated brass | Nickel-plated brass |
| Valve | Nickel-plated brass | Nickel-plated brass |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Ball | Chromed steel | Chromed steel |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Cartridge | - | Nickel-plated steel |
| Seal | NBR - FKM - EPDM | NBR |

| CONNECTION | ACD-25 | ACD-25-L | ACD-25-X |
|---|---|---|---|
| Body | Hardened nickel-plated steel | Brass | Stainless steel AISI 303 |

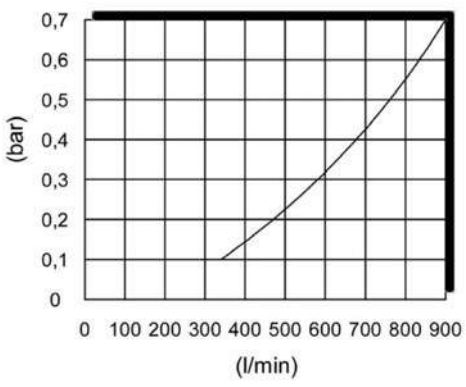
## FLOW CHART
CD-25N

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## FLOW CHART
CD-25S

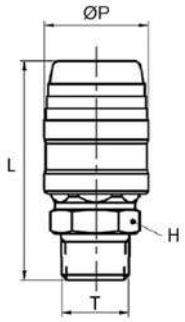
Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



## CD-25N-M

Male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-25N-M1/4 | R 1/4" | 23,6 | 52,1 | 19 |
| CD-25N-M1/4-PL | R 1/4" | 23,6 | 52,1 | 19 |
| CD-25N-M3/8 | R 3/8" | 23,6 | 53,1 | 19 |
| CD-25N-M3/8-PL | R 3/8" | 23,6 | 53,1 | 19 |
| CD-25N-M1/2 | R 1/2" | 23,6 | 57,6 | 22 |
| CD-25N-M1/2-PL | R 1/2" | 23,6 | 57,6 | 22 |

Male quick coupling BSPP thread

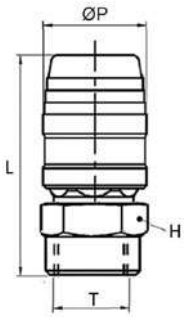
| | | | | |
|---|---|---|---|---|
| CD-25N-M1/4G | G 1/4" | 23,6 | 50,6 | 21 |
| CD-25N-M1/4G-PL | G 1/4" | 23,6 | 50,6 | 21 |
| CD-25N-M3/8G | G 3/8" | 23,6 | 52,1 | 21 |
| CD-25N-M3/8G-PL | G 3/8" | 23,6 | 52,1 | 21 |
| CD-25N-M1/2G | G 1/2" | 23,6 | 55,1 | 24 |
| CD-25N-M1/2G-PL | G 1/2" | 23,6 | 55,1 | 24 |

**-PL:** Free Passage

## CD-25N-H

Female quick coupling BSPP thread





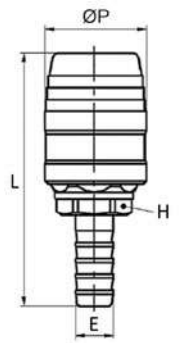

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-25N-H1/4 | G 1/4" | 23,6 | 50,1 | 19 |
| CD-25N-H1/4-PL | G 1/4" | 23,6 | 50,1 | 19 |
| CD-25N-H3/8 | G 3/8" | 23,6 | 51,6 | 22 |
| CD-25N-H3/8-PL | G 3/8" | 23,6 | 51,6 | 22 |
| CD-25N-H1/2 | G 1/2" | 23,6 | 55,8 | 25 |
| CD-25N-H1/2-PL | G 1/2" | 23,6 | 55,8 | 25 |

**-PL:** Free Passage

## CD-25N-E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| CD-25N-E6 | 7,2 | 23,6 | 59,6 | 19 |
| CD-25N-E6-PL | 7,2 | 23,6 | 59,6 | 19 |
| CD-25N-E8 | 9,2 | 23,6 | 59,6 | 19 |
| CD-25N-E8-PL | 9,2 | 23,6 | 59,6 | 19 |
| CD-25N-E10 | 11,2 | 23,6 | 63,6 | 19 |
| CD-25N-E10-PL | 11,2 | 23,6 | 63,6 | 19 |
| CD-25N-E12 | 13,2 | 23,6 | 13,2 | 19 |
| CD-25N-E12-PL | 13,2 | 23,6 | 13,2 | 19 |
| CD-25N-E13 | 13,8 | 23,6 | 13,8 | 19 |
| CD-25N-E13-PL | 13,8 | 23,6 | 13,8 | 19 |

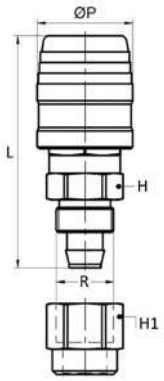
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## CD-25N-PM

Quick coupling with push-on connector






| CODE | TUBE Ø | R | ØP | L | H | H1 |
|---|---|---|---|---|---|---|
| CD-25N-PM08 | 8x12 | M16x1 | 23,6 | 62,3 | 19 | 19 |
| CD-25N-PM08-PL | 8x12 | M16x1 | 23,6 | 62,3 | 19 | 19 |
| CD-25N-PM10 | 10x15 | M20x1 | 23,6 | 67,1 | 22 | 22 |
| CD-25N-PM10-PL | 10x15 | M20x1 | 23,6 | 67,1 | 22 | 22 |

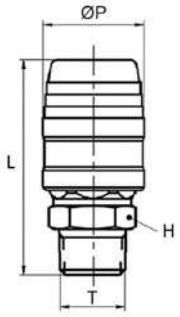
Recommended for use with PU-PVC tube on page 751

**-PL:** Free Passage

## CD-25S-M

Safety male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-25S-M1/4 | R 1/4" | 26,6 | 54,1 | 19 |
| CD-25S-M3/8 | R 3/8" | 26,6 | 55,1 | 19 |
| CD-25S-M1/2 | R 1/2" | 26,6 | 59,6 | 22 |

Safety male quick coupling BSPP thread

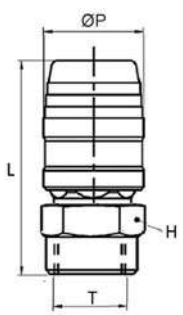
| | | | | |
|---|---|---|---|---|
| CD-25S-M1/4G | G 1/4" | 26,6 | 57,1 | 24 |
| CD-25S-M3/8G | G 3/8" | 26,6 | 54,1 | 21 |
| CD-25S-M1/2G | G 1/2" | 26,6 | 57,1 | 24 |

**CD-25S-M**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## CD-25S-H

Safety female quick coupling BSPP thread





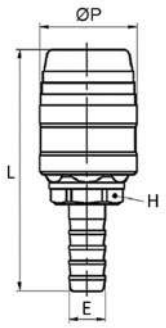

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-25S-H1/4 | G 1/4" | 26,6 | 52,1 | 19 |
| CD-25S-H3/8 | G 3/8" | 26,6 | 53,6 | 22 |
| CD-25S-H1/2 | G 1/2" | 26,6 | 57,8 | 25 |

**CD-25S-H**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## CD-25S-E

Safety quick coupling with barb connector





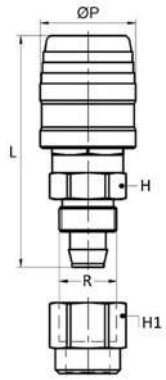

| CODE | E | ØP | L | H |
|---|---|---|---|---|
| CD-25S-E6 | 7,2 | 26,6 | 61,6 | 19 |
| CD-25S-E8 | 9,2 | 26,6 | 61,6 | 19 |
| CD-25S-E10 | 11,2 | 26,6 | 65,6 | 19 |
| CD-25S-E12 | 13,2 | 26,6 | 70,6 | 19 |
| CD-25S-E13 | 13,8 | 26,6 | 70,6 | 19 |

**CD-25S-E**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## CD-25S-PM

Safety quick coupling with push-on connector






| CODE | TUBE Ø | R | ØP | L | H | H1 |
|---|---|---|---|---|---|---|
| CD-25S-PM08 | 8x12 | M16x1 | 26,6 | 65,4 | 19 | 19 |
| CD-25S-PM10 | 10x15 | M20x1 | 26,6 | 70,2 | 22 | 22 |

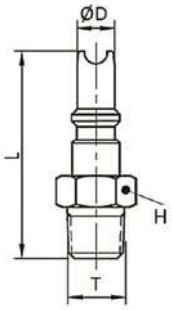
Recommended for use with PU-PVC tube on page 751

**CD-25S-PM**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## ACD-25M

Male connection BSPT thread



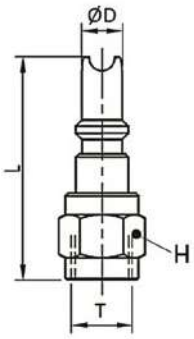



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-25M | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-L | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-X | R 1/4" | 7,9 | 40,8 | 14 |
| ACD-25M-3/8 | R 3/8" | 7,9 | 42,8 | 17 |
| ACD-25M-3/8-X | R 3/8" | 7,9 | 42,8 | 17 |

## ACD-25H

Female connection BSPP thread



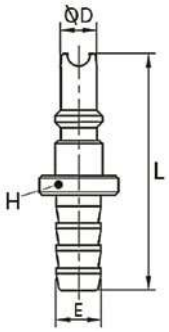



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-25H | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-L | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-X | G 1/4" | 7,9 | 40,3 | 17 |
| ACD-25H-3/8 | G 3/8" | 7,9 | 41,8 | 20 |

## ACD-25E

Connection with barb connector



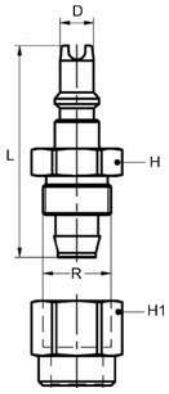



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-25E | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-L | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-X | 9,2 | 7,9 | 47,0 | 15 |
| ACD-25E-10 | 11,2 | 7,9 | 47,0 | 15 |

## ACD-25PM

Connection with push-on connector

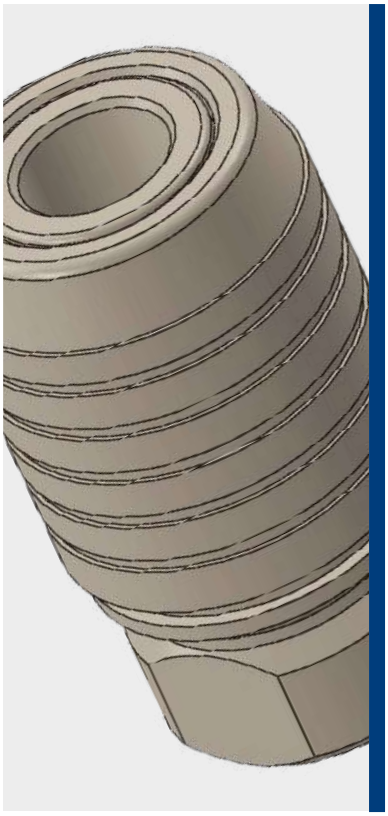





| CODE | TUBE Ø | R | D | L | H | H1 |
|---|---|---|---|---|---|---|
| ACD-25-PM08 | 8x12 | M16x1 | 7,9 | 50,0 | 19 | 19 |
| ACD-25-PM10 | 10x15 | M20x1 | 7,9 | 54,7 | 22 | 22 |

Recommended for use with PU-PVC tube on page 751





**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
**EPDM:** -40°C ÷ 95°C
Standard version: NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)
**Working pressure ACLD-50:**
0-12 Bar (suggested)
20 Bar (max)
0,30 Bar (min. opening pressure)

- Taper gas BSPT ISO 7 R3/8"
- Parallel gas BSPP ISO 228 G3/8"

**CD-50:** Compressed air
**CD-50-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils and fluids suitable with construction materials
**CD-50-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials

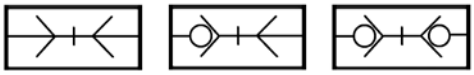
## NOMINAL DIAMETER

7 mm

## FLOWRATE

1050 l/min

## CONFIGURATIONS



PL Free Passage | SO Single Shutter | DO Double Shutter

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

| COMPONENTS | CD-50 | CD-50-L | CD-50-X |
|---|---|---|---|
| Body | Nickel-plated steel | Brass | Stainless steel AISI 303 |
| Slide | Nickel-plated steel | Brass | Stainless steel AISI 303 |
| Valve | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 | Stainless steel AISI 304 | Stainless steel AISI 304 |
| Clip | Stainless steel AISI 301 | Stainless steel AISI 301 | Stainless steel AISI 301 |
| Pins | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM |

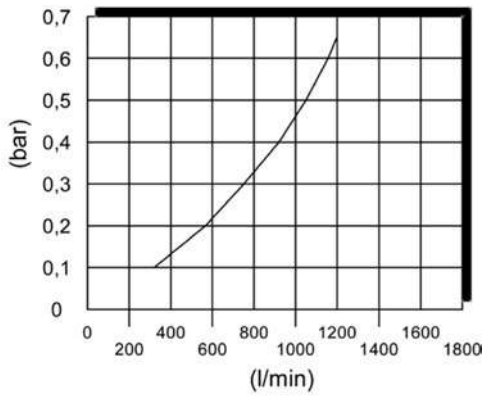
| CONNECTION | ACD-50 | ACD-50-L | ACD-50-X |
|---|---|---|---|
| Body | Hardened nickel-plated steel | Brass | Stainless steel AISI 303 |

| CONNECTION ACLD | | ACLD-50-L | ACLD-50-X |
|---|---|---|---|
| Body | | Brass | Stainless steel AISI 303 |
| Spring | | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Retaining ring | | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Wrench | | Brass | Stainless steel AISI 303 |
| Wrench support | | Brass | Stainless steel AISI 303 |
| Seal | | NBR - FKM - EPDM | NBR - FKM - EPDM |

*drawings and technical data are not binding & can be changed without notice*

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



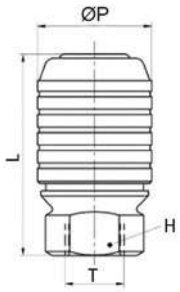

## VIEW - QUICK COUPLING CD-50



## CD-50

Female quick coupling BSPP thread





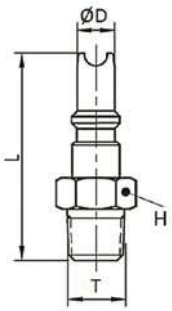

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-50 | G 3/8" | 28,5 | 54,0 | 23 |
| CD-50-PL | G 3/8" | 28,5 | 54,0 | 23 |
| CD-50-L | G 3/8" | 28,5 | 54,0 | 23 |
| CD-50-L-PL | G 3/8" | 28,5 | 54,0 | 23 |
| CD-50-X | G 3/8" | 28,5 | 54,0 | 23 |
| CD-50-X-PL | G 3/8" | 28,5 | 54,0 | 23 |

**-PL:** Free Passage

## ACD-50M

Male connection BSPT thread



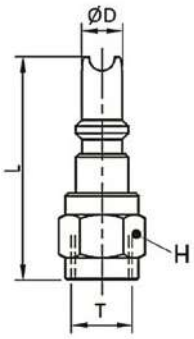



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-50M | R 3/8" | 10,3 | 47,5 | 17 |
| ACD-50M-L | R 3/8" | 10,3 | 47,5 | 17 |
| ACD-50M-X | R 3/8" | 10,3 | 47,5 | 17 |

## ACD-50H

Female connection BSPP thread



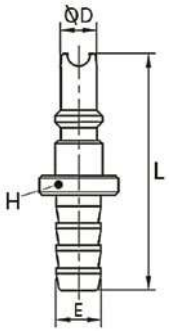



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-50H | G 3/8" | 10,3 | 49,0 | 22 |
| ACD-50H-L | G 3/8" | 10,3 | 49,0 | 22 |
| ACD-50H-X | G 3/8" | 10,3 | 49,0 | 22 |

## ACD-50E

Connection with barb connector



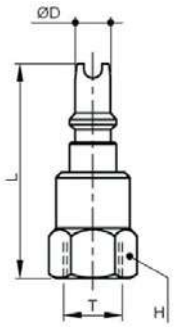



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-50E | 11,2 | 10,3 | 56,5 | 20 |
| ACD-50E-L | 11,2 | 10,3 | 56,5 | 20 |
| ACD-50E-X | 11,2 | 10,3 | 56,5 | 20 |

## ACLD-50

Female unidirectional connection BSPP thread

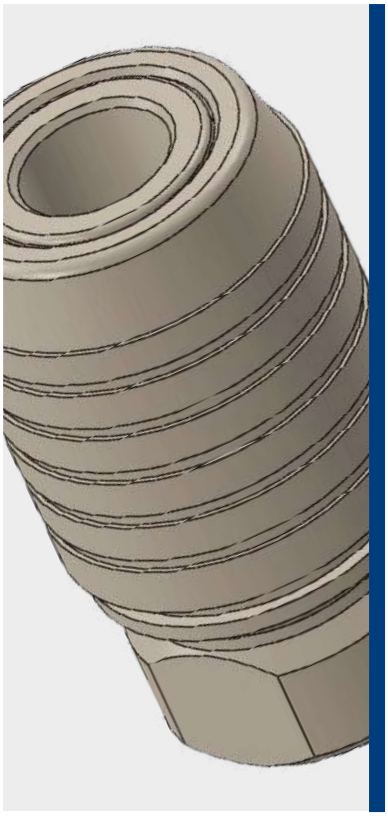





| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACLD-50-L | G 3/8" | 10,3 | 58,5 | 22 |
| ACLD-50-X | G 3/8" | 10,3 | 58,5 | 22 |

**ACLD-50:** Min. opening pressure 0.30 Bar





**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
**EPDM:** -40°C ÷ 95°C
Standard version: NBR
Stainless steel AISI 316 version: FKM

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)
**Working pressure ACLD-50:**
0-12 Bar (suggested)
20 Bar (max)
0,08 Bar (min.opening pressure)

- Taper gas BSPT ISO 7 R1/2"
- Parallel gas BSPP ISO 228 G1/2"

**CD-100:** Compressed air
**CD-100-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils and fluids suitable with construction materials
**CD-100-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials
**CD-100-X-316:** Compressed air, water, chemicals, applications in highly corrosive environments and fluids suitable with construction materials

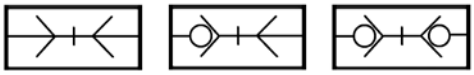
## NOMINAL DIAMETER

10,5 mm

## FLOWRATE

1900 l/min

## CONFIGURATIONS



PL Free Passage | SO Single Shutter | DO Double Shutter

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

| COMPONENTS | CD-100 | CD-100-L | CD-100-X | CD-100-X-316 |
|---|---|---|---|---|
| Body | Nickel-plated steel | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Slide | Nickel-plated steel | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Valve | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 | Stainless steel AISI 304 | Stainless steel AISI 304 | Stainless steel AISI 304 |
| Clip | Stainless steel AISI 301 | Stainless steel AISI 301 | Stainless steel AISI 301 | Stainless steel AISI 301 |
| Pins | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 303 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM |

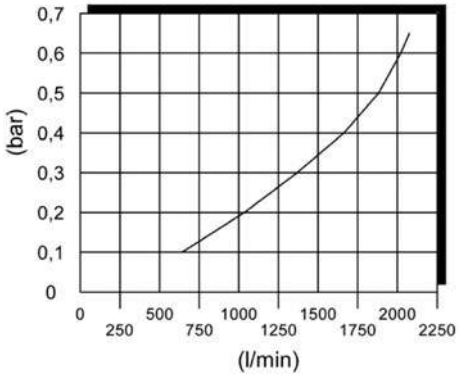
| CONNECTION | ACD-100 | ACD-100-L | ACD-100-X | ACD-100-X-316 |
|---|---|---|---|---|
| Body | Hardened nickel-plated steel | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |

| CONNECTION ACLD | | ACLD-100-L | ACLD-100-X | |
|---|---|---|---|---|
| Body | | Brass | Stainless steel AISI 303 | |
| Spring | | Stainless steel AISI 302 | Stainless steel AISI 302 | |
| Retaining ring | | Stainless steel AISI 302 | Stainless steel AISI 302 | |
| Wrench | | Brass | Stainless steel AISI 303 | |
| Wrench support | | Brass | Stainless steel AISI 303 | |
| Seal | | NBR - FKM - EPDM | NBR - FKM - EPDM | |

*drawings and technical data are not binding & can be changed without notice*

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



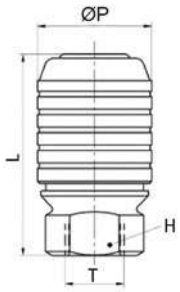

## VIEW - QUICK COUPLING CD-100



## CD-100

Female quick coupling BSPP thread





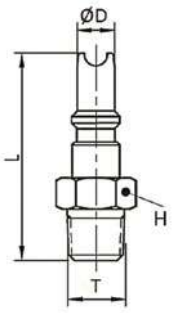

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-100 | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-PL | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-L | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-L-PL | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-X | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-X-PL | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-X-316 | G 1/2" | 33,5 | 61,0 | 27 |
| CD-100-X-316-PL | G 1/2" | 33,5 | 61,0 | 27 |

**-PL:** Free Passage

## ACD-100M

Male connection BSPT thread



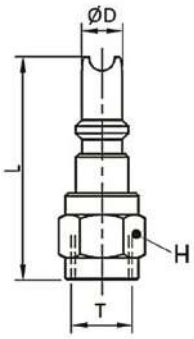



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-100M | R 1/2" | 14,3 | 55,0 | 22 |
| ACD-100M-L | R 1/2" | 14,3 | 55,0 | 22 |
| ACD-100M-X | R 1/2" | 14,3 | 55,0 | 22 |

## ACD-100H

Female connection BSPP thread



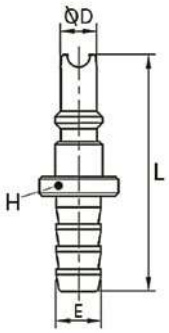



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-100H | G 1/2" | 14,3 | 58,0 | 27 |
| ACD-100H-L | G 1/2" | 14,3 | 58,0 | 27 |
| ACD-100H-X | G 1/2" | 14,3 | 58,0 | 27 |
| ACD-100H-X-316 | G 1/2" | 14,3 | 58,0 | 27 |

## ACD-100E

Connection with barb connector



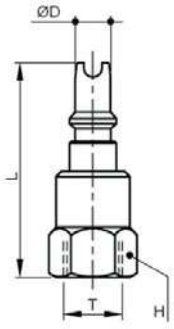



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-100E-10 | 11,2 | 14,3 | 60,0 | 25 |
| ACD-100E-10-L | 11,2 | 14,3 | 60,0 | 25 |
| ACD-100E-10X | 11,2 | 14,3 | 60,0 | 25 |
| ACD-100E-12X | 13,2 | 14,3 | 60,0 | 25 |
| ACD-100E | 15,2 | 14,3 | 65,0 | 25 |
| ACD-100E-L | 15,2 | 14,3 | 65,0 | 25 |
| ACD-100E-X | 15,2 | 14,3 | 65,0 | 25 |

## ACLD-100

Female unidirectional connection BSPP thread

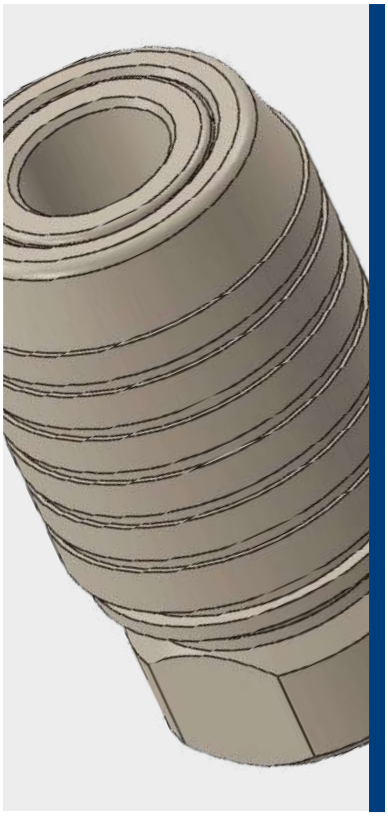





| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACLD-100-L | G 1/2" | 14,3 | 70,0 | 27 |
| ACLD-100-X | G 1/2" | 14,3 | 70,0 | 27 |

**ACLD-100:** Min. opening pressure 0,08 Bar





**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
**EPDM:** -40°C ÷ 95°C
Standard version: NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)
**Working pressure ACLD-50:**
0-12 Bar (suggested)
20 Bar (max)
0,1 Bar (min. opening pressure)

- Taper gas BSPT ISO 7 R3/4" and R1"
- Parallel gas BSPP ISO 228 G3/4" and G 1"

**CD-150-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils and fluids suitable with construction materials
**CD-150-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials
**CD-150-X-316:** Compressed air, water, chemicals, applications in highly corrosive environments and fluids suitable with construction materials

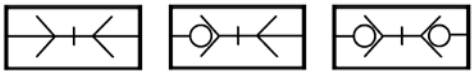
## NOMINAL DIAMETER

14 mm

## FLOWRATE

3100 l/min

## CONFIGURATIONS



PL Free Passage | SO Single Shutter | DO Double Shutter

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

| COMPONENTS | CD-150-L | CD-150-X | CD-150-X-316 |
|---|---|---|---|
| Body | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Slide | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Valve | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 | Stainless steel AISI 304 | Stainless steel AISI 304 |
| Clip | Stainless steel AISI 301 | Stainless steel AISI 301 | Stainless steel AISI 301 |
| Pins | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 304 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM |

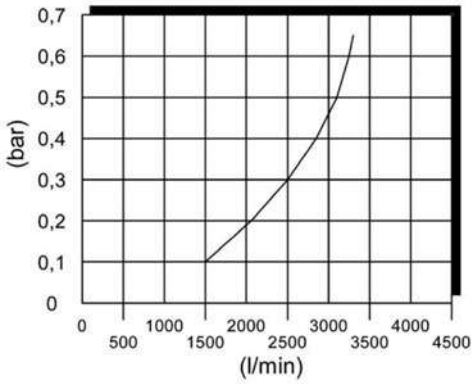
| INNESTO | ACD-150-L | ACD-150-X | ACD-150-X-316 |
|---|---|---|---|
| Body | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |

| CONNECTION ACLD | ACLD-150-L | ACLD-150-X | ACLD-150-X-316 |
|---|---|---|---|
| Body | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Wrench | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Wrench support | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Seal | NBR - FKM - EPDM | NBR - FKM - EPDM | NBR - FKM - EPDM |

*drawings and technical data are not binding & can be changed without notice*

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



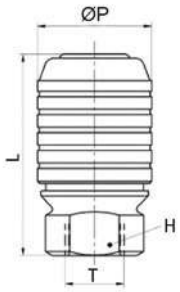

## VIEW - QUICK COUPLING CD-150



## CD-150

Female quick coupling BSPP thread





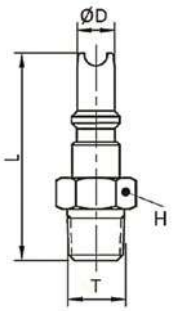

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CD-150-L | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-L-PL | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-X | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-X-PL | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-X-316 | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-X-316-PL | G 3/4" | 44,0 | 85,7 | 34 |
| CD-150-L-P | G 1" | 44,0 | 92,7 | 38 |
| CD-150-L-P-PL | G 1" | 44,0 | 92,7 | 38 |
| CD-150-X-P | G 1" | 44,0 | 92,7 | 38 |
| CD-150-X-P-PL | G 1" | 44,0 | 92,7 | 38 |
| CD-150-X-316-P | G 1" | 44,0 | 92,7 | 38 |
| CD-150-X-316-P-PL | G 1" | 44,0 | 92,7 | 38 |

-PL: Free Passage

## ACD-150M

Male connection BSPT thread





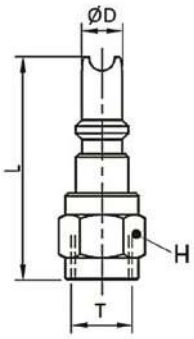

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-150M-L | R 3/4" | 19 | 74,7 | 27 |
| ACD-150M-X | R 3/4" | 19 | 74,7 | 27 |
| ACD-150M-X-316 | R 3/4" | 19 | 74,7 | 27 |
| ACD-150M-L-P | R 1" | 19 | 79,7 | 36 |
| ACD-150M-X-P | R 1" | 19 | 74,7 | 36 |
| ACD-150M-X-316-P | R 1" | 19 | 79,7 | 36 |

*drawings and technical data are not binding & can be changed without notice*

## ACD-150H

Female connection BSPP thread



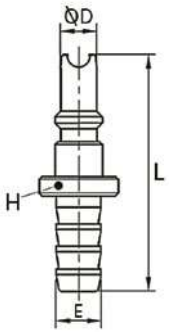



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACD-150H-L | G 3/4" | 19 | 76,7 | 32 |
| ACD-150H-X | G 3/4" | 19 | 76,7 | 32 |
| ACD-150H-X-316 | G 3/4" | 19 | 76,7 | 32 |
| ACD-150H-L-P | G 1" | 19 | 78,7 | 40 |
| ACD-150H-X-P | G 1" | 19 | 78,7 | 41 |
| ACD-150H-X-316-P | G 1" | 19 | 78,7 | 41 |

## ACD-150E

Connection with barb connector



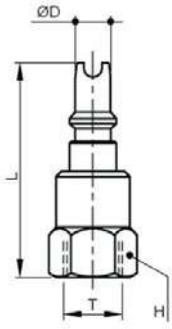



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACD-150E-L | 21,0 | 19 | 89,7 | 32 |
| ACD-150E-X | 21,0 | 19 | 89,7 | 32 |
| ACD-150E-X-316 | 21,0 | 19 | 89,7 | 32 |

## ACLD-150

Female unidirectional connection BSPP thread






| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACLD-150-L | G 3/4" | 19 | 93,0 | 34 |
| ACLD-150-X | G 3/4" | 19 | 93,0 | 36 |
| ACLD-150X-316 | G 3/4" | 19 | 93,0 | 36 |
| ACLD-150L-P | G 1" | 19 | 93,0 | 40 |
| ACLD-150X-P | G 1" | 19 | 93,0 | 41 |
| ACLD-150X-316-P | G 1" | 19 | 93,0 | 41 |

**ACLD-150:** Min. opening pressure 0.1 Bar



# QUICK COUPLINGS AIR&FLUIDS HIGH PERFORMANCE

## PLUS

- DIFFERENT PRODUCTS WITH SAFETY AND ANTI-WHIPLASH SYSTEMS
- EASY CONNECTION AND DISCONNETION
- AVAILABLE WITH FREE PASSAGE, SINGLE AND DOUBLE SHUTTERS
- WIDE CHOICE OF CONSTRUCTION MATERIALS
- REDUCED DIMENSIONS WITH A HIGH STRENGHT
- HIGH FLOW RATE TO OPTIMISE THE PLANTS PERFORMANCE

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** FLUID-10N & FLUID-10S


p.570/**FLUID-10N-M**


p.571/**FLUID-10N-H**


p.571/**FLUID-10N-E**


p.572/**FLUID-10N-PM**


p.572/**FLUID-10S-M**


p.572/**FLUID-10S-H**


p.573/**FLUID-10S-E**


p.573/**FLUID-10S-PM**


p.573/**NE-10M**


p.574/**NE-10H**


p.574/ **NE-10E**


p.574/**NE-10PM**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** FLUID-20N


p. 576/ **FLUID-20N-M**


p. 576/ **FLUID-20N-H**


p. 576/ **FLUID-20N-E**


p. 577 / **NE-20M**


p. 577 / **NE-20H**


p. 577 / **NE-20E**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** FLUID-30


p. 580 / **FLUID-30M**


p. 580 / **FLUID-30H**


p. 580 / **NE-30M**


p. 581 / **NE-30H**


p. 581 / **NE-30E**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** MICRO SERIES


p. 584 / **MICRO-H**


p. 584 / **AMC-H**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** MINI SERIES


p. 586 / **MINI-M**


p. 586 / **MINI-H**


p. 586 / **MINI-E**


p. 587 / **MINI-RR**


p. 587 / **MINI-MM**


p. 587 / **MINI-RRR**


p. 588 / **AMN-M**


p. 588 / **AMN-H**


p. 588 / **AMN-E**


p. 589 / **AMN-RR**


p. 589 / **AMN-RRR**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** MINI-DO SERIES


p. 592 / **MINIDO-M**


p. 592 / **MINIDO-H**


p. 593 / **MINIDO-E**


p. 593 / **MINIDO-RR**


p. 593 /**MINIDO-MM**


p. 594 /**MINIDO-RRR**


p. 594 / **AMNDO-M**


p. 594 / **AMNDO-H**


p. 595 / **AMNDO-E**


p. 595 / **AMNDO-RR**


p. 595 /**AMNDO-MM**


p. 596 /**AMNDO-RRR**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** EUROSTANDARD


p. 598 / **EU-75N-M**


p. 599 / **EU-75N-H**


p. 599 / **EU-75N-E**


p. 600 / **EU-75N-PM**


p. 600 / **EU-75S-M**


p. 600 / **EU-75S-H**


p. 601 / **EU-75S-E**


p. 601 / **EU-75S-PM**


p. 601 / **AEU-75M**


p. 602 / **AEU-75H**


p. 602 / **AEU-75E**


p. 602 / **AEU-75PM**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** EUROSTANDARD-DO


p. 604 / **EU-DO75-M**


p. 604 / **EU-DO75-H**


p. 605 / **EU-DO75-E**


p. 605 / **AEU-DO75M**


p. 605 / **AEU-DO75H**


p. 606 / **AEU-DO75E**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** EUROFLUID


p. 608 / **EUROFLUID-M**


p. 608 / **EUROFLUID-H**


p. 608 / **EUROFLUID-E**


p. 609 /**EUROFLUID-PM**


p. 609 / **NE-10M**


p. 609 / **NE-10H**


p. 610 / **NE-10E**


p. 610 / **NE-10PM**


p. 610 / **AEU-75M**


p. 611 / **AEU-75H**


p. 611 / **AEU-75E**


p. 611 / **AEU-75PM**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** CRHL-12


p. 614 / **CRHL12-M**


p. 614 / **CRHL12-R-M**


p. 614 / **CRHL12-H**


p. 615 / **CRHL12-R-H**


p. 615 / **ACRHL12-M-C**


p. 615 / **ACRHL12-H**

## **QUICK COUPLINGS AIR&FLUIDS - HIGH PERFORMANCE /** CRM-55


p. 618 / **CRM-55-M**


p. 618 / **CRM-55-H**


p. 618 / **CRM-55-E**


p. 619 / **ACRM-55-M**


p. 619 / **ACRM-55-H**


p. 619 / **ACRM-55-E**

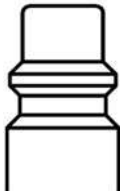
## CONNECTION PROFILES



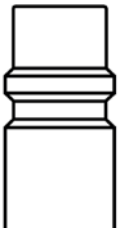
**FLUID-10N**
DN 5,5



**FLUID-10S**
DN 5,5



**FLUID-20N**
DN 8



**FLUID-30**
DN 12



**MICRO**
DN 2,5



**MINI**
DN 5,5



**MINIDO**
DN 4,2



**EU-75N**
DN 7,6



**EU-75S**
DN 7,6



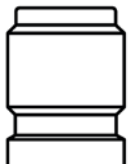
**EU-DO75**
DN 5,1



**EUROFLUID NE-10**
DN 5,5



**EUROFLUID AEU-75**
DN 7,6

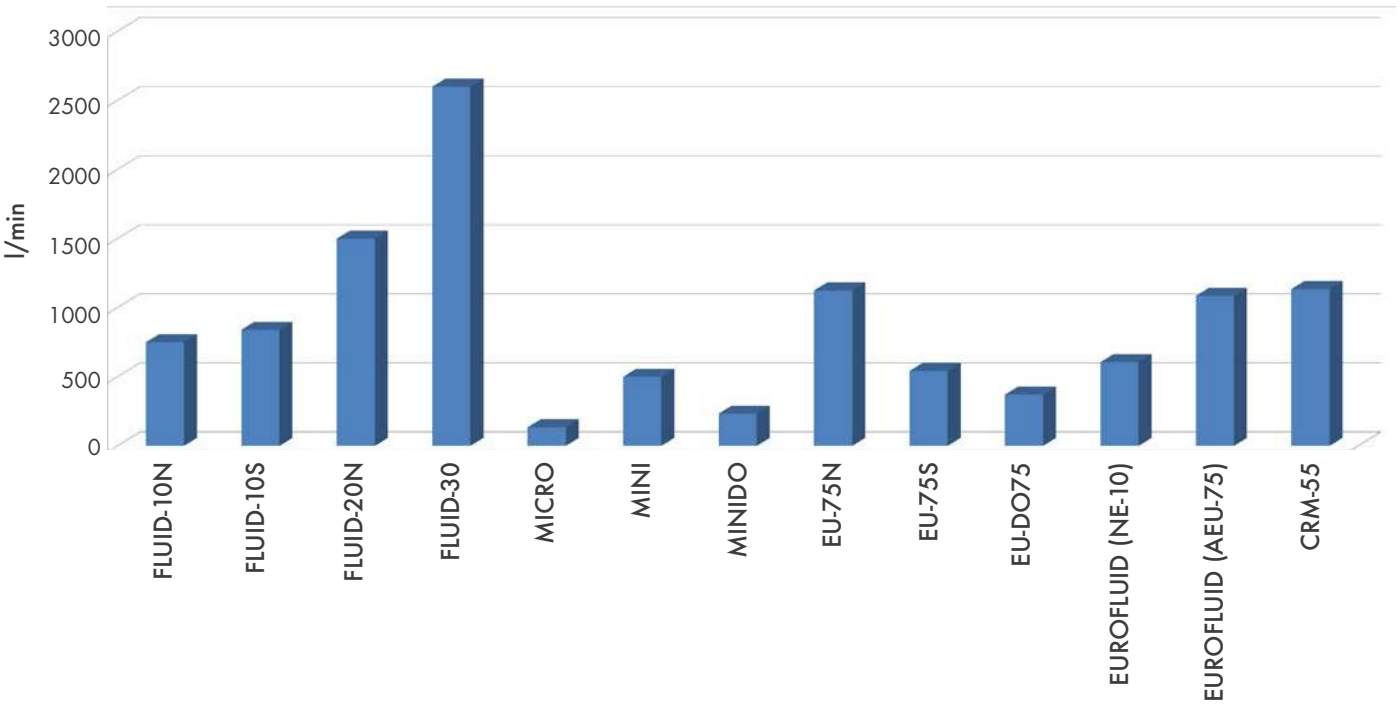


**CHRL12**
DN 12,1



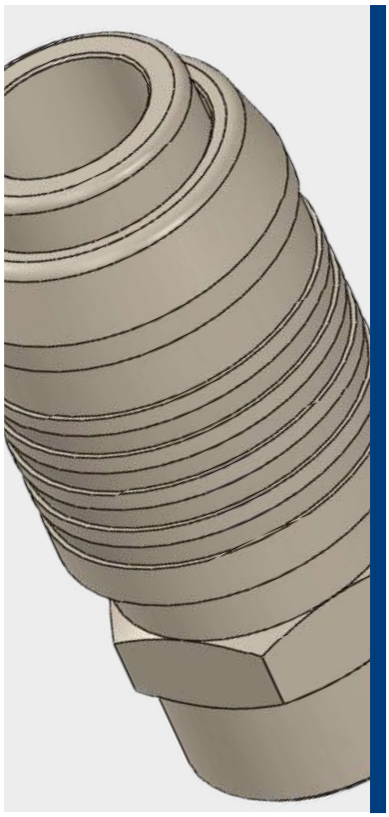
**CRM-55**
DN 8,5

## FLOW CHART




## MATERIALS TABLE

| MATERIALS FOR SERIES | BRASS | STEEL | STAINLESS STEEL AISI 303 | STAINLESS STEEL AISI 316 | SAFETY | PL | SO | DO |
|---|---|---|---|---|---|---|---|---|
| FLUID-10N | | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| FLUID-10S | | ✓ | | | ✓ | | ✓ | |
| FLUID-20N | | ✓ | | | | ✓ | ✓ | |
| FLUID-30 | | ✓ | | | | ✓ | ✓ | |
| MICRO | ✓ | | | | | ✓ | ✓ | |
| MINI | ✓ | | | ✓ | | ✓ | ✓ | |
| MINIDO | ✓ | | | ✓ | | | | ✓ |
| EU-75N | | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| EU-75S | ✓ | | | | ✓ | | ✓ | |
| EU-DO75 | ✓ | | | ✓ | | | | ✓ |
| EUROFLUID | | ✓ | | | | ✓ | ✓ | |
| CRHL-12 | ✓ | | ✓ | ✓ | | ✓ | | |
| CRM-55 | ✓ | | | | | ✓ | ✓ | |



**FLUID-10N:**
NBR: -10°C ÷ 95°C
FKM: -20°C ÷ 205°C
**FLUID-10S - SAFETY:**
NBR: -10°C ÷ 95°C
Standard version: NBR
Stainless steel AISI 316 version: FKM

**Working pressure**
**FLUID-10N:**
0-12 Bar (suggested)
35 Bar (max)
**FLUID-10S:**
0-7 Bar (suggested)

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

**FLUID-10N:** Compressed air
**FLUID-10N-LX:** Compressed air
**FLUID-10N-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials
**FLUID-10N-X-316:** Compressed air, water, chemicals, applications in highly corrosive environments and fluids suitable with construction materials
**FLUID-10S:** Compressed air

## REGULATION

ISO 6150 B12

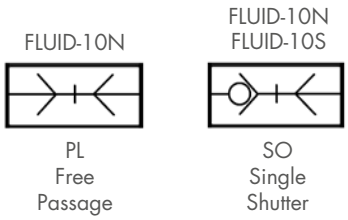
## NOMINAL DIAMETER

5,5 mm

## FLOWRATE

750 l/min (FLUID-10N)
840 l/min (FLUID-10S - SAFETY)

## CONFIGURATIONS




Products in compliance with EC Regulation 1907/2006

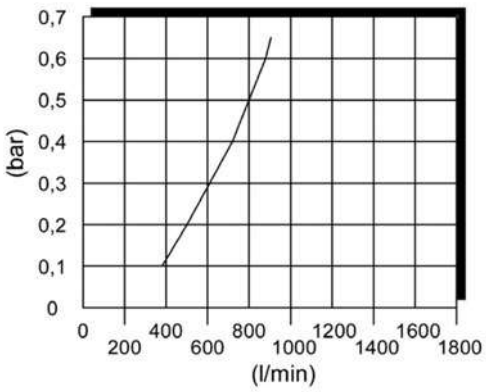
Products in compliance with the directive EU 2015/863

| COMPONENTS | FLUID-10N | FLUID-10N-LX | FLUID-10N-X | FLUID-10N-316X | FLUID-10S SAFETY |
|---|---|---|---|---|---|
| Body | Nickel-plated steel | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated steel |
| Slide | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated steel |
| Adapter | Nickel-plated brass | Nickel-plated brass | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated brass |
| Valve | Nickel-plated brass | Nickel-plated brass | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated brass |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 316 | Stainless steel AISI 316 | Stainless steel AISI 302 |
| Ball | Chromed steel | Chromed steel | Stainless steel AISI 316 | Stainless steel AISI 316 | Chromed steel |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 316 | Stainless steel AISI 316 | Stainless steel AISI 302 |
| Cartridge | - | - | - | - | Nickel-plated steel |
| Seal | NBR | NBR | NBR - FKM | NBR - FKM | NBR |

| CONNECTION | NE-10 | | NE-10-X | NE-10-316X | |
|---|---|---|---|---|---|
| Body | Hardened nickel-plated steel | | Stainless steel AISI 303 | Stainless steel AISI 316 | |

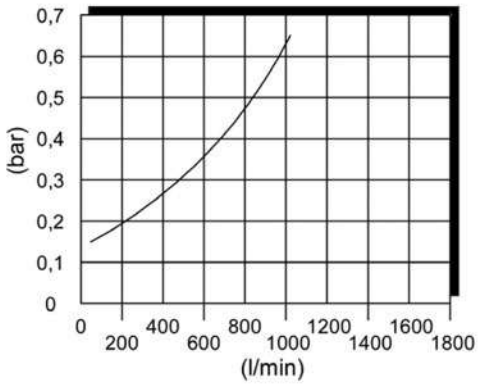
**FLOW CHART**
FLUID-10N

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




**FLOW CHART**
FLUID-10S - SAFETY

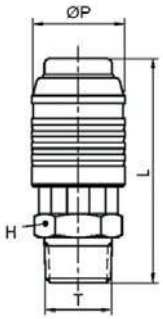
Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## FLUID-10N-M

Male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-10N-M1/4 | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-PL | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-LX | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-LX-PL | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-X | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-X-PL | R 1/4" | 23,4 | 54,5 | 19 |
| FLUID-10N-M1/4-316X | R 1/4" | 23,4 | 53,0 | 21 |
| FLUID-10N-M1/4-316X-PL | R 1/4" | 23,4 | 53,0 | 21 |
| FLUID-10N-M3/8 | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M3/8-PL | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M3/8-LX | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M3/8-LX-PL | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M3/8-X | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M3/8-X-PL | R 3/8" | 23,4 | 55,5 | 19 |
| FLUID-10N-M1/2 | R 1/2" | 23,4 | 60,0 | 22 |
| FLUID-10N-M1/2-PL | R 1/2" | 23,4 | 60,0 | 22 |
| FLUID-10N-M1/2-LX | R 1/2" | 23,4 | 60,0 | 22 |
| FLUID-10N-M1/2-LX-PL | R 1/2" | 23,4 | 60,0 | 22 |
| FLUID-10N-M1/2-X | R 1/2" | 23,4 | 60,0 | 22 |
| FLUID-10N-M1/2-X-PL | R 1/2" | 23,4 | 60,0 | 22 |

Male quick coupling BSPP thread

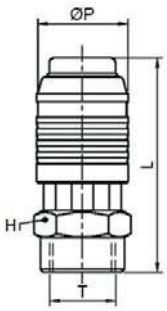
| | | | | |
|---|---|---|---|---|
| FLUID-10N-M1/4G | G 1/4" | 23,4 | 53,0 | 21 |
| FLUID-10N-M1/4G-PL | G 1/4" | 23,4 | 53,0 | 21 |
| FLUID-10N-M3/8G | G 3/8" | 23,4 | 54,5 | 21 |
| FLUID-10N-M3/8G-PL | G 3/8" | 23,4 | 54,5 | 21 |
| FLUID-10N-M1/2G | G 1/2" | 23,4 | 57,5 | 24 |
| FLUID-10N-M1/2G-PL | G 1/2" | 23,4 | 57,5 | 24 |

**-PL:** Free Passage

## FLUID-10N-H

Female quick coupling BSPP thread





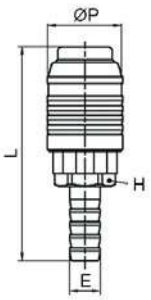

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-10N-H1/4 | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-PL | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-LX | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-LX-PL | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-X | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-X-PL | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-316X | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H1/4-316X-PL | G 1/4" | 23,4 | 52,5 | 19 |
| FLUID-10N-H3/8 | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H3/8-PL | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H3/8-LX | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H3/8-LX-PL | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H3/8-X | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H3/8-X-PL | G 3/8" | 23,4 | 54,0 | 22 |
| FLUID-10N-H1/2 | G 1/2" | 23,4 | 58,2 | 25 |
| FLUID-10N-H1/2-PL | G 1/2" | 23,4 | 58,2 | 25 |
| FLUID-10N-H1/2-LX | G 1/2" | 23,4 | 58,2 | 25 |
| FLUID-10N-H1/2-LX-PL | G 1/2" | 23,4 | 58,2 | 25 |
| FLUID-10N-H1/2-X | G 1/2" | 23,4 | 58,2 | 24 |
| FLUID-10N-H1/2-X-PL | G 1/2" | 23,4 | 58,2 | 24 |

-PL: Free Passage

## FLUID-10N-E

Quick coupling with barb connnector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| FLUID-10N-E6 | 7,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E6-PL | 7,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8 | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-PL | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-LX | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-LX-PL | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-X | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-X-PL | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-316X | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E8-316X-PL | 9,2 | 23,4 | 62,0 | 19 |
| FLUID-10N-E10 | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E10-PL | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E10-LX | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E10-LX-PL | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E10-X | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E10-X-PL | 11,2 | 23,4 | 66,0 | 19 |
| FLUID-10N-E12 | 13,2 | 23,4 | 71,0 | 19 |
| FLUID-10N-E12-PL | 13,2 | 23,4 | 71,0 | 19 |
| FLUID-10N-E12-X | 13,2 | 23,4 | 71,0 | 19 |
| FLUID-10N-E12-X-PL | 13,2 | 23,4 | 71,0 | 19 |

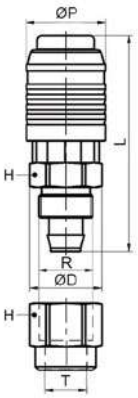
-PL: Free Passage

*drawings and technical data are not binding & can be changed without notice*

## FLUID-10N-PM

Quick coupling with push-on connector






| CODE | TUBE Ø | R | ØP | L | H | H1 |
|---|---|---|---|---|---|---|
| FLUID-10N-PM08 | 8x12 | M16x1 | 23,4 | 64,7 | 19 | 19 |
| FLUID-10N-PM08-PL | 8x12 | M16x1 | 23,4 | 64,7 | 19 | 19 |
| FLUID-10N-PM08-X | 8x12 | M16x1 | 23,4 | 64,7 | 19 | 19 |
| FLUID-10N-PM08-X-PL | 8x12 | M16x1 | 23,4 | 64,7 | 19 | 19 |
| FLUID-10N-PM10 | 10x15 | M20x1 | 23,4 | 69,5 | 22 | 22 |
| FLUID-10N-PM10-PL | 10x15 | M20x1 | 23,4 | 69,5 | 22 | 22 |

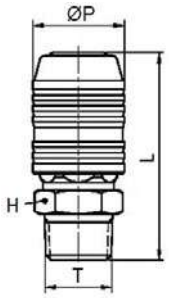
Recommended for use with PU-PVC tube on page 751

**-PL:** Free Passage

## FLUID-10S-M

Safety male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-10S-M1/4 | R 1/4" | 26,6 | 55,7 | 19 |
| FLUID-10S-M3/8 | R 3/8" | 26,6 | 56,7 | 19 |
| FLUID-10S-M1/2 | R 1/2" | 26,6 | 61,2 | 22 |

Safety male quick coupling BSPP thread

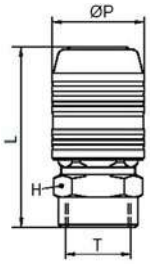
| | | | | |
|---|---|---|---|---|
| FLUID-10S-M1/4G | G 1/4" | 26,6 | 54,2 | 21 |
| FLUID-10S-M3/8G | G 3/8" | 26,6 | 55,7 | 21 |
| FLUID-10S-M1/2G | G 1/2" | 26,6 | 54,2 | 24 |

**FLUID-10S-M**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## FLUID-10S-H

Safety female quick coupling BSPP thread





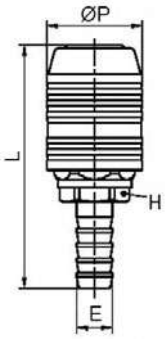

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-10S-H1/4 | G 1/4" | 26,6 | 53,7 | 19 |
| FLUID-10S-H3/8 | G 3/8" | 26,6 | 55,2 | 22 |
| FLUID-10S-H1/2 | G 1/2" | 26,6 | 59,4 | 25 |

**FLUID-10S-H**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## FLUID-10S-E

Safety quick coupling with barb connector





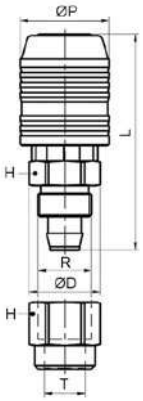

| CODE | E | ØP | L | H |
|---|---|---|---|---|
| FLUID-10S-E6 | 7,2 | 26,6 | 63,2 | 19 |
| FLUID-10S-E8 | 9,2 | 26,6 | 63,2 | 19 |
| FLUID-10S-E10 | 11,2 | 26,6 | 67,2 | 19 |
| FLUID-10S-E12 | 13,2 | 26,6 | 72,2 | 19 |
| FLUID-10S-E13 | 13,8 | 26,6 | 72,2 | 19 |

**FLUID-10S-E**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## FLUID-10S-PM

Safety quick coupling with push-on connector






| CODE | TUBE Ø | R | ØP | L | H | H1 |
|---|---|---|---|---|---|---|
| FLUID-10S-PM08 | 8x12 | M16x1 | 26,6 | 64,7 | 19 | 19 |
| FLUID-10S-PM10 | 10x15 | M20x1 | 26,6 | 69,5 | 22 | 22 |

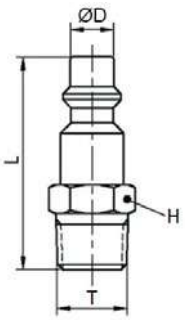
Recommended for use with PU-PVC tube on page 751

**FLUID-10S-PM**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## NE-10M

Male connection BSPT thread



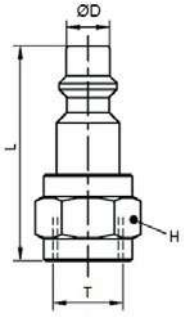



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-10M | R 1/4" | 8 | 40,0 | 14 |
| NE-10M-X | R 1/4" | 8 | 40,0 | 14 |
| NE-10M-316X | R 1/4" | 8 | 40,0 | 14 |
| NE-10M-3/8 | R 3/8" | 8 | 42,5 | 17 |
| NE-10M-3/8-X | R 3/8" | 8 | 42,5 | 17 |
| NE-10M-1/2 | R 1/2" | 8 | 46,0 | 22 |
| NE-10M-1/2-X | R 1/2" | 8 | 46,0 | 22 |

## NE-10H

Female connection BSPP thread



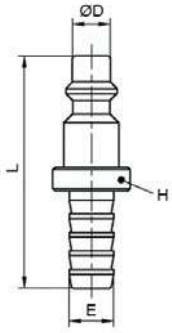



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-10H | G 1/4" | 8 | 40,0 | 17 |
| NE-10H-X | G 1/4" | 8 | 40,0 | 17 |
| NE-10H-316X | G 1/4" | 8 | 40,0 | 17 |
| NE-10H-3/8 | G 3/8" | 8 | 41,5 | 22 |
| NE-10H-1/2 | G 1/2" | 8 | 44,0 | 25 |

## NE-10E

Connection with barb connector



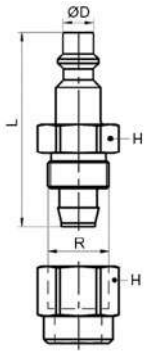



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| NE-10E-6 | 7,2 | 8 | 46,0 | 14 |
| NE-10E-8 | 9,2 | 8 | 47,0 | 14 |
| NE-10E-X | 9,2 | 8 | 47,0 | 14 |
| NE-10E-10 | 11,2 | 8 | 52,0 | 14 |
| NE-10E-10-X | 11,2 | 8 | 52,0 | 14 |
| NE-10E-10-316X | 11,2 | 8 | 52,0 | 14 |
| NE-10E-12 | 13,2 | 8 | 54,0 | 14 |

## NE-10PM

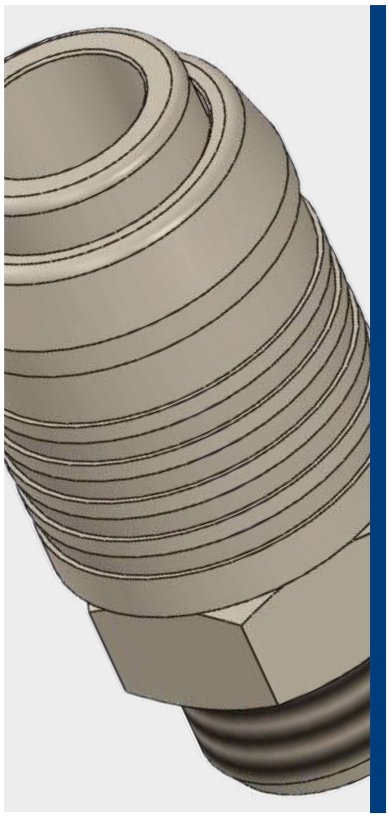
Connection with push-on connector






| CODE | TUBE Ø | R | ØD | L | H |
|---|---|---|---|---|---|
| NE-10PM-08 | 8x12 | M16x1 | 8 | 50,7 | 19 |
| NE-10PM-08-X | 8x12 | M16x1 | 8 | 50,7 | 19 |
| NE-10PM-10 | 10x15 | M20x1 | 8 | 55,5 | 22 |

Recommended for use with PU-PVC tube on page 751



-10°C ÷ 95°C

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

Compressed air

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 G3/8" and G1/2"

## REGULATION

ISO 6150 B15

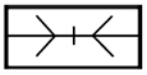
## NOMINAL DIAMETER

8 mm

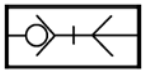
## FLOWRATE

1500 l/min

## CONFIGURATIONS



PL
Free
Passage



SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

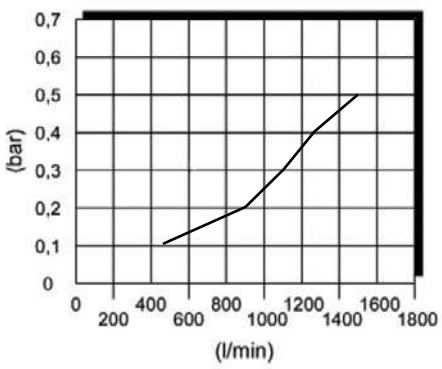
Products in compliance with the directive EU 2015/863

| COMPONENTS | FLUID-20N |
|---|---|
| Body | Nickel-plated steel |
| Slide | Nickel-plated steel |
| Adapter | Nickel-plated brass |
| Valve | Nickel-plated brass |
| Spring | Stainless steel AISI 302 |
| Ball | Chromed steel |
| Retaining ring | Stainless steel AISI 302 |
| Seal | NBR |

| CONNECTION | NE-20 |
|---|---|
| Body | Nickel-plated steel |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## VIEW - QUICK COUPLING FLUID-20N-M

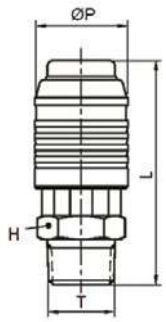


*drawings and technical data are not binding & can be changed without notice*

## FLUID-20N-M

Male quick coupling BSPT thread





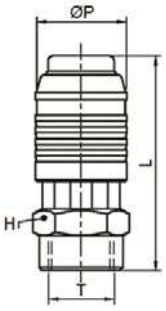

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-20N-M3/8 | R 3/8" | 27,6 | 59,5 | 21 |
| FLUID-20N-M3/8-PL | R 3/8" | 27,6 | 59,5 | 21 |
| FLUID-20N-M1/2 | R 1/2" | 27,6 | 63,0 | 22 |
| FLUID-20N-M1/2-PL | R 1/2" | 27,6 | 63,0 | 22 |

**-PL:** Free Passage

## FLUID-20N-H

Female quick coupling BSPP thread





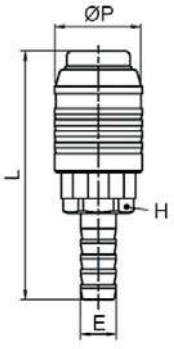

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-20N-H3/8 | G 3/8" | 27,6 | 59,0 | 22 |
| FLUID-20N-H3/8-PL | G 3/8" | 27,6 | 59,0 | 22 |
| FLUID-20N-H1/2 | G 1/2" | 27,6 | 59,0 | 25 |
| FLUID-20N-H1/2-PL | G 1/2" | 27,6 | 59,0 | 25 |

**-PL:** Free Passage

## FLUID-20N-E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| FLUID-20N-E10 | 11,2 | 27,6 | 73,0 | 21 |
| FLUID-20N-E10-PL | 11,2 | 27,6 | 73,0 | 21 |
| FLUID-20N-E12 | 13,2 | 27,6 | 75,0 | 21 |
| FLUID-20N-E12-PL | 13,2 | 27,6 | 75,0 | 21 |

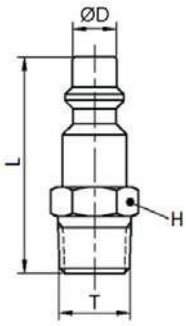
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## NE-20M

Male connection BSPT thread



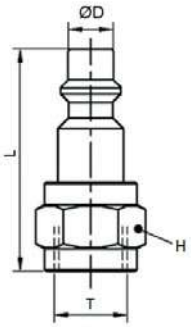



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-20M-1/4 | R 1/4" | 10,8 | 44,1 | 17 |
| NE-20M | R 3/8" | 10,8 | 45,1 | 17 |
| NE-20M-1/2 | R 1/2" | 10,8 | 48,1 | 22 |

## NE-20H

Female connection BSPP thread



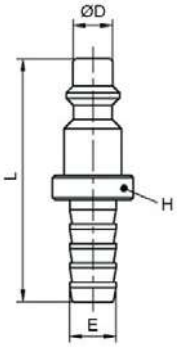



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-20H | G 3/8" | 10,8 | 42,6 | 22 |
| NE-20H-1/2 | G 1/2" | 10,8 | 47,6 | 27 |

## NE-20E

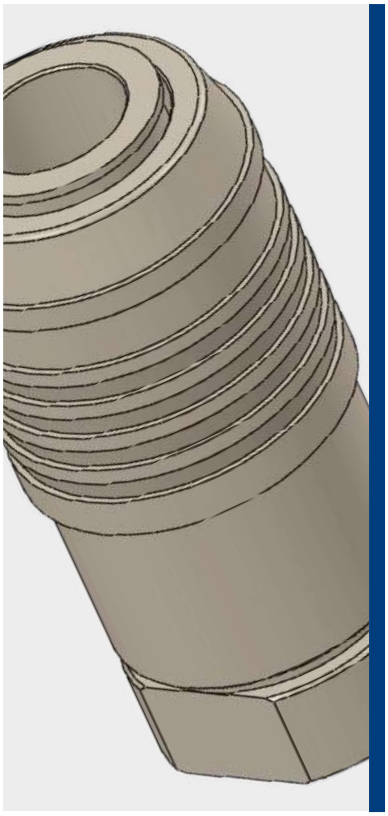
Connection with barb connector






| CODE | E | ØD | L | H |
|---|---|---|---|---|
| NE-20E | 11,2 | 10,8 | 54,1 | 20 |
| NE-20E-13 | 13,8 | 10,8 | 59,1 | 20 |





-10°C ÷ 95°C

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

Compressed air

- Taper gas BSPT ISO 7 R1/2"
- Parallel gas BSPP ISO 228 G3/8" and G1/2"

## REGULATION

ISO 6150 B17

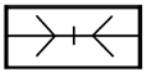
## NOMINAL DIAMETER

12 mm

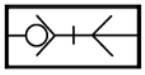
## FLOWRATE

2006 l/min

## CONFIGURATIONS



PL
Free
Passage



SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

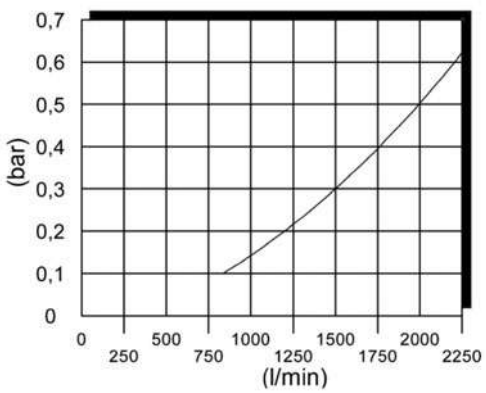
Products in compliance with the directive EU 2015/863

| COMPONENTS | FLUID-30 |
|---|---|
| Body | Nickel-plated steel |
| Slide | Nickel-plated steel |
| Adapter | Nickel-plated brass |
| Valve | Stainless steel AISI 303 |
| Spring | Stainless steel AISI 302 |
| Retainig ring | Stainless steel AISI 302 |
| Washer | Stainless steel AISI 304 |
| Pins | Stainless steel AISI 303 |
| Seal | NBR |

| CONNECTION | NE-30 |
|---|---|
| Body | Hardened nickel-plated steel |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



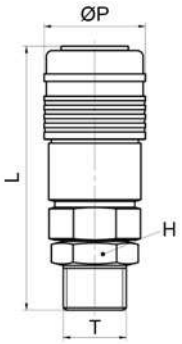

## VIEW - QUICK COUPLING FLUID-30H



## FLUID-30M

Male quick coupling BSPP thread





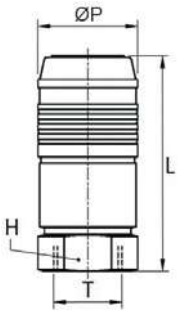

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-30M | G 1/2" | 33,6 | 88,0 | 27 |
| FLUID-30M-PL | G 1/2" | 33,6 | 88,0 | 27 |

**-PL:** Free Passage

## FLUID-30H

Female quick coupling BSPP thread





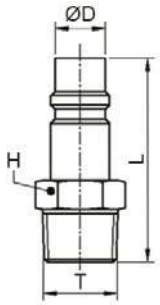

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| FLUID-30 | G 1/2" | 33,6 | 65,5 | 27 |
| FLUID-30-PL | G 1/2" | 33,6 | 65,5 | 27 |

**-PL:** Free Passage

## NE-30M

Male connection BSPT thread



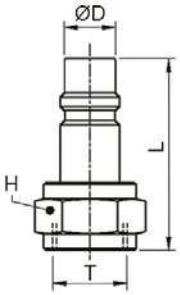



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-30M | R 1/2" | 14,3 | 58,5 | 22 |

## NE-30H

Female connection BSPP thread



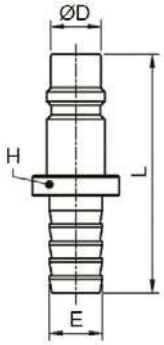



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-30H-3/8 | G 3/8" | 14,3 | 54,0 | 22 |
| NE-30H | G 1/2" | 14,3 | 54,0 | 27 |

## NE-30E

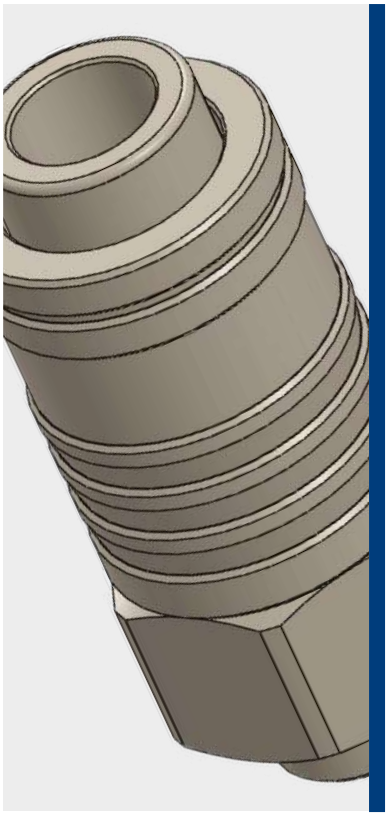
Connection with barb connector






| CODE | E | ØD | L | H |
|---|---|---|---|---|
| NE-30E | 15,2 | 14,3 | 69,0 | 25 |





**NBR:** -10°C ÷ 95°C
**FKM:** -20°C ÷ 205°C
Standard version: NBR

**Working pressure:**
0-12 Bar (suggested)
20 Bar (max)

Compressed air and fluids suitable with construction materials

- Taper gas BSPT ISO 7
  R1/8"
- Parallel gas BSPP ISO 228
  G1/8"
- Metric ISO 262
  M5

## NOMINAL DIAMETER

2,5 mm

## FLOWRATE

135 l/min

## CONFIGURATIONS

SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

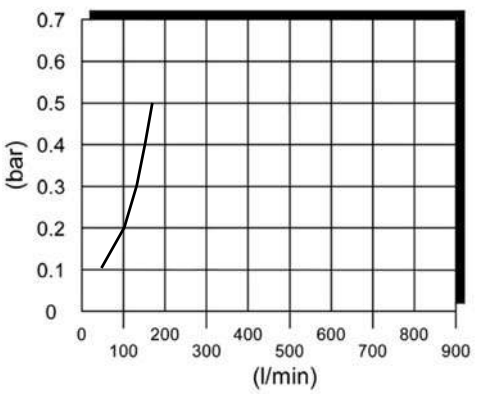
Products in compliance with the directive EU 2015/863

| COMPONENTS | MICRO |
|---|---|
| Body | Nickel-plated brass |
| Slide | Nickel-plated brass |
| Adapter | Nickel-plated brass |
| Valve | Nickel-plated brass |
| Spring | Stainless steel AISI 302 |
| Ball | Stainless steel AISI 420 |
| Retaining ring | Stainless steel AISI 302 |
| Seal | NBR - FKM |

| CONNECTION | AMC |
|---|---|
| Body | Nickel-plated brass |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



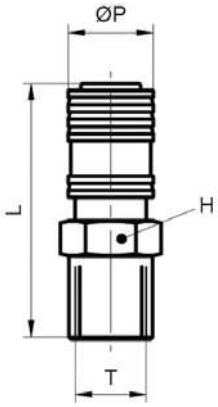

## VIEW - QUICK COUPLING MICRO-M



## MICRO-H

Female micro quick coupling BSPP & metric thread



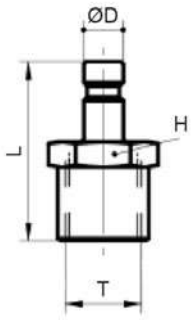



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| MICRO-HM5-L | M5x0,8 | 11,7 | 32,9 | 11 |
| MICRO-H18-L | G 1/8" | 11,7 | 35,4 | 12 |

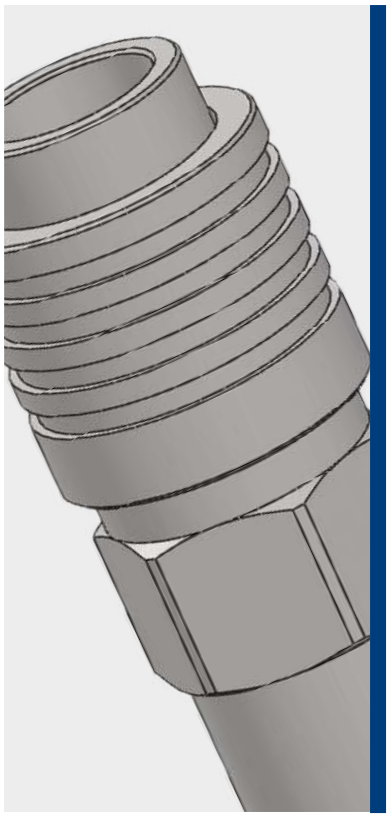
## AMC-H

Female micro connection BSPP thread






| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AMC-H18-L | G 1/8" | 5 | 22,5 | 12 |



**NBR:** -10°C ÷ 95°C
**FKM:** -20°C ÷ 205°C
Standard version (MINI-L): NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

**MINI-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils, applications in non-corrosive environments and fluids suitable with construction materials
**MINI-316:** Compressed air, water, grease, oils, mild acids, applications in highly oxidising or corrosive environments and fluids suitable with construction materials

Parallel gas BSPP ISO 228 from G1/8" to G3/8"

## NOMINAL DIAMETER

5,5 mm

## FLOWRATE

500 l/min

## CONFIGURATIONS

SO
Single
Shutter

Food contact materials
EC 1935/2004
MINI-316 &
AMN-316 Series

D.M. 174/2004
MINI-316 &
AMN-316 Series

Products in compliance with EC Regulation 1907/2006

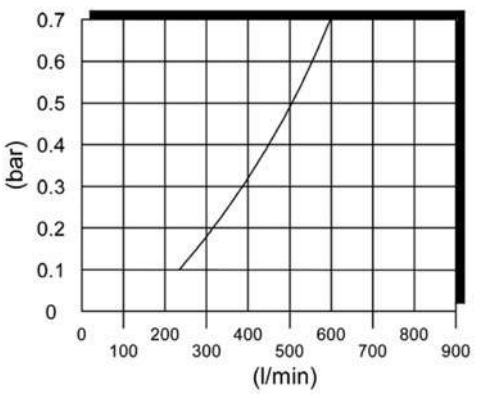
Products in compliance with the directive EU 2015/863

| COMPONENTS | MINI-L | MINI-316 |
|---|---|---|
| Body | Nickel-plated brass | Stainless steel AISI 316 |
| Slide | Nickel-plated steel | Stainless steel AISI 316 |
| Adapter | Nickel-plated brass | Stainless steel AISI 316 |
| Valve | Nickel-plated brass | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Ball | Stainless steel AISI 316 | Stainless steel AISI 316 |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Wrench | Nickel-plated brass | Stainless steel AISI 316 |
| Seal | NBR - FKM | FKM |

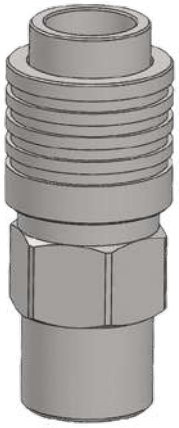
| CONNECTION | AMN-L | AMN-316 |
|---|---|---|
| Body | Nickel-plated brass | Stainless steel AISI 316 |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



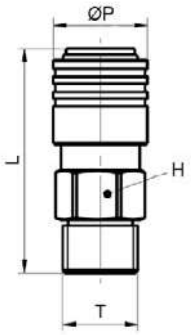

## VIEW - QUICK COUPLING MINI-H



## MINI-M

Male mini quick coupling BSPP thread



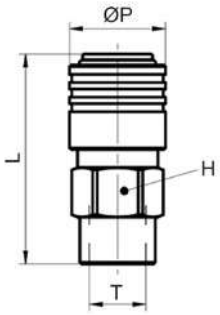



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| MINI-M1-L | G 1/8" | 16,5 | 36,2 | 14 |
| MINI-M1-316V | G 1/8" | 16,5 | 36,2 | 14 |
| MINI-M-L | G 1/4" | 16,5 | 38,2 | 14 |
| MINI-M-316V | G 1/4" | 16,5 | 38,2 | 14 |
| MINI-M3-316V | G 3/8" | 16,5 | 39,2 | 19 |

## MINI-H

Female mini quick coupling BSPP thread



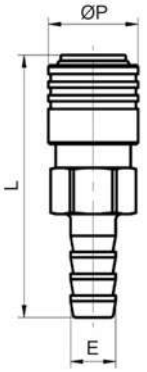



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| MINI-H1-L | G 1/8" | 16,5 | 37,2 | 14 |
| MINI-H1-316V | G 1/8" | 16,5 | 37,2 | 14 |
| MINI-H-L | G 1/4" | 16,5 | 39,2 | 17 |
| MINI-H-316V | G 1/4" | 16,5 | 39,2 | 17 |

## MINI-E

Mini quick coupling with barb connector





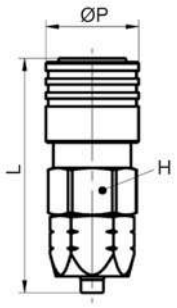

| CODE | E | ØP | L | H |
|---|---|---|---|---|
| MINI-E6-L | 6,3 | 16,5 | 48,2 | 14 |
| MINI-E6-316V | 6,3 | 16,5 | 48,2 | 14 |
| MINI-E8-L | 8,3 | 16,5 | 48,2 | 14 |
| MINI-E8-316V | 8,3 | 16,5 | 48,2 | 14 |

*drawings and technical data are not binding & can be changed without notice*

## MINI-RR

Mini quick coupling with push-on connector



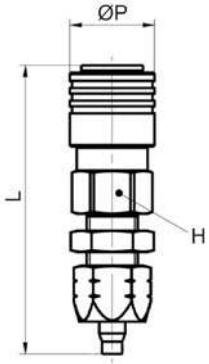



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINI-RR6-L | 6x4 | 16,5 | 43,2 | 14 |
| MINI-RR8-L | 8x6 | 16,5 | 43,2 | 14 |

## MINI-MM

Bulkhead mini quick coupling with push-on connector



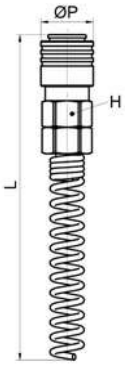



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINI-MM6-L | 6x4 | 16,5 | 56,7 | 14 |
| MINI-MM8-L | 8x6 | 16,5 | 56,7 | 14 |

## MINI-RRR

Mini quick coupling with push-on connector and spring



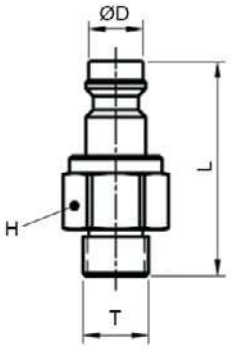



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINI-RR6R-L | 6x4 | 16,5 | 124,7 | 14 |
| MINI-RR8R-L | 8x6 | 16,5 | 123,2 | 14 |

## AMN-M

Male mini connection BSPP thread



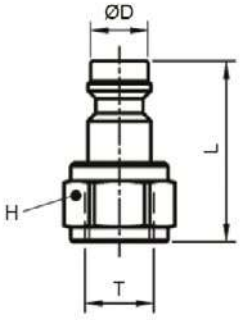



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AMN-M1-L | G 1/8" | 8,1 | 32,1 | 14 |
| AMN-M1-316 | G 1/8" | 8,1 | 32,1 | 14 |
| AMN-M-L | G 1/4" | 8,1 | 34,1 | 14 |
| AMN-M-316 | G 1/4" | 8,1 | 34,1 | 14 |

## AMN-H

Female mini connection BSPP thread



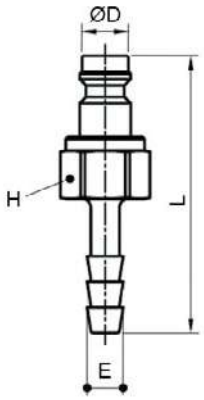



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AMN-H1-L | G 1/8" | 8,1 | 25,1 | 14 |
| AMN-H1-316 | G 1/8" | 8,1 | 25,1 | 14 |
| AMN-H-L | G 1/4" | 8,1 | 29,1 | 17 |
| AMN-H-316 | G 1/4" | 8,1 | 29,1 | 17 |

## AMN-E

Mini connection with barb connector





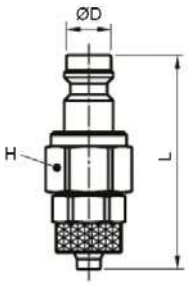

| CODE | E | ØD | L | H |
|---|---|---|---|---|
| AMN-E6-L | 6,3 | 8,1 | 37,1 | 14 |
| AMN-E8-L | 8,3 | 8,1 | 37,1 | 14 |

*drawings and technical data are not binding & can be changed without notice*

## AMN-RR

Mini connection with push-on connector



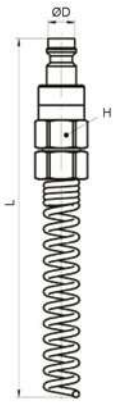



| CODE | TUBE Ø | ØD | L | H |
|---|---|---|---|---|
| AMN-RR6-L | 6x4 | 8,1 | 39,1 | 12 |
| AMN-RR6-316 | 6x4 | 8,1 | 39,1 | 12 |
| AMN-RR8-L | 8x6 | 8,1 | 39,1 | 14 |
| AMN-RR8-316 | 8x6 | 8,1 | 39,1 | 14 |

## AMN-RRR

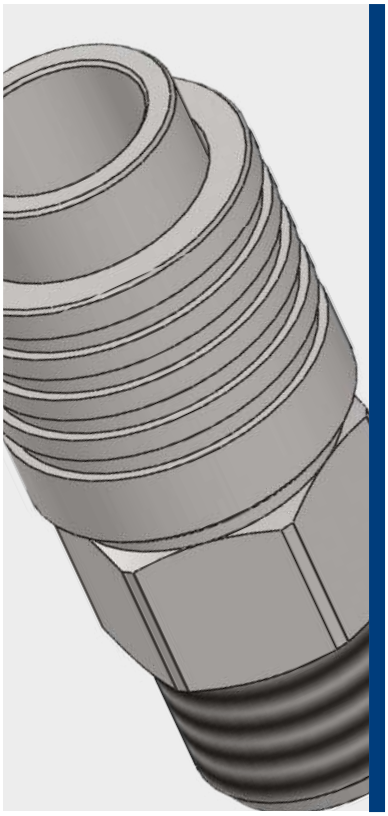
Mini connection with push-on connector and spring






| CODE | TUBE Ø | ØD | L | H |
|---|---|---|---|---|
| AMN-RR6R-L | 6x4 | 8,1 | 120,6 | 12 |
| AMN-RR8R-L | 8x6 | 8,1 | 119,1 | 14 |





**NBR:** -10°C ÷ 95°C
**FKM:** -15°C ÷ 200°C
Standard version (MINIDO-L): NBR

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

**MINIDO-L:** Compressed air, water, gas, non-aggressive mineral or synthetic oils, applications in non-corrosive environments and fluids suitable with construction materials
**MINIDO-316:** Compressed air, water, grease, oils, mild acids, applications in highly oxidising or corrosive environments and fluids suitable with construction materials

Parallel gas BSPP ISO 228 from G1/8" to G3/8"

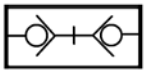
## NOMINAL DIAMETER

4,2 mm

## FLOWRATE

233 l/min

## CONFIGURATIONS



DO
Double
Shutter

Food contact materials EC 1935/2004 MINIDO-316 & AMNDO-316 Series

D.M. 174/2004 MINIDO-316 & AMNDO-316 Series

Products in compliance with EC Regulation 1907/2006

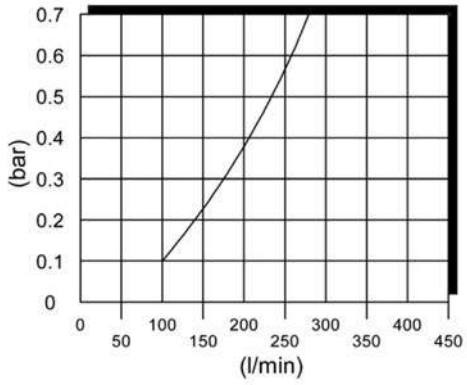
Products in compliance with the directive EU 2015/863

| COMPONENTS | MINIDO-L | MINIDO-316 |
|---|---|---|
| Body | Nickel-plated brass | Stainless steel AISI 316 |
| Slide | Nickel-plated steel | Stainless steel AISI 316 |
| Adapter | Nickel-plated brass | Stainless steel AISI 316 |
| Valve | Nickel-plated brass | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Ball | Stainless steel AISI 316 | Stainless steel AISI 316 |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Seal | NBR - FKM | FKM |

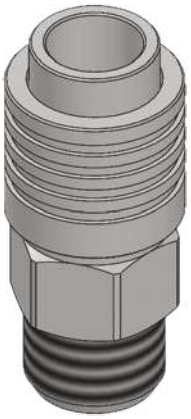
| CONNECTION | AMNDO-L | AMNDO-316 |
|---|---|---|
| Body | Nickel-plated brass | Stainless steel AISI 316 |
| Adapter | Nickel-plated brass | Stainless steel AISI 316 |
| Valve | Nickel-plated brass | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Seal | NBR - FKM | FKM |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



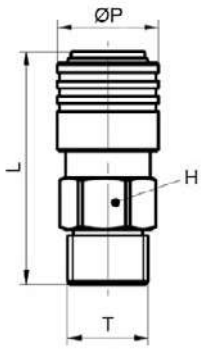

## VIEW - QUICK COUPLING MINIDO-M



## MINIDO-M

Male mini quick coupling BSPP thread



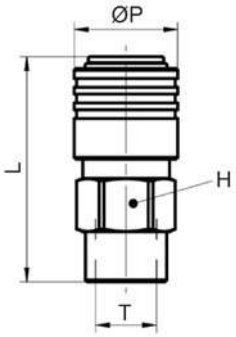



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| MINIDO-M1-L | G 1/8" | 16,5 | 36,2 | 14 |
| MINIDO-M1-316V | G 1/8" | 16,5 | 36,2 | 14 |
| MINIDO-M-L | G 1/4" | 16,5 | 38,2 | 14 |
| MINIDO-M-316V | G 1/4" | 16,5 | 38,2 | 14 |
| MINIDO-M3-316V | G 3/8" | 16,5 | 39,2 | 19 |

## MINIDO-H

Female mini quick coupling BSPP thread





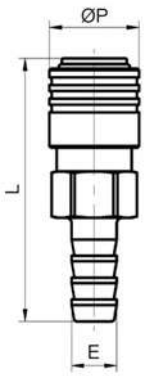

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| MINIDO-H1-L | G 1/8" | 16,5 | 37,2 | 14 |
| MINIDO-H1-316V | G 1/8" | 16,5 | 37,2 | 14 |
| MINIDO-H-L | G 1/4" | 16,5 | 39,2 | 17 |
| MINIDO-H-316V | G 1/4" | 16,5 | 39,2 | 17 |

*drawings and technical data are not binding & can be changed without notice*

## MINIDO-E

Mini quick coupling with barb connector



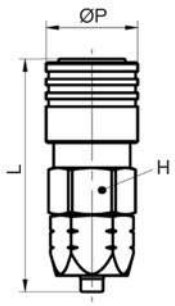



| CODE | E | ØP | L | H |
|---|---|---|---|---|
| MINIDO-E6-L | 6,3 | 16,5 | 48,2 | 14 |
| MINIDO-E6-316V | 6,3 | 16,5 | 48,2 | 14 |
| MINIDO-E8-L | 8,3 | 16,5 | 48,2 | 14 |
| MINIDO-E8-316V | 8,3 | 16,5 | 48,2 | 14 |

## MINIDO-RR

Mini quick coupling with push-on connector



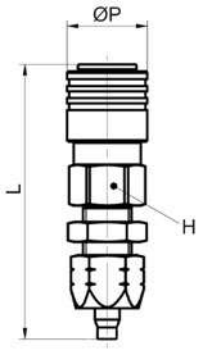



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINIDO-RR6-L | 6x4 | 16,5 | 43,2 | 14 |
| MINIDO-RR8-L | 8x6 | 16,5 | 43,2 | 14 |

## MINIDO-MM

Bulkhead mini quick coupling with push-on connector



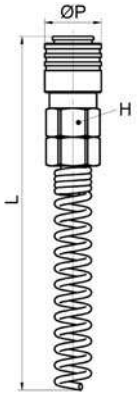



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINIDO-MM6-L | 6x4 | 16,5 | 56,7 | 14 |
| MINIDO-MM6-316V | 6x4 | 16,5 | 56,7 | 14 |
| MINIDO-MM8-L | 8x6 | 16,5 | 56,7 | 14 |
| MINIDO-MM8-316V | 8x6 | 16,5 | 56,7 | 14 |

## MINIDO-RRR

Mini quick coupling with push-on connector and spring



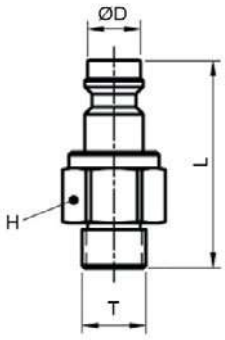



| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| MINIDO-RR6R-L | 6x4 | 16,5 | 124,7 | 14 |
| MINIDO-RR8R-L | 8x6 | 16,5 | 123,2 | 14 |

## AMNDO-M

Male mini connection with shutter, BSPP thread



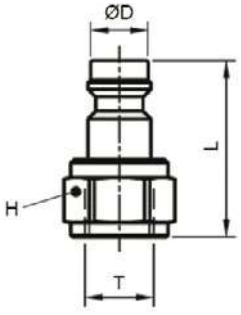



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AMNDO-M1-L | G 1/8" | 8,1 | 40,1 | 14 |
| AMNDO-M1-316V | G 1/8" | 8,1 | 40,1 | 14 |
| AMNDO-M-L | G 1/4" | 8,1 | 42,1 | 14 |
| AMNDO-M-316V | G 1/4" | 8,1 | 42,1 | 14 |
| AMNDO-M3-316V | G 3/8" | 8,1 | 43,1 | 19 |

## AMNDO-H

Female mini connection with shutter, BSPP thread





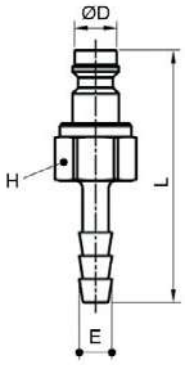

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AMNDO-H1-L | G 1/8" | 8,1 | 41,1 | 14 |
| AMNDO-H1-316V | G 1/8" | 8,1 | 41,1 | 14 |
| AMNDO-H-L | G 1/4" | 8,1 | 43,1 | 17 |
| AMNDO-H-316V | G 1/4" | 8,1 | 43,1 | 17 |

*drawings and technical data are not binding & can be changed without notice*

## AMNDO-E

Mini connection with shutter and barb connector



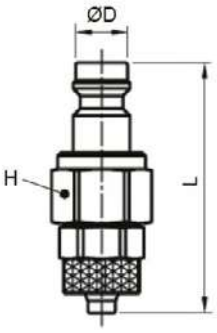



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| AMNDO-E6-L | 6,3 | 8,1 | 52,1 | 14 |
| AMNDO-E6-316V | 6,3 | 8,1 | 52,1 | 14 |
| AMNDO-E8-L | 8,3 | 8,1 | 52,1 | 14 |
| AMNDO-E8-316V | 8,3 | 8,1 | 52,1 | 14 |

## AMNDO-RR

Mini connection with shutter and push-on connector



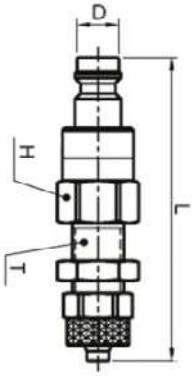



| CODE | TUBE Ø | ØD | L | H |
|---|---|---|---|---|
| AMNDO-RR6-L | 8x6 | 8,1 | 47,1 | 14 |
| AMNDO-RR8-L | 8x6 | 8,1 | 47,1 | 14 |

## AMNDO-MM

Bulkhead mini connection with shutter and push-on connector





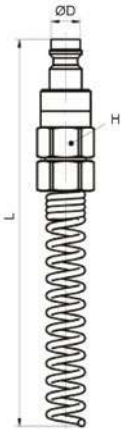

| CODE | TUBE Ø | ØD | L | H |
|---|---|---|---|---|
| AMNDO-MM6-L | 6x4 | 8,1 | 60,6 | 14 |
| AMNDO-MM6-316V | 6x4 | 8,1 | 60,6 | 14 |
| AMNDO-MM8-L | 8x6 | 8,1 | 60,6 | 14 |

*drawings and technical data are not binding & can be changed without notice*

## AMNDO-RRR

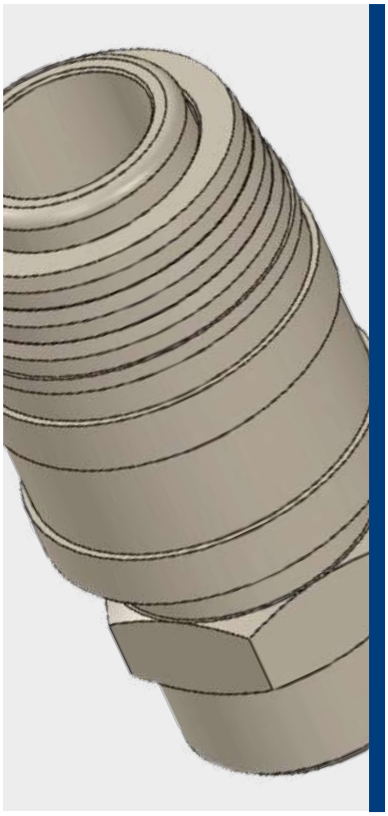
Mini connection with shutter, push-on connector and spring






| CODE | TUBE Ø | ØD | L | H |
|---|---|---|---|---|
| AMNDO-RR6R-L | 6x4 | 8,1 | 128,6 | 14 |
| AMNDO-RR8R-L | 8x6 | 8,1 | 127,1 | 14 |

*drawings and technical data are not binding & can be changed without notice*



**EU-75N:**
NBR: -10°C ÷ 95°C
FKM: -20°C ÷ 205°C
**EU-75S - SAFETY:**
NBR: -10°C ÷ 95°C
Standard version: NBR
Stainless steel AISI 316 version: FKM

**Working pressure**
**EU-75N:**
0-12 Bar (suggested)
35 Bar (max)
**FLUID-10S:**
0-7 Bar (suggested)

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

**EU-75N:** Compressed air
**EU-75N-X:** Compressed air, water, grease, oils, mild acids, applications in oxidising or corrosive environments and fluids suitable with construction materials
**EU-75N-X-316:** Compressed air, water, grease, oils, mild acids, applications in highly oxidising or corrosive environments and fluids suitable with construction materials
**EU-75S:** Compressed air

## PROFILE
Germany

## NOMINAL DIAMETER
7,6 mm

## FLOWRATE
1125 l/min (EU-75N)
542 l/min (EU-75S - SAFETY)

## CONFIGURATIONS

EU-75N
PL
Free
Passage

EU-75N
EU-75S
SO
Single
Shutter

Food contact materials
EC 1935/2004
EU-75N-316 &
AEU-75-316 Series

D.M. 174/2004
EU-75N-316 &
AEU-75-316 Series

Products in compliance with EC Regulation 1907/2006

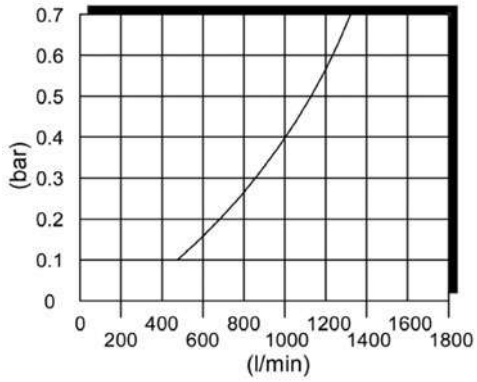
Products in compliance with the directive EU 2015/863

| COMPONENTS | EU-75N | EU-75N-X | EU-75N-316 | EU-75S - SAFETY |
|---|---|---|---|---|
| Body | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated steel |
| Slide | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated steel |
| Adapter | Nickel-plated brass | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated brass |
| Valve | Nickel-plated brass | Stainless steel AISI 303 | Stainless steel AISI 316 | Nickel-plated brass |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 316 | Stainless steel AISI 316 | Stainless steel AISI 302 |
| Ball | Chromed steel | Stainless steel AISI 316 | Stainless steel AISI 316 | Chromed steel |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 316 | Stainless steel AISI 316 | Stainless steel AISI 302 |
| Cartridge | - | - | - | Nickel-plated steel |
| Seal | NBR - FKM | NBR - FKM | FKM | NBR |

| CONNECTION | AEU-75 | AEU-75-X | AEU-75-316 |
|---|---|---|---|
| Body | Hardened nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 |

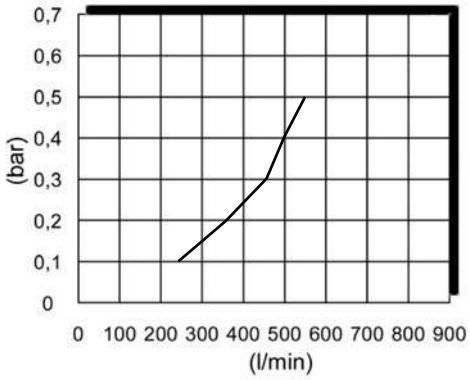
## FLOW CHART
EU-75N

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



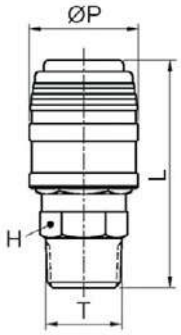

## FLOW CHART
EU-75S - SAFETY

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## EU-75N-M
Male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-75N-M1/4 | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M1/4-PL | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M1/4-X | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M1/4-X-PL | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M1/4-316V | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M1/4-316V-PL | R 1/4" | 24,4 | 51,7 | 19 |
| EU-75N-M3/8 | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M3/8-PL | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M3/8-X | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M3/8-X-PL | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M3/8-316V | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M3/8-316V-PL | R 3/8" | 24,4 | 52,7 | 19 |
| EU-75N-M1/2 | R 1/2" | 24,4 | 57,2 | 22 |
| EU-75N-M1/2-PL | R 1/2" | 24,4 | 57,2 | 22 |
| EU-75N-M1/2-X | R 1/2" | 24,4 | 57,2 | 22 |
| EU-75N-M1/2-X-PL | R 1/2" | 24,4 | 57,2 | 22 |
| EU-75N-M1/2-316V | R 1/2" | 24,4 | 57,2 | 22 |
| EU-75N-M1/2-316V-PL | R 1/2" | 24,4 | 57,2 | 22 |

Male quick coupling BSPP thread

| | | | | |
|---|---|---|---|---|
| EU-75N-M1/4G | G 1/4" | 24,4 | 50,2 | 21 |
| EU-75N-M1/4G-PL | G 1/4" | 24,4 | 50,2 | 21 |
| EU-75N-M3/8G | G 3/8" | 24,4 | 51,7 | 21 |
| EU-75N-M3/8G-PL | G 3/8" | 24,4 | 51,7 | 21 |
| EU-75N-M1/2G | G 1/2" | 24,4 | 54,7 | 24 |
| EU-75N-M1/2G-PL | G 1/2" | 24,4 | 54,7 | 24 |

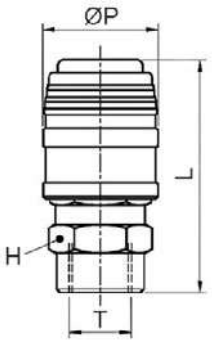
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## EU-75N-H

Female quick coupling BSPP thread





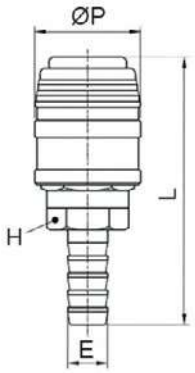

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-75N-H1/4 | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H1/4-PL | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H1/4-X | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H1/4-X-PL | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H1/4-316V | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H1/4-316V-PL | G 1/4" | 24,4 | 49,7 | 19 |
| EU-75N-H3/8 | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H3/8-PL | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H3/8-X | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H3/8-X-PL | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H3/8-316V | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H3/8-316V-PL | G 3/8" | 24,4 | 51,2 | 22 |
| EU-75N-H1/2 | G 1/2" | 24,4 | 55,4 | 25 |
| EU-75N-H1/2-PL | G 1/2" | 24,4 | 55,4 | 25 |
| EU-75N-H1/2-X | G 1/2" | 24,4 | 55,4 | 25 |
| EU-75N-H1/2-X-PL | G 1/2" | 24,4 | 55,4 | 25 |
| EU-75N-H1/2-316V | G 1/2" | 24,4 | 55,4 | 25 |
| EU-75N-H1/2-316V-PL | G 1/2" | 24,4 | 55,4 | 25 |

**-PL:** Free Passage

## EU-75N-E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| EU-75N-E6 | 7,2 | 24,4 | 59,2 | 19 |
| EU-75N-E6-PL | 7,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8 | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8-PL | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8-X | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8-X-PL | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8-316V | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E8-316V-PL | 9,2 | 24,4 | 59,2 | 19 |
| EU-75N-E10 | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E10-PL | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E10-X | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E10-X-PL | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E10-316V | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E10-316V-PL | 11,2 | 24,4 | 63,2 | 19 |
| EU-75N-E12 | 13,2 | 24,4 | 68,2 | 19 |
| EU-75N-E12-PL | 13,2 | 24,4 | 68,2 | 19 |
| EU-75N-E12-X | 13,2 | 24,4 | 68,2 | 19 |
| EU-75N-E12-X-PL | 13,2 | 24,4 | 68,2 | 19 |
| EU-75N-E13 | 13,8 | 24,4 | 68,2 | 19 |
| EU-75N-E13-PL | 13,8 | 24,4 | 68,2 | 19 |

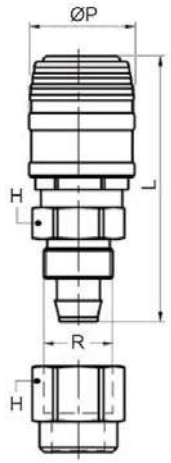
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## EU-75N-PM

Quick coupling with push-on connector






| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| EU-75N-PM08 | 8x12 | 24,4 | 61,9 | 19 |
| EU-75N-PM08-PL | 8x12 | 24,4 | 61,9 | 19 |
| EU-75N-PM08-X | 8x12 | 24,4 | 61,9 | 19 |
| EU-75N-PM08-X-PL | 8x12 | 24,4 | 61,9 | 19 |
| EU-75N-PM10 | 10x15 | 24,4 | 62,6 | 22 |
| EU-75N-PM10-PL | 10x15 | 24,4 | 62,6 | 22 |

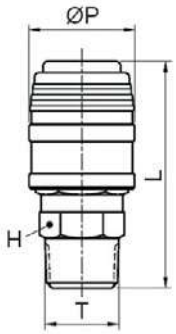
Recommended for use with PU-PVC tube on page 751

**-PL:** Free Passage

## EU-75S-M

Safety male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-75S-M1/4 | R 1/4" | 28,5 | 53,6 | 19 |
| EU-75S-M3/8 | R 3/8" | 28,5 | 54,6 | 19 |
| EU-75S-M1/2 | R 1/2" | 28,5 | 59,1 | 22 |

Safety male quick coupling BSPP thread

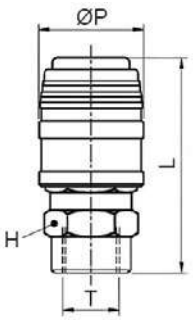
| | | | | |
|---|---|---|---|---|
| EU-75S-M1/4G | G 1/4" | 28,5 | 52,1 | 21 |
| EU-75S-M3/8G | G 3/8" | 28,5 | 53,6 | 21 |
| EU-75S-M1/2G | G 1/2" | 28,5 | 54,7 | 24 |

**EU-75S-M**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## EU-75S-H

Female safety quick coupling BSPP thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-75S-H1/4 | G 1/4" | 28,5 | 51,6 | 19 |
| EU-75S-H3/8 | G 3/8" | 28,5 | 53,1 | 22 |
| EU-75S-H1/2 | G 1/2" | 28,5 | 57,3 | 25 |

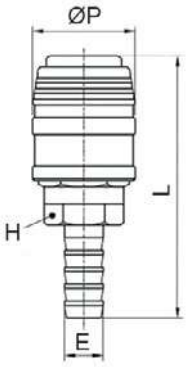
**EU-75S-H**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

*drawings and technical data are not binding & can be changed without notice*

## EU-75S-E

Safety quick coupling with barb connector





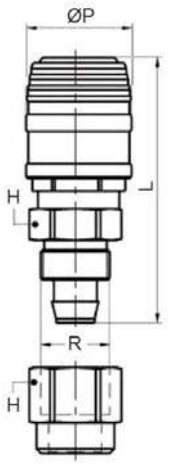

| CODE | E | ØP | L | H |
|---|---|---|---|---|
| EU-75S-E6 | 7,2 | 28,5 | 61,1 | 19 |
| EU-75S-E8 | 9,2 | 28,5 | 61,1 | 19 |
| EU-75S-E10 | 11,2 | 28,5 | 65,1 | 19 |
| EU-75S-E12 | 13,2 | 28,5 | 70,1 | 19 |
| EU-75S-E13 | 13,8 | 28,5 | 70,1 | 19 |

**EU-75S-E**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## EU-75S-PM

Safety quick coupling with push-on connector






| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| EU-75S-PM08 | 8x12 | 28,5 | 65,2 | 19 |
| EU-75S-PM10 | 10x15 | 28,5 | 70,0 | 22 |

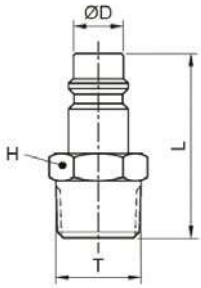
Recommended for use with PU-PVC tube on page 751

**EU-75S-PM**
It complies with the safety requirements stated in UNI-EN ISO 4414:2011: Protection against accidental tearing of the tube during decompression, "whiplash" effect.

## AEU-75M

Male connection BSPT thread



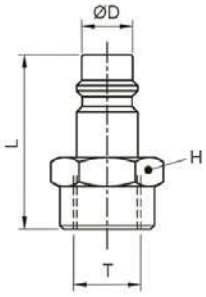



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-75M | R 1/4" | 10 | 36,5 | 14 |
| AEU-75M-X | R 1/4" | 10 | 36,5 | 14 |
| AEU-75M-316 | R 1/4" | 10 | 36,5 | 14 |
| AEU-75M38 | R 3/8" | 10 | 37,0 | 17 |
| AEU-75M38-316 | R 3/8" | 10 | 37,0 | 17 |
| AEU-75M12-316 | R 1/2" | 10 | 42,0 | 22 |

## AEU-75H

Female connection BSPP thread



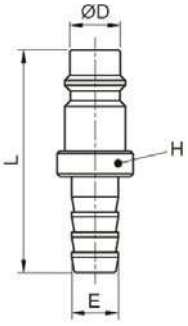



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-75H | G 1/4" | 10 | 34,0 | 17 |
| AEU-75H-X | G 1/4" | 10 | 34,0 | 17 |
| AEU-75H-316 | G 1/4" | 10 | 34,0 | 17 |
| AEU-75H38 | G 3/8" | 10 | 34,5 | 20 |
| AEU-75H38-316 | G 3/8" | 10 | 34,5 | 22 |
| AEU-75H12-316 | G 1/2" | 10 | 40,0 | 24 |

## AEU-75E

Connection with barb connector



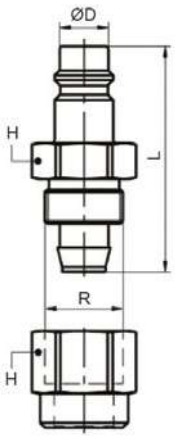



| CODE | E | ØD | L | H |
|---|---|---|---|---|
| AEU-75E | 9,2 | 10 | 44,0 | 15 |
| AEU-75E-X | 9,2 | 10 | 44,0 | 15 |
| AEU-75E10 | 11,2 | 10 | 48,0 | 15 |
| AEU-75E10-316 | 11,2 | 10 | 48,0 | 15 |
| AEU-75E12-316 | 13,2 | 10 | 48,0 | 17 |

## AEU-75PM

Connection with barb connector

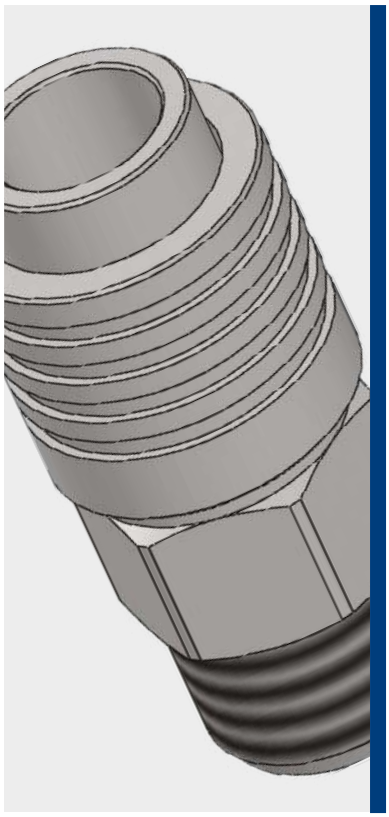





| CODE | TUBE Ø | R | ØD | L | H |
|---|---|---|---|---|---|
| AEU-75PM08 | 8x12 | M16x1 | 10 | 46,7 | 19 |
| AEU-75PM08-X | 8x12 | M16x1 | 10 | 46,7 | 19 |
| AEU-75PM10 | 10x15 | M20x1 | 10 | 51,5 | 22 |

Recommended for use with PU-PVC tube on page 751

*drawings and technical data are not binding & can be changed without notice*



NBR: -10°C ÷ 95°C
FKM: -15°C ÷ 205°C
Standard version: NBR
Stainless steel AISI 316 version: FKM

**Working pressure:**
0-12 Bar (suggested)
35 Bar (max)

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

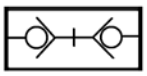
**EU-DO75:** Compressed air and fluids suitable with construction materials
**EU-DO75-316:** Compressed air, water, grease, oils, mild acids, applications in highly oxidising or corrosive environments and fluids suitable with construction materials

**PROFILE**
Germany

**NOMINAL DIAMETER**
5,1 mm

**FLOWRATE**
371 l/min

**CONFIGURATIONS**



DO
Double
Shutter

Food contact materials
EC 1935/2004
EU-DO75-316 &
AEU-DO-316 Series

D.M. 174/2004
EU-DO75-316 &
AEU-DO-316 Series

Products in compliance with EC Regulation 1907/2006

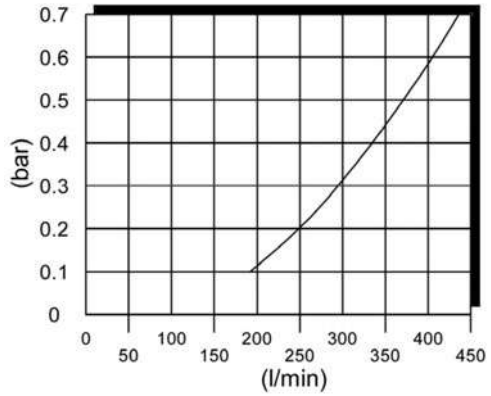
Products in compliance with the directive EU 2015/863

| COMPONENTS | EU-DO75 | EU-DO75-316 |
|---|---|---|
| Body | Brass | Stainless steel AISI 316 |
| Slide | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Adapter | Brass | Stainless steel AISI 316 |
| Valve | Brass | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 316 |
| Ball | Stainless steel AISI 316 | Stainless steel AISI 316 |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Seal | NBR - FKM | FKM |

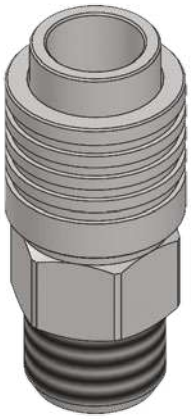
| CONNECTION | AEU-DO | AEU-DO-316 |
|---|---|---|
| Body | Brass | Stainless steel AISI 316 |
| Adapter | Brass | Stainless steel AISI 316 |
| Valve | Brass | Stainless steel AISI 316 |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Seal | NBR - FKM | FKM |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.



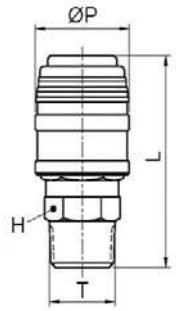

## VIEW - QUICK COUPLING EUROSTANDARD-DO



## EU-DO75-M

Male quick coupling BSPT thread



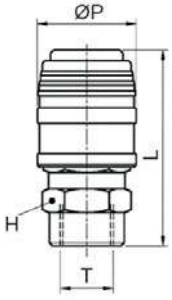



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-DO75M14 | R 1/4" | 24,4 | 51,7 | 19 |
| EU-DO75M14-316V | R 1/4" | 24,4 | 51,7 | 19 |
| EU-DO75M38 | R 3/8" | 24,4 | 52,7 | 19 |
| EU-DO75M38-316V | R 3/8" | 24,4 | 52,7 | 19 |
| EU-DO75M12 | R 1/2" | 24,4 | 57,2 | 22 |
| EU-DO75M12-316V | R 1/2" | 24,4 | 57,2 | 22 |

## EU-DO75-H

Female quick coupling BSPP thread





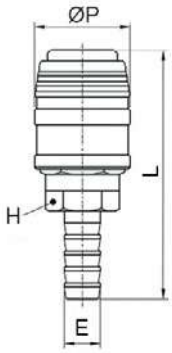

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EU-DO75H14 | G 1/4" | 24,4 | 49,7 | 19 |
| EU-DO75H14-316V | G 1/4" | 24,4 | 49,7 | 19 |
| EU-DO75H38 | G 3/8" | 24,4 | 51,2 | 22 |
| EU-DO75H38-316V | G 3/8" | 24,4 | 51,2 | 22 |
| EU-DO75H12 | G 1/2" | 24,4 | 55,4 | 25 |
| EU-DO75H12-316V | G 1/2" | 24,4 | 55,4 | 25 |

*drawings and technical data are not binding & can be changed without notice*

## EU-DO75-E

Quick coupling with barb connector



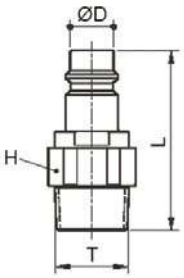



| CODE | E | ØP | L | H |
|---|---|---|---|---|
| EU-DO75E6 | 7,2 | 24,4 | 59,2 | 19 |
| EU-DO75E8 | 9,2 | 24,4 | 59,2 | 19 |
| EU-DO75E8-316V | 9,2 | 24,4 | 59,2 | 19 |
| EU-DO75E10 | 11,2 | 24,4 | 63,2 | 19 |
| EU-DO75E10-316V | 11,2 | 24,4 | 63,2 | 19 |
| EU-DO75E12 | 13,2 | 24,4 | 68,2 | 19 |
| EU-DO75E13 | 13,8 | 24,4 | 68,2 | 19 |

## AEU-DO75M

Male connection with shutter BSPT thread



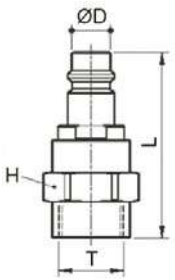



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-DO75M14 | R 1/4" | 10 | 18,0 | 17 |
| AEU-DO75M14-316V | R 1/4" | 10 | 18,0 | 17 |
| AEU-DO75M38 | R 3/8" | 10 | 20,2 | 19 |
| AEU-DO75M38-316V | R 3/8" | 10 | 20,2 | 19 |
| AEU-DO75M12 | R 1/2" | 10 | 23,4 | 22 |
| AEU-DO75M12-316V | R 1/2" | 10 | 23,4 | 22 |

## AEU-DO75H

Female connection with shutter BSPP thread



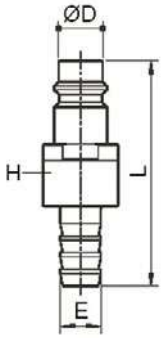



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-DO75H14 | G 1/4" | 10 | 19,0 | 17 |
| AEU-DO75H14-316V | G 1/4" | 10 | 19,0 | 17 |
| AEU-DO75H38 | G 3/8" | 10 | 24,5 | 22 |
| AEU-DO75H38-316V | G 3/8" | 10 | 24,5 | 22 |
| AEU-DO75H12 | G 1/2" | 10 | 27,0 | 24 |
| AEU-DO75H12-316V | G 1/2" | 10 | 27,0 | 24 |

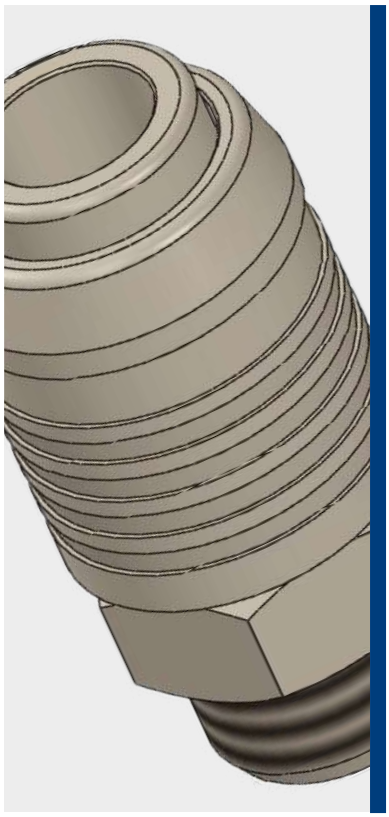
## AEU-DO75E

Connection with shutter and barb connector






| CODE | E | ØD | L | H |
|---|---|---|---|---|
| AEU-DO75E8 | 9,2 | 10 | 54,0 | 17 |
| AEU-DO75E8-316V | 9,2 | 10 | 54,0 | 17 |
| AEU-DO75E10 | 11,2 | 10 | 58,0 | 17 |



NBR: -10°C ÷ 95°C

Working pressure:
0-12 Bar (suggested)
35 Bar (max)

Compressed air

- Taper gas BSPT ISO 7 from R1/4" to R1/2"
- Parallel gas BSPP ISO 228 from G1/4" to G1/2"

## FLOWRATE

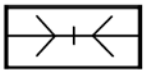
NE-10: 606 l/min

AEU-75: 1086 l/min

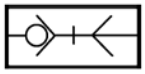
## PROFILE: EUROFLUID




## CONFIGURATIONS



PL
Free
Passage



SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

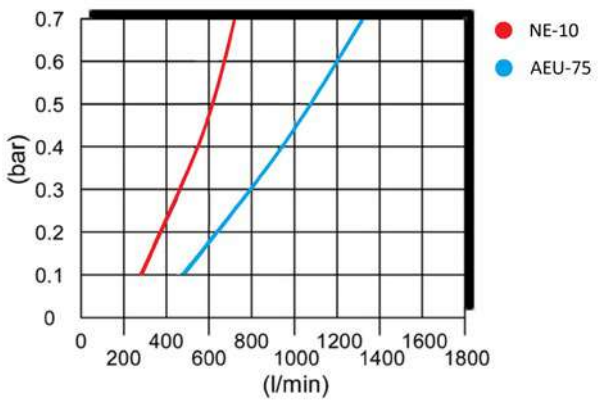
Products in compliance with the directive EU 2015/863

| COMPONENTS | EUROFLUID |
|---|---|
| Body | Nickel-plated steel |
| Slide | Nickel-plated steel |
| Adapter | Nickel-plated brass |
| Valve | Nickel-plated brass |
| Spring | Stainless steel AISI 302 |
| Ball | Chromed steel |
| Retaining ring | Stainless steel AISI 302 |
| Seal | NBR |

| CONNECTION | NE-10 | AEU-75 |
|---|---|---|
| Body | Hardened nickel-plated steel | Hardened nickel-plated steel |

## FLOW CHART

Chart created considering a working pressure of 6 Bar with a pressure drop of 0.5 Bar and simple shut-off.




## VIEW - QUICK COUPLING EUROFLUID

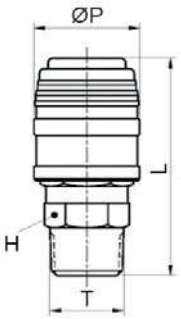


*drawings and technical data are not binding & can be changed without notice*

## EUROFLUID-M

Male quick coupling BSPT thread






| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EUROFLUID-M1/4 | R 1/4" | 24,4 | 51,7 | 19 |
| EUROFLUID-M1/4-PL | R 1/4" | 24,4 | 51,7 | 19 |
| EUROFLUID-M3/8 | R 3/8" | 24,4 | 52,7 | 19 |
| EUROFLUID-M3/8-PL | R 3/8" | 24,4 | 52,7 | 19 |
| EUROFLUID-M1/2 | R 1/2" | 24,4 | 57,2 | 22 |
| EUROFLUID-M1/2-PL | R 1/2" | 24,4 | 57,2 | 22 |

Male quick coupling BSPP thread

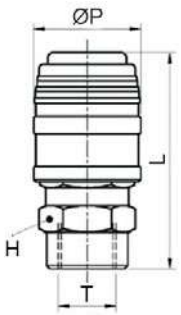
| | | | | |
|---|---|---|---|---|
| EUROFLUID-M1/4G | G 1/4" | 24,4 | 50,2 | 21 |
| EUROFLUID-M1/4G-PL | G 1/4" | 24,4 | 50,2 | 21 |
| EUROFLUID-M3/8G | G 3/8" | 24,4 | 51,7 | 21 |
| EUROFLUID-M3/8G-PL | G 3/8" | 24,4 | 51,7 | 21 |
| EUROFLUID-M1/2G | G 1/2" | 24,4 | 54,7 | 24 |
| EUROFLUID-M1/2G-PL | G 1/2" | 24,4 | 54,7 | 24 |

**-PL:** Free Passage

## EUROFLUID-H

Female quick coupling BSPP thread





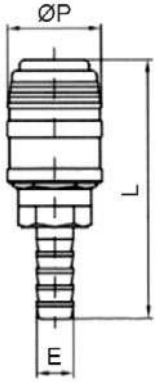

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| EUROFLUID-H1/4 | G 1/4" | 24,4 | 49,7 | 19 |
| EUROFLUID-H1/4-PL | G 1/4" | 24,4 | 49,7 | 19 |
| EUROFLUID-H3/8 | G 3/8" | 24,4 | 51,2 | 22 |
| EUROFLUID-H3/8-PL | G 3/8" | 24,4 | 51,2 | 22 |
| EUROFLUID-H1/2 | G 1/2" | 24,4 | 55,4 | 25 |
| EUROFLUID-H1/2-PL | G 1/2" | 24,4 | 55,4 | 25 |

**-PL:** Free Passage

## EUROFLUID-E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| EUROFLUID-E6 | 7,2 | 24,4 | 59,2 | 19 |
| EUROFLUID-E6-PL | 7,2 | 24,4 | 59,2 | 19 |
| EUROFLUID-E8 | 9,2 | 24,4 | 59,2 | 19 |
| EUROFLUID-E8-PL | 9,2 | 24,4 | 59,2 | 19 |
| EUROFLUID-E10 | 11,2 | 24,4 | 63,2 | 19 |
| EUROFLUID-E10-PL | 11,2 | 24,4 | 63,2 | 19 |
| EUROFLUID-E12 | 13,2 | 24,4 | 68,2 | 19 |
| EUROFLUID-E12-PL | 13,2 | 24,4 | 68,2 | 19 |
| EUROFLUID-E13 | 13,8 | 24,4 | 68,2 | 19 |
| EUROFLUID-E13-PL | 13,8 | 24,4 | 68,2 | 19 |

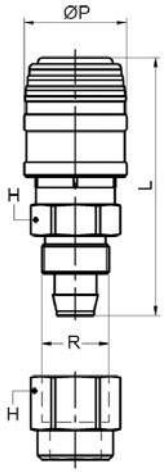
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## EUROFLUID-PM

Quick coupling with push-on connector






| CODE | TUBE Ø | ØP | L | H |
|---|---|---|---|---|
| EUROFLUID-PM08 | 8x12 | 24,4 | 61,9 | 19 |
| EUROFLUID-PM08-PL | 8x12 | 24,4 | 61,9 | 19 |
| EUROFLUID-PM10 | 10x15 | 24,4 | 66,7 | 22 |
| EUROFLUID-PM10-PL | 10x15 | 24,4 | 66,7 | 22 |

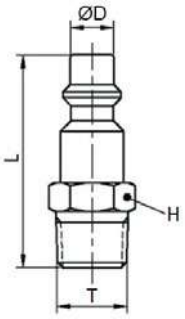
Recommended for use with PU-PVC tube on page 751

**-PL:** Free Passage

## NE-10M

Male connection BSPT thread





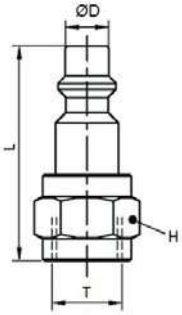

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-10M | R 1/4" | 8 | 40,0 | 14 |
| NE-10M-3/8 | R 3/8" | 8 | 42,5 | 17 |
| NE-10M-1/2 | R 1/2" | 8 | 46,0 | 22 |

**NE-10M:** Connection available in the FLUID-10N & FLUID-10S SERIES on page 569

## NE-10H

Female connection BSPP thread





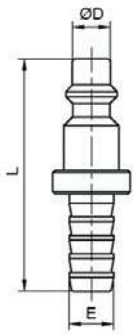

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| NE-10H | G 1/4" | 8 | 40,0 | 17 |
| NE-10H-3/8 | G 3/8" | 8 | 41,5 | 22 |
| NE-10H-1/2 | G 1/2" | 8 | 44,0 | 25 |

**NE-10H:** Connection available in the FLUID-10N & FLUID-10S SERIES on page 569

## NE-10E

Connection with barb connector





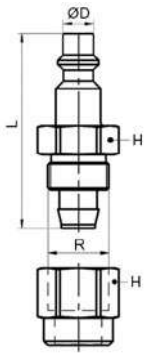

| CODE | E | ØD | L |
|---|---|---|---|
| NE-10E-6 | 7,2 | 8 | 46,0 |
| NE-10E-8 | 9,2 | 8 | 47,0 |
| NE-10E-10 | 11,2 | 8 | 52,0 |
| NE-10E-12 | 13,2 | 8 | 54,0 |

**NE-10E:** Connection available in the FLUID-10N & FLUID-10S SERIES on page 569

## NE-10PM

Connection with push-on connector






| CODE | TUBE Ø | R | ØD | L | H |
|---|---|---|---|---|---|
| NE-10PM-08 | 8x12 | M16x1 | 8 | 50,7 | 19 |
| NE-10PM-10 | 10x15 | M20x1 | 8 | 55,5 | 22 |

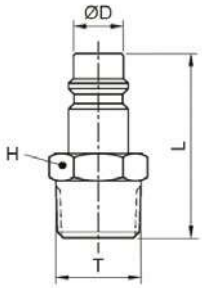
Recommended for use with PU-PVC tube on page 751

**NE-10PM:** Connection available in the FLUID-10N & FLUID-10S SERIES on page 569

## AEU-75M

Male connection BSPT thread





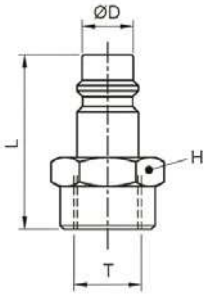

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-75M | R 1/4" | 10 | 36,5 | 14 |
| AEU-75M38 | R 3/8" | 10 | 37,0 | 17 |

**AEU-75M:** Connection available in the EUROSTANDARD SERIES on page 597

## AEU-75H

Female connection BSPP thread





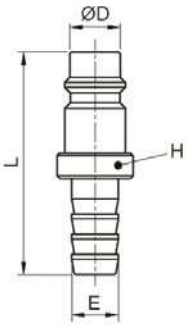

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| AEU-75H | G 1/4" | 10 | 34,0 | 17 |
| AEU-75H38 | G 3/8" | 10 | 34,5 | 20 |

**AEU-75H:** Connection available in the EUROSTANDARD SERIES on page 597

## AEU-75E

Connection with barb connector





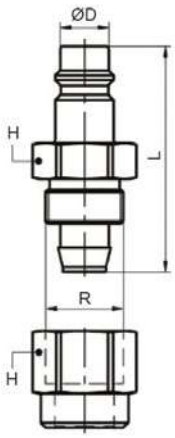

| CODE | E | ØD | L | H |
|---|---|---|---|---|
| AEU-75E | 9,2 | 10 | 44,0 | 15 |
| AEU-75E10 | 11,2 | 10 | 48,0 | 15 |

**AEU-75E:** Connection available in the EUROSTANDARD SERIES on page 597

## AEU-75PM

Connection with push-on connector






| CODE | TUBE Ø | R | ØD | L | H |
|---|---|---|---|---|---|
| AEU-75PM08 | 8x12 | M16x1 | 10 | 46,7 | 19 |
| AEU-75PM10 | 10x15 | M20x1 | 10 | 51,5 | 22 |

Recommended for use with PU-PVC tube on page 751

**AEU-75PM:** Connection available in the EUROSTANDARD SERIES on page 597

*drawings and technical data are not binding & can be changed without notice*





**NBR:** -10°C ÷ 95°C
**FKM:** -20°C ÷ 205°C
Standard version: NBR
Stainless steel AISI 316 version: FKM

**Working pressure:**
200 Bar (max)

**CRHL12 & CRHL12R:**
Compressed air and fluids suitable with construction materials
**CRHL12-303 & CRHL-303R:**
Compressed air, water, industrial soaps, applications in oxidising or corrosive environments and fluids suitable with construction materials
**CRHL12-316 & CRHL12-316R:**
Compressed air, water, grease, oils, mild acids, applications in highly oxidising or corrosive environments and fluids suitable with construction materials

Parallel gas BSPP ISO 228
from G1/4" to G1/2"

## NOMINAL DIAMETER

12,1 mm

## CONFIGURATIONS

PL
Free
Passage

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

| COMPONENTS | CRHL12 & CRHL12-R | CRHL12-303 & CRHL12-R-303 | CRHL12-316 & CRHL12-R-316 |
|---|---|---|---|
| Body | Brass | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Slide | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 |
| Slide support | EPDM BLACK (CRHL12R) | EPDM BLACK (CRHL12-303R) | EPDM BLUE (CRHL12-316R) |
| Spring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Ball | Stainless steel AISI 316 | Stainless steel AISI 316 | Stainless steel AISI 316 |
| Retaining ring | Stainless steel AISI 302 | Stainless steel AISI 302 | Stainless steel AISI 302 |
| Seal | NBR - FKM | NBR - FKM | NBR - FKM |

| CONNECTION | ACRHL12 | ACRHL12-303 | ACRHL12-316 |
|---|---|---|---|
| Body | Nickel-plated steel | Stainless steel AISI 303 | Stainless steel AISI 316 |

## VIEW - QUICK COUPLING CRHL12-R-H

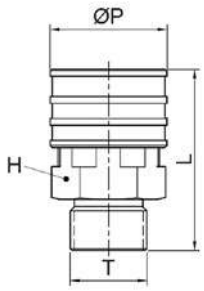


*drawings and technical data are not binding & can be changed without notice*

## CRHL12-M

Male quick coupling BSPP thread





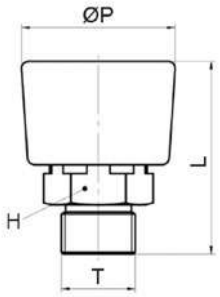

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRHL12-M12G-303 | G 1/2" | 32,0 | 49,6 | 27 |
| CRHL12-M12G-316 | G 1/2" | 32,0 | 49,6 | 27 |

**CRHL12-M**
Supplied with NBR seal

## CRHL12-R-M

Male quick coupling with rubber cover BSPP thread





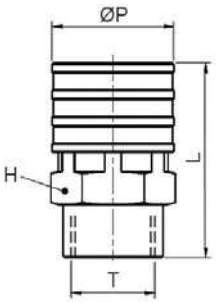

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRHL12-M12G-303R | G 1/2" | 44,0 | 57,6 | 27 |
| CRHL12-M12G-316R | G 1/2" | 44,0 | 57,6 | 27 |

**CRHL12-R-M**
Supplied with NBR seal

## CRHL12-H

Female quick coupling BSPP thread





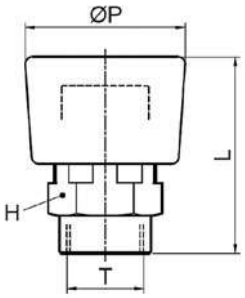

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRHL12-H38 | G 3/8" | 32,0 | 40,7 | 27 |
| CRHL12-H38-303 | G 3/8" | 32,0 | 40,7 | 27 |
| CRHL12-H38-316 | G 3/8" | 32,0 | 40,7 | 27 |
| CRHL12-H12 | G 1/2" | 32,0 | 46,1 | 27 |
| CRHL12-H12-303 | G 1/2" | 32,0 | 46,1 | 27 |
| CRHL12-H12-316 | G 1/2" | 32,0 | 46,1 | 27 |

*drawings and technical data are not binding & can be changed without notice*

## CRHL12-R-H

Female quick coupling with rubber cover BSPP thread



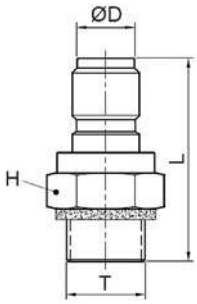



| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRHL12-H38R | G 3/8" | 44,0 | 48,7 | 27 |
| CRHL12-H38-303R | G 3/8" | 44,0 | 48,7 | 27 |
| CRHL12-H38-316R | G 3/8" | 44,0 | 48,7 | 27 |
| CRHL12-H12R | G 1/2" | 44,0 | 54,1 | 27 |
| CRHL12-H12-303R | G 1/2" | 44,0 | 54,1 | 27 |
| CRHL12-H12-316R | G 1/2" | 44,0 | 54,1 | 27 |

## ACRHL12-M-C

Male connection BSPP thread with O-ring





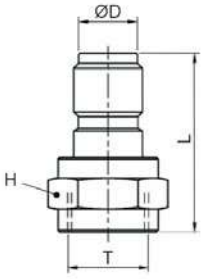

| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACRHL12-M12G-303C | G 1/2" | 15,3 | 54,0 | 27 |
| ACRHL12-M12G-316C | G 1/2" | 15,3 | 54,0 | 27 |

**ACRHL12-M-C**
Supplied with NBR seal

## ACRHL12-H

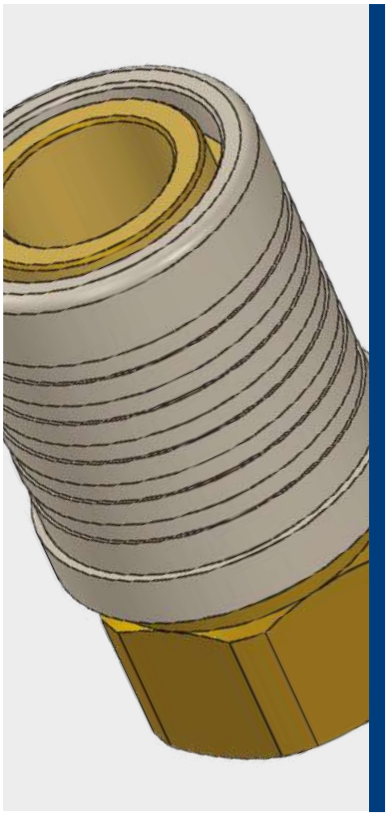
Female connection BSPP thread






| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACRHL12-H14 | G 1/4" | 15,3 | 37,5 | 20 |
| ACRHL12-H14-303 | G 1/4" | 15,3 | 37,5 | 22 |
| ACRHL12-H38 | G 3/8" | 15,3 | 37,5 | 22 |
| ACRHL12-H38-303 | G 3/8" | 15,3 | 37,5 | 22 |
| ACRHL12-H38-316 | G 3/8" | 15,3 | 37,5 | 22 |
| ACRHL12-H12 | G 1/2" | 15,3 | 44,5 | 27 |
| ACRHL12-H12-303 | G 1/2" | 15,3 | 44,5 | 27 |
| ACRHL12-H12-316 | G 1/2" | 15,3 | 44,5 | 27 |





NBR: -10°C ÷ 95°C
FKM: -20°C ÷ 205°C
Standard version: NBR

**Working pressure:**
35 Bar (max)

Compressed air, water for cooling systems, oils and fluids suitable with construction materials.
Mainly used for cooling injection moulds.

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G3/8"

## NOMINAL DIAMETER

8,5 mm

## FLOWRATE

1135 l/min

## CONFIGURATIONS



PL
Free
Passage

SO
Single
Shutter

Products in compliance with EC Regulation 1907/2006

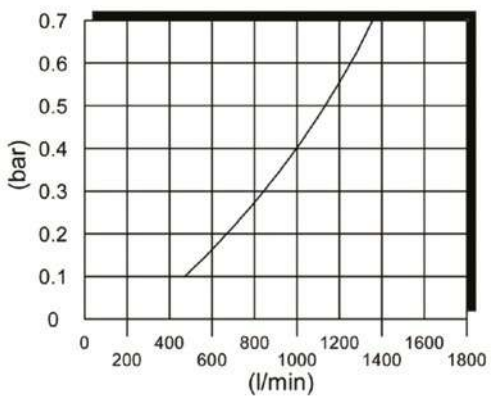
Products in compliance with the directive EU 2015/863

| COMPONENTI | CRM-55 |
|---|---|
| Body | Brass |
| Slide | Nickel-plated steel |
| Adapter | Brass |
| Valve | Brass |
| Spring | Stainless steel AISI 302 |
| Ball | Stainless steel AISI 420 |
| Retaining ring | Stainless steel AISI 302 |
| Clip | Stainless steel AISI 304 |
| Seal support | Brass |
| Seal | NBR - FKM |

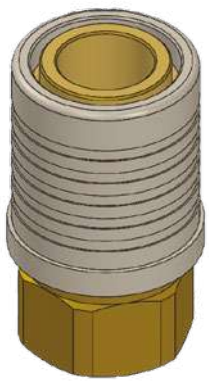
| CONNECTION | ACRM-55-L | ACRM-55 | ACRM-55-X |
|---|---|---|---|
| Body | Brass | Nickel-plated steel | Stainless steel AISI 303 |

## FLOW CHART

Grafico realizzato tenendo conto di una pressione d'esercizio pari a 6 Bar con perdita di carico di 0,5 Bar e semplice intercettazione.



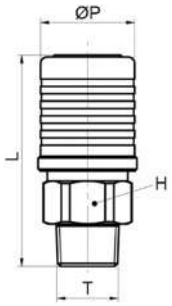

## VIEW - QUICK COUPLING CRM-55-H



## CRM-55-M

Male quick coupling BSPT thread





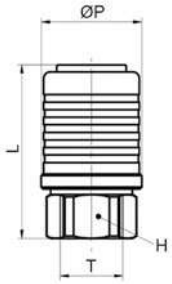

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRM-55-3/8-M | R 3/8" | 25,5 | 57,6 | 22 |
| CRM-55-3/8-PL-M | R 3/8" | 25,5 | 57,6 | 22 |
| CRM-55-1/2-M | R 1/2" | 25,5 | 61,0 | 22 |
| CRM-55-1/2-PL-M | R 1/2" | 25,5 | 61,0 | 22 |

**-PL:** Free Passage

## CRM-55-H

Female quick coupling BSPP thread





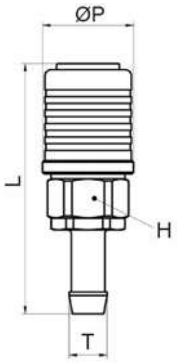

| CODE | T | ØP | L | H |
|---|---|---|---|---|
| CRM-55-3/8 | G 3/8" | 25,5 | 46,0 | 22 |
| CRM-55-3/8-PL | G 3/8" | 25,5 | 46,0 | 22 |

**-PL:** Free Passage

## CRM-55-E

Quick coupling with barb connector






| CODE | E | ØP | L | H |
|---|---|---|---|---|
| CRM-55-E | 11,2 | 25,5 | 74,5 | 22 |
| CRM-55-PL-E | 11,2 | 25,5 | 74,5 | 22 |

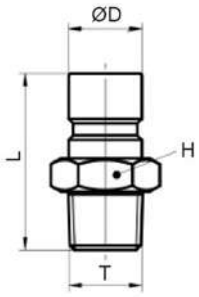
**-PL:** Free Passage

*drawings and technical data are not binding & can be changed without notice*

## ACRM-55-M

Male connection BSPT thread






| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACRM-55M1-L | R 1/8" | 13,2 | 30,3 | 17 |
| ACRM-55M1 | R 1/8" | 13,2 | 30,3 | 17 |
| ACRM-55M-L | R 1/4" | 13,2 | 31,8 | 17 |
| ACRM-55M | R 1/4" | 13,2 | 31,8 | 17 |
| ACRM-55M-X | R 1/4" | 13,2 | 31,8 | 17 |
| ACRM-55M-3/8 | R 3/8" | 13,2 | 32,8 | 17 |

## ACRM-55-H

Female connection BSPP thread



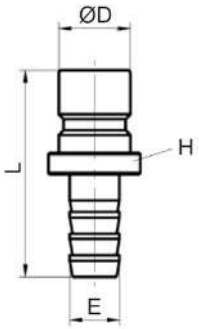



| CODE | T | ØD | L | H |
|---|---|---|---|---|
| ACRM-55H1-L | G 1/8" | 13,2 | 31,3 | 17 |
| ACRM-55H1 | G 1/8" | 13,2 | 31,3 | 17 |
| ACRM-55H-L | G 1/4" | 13,2 | 31,3 | 17 |
| ACRM-55H | G 1/4" | 13,2 | 31,3 | 17 |
| ACRM-55H-X | G 1/4" | 13,2 | 31,3 | 17 |
| ACRM-55H-3/8 | G 3/8" | 13,2 | 35,3 | 22 |

## ACRM-55-E

Connection with barb connector

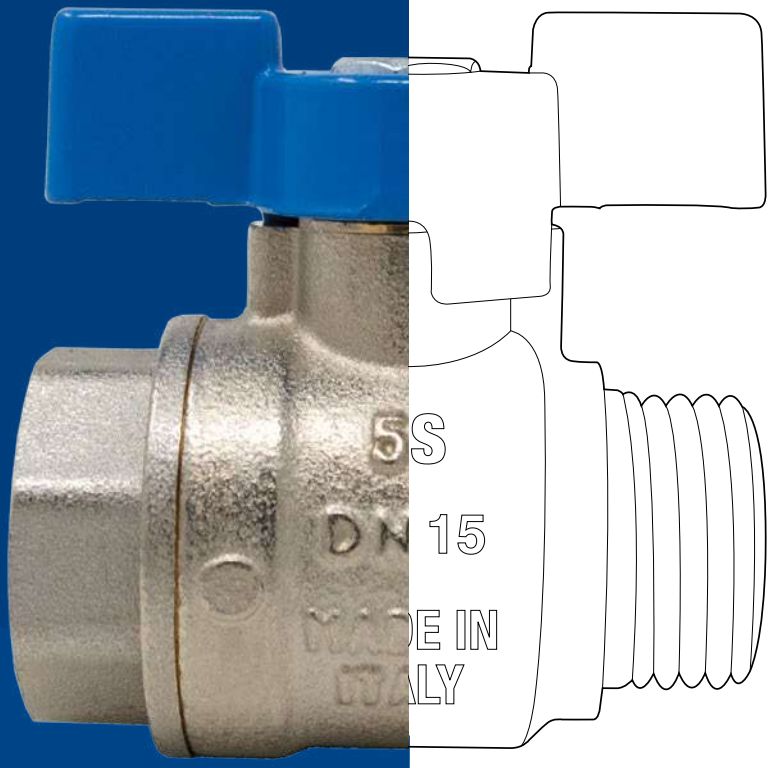





| CODE | E | ØD | L | H |
|---|---|---|---|---|
| ACRM-55-E8 | 9,2 | 13,2 | 38,3 | - |



# INDUSTRIAL VALVES



# TECHNICAL INDEX



p. 657
**INDUSTRIAL VALVES**



p. 707
**INDUSTRIAL VALVES - SOLENOID VALVES**

# INDUSTRIAL VALVES

## PLUS

**MADE WITH GASKET OF DIFFERENT MATERIALS TO INTERCEPT MANY TYPE OF FLUIDS**

**MANY POSSIBLE CONFIGURATIONS TO BE USED IN MULTIPLE APPLICATIONS**

**EXCELLENT PERFORMANCE WITH GOOD MECHANICAL RESISTANCE**

**WIDE RANGE OF BRASS AND STAINLESS STEEL, IN MICRO, MINI, UNIVERSAL, 2 AND 3 WAYS VERSIONS, FLANGED, WITH Y-FILTER AND WITH CONDENSATE DRAIN**

## **INDUSTRIAL VALVES /** BRASS BALL VALVES MINI - EUROPE SERIES



p. 630 / **9110**



p. 630 / **9120**



p. 630 / **9130**

## **INDUSTRIAL VALVES /** BRASS BALL VALVES MINI SERIES



p. 631 / **9110-F**



p. 631 / **9120-F**

## **INDUSTRIAL VALVES /** BRASS BALL VALVES MICRO SERIES



p. 634 / **9142**



p. 634 / **9162**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES FOR POTABLE WATER



p. 636 / **9203**



p. 636 / **9204**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES FOR GAS



p. 638 / **9208**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES - NPT THREAD



p. 640 / **9212**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES LOCKABLE SERIES



p. 642 / **9214**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES - STANDARD



p. 644 / **9210**



p. 644 / **9240**



p. 644 / **9220**



p. 645 / **9250**



p. 645 / **9230**



p. 645 / **9260**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES HEAVY SERIES



p. 648 / **9210H**

## **INDUSTRIAL VALVES /** UNIVERSAL BRASS BALL VALVES HEAVY SERIES FOR HIGH TEMPERATURES



p. 650 / **9210HS**

## **INDUSTRIAL VALVES /** BRASS BALL VALVES - THREE-WAYS



p. 652 / **9270**



p. 652 / **9280**



p. 653 / **9272**



p. 653 / **9282**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES MINI SERIES



p. 656 / **9170**



p. 656 / **9180**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES - FULL BORE



p. 658 / **9320**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES - THREE PIECES FULL BORE



p. 660 / **9325**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES - THREE-WAYS REDUCED BORE



p. 662 / **9340**



p. 662 / **9342**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES - FLANGED PN 16



p. 664 / **9350**

## **INDUSTRIAL VALVES /** STAINLESS STEEL AISI 316 BALL VALVES - IMPURITY COLLECTOR



p. 665 / **9400**

## **INDUSTRIAL VALVES /** SAFETY VALVES



p. 668 / **9613**



p. 669 / **9614**



p. 670 / **9615**

## **INDUSTRIAL VALVES /** BRASS BALL VALVES - CONDENSED DRAIN



p. 671 / **9611**

TierreGroup®
Always a fittings solution

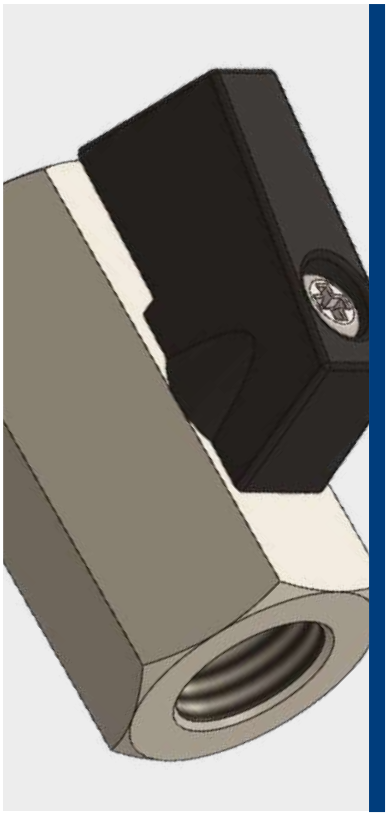




**Serie XVR in acciaio inox.**
**Naturalmente resistente.**

TierreGroup®
Always a fitting solution

## FOLLOW US!



-10°C ÷ 90°C

**Working pressure:**
from 0 to 10 Bar (at 90°C)

Compressed air and fluids suitable with construction materials

Parallel gas BSPP ISO 228
from G1/8" to G3/4"

**LEVER ROTATION**
90° lever rotation

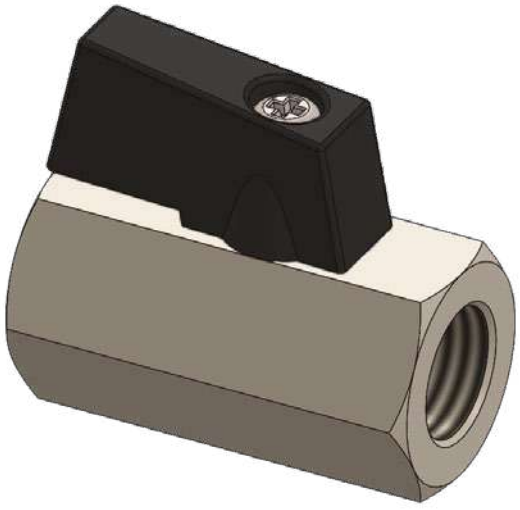
**AVAILABILITY**
- Aluminium lever on request
- Stem sealing ring in FKM (Viton) or EPDM on request

**Body:**
9110 & 9120: Chromed brass
CW614 UNI-EN 12164
9130: Nickel-plated brass
CW614 UNI-EN 12164
**Stem:** Brass
CW614 UNI-EN 12164
**Nut:** Brass
CW614 UNI-EN 12164
**Ball:** Nickel-plated brass
CW614 UNI-EN 12164
**Ball seals:** PTFE (Teflon)
**Stem sealing ring:** NBR 70
**Lever:** Glass fiber-charged nylon 66

Products in compliance with EC Regulation 1907/2006

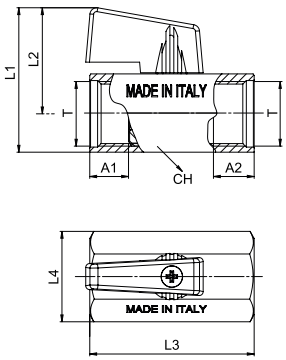
Products in compliance with the directive EU 2015/863

## VIEW - VALVE 9110



## 9110 Female mini ball valve BSPP thread

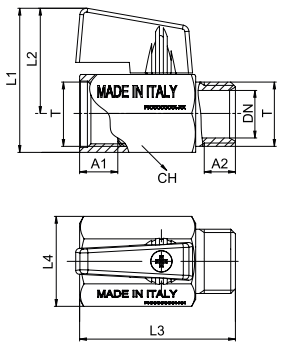





| CODE | T | A1 | A2 | L1 | L2 | L3 | L4 | CH |
|---|---|---|---|---|---|---|---|---|
| 9110TR18 | G 1/8" | 8,5 | 7,5 | 37,0 | 27,0 | 39,0 | 23,0 | 20 |
| 9110TR14 | G 1/4" | 7,5 | 9,0 | 37,0 | 27,0 | 39,0 | 23,0 | 20 |
| 9110TR38 | G 3/8" | 10,0 | 10,0 | 37,0 | 27,0 | 42,0 | 23,0 | 20 |
| 9110TR12 | G 1/2" | 11,7 | 10,0 | 41,0 | 29,0 | 47,0 | 28,0 | 24 |
| 9110TR34 | G 3/4" | 12,0 | 11,0 | 47,0 | 32,0 | 54,0 | 35,0 | 30 |

## 9120 M/F mini ball valve BSPP thread

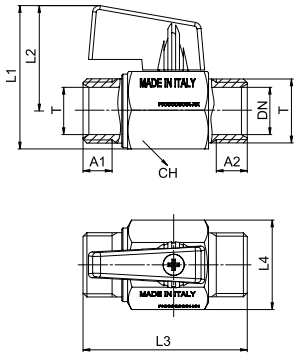





| CODE | T | DN | A1 | A2 | L1 | L2 | L3 | L4 | CH |
|---|---|---|---|---|---|---|---|---|---|
| 9120TR18 | G 1/8" | 6 | 8,5 | 6,0 | 37,0 | 27,0 | 39,0 | 23,0 | 20 |
| 9120TR14 | G 1/4" | 8,2 | 9,0 | 8,0 | 37,0 | 27,0 | 39,0 | 23,0 | 20 |
| 9120TR38 | G 3/8" | 12,2 | 10,0 | 8,0 | 37,0 | 27,0 | 40,0 | 23,0 | 20 |
| 9120TR12 | G 1/2" | 15,2 | 12,0 | 10,0 | 41,0 | 29,0 | 45,0 | 27,0 | 24 |
| 9120TR34 | G 3/4" | 18,2 | 12,0 | 12,0 | 47,0 | 32,0 | 51,0 | 35,0 | 30 |

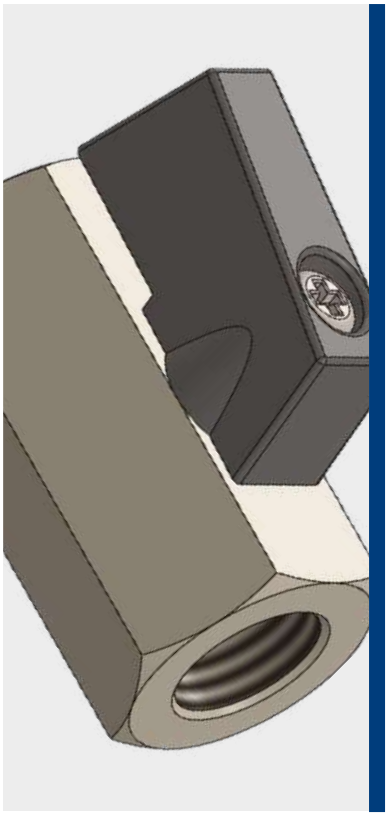
## 9130 Male mini ball valve BSPP thread






| CODE | T | DN | A1 | A2 | L1 | L2 | L3 | L4 | CH |
|---|---|---|---|---|---|---|---|---|---|
| 9130TR14 | G 1/4" | 8,2 | 7,0 | 7,0 | 37,0 | 27,0 | 40,4 | 23,0 | 20 |
| 9130TR38 | G 3/8" | 12,2 | 7,5 | 8,0 | 37,0 | 27,0 | 42,4 | 23,0 | 20 |
| 9130TR12 | G 1/2" | 15,2 | 9,0 | 9,0 | 41,4 | 29,4 | 49,7 | 27,0 | 24 |

*drawings and technical data are not binding & can be changed without notice*



-10°C ÷ 90°C

**Working pressure:**
from 0 to 10 Bar (at 90°C)

Compressed air and fluids suitable with construction materials

Parallel gas BSPP ISO 228
from G1/8" to G1/2"

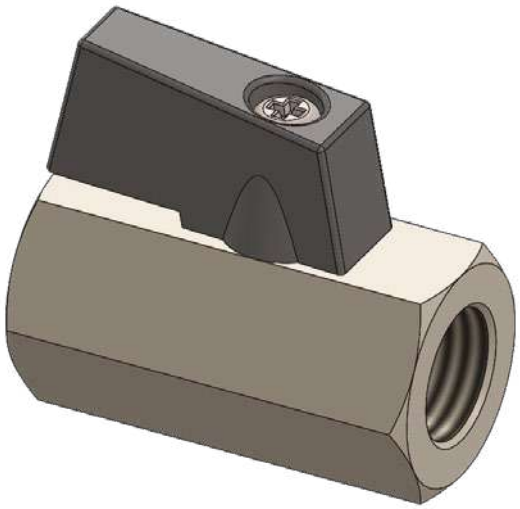
**LEVER ROTATION**
90° lever rotation

**Body:** Nickel-plated brass
**Stem:** Nickel-plated brass
**Nut:** Nickel-plated brass
**Ball:** Nickel-plated brass
**Lever:** Aluminium
**Ball seals:** PTFE (Teflon)
**Stem sealing ring:** NBR

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

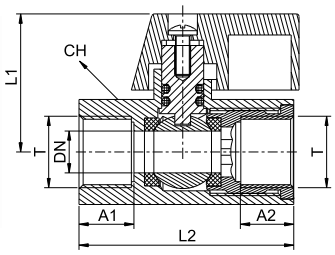
## VIEW - VALVE 9110-F



## 9110-F

Female mini ball valve BSPP thread



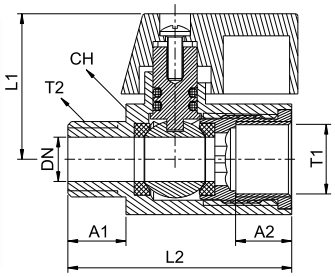



| CODE | T | DN | A1 | A2 | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|
| 9110TR18-F | G 1/8" | 6 | 9,5 | 9,5 | 26,0 | 40,0 | 20 |
| 9110TR14-F | G 1/4" | 8 | 10,0 | 10,0 | 26,0 | 41,0 | 20 |
| 9110TR38-F | G 3/8" | 8 | 10,0 | 9,0 | 26,0 | 40,5 | 20 |
| 9110TR12-F | G 1/2" | 10 | 10,0 | 9,0 | 28,0 | 45,5 | 23,8 |

## 9120-F

M/F mini ball valve BSPP thread






| CODE | T1 | T2 | DN | A1 | A2 | L1 | L2 | CH |
|---|---|---|---|---|---|---|---|---|
| 9120TR18-F | G 1/8" | G 1/8" | 6 | 10,0 | 10,0 | 26,0 | 40,5 | 20 |
| 9120TR14-F | G 1/4" | G 1/4" | 8 | 10,0 | 10,0 | 26,0 | 40,5 | 20 |
| 9120TR38-F | G 3/8" | G 3/8" | 8 | 10,0 | 9,0 | 26,0 | 41,0 | 20 |
| 9120TR12-F | G 1/2" | G 1/2" | 10 | 10,0 | 9,0 | 28,0 | 46,0 | 23,8 |



-5°C ÷ 70°C

**Working pressure:**
20 Bar

Compressed air, lubricated compressed air, gases and fluids suitable with construction materials

- Taper gas BSPT ISO 7 from R1/8" to R1/2"
- Parallel gas BSPP ISO 228 from G1/8" to G1/2"

**LEVER OPERATION**

It is closed and opened by turning the lever by 1/4 turn to the end of the stroke.

**Body:** Nickel-plated brass CW617W UNI-EN 12164
**Stem:** Nickel-plated brass CW614N UNI-EN 12164
**Nut:** Nickel-plated brass CW614N UNI-EN 12164
**Ball:** Nickel-plated brass CW614N UNI-EN 12164
**Ball seals:** PTFE (Teflon)
**Stem sealing ring:** NBR 70
**Lever:** Nylon 66
**Cap on lever:** Nylon 66 (black)

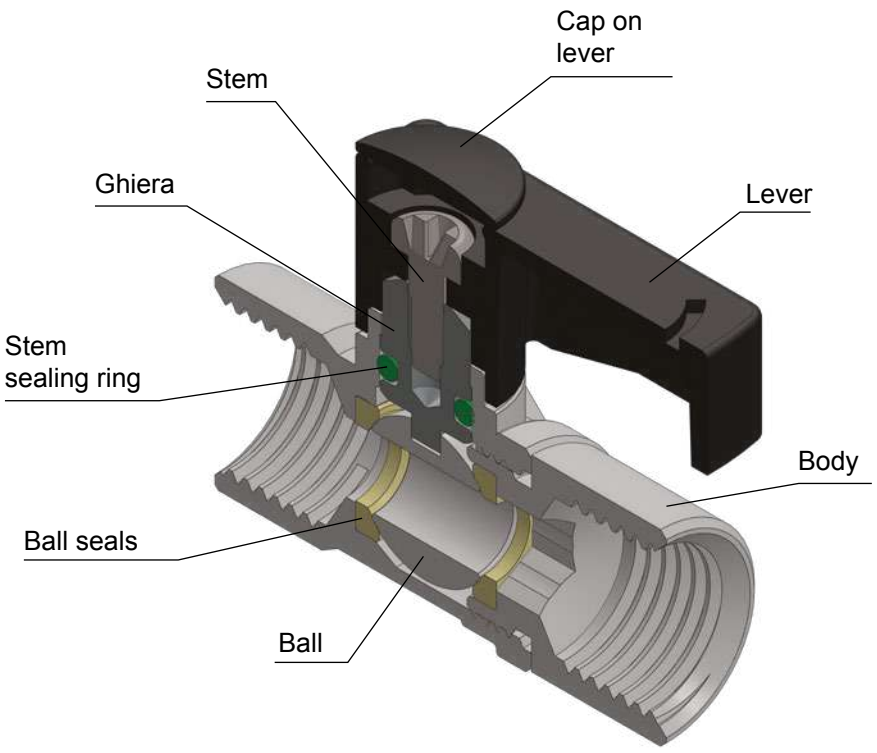
**AVAILABILITY**

- Cap on lever available in red, blue, yellow, green and orange colours.

Products in compliance with EC Regulation 1907/2006

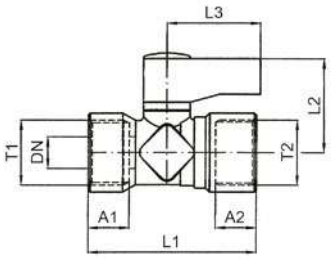
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



## 9142 Female micro ball valve BSPP thread

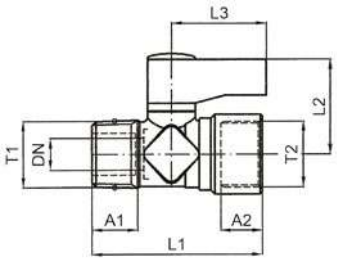




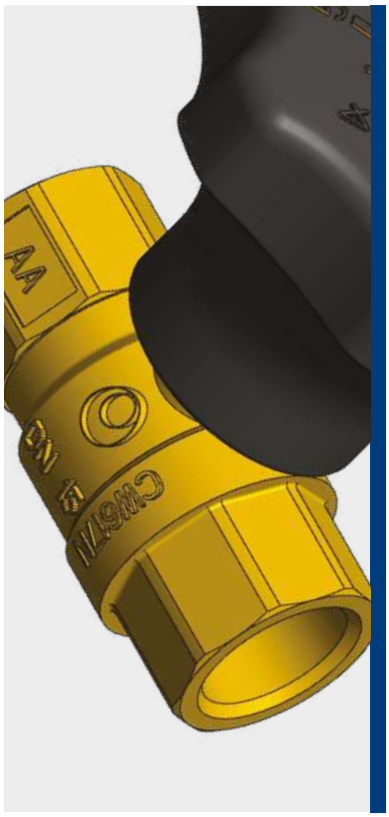

| CODE | T1 | T2 | DN | A1 | A2 | L1 | L2 | L3 |
|---|---|---|---|---|---|---|---|---|
| 9142TR18 | G 1/8" | G 1/8" | 6 | 8,0 | 8,0 | 34,0 | 23,0 | 24,0 |
| 9142TR14 | G 1/4" | G 1/4" | 6 | 9,5 | 9,5 | 38,0 | 23,0 | 24,0 |
| 9142TR38 | G 3/8" | G 3/8" | 8 | 10,5 | 10,5 | 43,0 | 24,0 | 24,0 |
| 9142TR12 | G 1/2" | G 1/2" | 10 | 12,0 | 12,0 | 49,0 | 27,0 | 34,0 |

## 9162 Micro ball valve, male BSPT & female BSPP threads






| CODE | T1 | T2 | DN | A1 | A2 | L1 | L2 | L3 |
|---|---|---|---|---|---|---|---|---|
| 9162TR18 | R 1/8" | G 1/8" | 6 | 7,0 | 8,0 | 33,0 | 23,0 | 24,0 |
| 9162TR14 | R 1/4" | G 1/4" | 6 | 8,0 | 9,5 | 35,0 | 23,0 | 24,0 |
| 9162TR38 | R 3/8" | G 3/8" | 8 | 9,0 | 10,5 | 40,0 | 24,0 | 24,0 |
| 9162TR12 | R 1/2" | G 1/2" | 10 | 10,0 | 12,0 | 49,0 | 27,0 | 34,0 |



-20°C ÷ 110°C (general use)
0°C ÷ 90°C (potable water)

**Working pressure (9203):**
10 Bar
**Working pressure (9204):**
50 Bar (from 3/8" to 3/4")
40 Bar (from 1" to 1-1/4")
32 Bar (from 1-1/2" to 2")

Potable water and fluids suitable with construction materials

Parallel gas BSPP
EN 10226-1
from G3/8" to G2"

**FEATURES**

The type of sphere used avoids pooling of water in the valve. This prevents bacteria, possibly contained in the water, from remaining into the system for an extended period of time unlike normal valves.
Valves 9203 and 9204 are also anti-freeze thanks again to the type of sphere used. This technology allows the valve body – sphere – tubing to be kept in communication at all times, preventing the water from freezing, which would cause an increase in pressure on the valve body and causing it break.

ACS

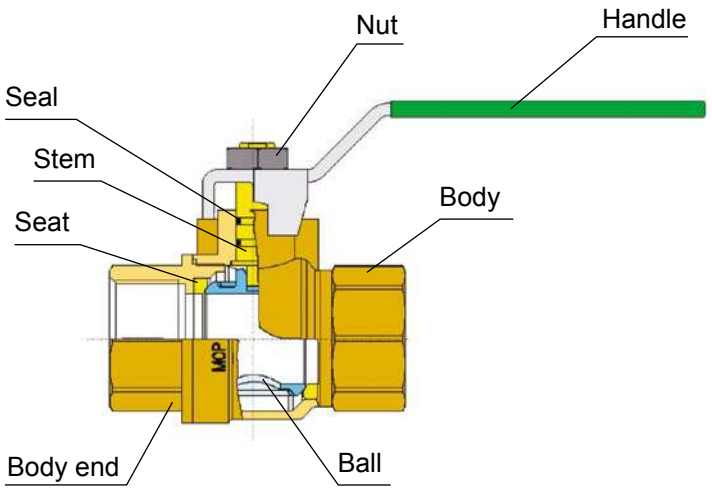
Product approved by DVGW

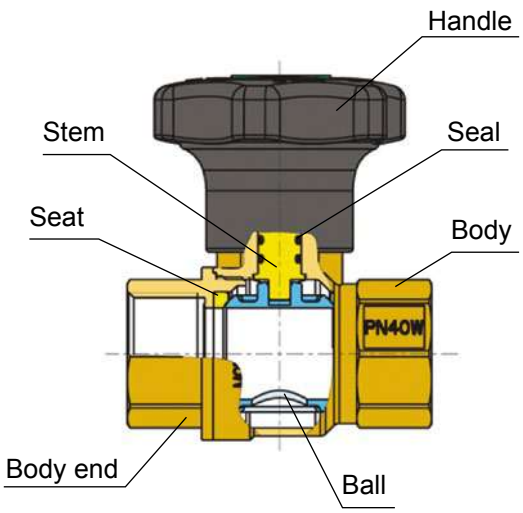
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

| COMPONENTS | 9203 | 9204 |
|---|---|---|
| Body | Brass CW617N-DW UNI EN 12165 | Brass CW617N UNI EN 12165/98 |
| Body end | Brass CW617N-DW UNI EN 12165 | Brass CW617N UNI EN 12165/98 |
| Seat | PTFE | PTFE |
| Ball | Chromed brass CW617N-DW UNI EN 12165 | Chromed brass CW617N UNI EN 12165/98 |
| Stem (anti blow-out) | Brass CW614N UNI EN12164/98 | Brass CW614N UNI EN12164/98 |
| Seal | EPDM - HNBR | EPDM - HNBR |
| Handle | Steel with PVC coating | Nylon |
| Nut | Zinc-plated steel | / |

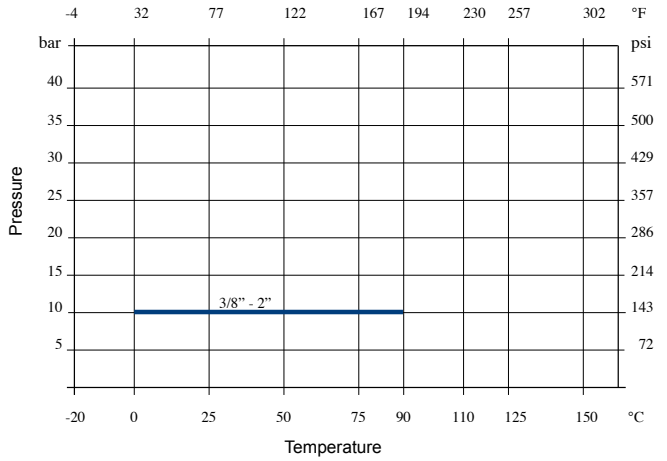
## CONSTRUCTION DETAILS



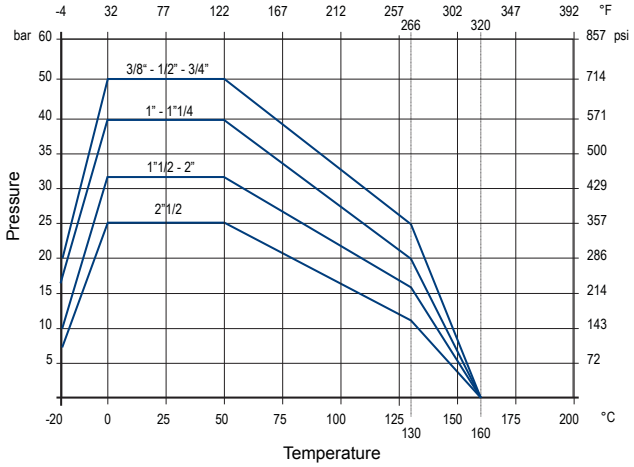




*drawings and technical data are not binding & can be changed without notice*

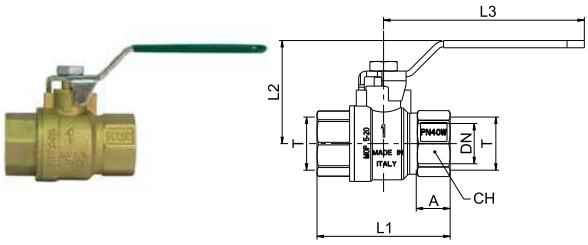
## PRESSURE-TEMPERATURE CHART
9203




## PRESSURE-TEMPERATURE CHART
9204

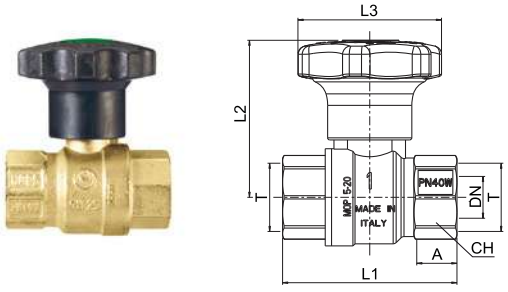



## 9203
Universal full bore ball valve, female BSPP thread, green lever



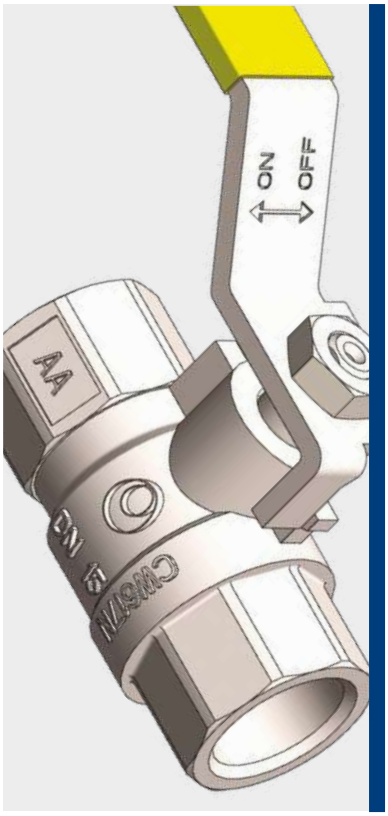

| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9203TR38 | G 3/8" | 10 | 12,0 | 45,0 | 40,0 | 80,0 | 21 |
| 9203TR12 | G 1/2" | 15 | 17,0 | 63,0 | 52,0 | 90,0 | 26 |
| 9203TR34 | G 3/4" | 20 | 19,5 | 71,0 | 55,0 | 90,0 | 31 |
| 9203TR1 | G 1" | 25 | 21,0 | 83,0 | 64,0 | 125,0 | 38 |
| 9203TR114 | G 1-1/4" | 32 | 22,0 | 92,0 | 69,0 | 125,0 | 48 |
| 9203TR112 | G 1-1/2" | 40 | 23,5 | 104,0 | 78,0 | 140,0 | 55 |
| 9203TR2 | G 2" | 50 | 28,0 | 124,0 | 85,0 | 140,0 | 68 |

## 9204
Universal full bore ball valve with gear, female BSPP thread




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9204TR38 | G 3/8" | 10 | 12,0 | 45,0 | 59,0 | 70,0 | 21 |
| 9204TR12 | G 1/2" | 15 | 17,0 | 63,0 | 65,0 | 70,0 | 26 |
| 9204TR34 | G 3/4" | 20 | 19,5 | 71,0 | 68,0 | 70,0 | 31 |
| 9204TR1 | G 1" | 25 | 21,0 | 83,0 | 76,0 | 70,0 | 38 |
| 9204TR114 | G 1-1/4" | 32 | 22,0 | 92,0 | 81,0 | 70,0 | 48 |
| 9204TR112 | G 1-1/2" | 40 | 23,5 | 104,0 | 105,0 | 112,0 | 55 |
| 9204TR2 | G 2" | 50 | 28,0 | 124,0 | 112,0 | 112,0 | 68 |

*drawings and technical data are not binding & can be changed without notice*




-20°C ÷ 60°C

**Working pressure:**
20 Bar

Medium and low pressure gas and hydrocarbons

Parallel gas BSPP
UNI ISO 7/1 Rp
from G1/4" to G2"

**FEATURES**

The 9208 Series are approved for medium and low pressure gas distribution plants and for hydrocarbons.

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem (anti blow-out):** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** NBR
**Handle:** Steel
**Nut:** Steel

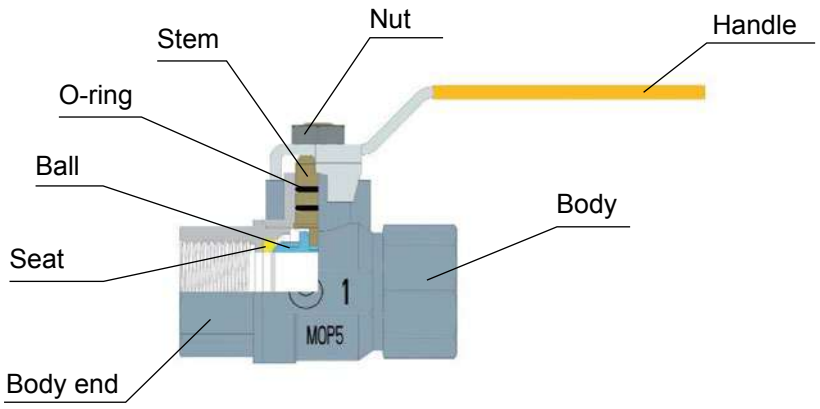
Product approved by DVGW

Product approved by SVGW SSIGE

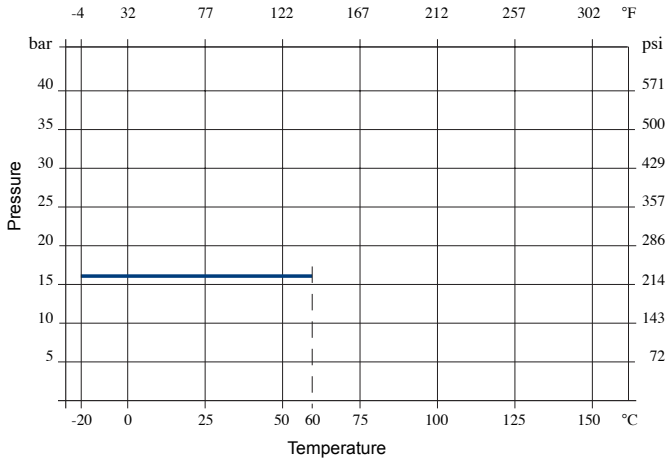
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



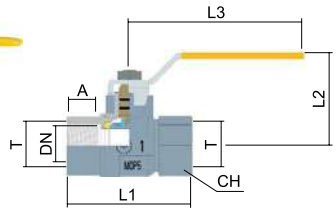

## PRESSURE-TEMPERATURE CHART



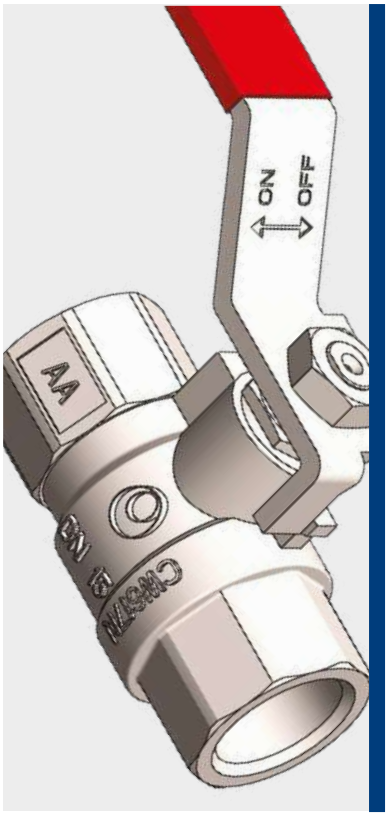

*drawings and technical data are not binding & can be changed without notice*

## 9208 Universal full bore ball valve for gas, female BSPP thread, yellow lever






| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9208TR14 | G 1/4" | 10 | 10 | 45,0 | 41,0 | 80,0 | 21 |
| 9208TR38 | G 3/8" | 10 | 10 | 45,0 | 41,0 | 80,0 | 21 |
| 9208TR12 | G 1/2" | 15 | 15 | 63,0 | 54,0 | 90,0 | 26 |
| 9208TR34 | G 3/4" | 20 | 16 | 71,0 | 58,0 | 90,0 | 31 |
| 9208TR1 | G 1" | 25 | 19 | 83,0 | 66,0 | 125,0 | 38 |
| 9208TR114 | G 1-1/4" | 32 | 21 | 92,0 | 71,0 | 125,0 | 48 |
| 9208TR112 | G 1-1/2" | 40 | 21 | 104,0 | 80,0 | 140,0 | 55 |
| 9208TR2 | G 2" | 50 | 26 | 124,0 | 88,0 | 140,0 | 68 |




-29°C ÷ 150°C

**Working pressure:**
40 Bar (from 1/4" to 1")
32 Bar (from 1-1/4" to 2")
25 Bar (from 2-1/2" to 4")

Hydraulic, sanitary, compressed air industries, hydrocarbons and fluids suitable with construction materials

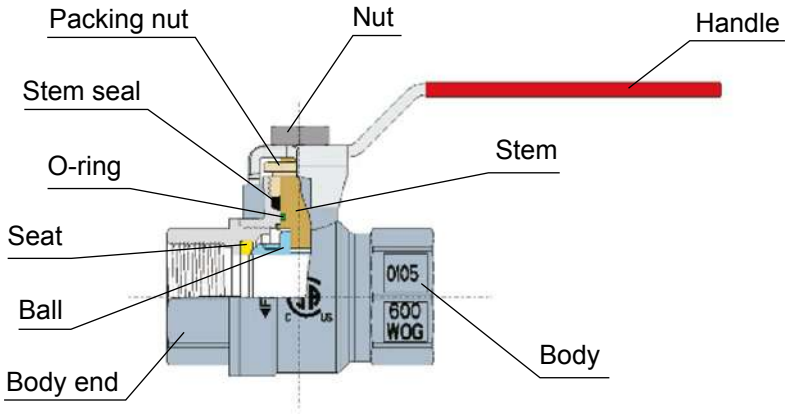
NPT ANSI B.1.20.1
from N1/4" to N4"

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem:** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** FP (fluor carbon rubber)
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98

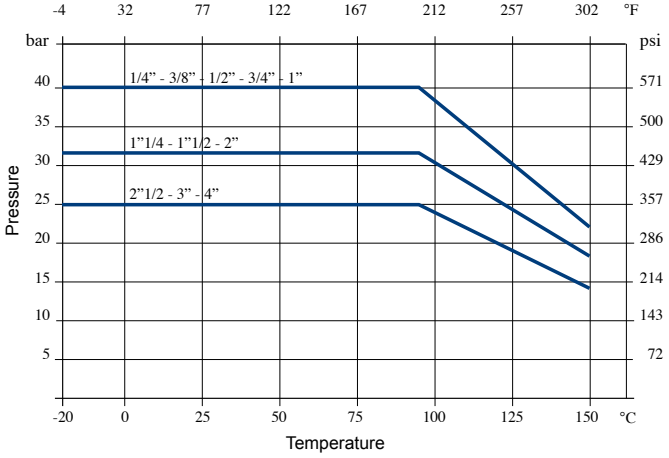
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




## PRESSURE-TEMPERATURE CHART

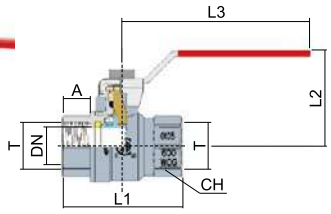



*drawings and technical data are not binding & can be changed without notice*

## 9212

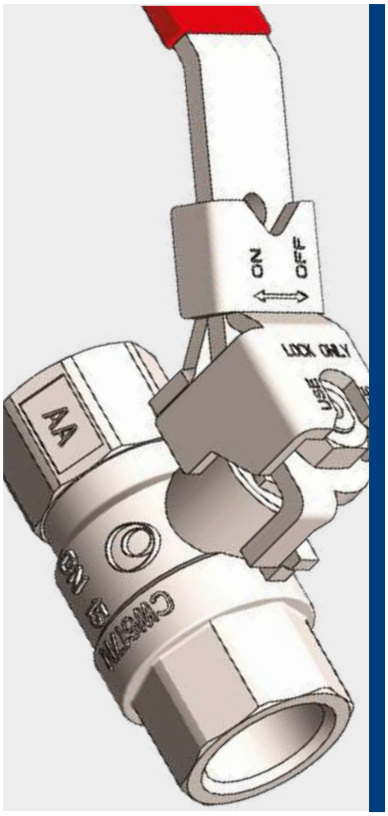
Universal full bore ball valve, female NPT thread, red lever






| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9212TR14 | N 1/4" | 10 | 12 | 45,0 | 41,0 | 80,0 | 21 |
| 9212TR38 | N 3/8" | 10 | 12 | 45,0 | 41,0 | 80,0 | 21 |
| 9212TR12 | N 1/2" | 15 | 16 | 60,0 | 54,0 | 90,0 | 26 |
| 9212TR34 | N 3/4" | 20 | 17 | 67,0 | 58,0 | 90,0 | 31 |
| 9212TR1 | N 1" | 25 | 19,5 | 80,0 | 66,0 | 125,0 | 38 |
| 9212TR114 | N 1-1/4" | 32 | 21 | 89,0 | 71,0 | 125,0 | 48 |
| 9212TR112 | N 1-1/2" | 40 | 21 | 98,0 | 80,0 | 140,0 | 55 |
| 9212TR2 | N 2" | 50 | 22 | 112,0 | 88,0 | 140,0 | 68 |
| 9212TR212 | N 2-1/2" | 61 | 27,5 | 140,0 | 131,0 | 250,0 | 85 |
| 9212TR3 | N 3" | 74 | 30,5 | 159,0 | 140,0 | 250,0 | 99 |
| 9212TR4 | N 4" | 95 | 38 | 196,0 | 156,0 | 250,0 | 125 |

*drawings and technical data are not binding & can be changed without notice*




-20°C ÷ 160°C

**Working pressure:**
50 Bar (from 1/4" to 3/4")
40 Bar (from 1" to 1-1/4")
32 Bar (from 1-1/2" to 2")

Compressed air, hydrothermal systems and fluids suitable with construction materials

Parallel gas BSPP ISO 228-1 from G1/4" to G2"

**AVAILABILITY**

Ball available in stainless steel AISI 304 on request

**FEATURES**

The anti blow-out system, found in the 9214 Series universal ball valves, guarantees greater protection against the accidental release of the stem and its sealing system.

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem (anti blow-out):** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** FKM
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98

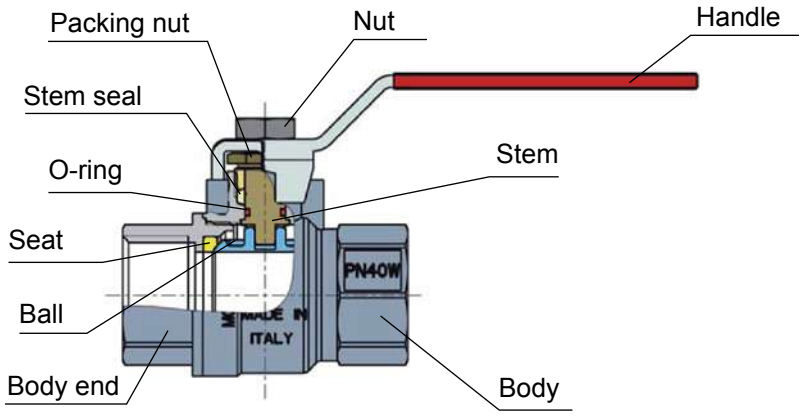
WRAS approved product

ACS approved product

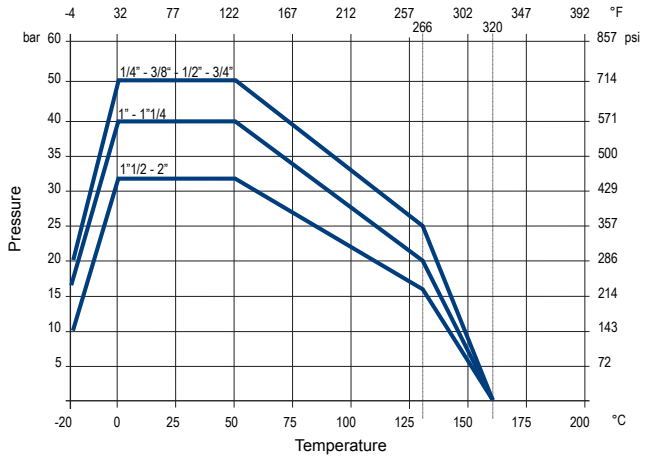
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

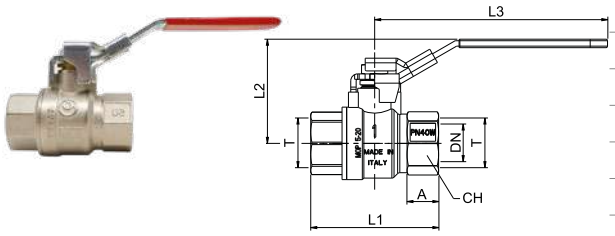



## PRESSURE-TEMPERATURE CHART



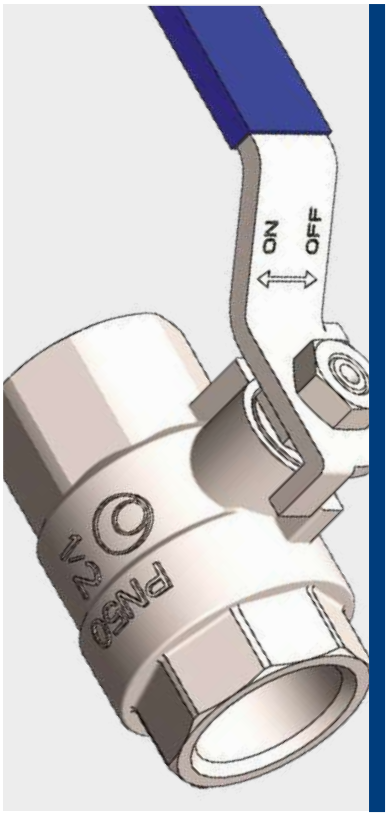

*drawings and technical data are not binding & can be changed without notice*

## 9214 Universal full bore lockable ball valve, female BSPP thread, red lever




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9214TR14 | G 1/4" | 10 | 12 | 45,0 | 43,0 | 95,0 | 21 |
| 9214TR38 | G 3/8" | 10 | 12 | 45,0 | 44,0 | 95,0 | 21 |
| 9214TR12 | G 1/2" | 15 | 17 | 63,0 | 56,0 | 120,0 | 26 |
| 9214TR34 | G 3/4" | 20 | 19,5 | 71,0 | 60,0 | 120,0 | 31 |
| 9214TR1 | G 1" | 25 | 21 | 83,0 | 68,0 | 150,0 | 38 |
| 9214TR114 | G 1-1/4" | 32 | 22 | 92,0 | 73,0 | 150,0 | 48 |
| 9214TR112 | G 1-1/2" | 40 | 23,5 | 104,0 | 87,0 | 160,0 | 55 |
| 9214TR2 | G 2" | 50 | 28 | 124,0 | 94,0 | 160,0 | 68 |

*drawings and technical data are not binding & can be changed without notice*




-20°C ÷ 150°C

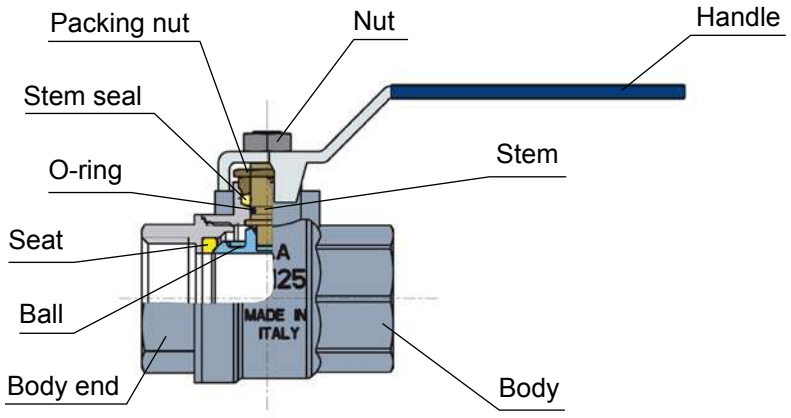
**Working pressure:**
50 Bar (from 1/4" to 3/4")
40 Bar (from 1" to 1-1/4")
32 Bar (from 1-1/2" to 2")
16 Bar (from 2-1/2" to 4")

Compressed air, hydraulic, sanitary and fluids suitable with construction materials

Parallel gas BSPP ISO 228-1 from G1/4" to G4"

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem (anti blow-out):** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** NBR
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98

## CONSTRUCTION DETAILS



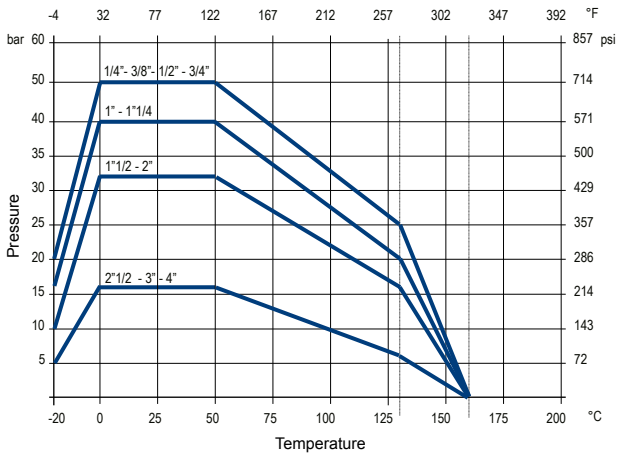

WRAS approved product

ACS approved product

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

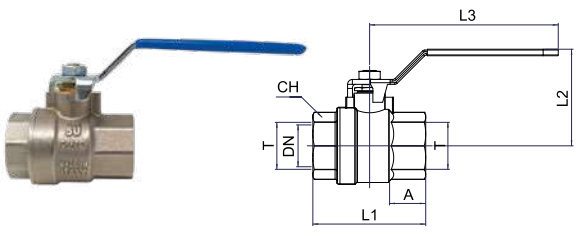
## PRESSURE-TEMPERATURE CHART




*drawings and technical data are not binding & can be changed without notice*

## 9210

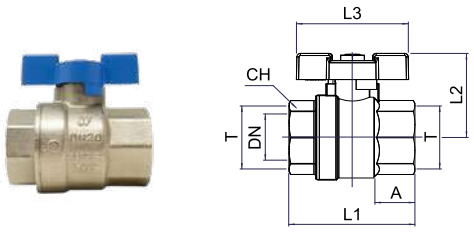
Universal full bore ball valve, female BSPP thread, blue lever




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9210TR14 | G 1/4" | 10 | 9,5 | 42,0 | 40,0 | 80,0 | 17 |
| 9210TR38 | G 3/8" | 10 | 10,5 | 44,0 | 40,0 | 80,0 | 20 |
| 9210TR12 | G 1/2" | 15 | 11 | 50,0 | 43,0 | 92,0 | 25 |
| 9210TR34 | G 3/4" | 20 | 13 | 57,0 | 47,0 | 92,0 | 31 |
| 9210TR1 | G 1" | 25 | 15 | 70,0 | 59,0 | 115,0 | 38 |
| 9210TR114 | G 1-1/4" | 32 | 17 | 80,0 | 64,0 | 115,0 | 47 |
| 9210TR112 | G 1-1/2" | 40 | 18 | 90,0 | 75,0 | 150,0 | 54 |
| 9210TR2 | G 2" | 50 | 20 | 107,0 | 82,0 | 150,0 | 66 |
| 9210TR212 | G 2-1/2" | 60 | 22 | 132,0 | 108,0 | 200,0 | 84 |
| 9210TR3 | G 3" | 74 | 26 | 151,0 | 117,0 | 250,0 | 96 |
| 9210TR4 | G 4" | 94 | 30 | 179,0 | 154,0 | 250,0 | 123 |

## 9240

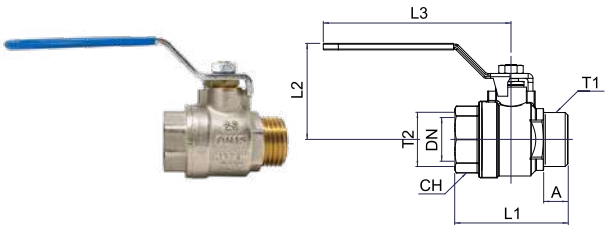
Universal full bore ball valve, female BSPP thread, blue butterfly lever




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9240TR14 | G 1/4" | 10 | 9,5 | 42,0 | 33,0 | 50,0 | 17 |
| 9240TR38 | G 3/8" | 10 | 10,5 | 44,0 | 33,0 | 50,0 | 20 |
| 9240TR12 | G 1/2" | 15 | 11 | 50,0 | 37,0 | 50,0 | 25 |
| 9240TR34 | G 3/4" | 20 | 13 | 57,0 | 40,0 | 50,0 | 31 |
| 9240TR1 | G 1" | 25 | 15 | 70,0 | 47,0 | 61,0 | 38 |
| 9240TR114 | G 1-1/4" | 32 | 17 | 80,0 | 52,0 | 61,0 | 47 |

## 9220

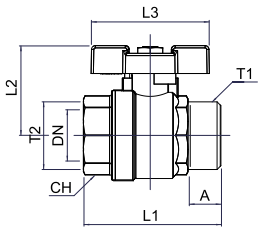
Universal full bore ball valve, M/F BSPP thread, blue lever




| CODE | T1 | T2 | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|---|
| 9220TR14 | G 1/4" | G 1/4" | 10 | 10 | 43,5 | 40,0 | 80,0 | 17 |
| 9220TR38 | G 3/8" | G 3/8" | 10 | 10 | 45,0 | 40,0 | 80,0 | 20 |
| 9220TR12 | G 1/2" | G 1/2" | 15 | 10,5 | 50,0 | 43,0 | 92,0 | 25 |
| 9220TR34 | G 3/4" | G 3/4" | 20 | 13 | 58,0 | 47,0 | 92,0 | 31 |
| 9220TR1 | G 1" | G 1" | 25 | 15 | 70,0 | 59,0 | 115,0 | 38 |
| 9220TR114 | G 1-1/4" | G 1-1/4" | 32 | 17 | 81,0 | 64,0 | 115,0 | 47 |
| 9220TR112 | G 1-1/2" | G 1-1/2" | 40 | 18 | 91,0 | 75,0 | 150,0 | 54 |
| 9220TR2 | G 2" | G 2" | 50 | 20 | 107,0 | 82,0 | 150,0 | 66 |

## 9250 Universal full bore ball valve, M/F BSPP thread, blue butterfly lever

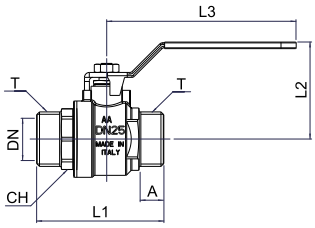





| CODE | T1 | T2 | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|---|
| 9250TR14 | G 1/4" | G 1/4" | 10 | 10 | 43,5 | 40,0 | 50,0 | 17 |
| 9250TR38 | G 3/8" | G 3/8" | 10 | 10 | 45,0 | 40,0 | 50,0 | 20 |
| 9250TR12 | G 1/2" | G 1/2" | 15 | 10,5 | 50,0 | 43,0 | 50,0 | 25 |
| 9250TR34 | G 3/4" | G 3/4" | 20 | 13 | 58,0 | 47,0 | 50,0 | 31 |
| 9250TR1 | G 1" | G 1" | 25 | 15 | 70,0 | 59,0 | 61,0 | 38 |
| 9250TR114 | G 1-1/4" | G 1-1/4" | 32 | 17 | 81,0 | 64,0 | 61,0 | 47 |

## 9230 Universal full bore ball valve, male BSPP thread, blue lever

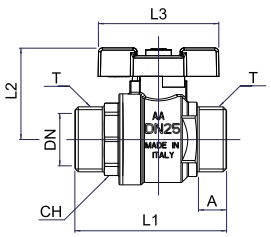





| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9230TR14 | G 1/4" | 10 | 10 | 52,0 | 40,0 | 80,0 | 18 |
| 9230TR38 | G 3/8" | 10 | 10 | 52,0 | 40,0 | 80,0 | 18 |
| 9230TR12 | G 1/2" | 15 | 10,5 | 58,0 | 43,0 | 92,0 | 18 |
| 9230TR34 | G 3/4" | 20 | 13 | 66,0 | 47,0 | 92,0 | 28 |
| 9230TR1 | G 1" | 25 | 15 | 78,0 | 59,0 | 115,0 | 37 |
| 9230TR114 | G 1-1/4" | 32 | 17 | 91,0 | 64,0 | 115,0 | 44 |
| 9230TR112 | G 1-1/2" | 40 | 18 | 102,0 | 75,0 | 150,0 | 49 |
| 9230TR2 | G 2" | 50 | 20 | 118,0 | 82,0 | 150,0 | 63 |

## 9260 Universal full bore ball valve, male BSPP thread, blue butterfly lever





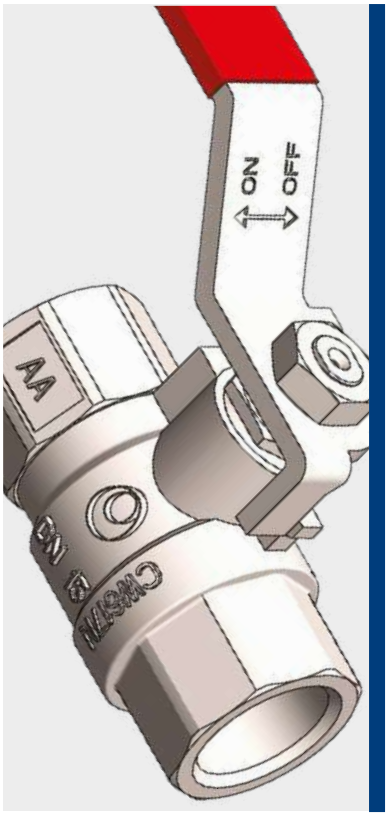

| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9260TR14 | G 1/4" | 10 | 10 | 52,0 | 40,0 | 50,0 | 18 |
| 9260TR38 | G 3/8" | 10 | 10 | 52,0 | 40,0 | 50,0 | 18 |
| 9260TR12 | G 1/2" | 15 | 10,5 | 58,0 | 43,0 | 50,0 | 18 |
| 9260TR34 | G 3/4" | 20 | 13 | 66,0 | 47,0 | 50,0 | 28 |
| 9260TR1 | G 1" | 25 | 15 | 78,0 | 59,0 | 61,0 | 37 |

TierreGroup®

Always a fittings solution




## FOLLOW US!



-20°C ÷ 160°C

**Working pressure:**
50 Bar (from 1/4" to 3/4")
40 Bar (from 1" to 1-1/4")
32 Bar (from 1-1/2" to 2")
25 Bar (from 2-1/2" to 4")

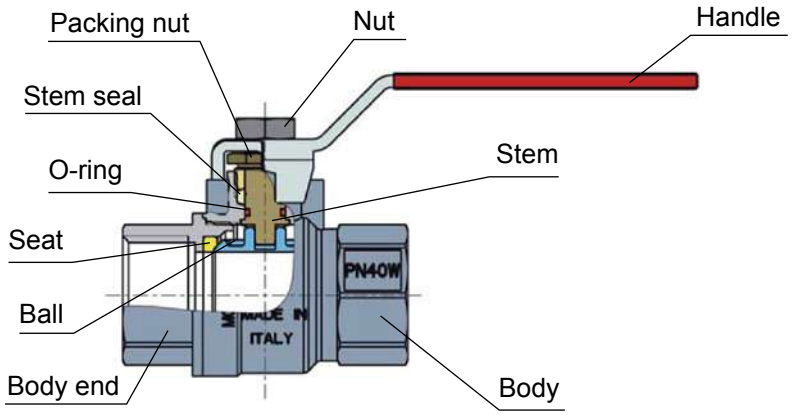
Compressed air, hydrothermal systems and fluids suitable with construction materials

Parallel gas BSPP ISO 228-1 from G1/4" to G4"

**AVAILABILITY**
Ball available in stainless steel AISI 304 on request

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem (anti blow-out):** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** FKM
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98

## CONSTRUCTION DETAILS



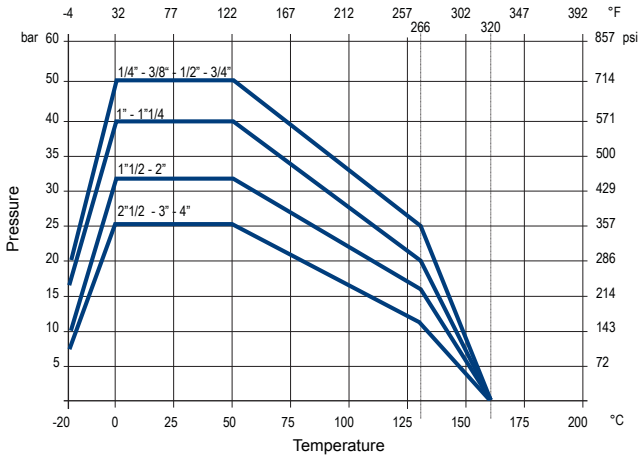

WRAS approved product

ACS approved product

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

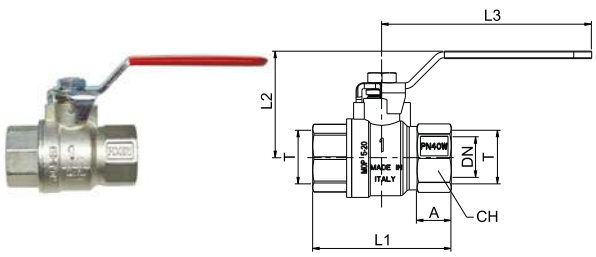
## PRESSURE-TEMPERATURE CHART



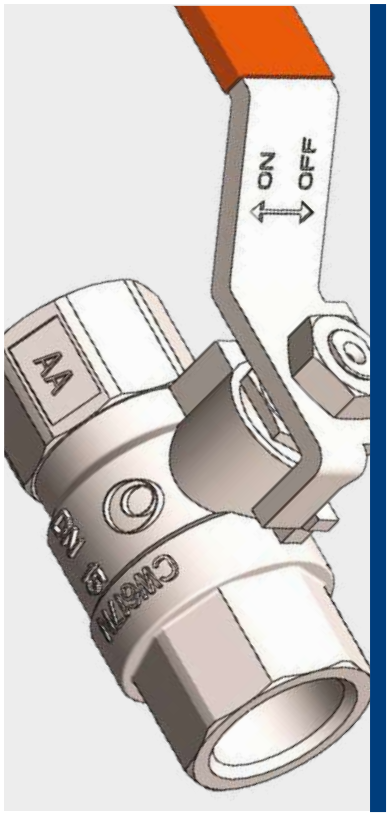

*drawings and technical data are not binding & can be changed without notice*

## 9210H

Universal full bore ball valve heavy series, female BSPP thread, red lever




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9210TRH14 | G 1/4" | 10 | 12 | 45,0 | 40,0 | 80,0 | 21 |
| 9210TRH38 | G 3/8" | 10 | 12 | 45,0 | 40,0 | 80,0 | 21 |
| 9210TRH12 | G 1/2" | 15 | 17 | 63,0 | 52,0 | 90,0 | 26 |
| 9210TRH34 | G 3/4" | 20 | 19,5 | 71,0 | 55,0 | 90,0 | 31 |
| 9210TRH1 | G 1" | 25 | 21 | 83,0 | 64,0 | 125,0 | 38 |
| 9210TRH114 | G 1-1/4" | 32 | 22 | 92,0 | 69,0 | 125,0 | 48 |
| 9210TRH112 | G 1-1/2" | 40 | 23,5 | 104,0 | 78,0 | 140,0 | 55 |
| 9210TRH2 | G 2" | 50 | 28 | 124,0 | 85,0 | 140,0 | 68 |
| 9210TRH212 | G 2-1/2" | 60 | 28 | 140,0 | 131,0 | 250,0 | 85 |
| 9210TRH3 | G 3" | 74 | 30,5 | 159,0 | 140,0 | 250,0 | 99 |
| 9210TRH4 | G 4" | 94 | 38 | 196,0 | 154,0 | 250,0 | 125 |




-30°C ÷ 180°C

**Working pressure:**
50 Bar (from 3/8" to 3/4")
40 Bar (from 1" to 1-1/4")
32 Bar (from 1-1/2" to 2")

Compressed air, hydraulic, sanitary and fluids suitable with construction materials

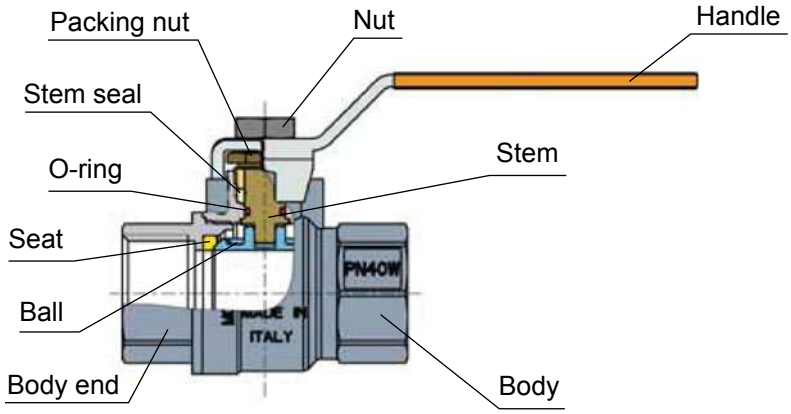
Parallel gas BSPP ISO 228-1 from G3/8" to G2"

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem (anti blow-out):** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** Graphite reinforced PTFE
**O-ring:** FP (Fluor carbon rubber)
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** Graphite reinforced PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98

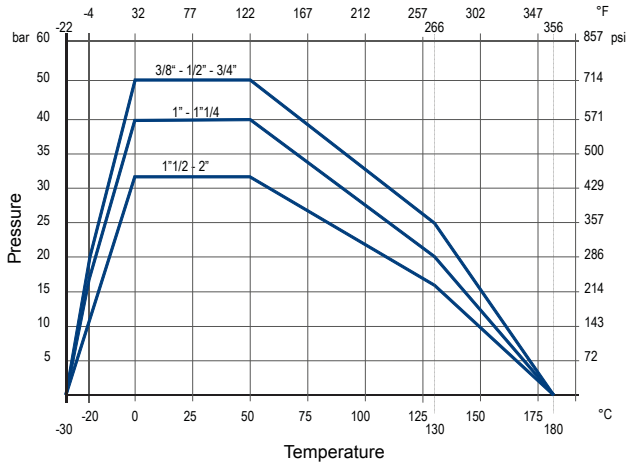
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



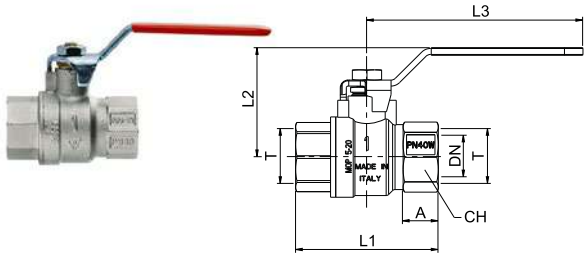

## PRESSURE-TEMPERATURE CHART



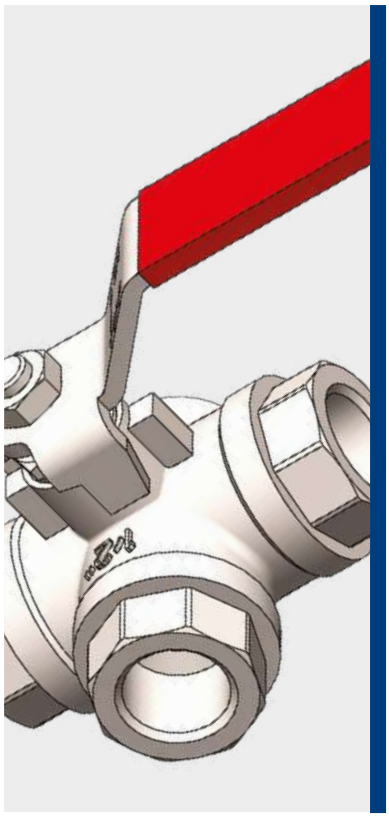

*drawings and technical data are not binding & can be changed without notice*

## 9210HS

Universal full bore ball valve heavy series, female BSPP thread, orange lever




| CODE | T | DN | A | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9210TRHS38 | G 3/8" | 10 | 12 | 45,0 | 41,0 | 80,0 | 21 |
| 9210TRHS12 | G 1/2" | 15 | 17 | 63,0 | 54,0 | 90,0 | 26 |
| 9210TRHS34 | G 3/4" | 20 | 19,5 | 71,0 | 58,0 | 90,0 | 31 |
| 9210TRHS1 | G 1" | 25 | 21 | 83,0 | 66,0 | 125,0 | 38 |
| 9210TRHS114 | G 1-1/4" | 32 | 22 | 92,0 | 71,0 | 125,0 | 48 |
| 9210TRHS112 | G 1-1/2" | 40 | 23,5 | 104,0 | 80,0 | 140,0 | 55 |
| 9210TRHS2 | G 2" | 50 | 28 | 124,0 | 88,0 | 140,0 | 68 |



**9270 - 9280:**
-20°C ÷ 150°C
**9272 - 9282:**
-10°C ÷ 100°C

**Working pressure:**
**9270 - 9280**
32 Bar (from 1/4" to 1")
25 Bar (from 1-1/4" to 2")
**9272 - 9282**
25 Bar (from 1/4" to 2")

Compressed air, hydraulic, sanitary, irrigation and fluids suitable with construction materials

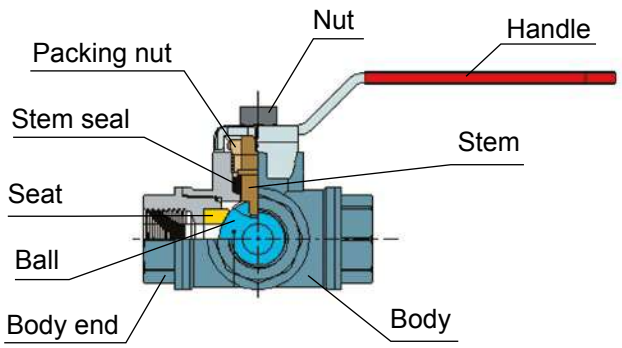
Parallel gas BSPP ISO 228-1 from G1/4" to G2"

**Body:** Nickel-plated brass CW617N UNI EN 12165/98
**Stem:** Brass CW614N UNI EN 12164/98
**Body end:** Nickel-plated brass CW617N UNI EN 12165/98
**Ball:** Chromed brass CW617N UNI EN 12165/98
**Seat:** PTFE
**O-ring:** FKM (9272 & 9282)
**Handle:** PVC coated steel
**Nut:** Zinc-plated steel
**Stem seal:** PTFE
**Packing nut:** Brass CW614N UNI EN 12164/98
**Indicator:** Aluminium (9272 & 9282)

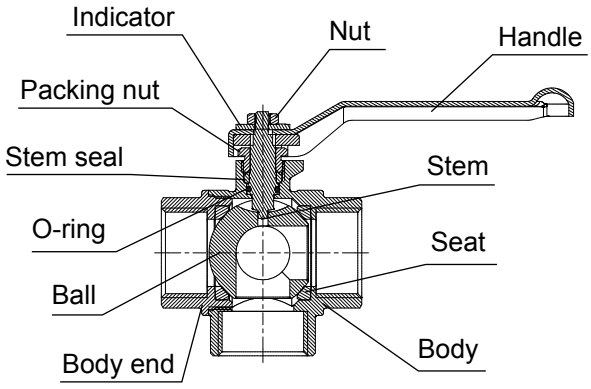
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

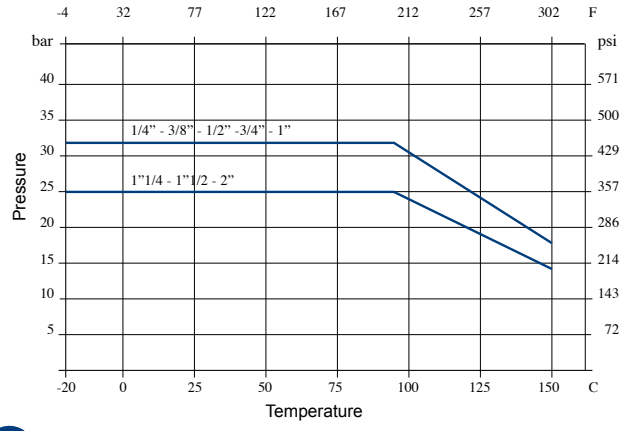
## CONSTRUCTION DETAILS
9270 & 9280



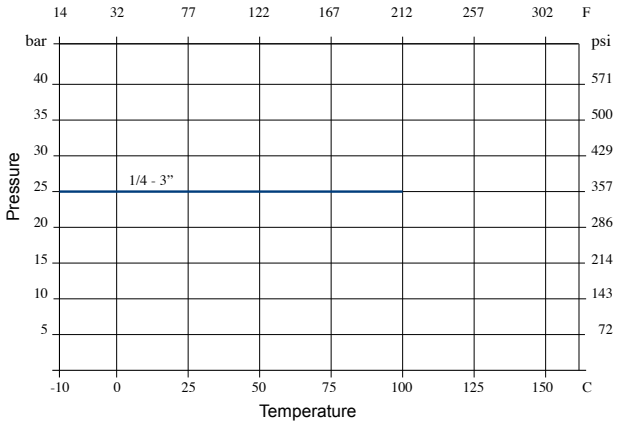

## CONSTRUCTION DETAILS
9272 & 9282




## PRESSURE-TEMPERATURE CHART
9270 & 9280

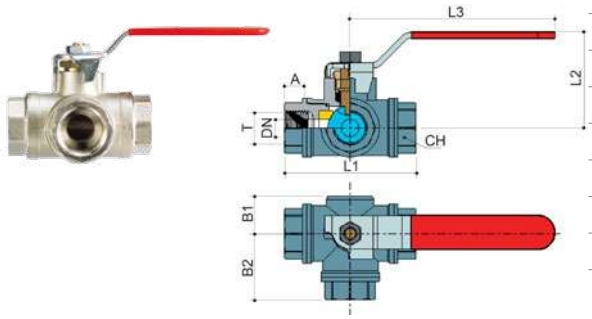



## PRESSURE-TEMPERATURE CHART
9272 & 9282

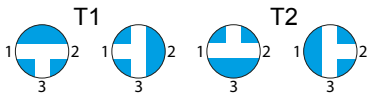



*drawings and technical data are not binding & can be changed without notice*

## 9270 Three-ways T port ball valve, reduced bore, female BSPP thread, red lever

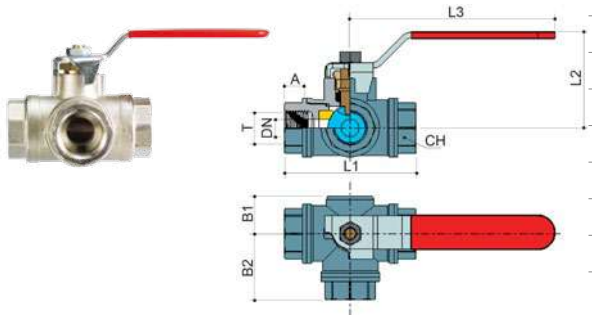



| CODE | T | DN | A | B1 | B2 | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|---|---|
| 9270TR14 | G 1/4" | 10 | 12 | 22 | 37 | 74,0 | 58,0 | 90,0 | 22 |
| 9270TR38 | G 3/8" | 10 | 12 | 22 | 37 | 74,0 | 58,0 | 90,0 | 22 |
| 9270TR12 | G 1/2" | 12 | 14 | 24 | 39 | 80,0 | 60,0 | 125,0 | 29 |
| 9270TR34 | G 3/4" | 15 | 16 | 28 | 46 | 90,0 | 64,0 | 125,0 | 34 |
| 9270TR1 | G 1" | 20 | 19 | 31 | 52 | 105,0 | 73,0 | 140,0 | 42 |
| 9270TR114 | G 1-1/4" | 25 | 21 | 35 | 58 | 115,0 | 79,0 | 140,0 | 50 |
| 9270TR112 | G 1-1/2" | 32 | 23 | 42 | 69 | 138,0 | 100,0 | 220,0 | 57 |
| 9270TR2 | G 2" | 40 | 26 | 48 | 80 | 161,0 | 105,0 | 220,0 | 68 |

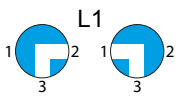



To obtain the **"T2"** configuration, unscrew the nut, remove the lever and rotate the ball 180°.
Then replace the lever in the standard position.

## 9280 Three-ways L port ball valve, reduced bore, female BSPP thread, red lever

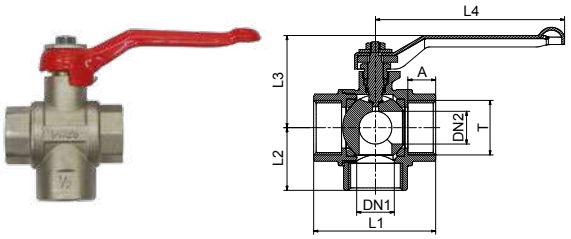



| CODE | T | DN | A | B1 | B2 | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|---|---|
| 9280TR14 | G 1/4" | 10 | 12 | 22 | 37 | 74,0 | 58,0 | 90,0 | 22 |
| 9280TR38 | G 3/8" | 10 | 12 | 22 | 37 | 74,0 | 58,0 | 90,0 | 22 |
| 9280TR12 | G 1/2" | 12 | 14 | 24 | 39 | 80,0 | 60,0 | 125,0 | 29 |
| 9280TR34 | G 3/4" | 15 | 16 | 28 | 46 | 90,0 | 64,0 | 125,0 | 34 |
| 9280TR1 | G 1" | 20 | 19 | 31 | 52 | 105,0 | 73,0 | 140,0 | 42 |
| 9280TR114 | G 1-1/4" | 25 | 21 | 35 | 58 | 115,0 | 79,0 | 140,0 | 50 |
| 9280TR112 | G 1-1/2" | 32 | 23 | 42 | 69 | 138,0 | 100,0 | 220,0 | 57 |
| 9280TR2 | G 2" | 40 | 26 | 48 | 80 | 161,0 | 105,0 | 220,0 | 68 |

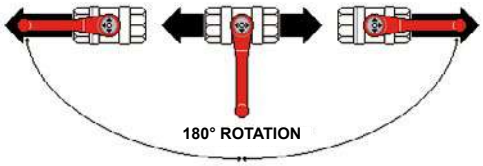


## 9272

Three-ways reduced bore T ball valve, female BSPP thread, red lever

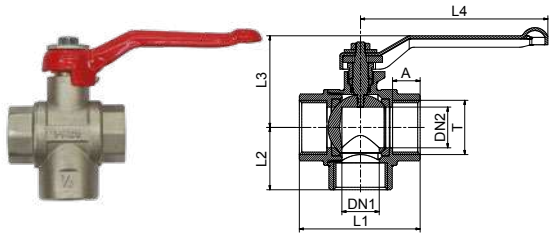



| CODE | T | DN1 | DN2 | A | L1 | L2 | L3 | L4 |
|---|---|---|---|---|---|---|---|---|
| 9272TR14 | G 1/4" | 10 | 10 | 14 | 53,0 | 31,0 | 48,0 | 92,0 |
| 9272TR38 | G 3/8" | 10 | 10 | 14 | 53,0 | 31,0 | 48,0 | 92,0 |
| 9272TR12 | G 1/2" | 10 | 10 | 14 | 55,0 | 31,0 | 48,0 | 92,0 |
| 9272TR34 | G 3/4" | 15 | 15 | 16 | 66,0 | 34,0 | 50,0 | 92,0 |
| 9272TR1 | G 1" | 20 | 20 | 17 | 74,0 | 38,0 | 55,0 | 115,0 |
| 9272TR114 | G 1-1/4" | 25 | 25 | 18 | 85,0 | 46,0 | 68,0 | 150,0 |
| 9272TR112 | G 1-1/2" | 32 | 32 | 19 | 97,0 | 53,0 | 73,0 | 150,0 |
| 9272TR2 | G 2" | 40 | 40 | 21 | 109,0 | 62,0 | 79,0 | 150,0 |

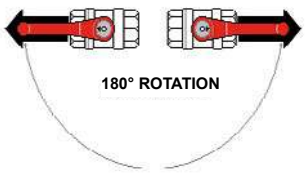



## 9282

Three-ways reduced bore L ball valve, female BSPP thread, red lever




| CODE | T | DN1 | DN2 | A | L1 | L2 | L3 | L4 |
|---|---|---|---|---|---|---|---|---|
| 9282TR14 | G 1/4" | 10 | 10 | 14 | 53,0 | 31,0 | 48,0 | 92,0 |
| 9282TR38 | G 3/8" | 10 | 10 | 14 | 53,0 | 31,0 | 48,0 | 92,0 |
| 9282TR12 | G 1/2" | 12 | 12 | 14 | 55,0 | 31,0 | 48,0 | 92,0 |
| 9282TR34 | G 3/4" | 18 | 20 | 16 | 66,0 | 34,0 | 50,0 | 92,0 |
| 9282TR1 | G 1" | 23 | 25 | 17 | 74,0 | 38,0 | 55,0 | 115,0 |
| 9282TR114 | G 1-1/4" | 30 | 32 | 18 | 85,0 | 46,0 | 68,0 | 150,0 |
| 9282TR112 | G 1-1/2" | 37 | 39 | 19 | 97,0 | 53,0 | 73,0 | 150,0 |
| 9282TR2 | G 2" | 46 | 48 | 21 | 109,0 | 62,0 | 79,0 | 150,0 |



TierreGroup®
Always a fittings solution

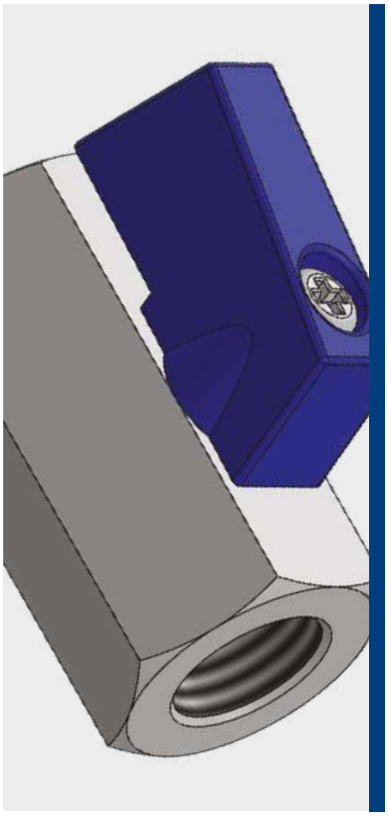
# NON È
# UN CASTELLO DI CARTE



#TIERREHEART

TierreGroup®

## FOLLOW US!



-20°C ÷ 140°C

**Working pressure:**
69 Bar

Compressed air and fluids suitable with construction materials

- Taper gas BSPT ISO 7-1 from R1/8" to R1"
- Parallel gas BSPP ISO 228-1 from G1/8" to G1"

**LEVER ROTATION**
90° rotation of the lever

**Body:** Stainless steel CF8M
**Locking nut:** Stainless steel AISI 316
**Ball:** Stainless steel AISI 316
**Stem (anti blow-out):** Stainless steel AISI 316
**Ball seal:** PTFE
**O-ring:** NBR
**Lever:** Aluminium
**Screw:** Stainless steel AISI 304

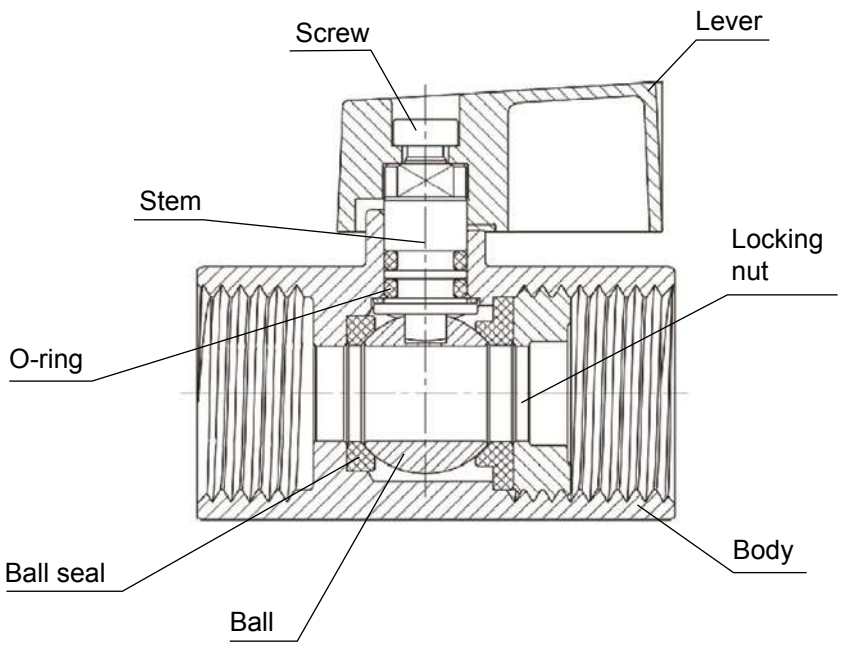
Food contact materials EC 1935/2004

D.M. 174/2004

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

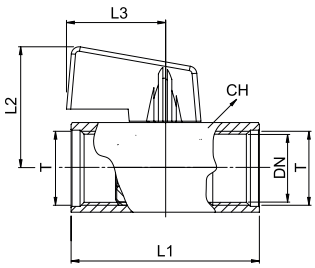
## CONSTRUCTION DETAILS



## 9170

Female mini ball valve BSPP thread



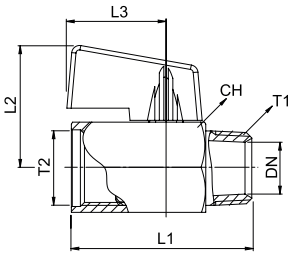



| CODE | T | DN | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|
| 9170TR18 | G 1/8" | 5 | 39,0 | 26,5 | 23,0 | 21 |
| 9170TR14 | G 1/4" | 7 | 42,0 | 26,5 | 23,0 | 21 |
| 9170TR38 | G 3/8" | 7 | 42,0 | 26,5 | 23,0 | 21 |
| 9170TR12 | G 1/2" | 9,2 | 46,0 | 29,0 | 23,0 | 24,5 |
| 9170TR34 | G 3/4" | 12,5 | 54,0 | 32,0 | 23,0 | 31 |
| 9170TR1 | G 1" | 15 | 64,5 | 35,0 | 23,0 | 36 |

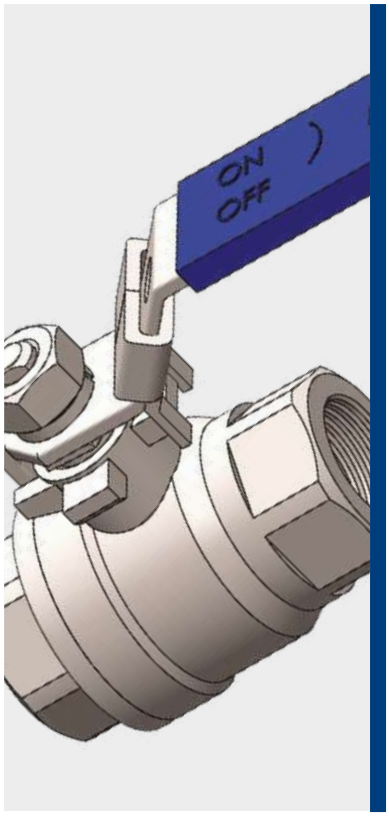
## 9180

Mini ball valve, male BSPT and female BSPP threads






| CODE | T1 | T2 | DN | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|---|---|
| 9180TR18 | R 1/8" | G 1/8" | 5 | 39,0 | 26,5 | 23,0 | 21 |
| 9180TR14 | R 1/4" | G 1/4" | 7 | 40,0 | 26,5 | 23,0 | 21 |
| 9180TR38 | R 3/8" | G 3/8" | 7 | 40,0 | 26,5 | 23,0 | 21 |
| 9180TR12 | R 1/2" | G 1/2" | 9,2 | 46,0 | 29,0 | 23,0 | 24,5 |
| 9180TR34 | R 3/4" | G 3/4" | 12,5 | 54,0 | 32,0 | 23,0 | 31 |
| 9180TR1 | R 1" | G 1" | 15 | 64,5 | 35,0 | 23,0 | 36 |




-25°C ÷ 180°C

**Working pressure:**
85 Bar (from 1/4" to 1")
70 Bar (from 1-1/4" to 1-1/2")
63 Bar (from 2" to 4")

Industrial, chemical and food installations

Parallel gas BSPP ISO 228-1
from G1/4" to G4"

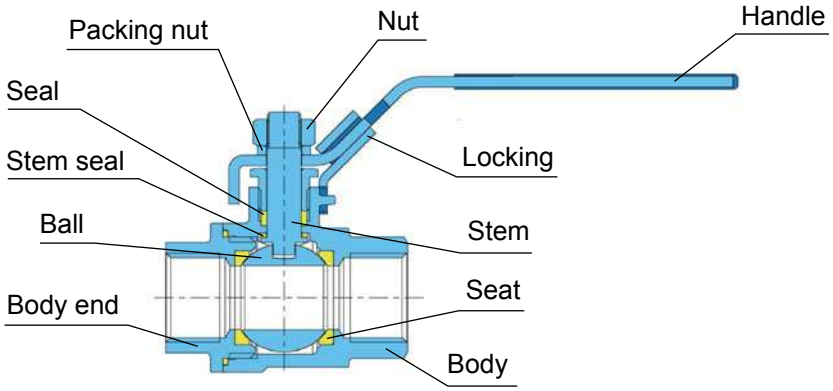
**AVAILABILITY**
Available with NPT thread on request

**Body:** Stainless steel AISI 316
**Stem:** Stainless steel AISI 316
**Body end:** Stainless steel AISI 316
**Ball:** Stainless steel AISI 316
**Seat:** PTFE
**Handle:** Stainless steel AISI 316
**Nut:** Stainless steel AISI 316
**Stem seal:** PTFE
**Seal:** PTFE
**Packing nut:** Stainless steel AISI 316
**Locking:** Stainless steel AISI 316

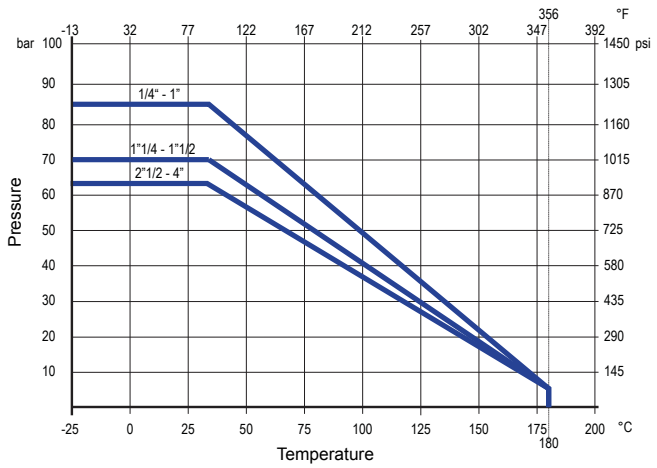
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

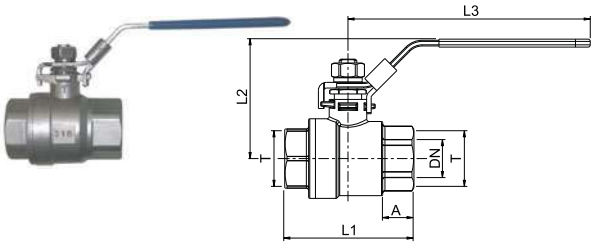
## CONSTRUCTION DETAILS



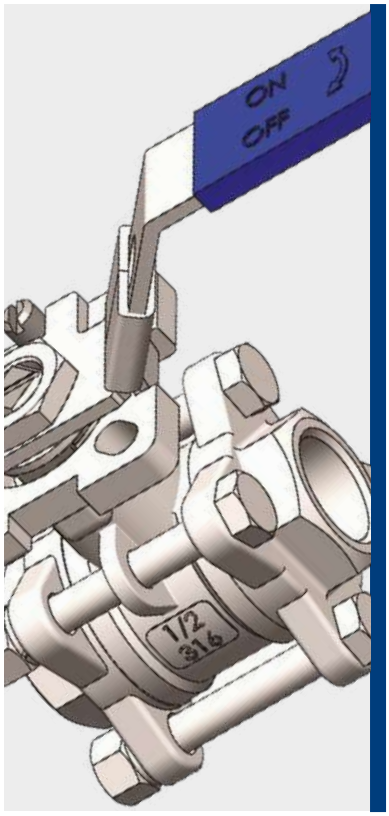

## PRESSURE-TEMPERATURE CHART



## 9320 Universal full bore ball valve, female BSPP thread, blue lever




| CODE | T | DN | A | L1 | L2 | L3 |
|---|---|---|---|---|---|---|
| 9320TR14 | G 1/4" | 11,5 | 9,5 | 49,0 | 54,0 | 105,0 |
| 9320TR38 | G 3/8" | 12,5 | 11 | 49,0 | 54,0 | 105,0 |
| 9320TR12 | G 1/2" | 15 | 12,5 | 57,0 | 56,0 | 105,0 |
| 9320TR34 | G 3/4" | 20 | 14 | 64,0 | 65,0 | 118,0 |
| 9320TR1 | G 1" | 25 | 16 | 77,0 | 70,0 | 150,0 |
| 9320TR114 | G 1-1/4" | 30 | 18 | 90,0 | 75,0 | 150,0 |
| 9320TR112 | G 1-1/2" | 40 | 19 | 105,0 | 93,0 | 182,0 |
| 9320TR2 | G 2" | 50 | 24 | 125,0 | 99,0 | 182,0 |
| 9320TR212 | G 2-1/2" | 65 | 26 | 153,0 | 123,0 | 254,0 |
| 9320TR3 | G 3" | 76 | 31 | 172,0 | 140,0 | 254,0 |
| 9320TR4 | G 4" | 94 | 48 | 221,0 | 175,0 | 285,0 |




-40°C ÷ 220°C

**Working pressure:**
85 Bar (from 1/4" to 1")
70 Bar (from 1-1/4" to 1-1/2")
65 Bar (from 2" to 4")

Industrial, chemical and food installations

Taper gas BSPT ISO 7/1
from R1/4" to R4"

**FLANGE**
ISO 5211 flange

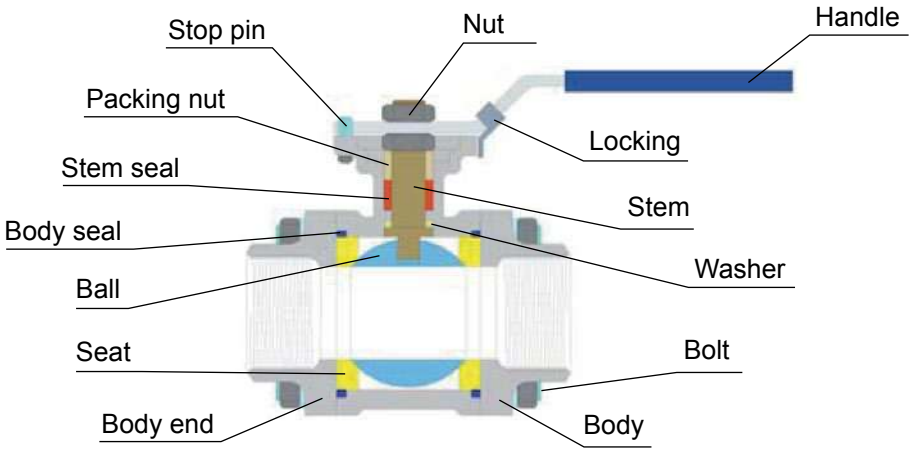
**AVAILABILITY**
Available with NPT thread on request

**Body:** Stainless steel AISI 316
**Stem:** Stainless steel AISI 316
**Body end:** Stainless steel AISI 316
**Ball:** Stainless steel AISI 316
**Seat:** PTFE 15% glassfiber
**Handle:** Stainless steel AISI 304 PVC coated
**Nut:** Stainless steel AISI 304
**Stem seal:** PTFE
**Body seal:** PTFE
**Washer:** PTFE
**Packing nut:** Stainless steel AISI 304
**Locking:** Stainless steel AISI 304
**Stop pin:** Stainless steel AISI 304
**Bolt:** Stainless steel AISI 304

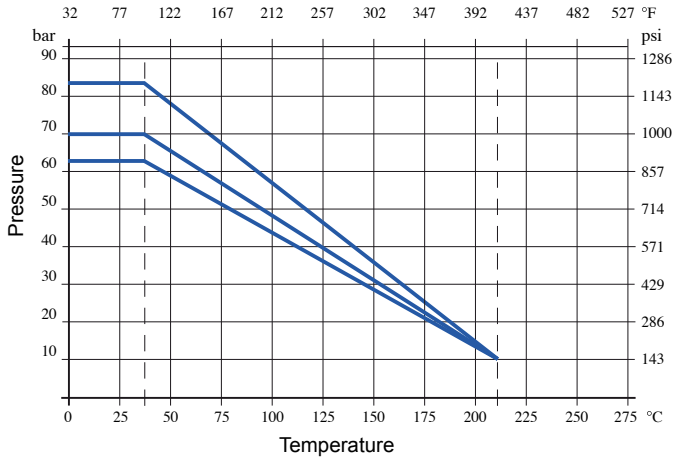
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

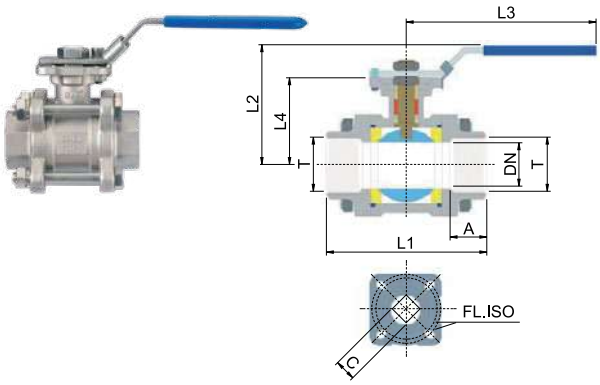



## PRESSURE-TEMPERATURE CHART

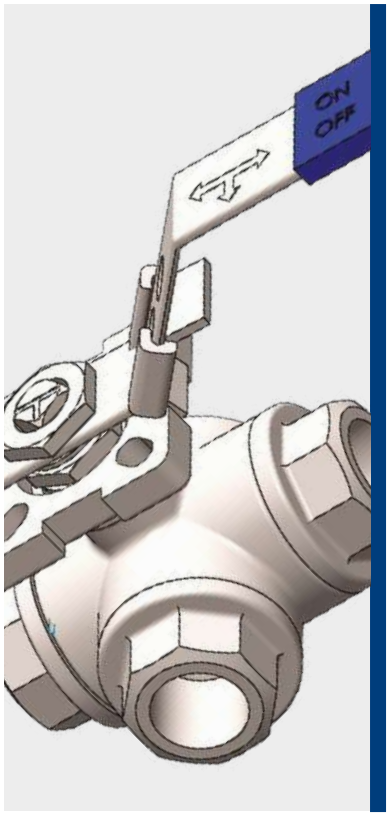



*drawings and technical data are not binding & can be changed without notice*

## 9325 Three pieces full bore universal ball valve, female BSPT thread, blue lever




| CODE | T | DN | A | L1 | L2 | L3 | L4 | C | FL.ISO | N/m |
|---|---|---|---|---|---|---|---|---|---|---|
| 9325TR14 | R 1/4" | 11 | 10 | 48,0 | 60,0 | 117,0 | 32,5 | 9 | F03 | 4 |
| 9325TR38 | R 3/8" | 12,7 | 11 | 48,0 | 60,0 | 117,0 | 32,5 | 9 | F03 | 4 |
| 9325TR12 | R 1/2" | 15 | 15 | 55,0 | 65,0 | 117,0 | 37,1 | 9 | F03/04 | 5 |
| 9325TR34 | R 3/4" | 20 | 16 | 74,0 | 72,0 | 135,0 | 42,2 | 11 | F04/05 | 8 |
| 9325TR1 | R 1" | 25 | 19 | 81,0 | 75,0 | 140,0 | 45,0 | 11 | F04/05 | 10 |
| 9325TR114 | R 1-1/4" | 32 | 21 | 91,0 | 90,0 | 203,0 | 54,0 | 14 | F05/07 | 14 |
| 9325TR112 | R 1-1/2" | 40 | 21 | 103,0 | 95,0 | 203,0 | 59,5 | 14 | F05/07 | 18 |
| 9325TR2 | R 2" | 50 | 25 | 120,0 | 105,0 | 203,0 | 68,0 | 14 | F05/07 | 25 |
| 9325TR212 | R 2-1/2" | 65 | 30 | 151,0 | 140,0 | 260,0 | 100,0 | 17 | F07/10 | 48 |
| 9325TR3 | R 3" | 80 | 33 | 182,0 | 165,0 | 260,0 | 112,5 | 17 | F07/10 | 75 |
| 9325TR4 | R 4" | 100 | 39 | 220,0 | 170,0 | 280,0 | 125,5 | 17 | F07/10 | 110 |




-50°C ÷ 250°C

**Working pressure:**
83 Bar (from 1/4" to 1")
69 Bar (from 1-1/4" to 1-1/2")
63 Bar (2")

Industrial, chemical and food installations

Parallel gas BSPP
UNI EN 10226-1
from G1/4" to G2"

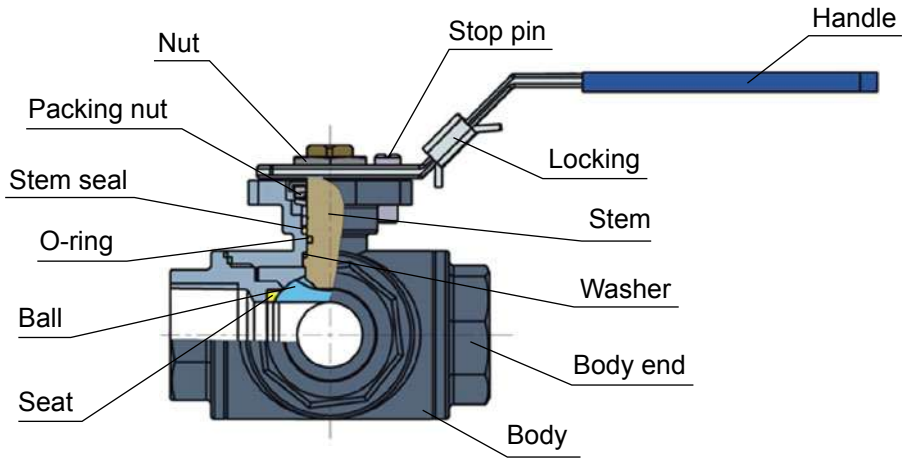
**FLANGE**
ISO 5211 flange

**Body:** Stainless steel AISI 316
**Stem:** Stainless steel AISI 316
**Body end:** Stainless steel AISI 316
**Ball:** Stainless steel AISI 316
**Seat:** PTFE
**Handle:** Stainless steel AISI 304 PVC coated
**Nut:** Stainless steel AISI 304
**Stem seal:** PTFE
**Seal:** PTFE
**O-ring:** Viton
**Packing nut:** Stainless steel AISI 316
**Locking:** Stainless steel AISI 304
**Stop pin:** Stainless steel AISI 304

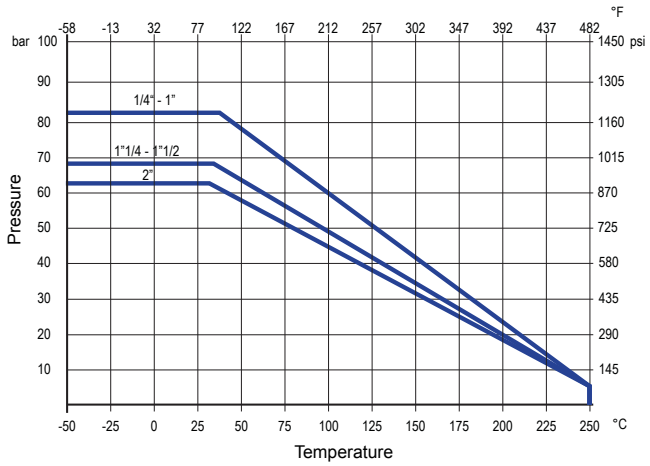
Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS

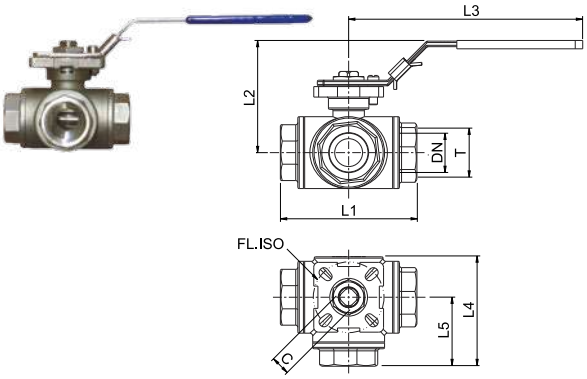


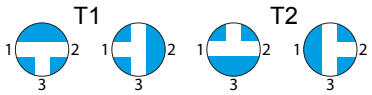

## PRESSURE-TEMPERATURE CHART




*drawings and technical data are not binding & can be changed without notice*

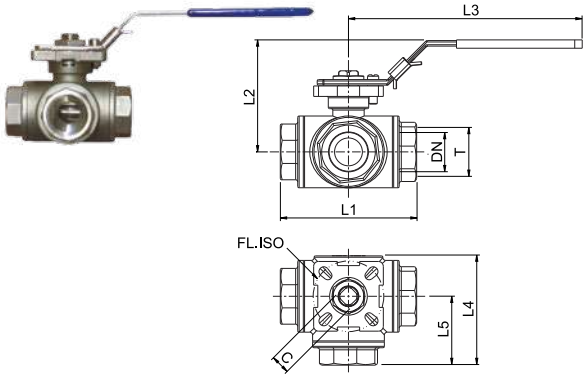
## 9340 Three-ways T port ball valve, reduced bore, female BSPP thread, blue lever

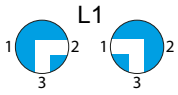


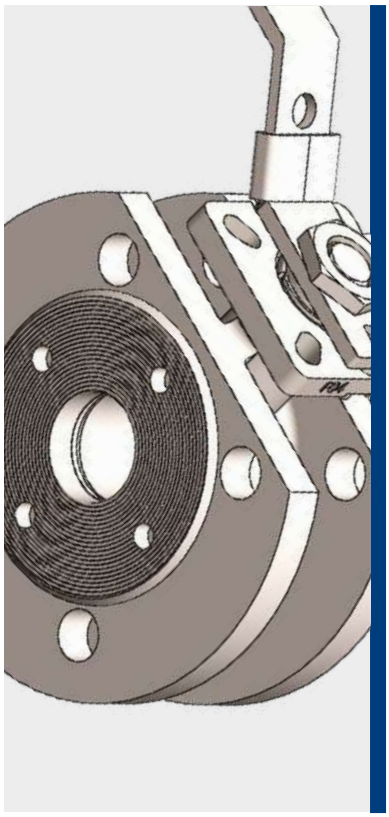

| CODE | T | DN | L1 | L2 | L3 | L4 | L5 | C | FL.ISO |
|---|---|---|---|---|---|---|---|---|---|
| 9340TR14 | G 1/4" | 9,5 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9340TR38 | G 3/8" | 11 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9340TR12 | G 1/2" | 12 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9340TR34 | G 3/4" | 15 | 85,0 | 72,0 | 161,0 | 65,5 | 42,5 | 11 | F04/05 |
| 9340TR1 | G 1" | 20 | 100,0 | 77,0 | 161,0 | 79,0 | 50,0 | 11 | F04/05 |
| 9340TR114 | G 1-1/4" | 25 | 122,0 | 92,0 | 203,0 | 97,0 | 61,0 | 14 | F05/07 |
| 9340TR112 | G 1-1/2" | 32 | 131,0 | 96,0 | 203,0 | 106,5 | 65,5 | 14 | F05/07 |
| 9340TR2 | G 2" | 40 | 158,0 | 107,0 | 203,0 | 129,0 | 79,0 | 14 | F05/07 |

## 9342 Three-ways L port ball valve, reduced bore, female BSPP thread, blue lever




| CODE | T | DN | L1 | L2 | L3 | L4 | L5 | C | FL.ISO |
|---|---|---|---|---|---|---|---|---|---|
| 9342TR14 | G 1/4" | 9,5 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9342TR38 | G 3/8" | 11 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9342TR12 | G 1/2" | 12 | 75,0 | 66,0 | 130,0 | 57,5 | 37,5 | 9 | F03/04 |
| 9342TR34 | G 3/4" | 15 | 85,0 | 72,0 | 161,0 | 65,5 | 42,5 | 11 | F04/05 |
| 9342TR1 | G 1" | 20 | 100,0 | 77,0 | 161,0 | 79,0 | 50,0 | 11 | F04/05 |
| 9342TR114 | G 1-1/4" | 25 | 122,0 | 92,0 | 203,0 | 97,0 | 61,0 | 14 | F05/07 |
| 9342TR112 | G 1-1/2" | 32 | 131,0 | 96,0 | 203,0 | 106,5 | 65,5 | 14 | F05/07 |
| 9342TR2 | G 2" | 40 | 158,0 | 107,0 | 203,0 | 129,0 | 79,0 | 14 | F05/07 |



-25°C ÷ 180°C

**Working pressure:**
40 Bar (DN 15 - 100)
16 Bar (DN 125 - 150)

Fluids suitable with construction materials

**STEM**

Stem with flat head ISO 5211

**FLANGE**

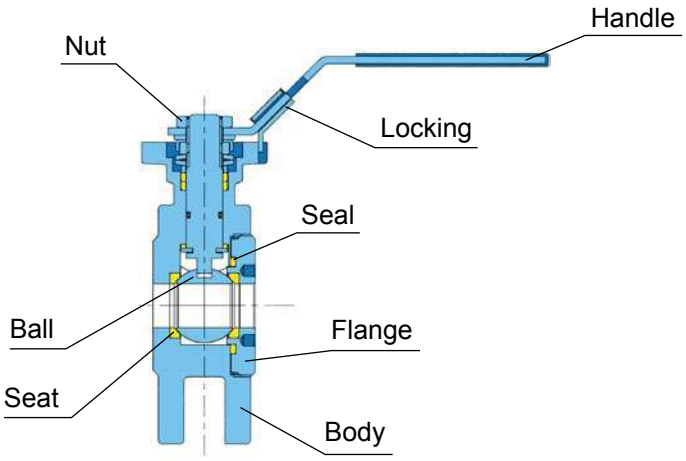
- ISO 5211 flange
- Attacchi flangiati PN 16
- Flanged ends UNI EN 1092

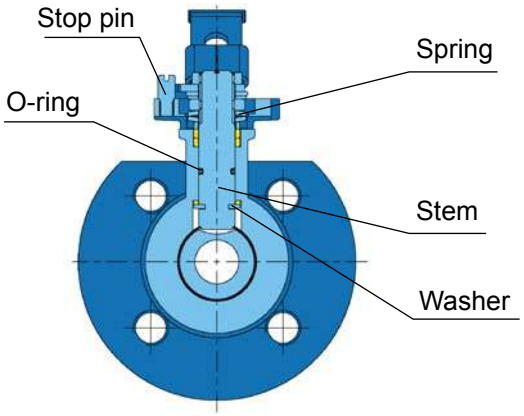
**Body:** Stainless steel AISI 316
**Stem:** Stainless steel AISI 316
**Ball:** Stainless steel AISI 316
**Seat:** PTFE 15% glassfiber
**Handle:** Stainless steel AISI 304 PVC coated
**Nut:** Stainless steel AISI 304
**Seal:** PTFE
**O-ring:** FKM
**Washer:** Stainless steel AISI 304
**Spring:** Stainless steel AISI 301
**Stop pin:** Stainless steel AISI 304
**Locking:** Stainless steel AISI 304
**Flange:** Stainless steel AISI 316

Products in compliance with EC Regulation 1907/2006

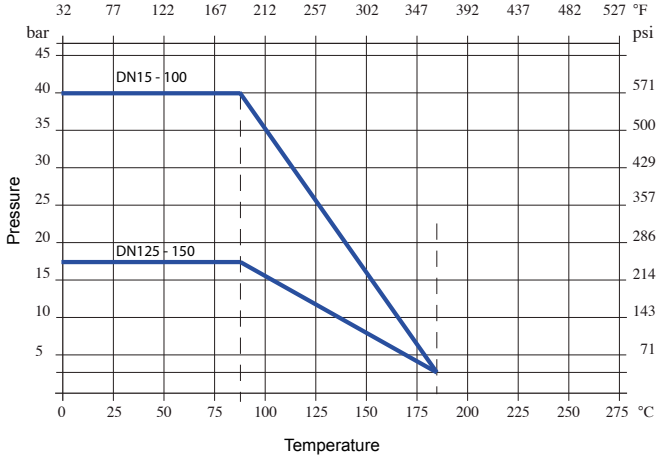
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS



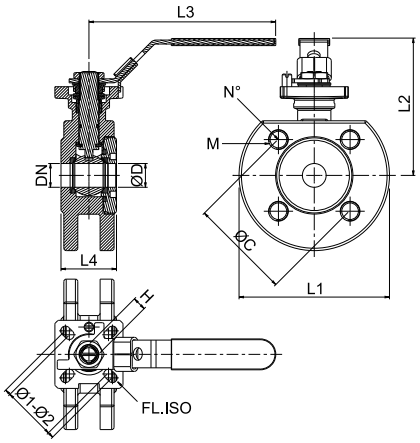

## PRESSURE-TEMPERATURE CHART




*drawings and technical data are not binding & can be changed without notice*

## 9350 Flanged flat body ball valve, blue lever






| CODE | DN | ØD | M | N° | ØC | L1 | L2 | L3 | L4 | H | Ø1-Ø2 | FL.ISO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9350TR12 | 15 | 15 | M12 | 4 | 65 | 85,0 | 89,0 | 115,0 | 36,0 | 9 | 36-42 | F03/04 |
| 9350TR34 | 20 | 20 | M12 | 4 | 75 | 105,0 | 94,0 | 115,0 | 38,0 | 9 | 36-42 | F03/04 |
| 9350TR1 | 25 | 25 | M12 | 4 | 85 | 115,0 | 90,0 | 140,0 | 50,0 | 11 | 42-50 | F04/05 |
| 9350TR114 | 32 | 32 | M16 | 4 | 100 | 140,0 | 100,0 | 140,0 | 53,0 | 11 | 42-50 | F04/05 |
| 9350TR112 | 40 | 40 | M16 | 4 | 110 | 150,0 | 115,0 | 200,0 | 65,0 | 14 | 50-70 | F05/07 |
| 9350TR2 | 50 | 50 | M16 | 4 | 125 | 165,0 | 125,0 | 200,0 | 78,0 | 14 | 50-70 | F05/07 |
| 9350TR212 | 65 | 65 | M16 | 4 | 145 | 185,0 | 140,0 | 255,0 | 98,0 | 17 | 70-102 | F07/10 |
| 9350TR3 | 80 | 76 | M16 | 8 | 160 | 200,0 | 145,0 | 255,0 | 118,0 | 17 | 70-102 | F07/10 |
| 9350TR4 | 100 | 94 | M16 | 8 | 180 | 200,0 | 175,0 | 300,0 | 140,0 | 17 | 70-102 | F07/10 |
| 9350TR5 | 125 | 125 | M16 | 8 | 210 | 250,0 | 228,0 | 600,0 | 195,0 | 22 | 102-125 | F10/12 |
| 9350TR6 | 150 | 150 | M20 | 8 | 240 | 285,0 | 245,0 | 600,0 | 225,0 | 22 | 102-125 | F10/12 |

* Flanged flat body ball valve 9350TR5 and 9350TR6




-25°C ÷ 180°C

**Working pressure:**
40 Bar

Fluids suitable with construction materials

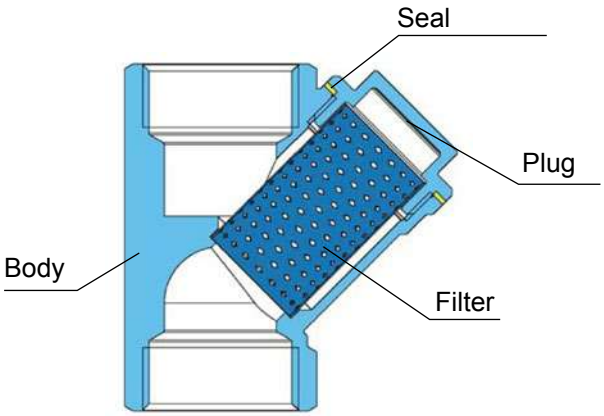
Parallel gas BSPP ISO 228-1
from G1/4" to G2"

**Body:** Stainless steel AISI 316
**Filter:** Stainless steel AISI 316
**Seal:** PTFE
**Plug:** Stainless steel AISI 316

Products in compliance with EC Regulation 1907/2006

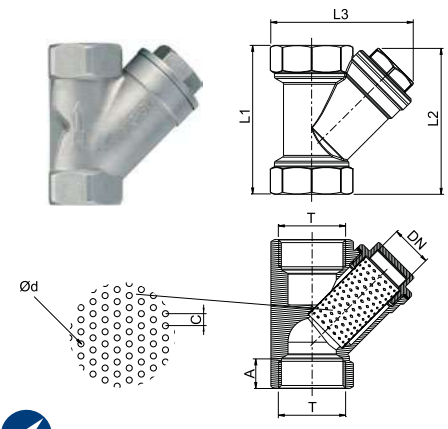
Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS




## 9400

Full bore Y filter, female BSPP thread




| CODE | T | DN | A | L1 | L2 | L3 | Ød | C |
|---|---|---|---|---|---|---|---|---|
| 9400TR14 | G 1/4" | 10 | 15 | 64,0 | 64,0 | 43,0 | 1 | 2 |
| 9400TR38 | G 3/8" | 12 | 15 | 64,0 | 64,0 | 43,0 | 1 | 2 |
| 9400TR12 | G 1/2" | 15 | 15 | 64,0 | 64,0 | 45,0 | 1 | 2 |
| 9400TR34 | G 3/4" | 20 | 16 | 80,0 | 81,0 | 52,0 | 1 | 2 |
| 9400TR1 | G 1" | 25 | 16 | 90,0 | 95,0 | 68,0 | 1 | 2 |
| 9400TR114 | G 1-1/4" | 32 | 22 | 106,0 | 106,0 | 70,0 | 1 | 2 |
| 9400TR112 | G 1-1/2" | 38 | 22 | 119,0 | 117,0 | 80,0 | 1 | 2 |
| 9400TR2 | G 2" | 50 | 26 | 140,0 | 138,0 | 98,0 | 1 | 2 |

*drawings and technical data are not binding & can be changed without notice*

TierreGroup®
Always a fittings solution

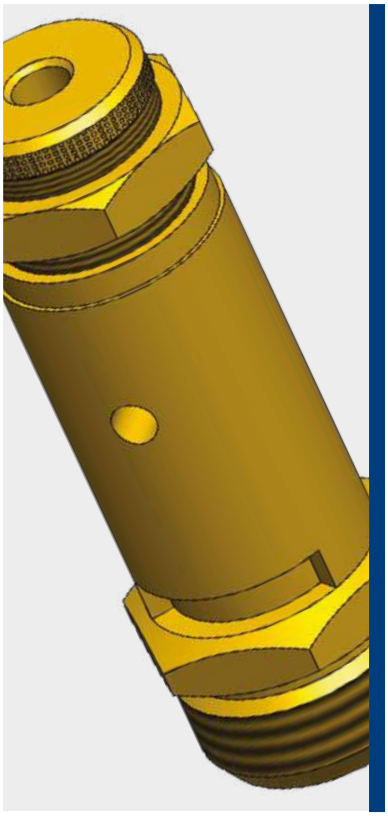




**Serie XVR in acciaio inox.**
**Naturalmente resistente.**

TierreGroup®
Always a fitting solution

## FOLLOW US!



**NBR:** -10°C ÷ 80°C
**FKM:** -10°C ÷ 200°C

**Working pressure:**
Up to 20 Bar (9613 - 9614)
Up to 50 Bar (9615)

**9613:** Compressed air and inert gases
**9614:** Compressed air
**9615:** Compressed air, refrigerants, saturated steam and inert gases

Parallel gas BSPP ISO 228 from G1/4" to G1/2"

**Body:** Yellow brass EN 12164:98 CW614N
**Pad:** NBR or FKM
**Shutter:** Yellow brass EN 12164:98 CW614N
**Stem:** EN 10263-2-4
**Spring:** EN 10270-1-DH
**Regulation screw:** Yellow brass EN 12164:98 CW614N
**Nut:** Yellow brass EN 12164:98 CW614N

Products in compliance with EC Regulation 1907/2006

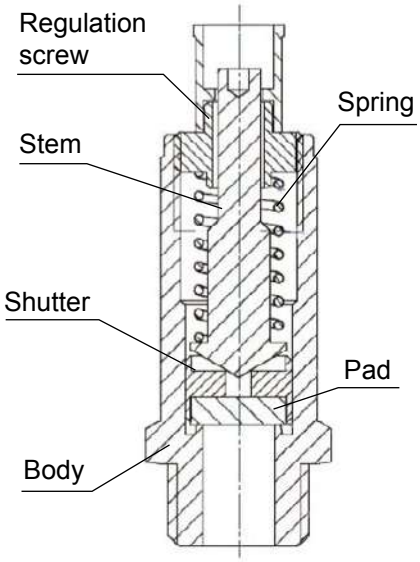
Products in compliance with the directive EU 2015/863

## FEATURES

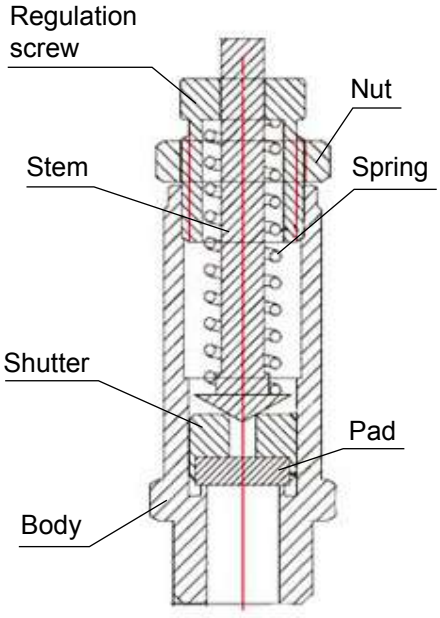
Safety valves were created to protect the plant on which they are installated, from overpressure caused by the malfunction of one or more components of the system itself. Their function is to open up when the pressure accumulated inside the container goes above the calibration value of the valve itself untill pressure drops below the calibration level.
The materials used to construct this product and its size are suitable to pressure valves capacity, the temperature and the exhaust flow rate.

## CONSTRUCTION DETAILS

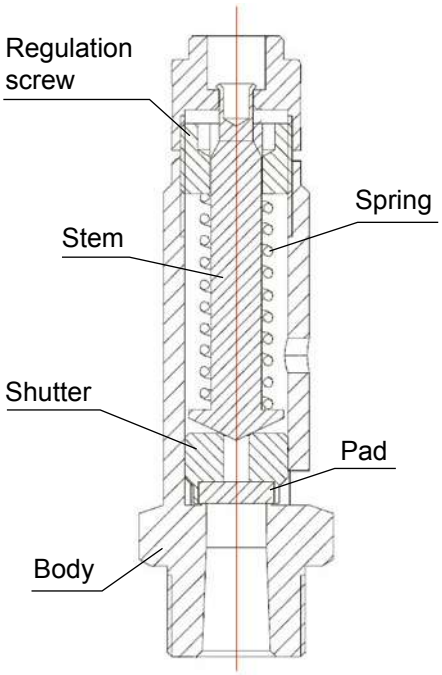
### 9613




### 9614

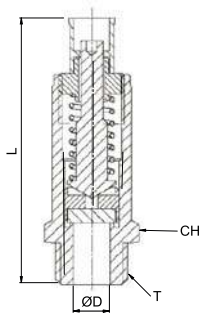



### 9615



## 9613 Calibrated safety valve






| CODE | T | ØD (mm) | ØD AREA (mm) | CALIBRATION (Bar) | OVERPRESSURE FROM 0,5 TO 2 BAR (Bar) | OVERPRESSURE FROM 2 TO 18 BAR (Bar) | RE-CLOSING TRIPPING | L (mm) | CH (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 9613TR14 | G 1/4" | 6,8 | 36,3 | 0,5 - 18 | 0,2 | 10% | 20% | 50 | 15 |
| 9613TR38 | G 3/8" | 10,8 | 91,5 | 4 - 16 | - | 10% | 20% | 62 | 20 |
| 9613TR12 | G 1/2" | 10,8 | 91,5 | 4 - 16 | - | 10% | 20% | 63 | 22 |

## EXHAUST FLOW RATES FOR COMPRESSED AIR

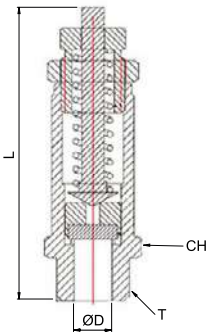
| | Bar | 0,5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9613TR14 | kg/h | 24 | 42 | 63 | 85 | 106 | 127 | 148 | 169 | 190 | 211 | 232 | 254 | 275 | 296 | 317 | 338 | 358 | 379 | 400 |
| | lt/m | 311 | 548 | 822 | 1097 | 1371 | 1640 | 1913 | 2187 | 2456 | 2729 | 3002 | 3274 | 3547 | 3820 | 4093 | 4359 | 4616 | 4888 | 5159 |
| 9613TR38 | kg/h | - | - | - | - | 222 | 266 | 311 | 355 | 399 | 442 | 485 | 533 | 577 | 622 | 666 | 711 | 755 | - | - |
| | lt/m | - | - | - | - | 2864 | 3437 | 4010 | 4583 | 5148 | 5700 | 6260 | 6875 | 7448 | 8021 | 8594 | 9167 | 9740 | - | - |
| 9613TR12 | kg/h | - | - | - | - | 222 | 266 | 311 | 355 | 399 | 442 | 485 | 533 | 577 | 622 | 666 | 711 | 755 | - | - |
| | lt/m | - | - | - | - | 2864 | 3437 | 4010 | 4583 | 5148 | 5700 | 6260 | 6875 | 7448 | 8021 | 8594 | 9167 | 9740 | - | - |

*drawings and technical data are not binding & can be changed without notice*

## 9614

Regulated safety valve






| CODE | T | ØD (mm) | ØD AREA (mm) | CALIBRATION (Bar) | OVERPRESSURE FROM 0,5 TO 2 BAR (Bar) | OVERPRESSURE FROM 2 TO 18 BAR (Bar) | RE-CLOSING TRIPPING | L (mm) | CH (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 9614TR14 | G 1/4" | 5,8 | 26,4 | 0,5 - 18 | 0,2 | 10% | 20% | 50 | 15 |
| 9614TR38 | G 3/8" | 10,8 | 91,5 | 1 - 14 | - | 10% | 20% | 67 | 20 |
| 9614TR12 | G 1/2" | 10,8 | 91,5 | 1 - 14 | - | 10% | 20% | 67 | 22 |

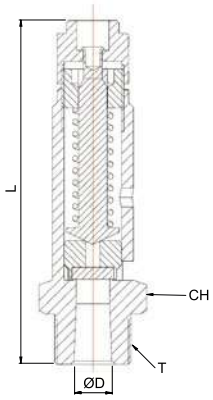
## EXHAUST FLOW RATES FOR COMPRESSED AIR

| | Bar | 0,5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9614TR14 | kg/h | 17 | 24 | 37 | 50 | 63 | 76 | 88 | 101 | 113 | 126 | 139 | 152 | 164 | 177 | 189 | 202 | 215 | 228 | 241 |
| | lt/m | 245 | 329 | 492 | 656 | 821 | 982 | 1146 | 1309 | 1471 | 1634 | 1798 | 1961 | 2125 | 2288 | 2452 | 2611 | 2770 | 2928 | 3085 |
| 9614TR38 | kg/h | - | 55 | 83 | 111 | 139 | 168 | 196 | 224 | 252 | 279 | 306 | 336 | 364 | 392 | 420 | - | - | - | - |
| | lt/m | - | 729 | 1089 | 1449 | 1809 | 2170 | 2533 | 2895 | 3251 | 3600 | 3953 | 4342 | 4704 | 5066 | 5428 | - | - | - | - |
| 9614TR12 | kg/h | - | 55 | 83 | 111 | 139 | 168 | 196 | 224 | 252 | 279 | 306 | 336 | 364 | 392 | 420 | - | - | - | - |
| | lt/m | - | 729 | 1089 | 1449 | 1809 | 2170 | 2533 | 2895 | 3251 | 3600 | 3953 | 4342 | 4704 | 5066 | 5428 | - | - | - | - |

## 9615

Safety valve IV° category






| CODE | T | ØD (mm) | ØD AREA (mm) | CALIBRATION (Bar) | OVERPRESSURE (Bar) | RE-CLOSING TRIPPING | TOTAL LENGTH FROM 0,5 TO 16 BAR (mm) | TOTAL LENGTH FROM 16 TO 45 BAR (mm) | CH (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 9615TR14 | G 1/4" | 7 | 38,5 | 0,5 - 45 | 10% | 10% | 62 | 67 | 17 |
| 9615TR38 | G 3/8" | 7 | 38,5 | 0,5 - 45 | 10% | 10% | 64 | 69 | 20 |
| 9615TR12 | G 1/2" | 7 | 38,5 | 0,5 - 45 | 10% | 10% | 66 | 71 | 22 |

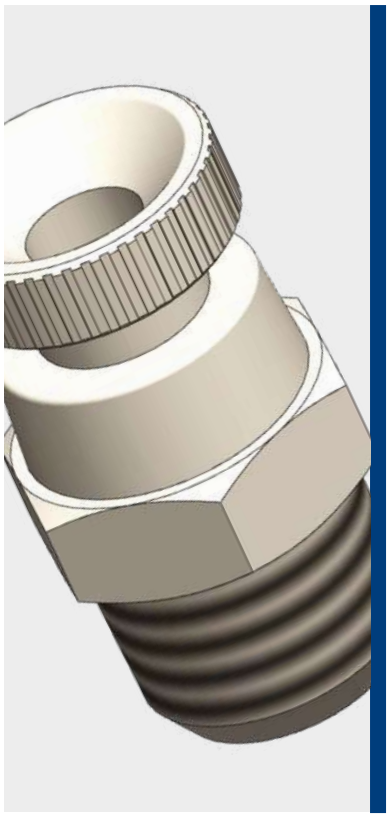
## EXHAUST FLOW RATES FOR COMPRESSED AIR

| | Bar | 0,5 | 1 | 1,5 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9615TR14 | kg/h | 40 | 53 | 67 | 80 | 107 | 134 | 161 | 188 | 215 | 242 | 268 | 295 | 322 | 349 | 376 | 403 | 430 |
| | lt/m | 520 | 693 | 866 | 1040 | 1387 | 1733 | 2080 | 2427 | 2774 | 3120 | 3467 | 3814 | 4161 | 4508 | 4854 | 5201 | 5548 |
| 9615TR38 | kg/h | 40 | 53 | 67 | 80 | 107 | 134 | 161 | 188 | 215 | 242 | 268 | 295 | 322 | 349 | 376 | 403 | 430 |
| | lt/m | 520 | 693 | 866 | 1040 | 1387 | 1733 | 2080 | 2427 | 2774 | 3120 | 3467 | 3814 | 4161 | 4508 | 4854 | 5201 | 5548 |
| 9615TR12 | kg/h | 40 | 53 | 67 | 80 | 107 | 134 | 161 | 188 | 215 | 242 | 268 | 295 | 322 | 349 | 376 | 403 | 430 |
| | lt/m | 520 | 693 | 866 | 1040 | 1387 | 1733 | 2080 | 2427 | 2774 | 3120 | 3467 | 3814 | 4161 | 4508 | 4854 | 5201 | 5548 |

| | Bar | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9615TR14 | kg/h | 457 | 484 | 511 | 537 | 564 | 591 | 618 | 645 | 672 | 699 | 726 | 753 | 780 | 806 | 833 |
| | lt/m | 5895 | 6241 | 6588 | 6935 | 7282 | 7628 | 7975 | 8322 | 8669 | 9016 | 9362 | 9709 | 10056 | 10403 | 10749 |
| 9615TR38 | kg/h | 457 | 484 | 511 | 537 | 564 | 591 | 618 | 645 | 672 | 699 | 726 | 753 | 780 | 806 | 833 |
| | lt/m | 5895 | 6241 | 6588 | 6935 | 7282 | 7628 | 7975 | 8322 | 8669 | 9016 | 9362 | 9709 | 10056 | 10403 | 10749 |
| 9615TR12 | kg/h | 457 | 484 | 511 | 537 | 564 | 591 | 618 | 645 | 672 | 699 | 726 | 753 | 780 | 806 | 833 |
| | lt/m | 5895 | 6241 | 6588 | 6935 | 7282 | 7628 | 7975 | 8322 | 8669 | 9016 | 9362 | 9709 | 10056 | 10403 | 10749 |

| | Bar | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9615TR14 | kg/h | 860 | 867 | 914 | 941 | 968 | 995 | 1022 | 1049 | 1075 | 1102 | 1129 | 1156 | 1183 | 1210 | 1237 |
| | lt/m | 11096 | 11443 | 11790 | 12136 | 12483 | 12830 | 13177 | 13524 | 13870 | 14217 | 14564 | 14911 | 15257 | 15604 | 15951 |
| 9615TR38 | kg/h | 860 | 867 | 914 | 941 | 968 | 995 | 1022 | 1049 | 1075 | 1102 | 1129 | 1156 | 1183 | 1210 | 1237 |
| | lt/m | 11096 | 11443 | 11790 | 12136 | 12483 | 12830 | 13177 | 13524 | 13870 | 14217 | 14564 | 14911 | 15257 | 15604 | 15951 |
| 9615TR12 | kg/h | 860 | 867 | 914 | 941 | 968 | 995 | 1022 | 1049 | 1075 | 1102 | 1129 | 1156 | 1183 | 1210 | 1237 |
| | lt/m | 11096 | 11443 | 11790 | 12136 | 12483 | 12830 | 13177 | 13524 | 13870 | 14217 | 14564 | 14911 | 15257 | 15604 | 15951 |

*drawings and technical data are not binding & can be changed without notice*



-18°C ÷ 80°C

**Max working pressure:**
12 Bar

Compressed air and fluids suitable with construction materials

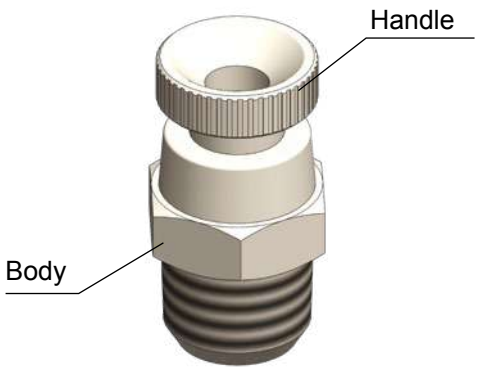
Taper gas BSPT ISO 7 from R1/8" to R1/2"

**Body:** Nickel-plated brass (9611TR18, 9611TR14, 9611TR38) Steel (9611TR12)
**Handle:** Nickel-plated brass (9611TR18, 9611TR14, 9611TR38) Steel (9611TR12)

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

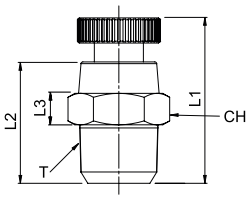
## CONSTRUCTION DETAILS




## 9611

Condensate drain valve BSPT thread






| CODE | T | L1 | L2 | L3 | CH |
|---|---|---|---|---|---|
| 9611TR18 | R 1/8" | 29 | 20,5 | 6,5 | 12 |
| 9611TR14 | R 1/4" | 24 | 16 | 5 | 14 |
| 9611TR38 | R 3/8" | 22,5 | 15 | 5 | 17 |
| 9611TR12 | R 1/2" | 27 | 19 | 6 | 22 |

*drawings and technical data are not binding & can be changed without notice*

TierreGroup®

Always a fittings solution




## FOLLOW US!

# INDUSTRIAL VALVES SOLENOID VALVES

## PLUS

**DOUBLE RANGE, STAINLESS STEEL AND NYLON, DEPENDING ON THE APPLICATION**

**NYLON VERSION IS STUDIED TO BE USED WITH WATER FOR DOMESTIC AND PROFESSIONAL APPLIANCES**

**MADE IN DIFFERENT STRUCTURES TO FACILITATE USER CHOICE**

**IN THE STAINLESS STEEL VERSION THE 360° WEDING OF THE GUIDE TUBE GUARANTEES RELIABILITY AND DURABILITY OVER TIME**

## **INDUSTRIAL VALVES - SOLENOID VALVES /** NYLON



p. 676 / **SVP2CIR-IR**



p. 677 / **SVP2CAL-IR**



p. 678 / **SVP2CM-M**



p. 679 / **SVP2CAL-CL**

## **INDUSTRIAL VALVES - SOLENOID VALVES /** STAINLESS STEEL AISI 316L



p. 682 / **SVX2**



p. 682 / **SVX3**



p. 683 / **SH14-N**



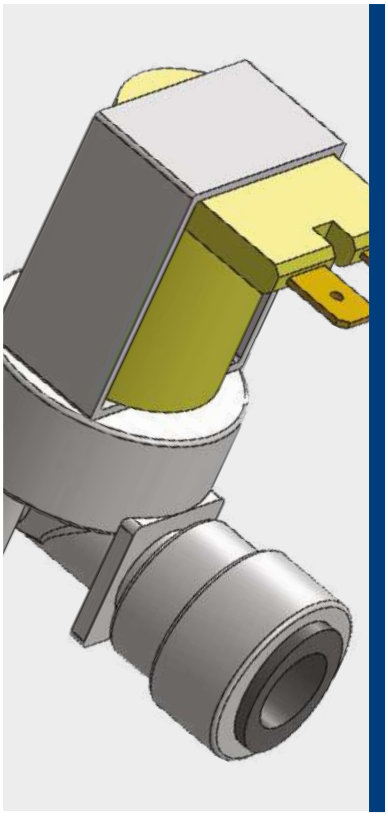
p. 683 / **SH14-B-N**



p. 683 / **SH14-HP-N**



p. 683 / **CN14**



0°C ÷ 60°C environment
0°C ÷ 25°C water
0°C ÷ 90°C water (3/5 min) ON/OFF

**Working pressure:**
from 0,2 to 10 Bar
**Bursting pressure:**
80 Bar

Water and fluids suitable with construction materials

Parallel gas BSPP 228
from G1/4" to G2"

**ELECTRICAL CONNECTION**
Faston connectors 6,3 mm

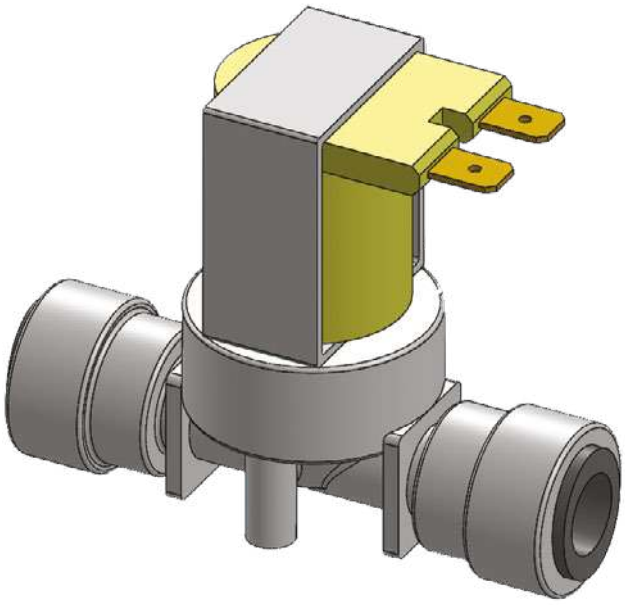
**Body:** Nylon (PA66)
**Plate:** Nylon (PA66)
**Guide tube:** Nylon (PA66)
**diaphragm:** Sunaflex T8157
**Inlet restrictor washer:** Sunaflex T8157
**Outlet restrictor washer:** Sunaflex T8157
**Inlet filter:** POM
**Inlet restrictor:** POM
**Outlet restrictor:** POM
**Piston:** Stainless steel
**Spring:** Stainless steel

WRAS approved product

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## VIEW - SOLENOID VALVE SVP2-CIR-IR

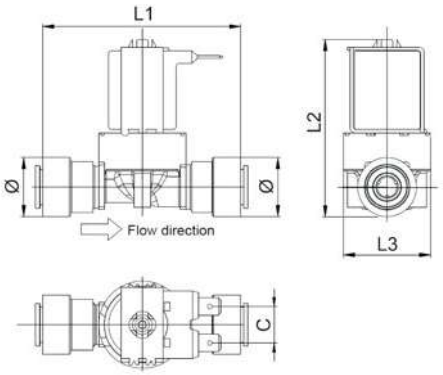


*drawings and technical data are not binding & can be changed without notice*

## SVP2CIR-IR

Nylon solenoid valve tube - tube 2/2-ways NC, metric tube





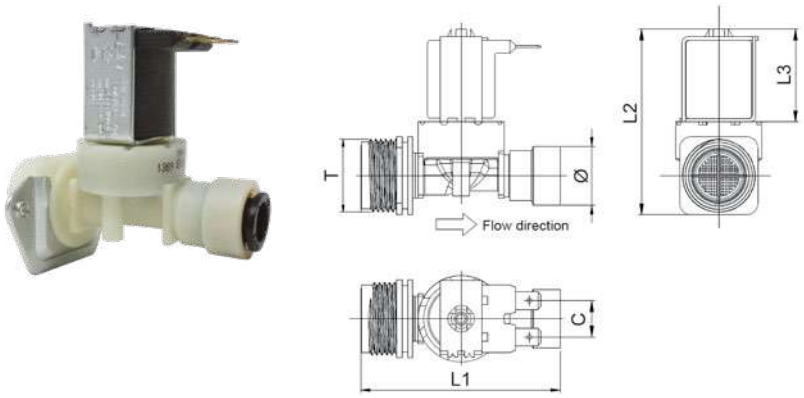

| CODE | Ø | INLET CONNECTION | OUTLET CONNECTION | L1 | L2 | L3 | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CIR10IR10M1 | 21 | PUSH-IN SYSTEM Ø10 | PUSH-IN SYSTEM Ø10 | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CIR10IR10M2 | 21 | PUSH-IN SYSTEM Ø10 | PUSH-IN SYSTEM Ø10 | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CIR10IR10M5 | 21 | PUSH-IN SYSTEM Ø10 | PUSH-IN SYSTEM Ø10 | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CIR10IR10M7 | 21 | PUSH-IN SYSTEM Ø10 | PUSH-IN SYSTEM Ø10 | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CIR10IR10M9 | 21 | PUSH-IN SYSTEM Ø10 | PUSH-IN SYSTEM Ø10 | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

Nylon solenoid valve tube - tube 2/2-ways NC, inch tube

| CODE | Ø | INLET CONNECTION | OUTLET CONNECTION | L1 | L2 | L3 | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CIR3/8IR3/8M1 | 21 | PUSH-IN SYSTEM 3/8" | PUSH-IN SYSTEM 3/8" | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CIR3/8IR3/8M2 | 21 | PUSH-IN SYSTEM 3/8" | PUSH-IN SYSTEM 3/8" | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CIR3/8IR3/8M5 | 21 | PUSH-IN SYSTEM 3/8" | PUSH-IN SYSTEM 3/8" | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CIR3/8IR3/8M7 | 21 | PUSH-IN SYSTEM 3/8" | PUSH-IN SYSTEM 3/8" | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CIR3/8IR3/8M9 | 21 | PUSH-IN SYSTEM 3/8" | PUSH-IN SYSTEM 3/8" | 71,0 | 63,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

The collet of the solenoid valve for inch tube is grey

## SVP2CAL-IR Nylon solenoid valve, male BSPP thread - tube, 2/2 ways NC, metric tube




| CODE | Ø | INLET CONNECTION (T) | OUTLET CONNECTION | L1 | L2 | L3 | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CAL34IR10M1 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM Ø10 | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CAL34IR10M2 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM Ø10 | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CAL34IR10M5 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM Ø10 | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CAL34IR10M7 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM Ø10 | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CAL34IR10M9 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM Ø10 | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

**Fixing:** Universal bracket with M4 bores

Nylon solenoid valve, male BSPP thread - tube, 2/2 ways NC, inch tube

| CODE | Ø | INLET CONNECTION (T) | OUTLET CONNECTION | L1 | L2 | L3 | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CAL34IR3/8M1 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM 3/8" | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CAL34IR3/8M2 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM 3/8" | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CAL34IR3/8M5 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM 3/8" | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CAL34IR3/8M7 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM 3/8" | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CAL34IR3/8M9 | 21 | BSPP THREAD G 3/4" | PUSH-IN SYSTEM 3/8" | 71,0 | 67,0 | 33,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

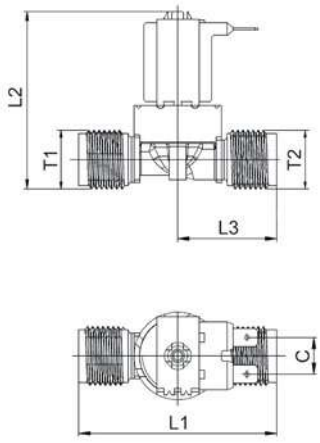
**Fixing:** Universal bracket with M4 bores

The collet of the solenoid valve for inch tube is grey

## SVP2CM-M

Nylon solenoid valve, M/M BSPP thread, 2/2 ways NC





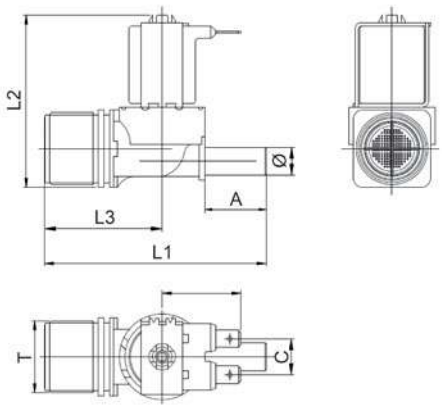

| CODE | INLET CONNECTION (T1) | OUTLET CONNECTION (T2) | L1 | L2 | L3 | L4 | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CM38M38M1 | BSPP THREAD G 3/8" | BSPP THREAD G 3/8" | 64,0 | 60,5 | 31,9 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CM38M38M2 | BSPP THREAD G 3/8" | BSPP THREAD G 3/8" | 64,0 | 60,5 | 31,9 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CM38M38M5 | BSPP THREAD G 3/8" | BSPP THREAD G 3/8" | 64,0 | 60,5 | 31,9 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CM38M38M7 | BSPP THREAD G 3/8" | BSPP THREAD G 3/8" | 64,0 | 60,5 | 31,9 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CM38M38M9 | BSPP THREAD G 3/8" | BSPP THREAD G 3/8" | 64,0 | 60,5 | 31,9 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |
| SVP2CM12M12M1 | BSPP THREAD G 1/2" | BSPP THREAD G 1/2" | 70,0 | 63,0 | 35,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CM12M12M2 | BSPP THREAD G 1/2" | BSPP THREAD G 1/2" | 70,0 | 63,0 | 35,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CM12M12M5 | BSPP THREAD G 1/2" | BSPP THREAD G 1/2" | 70,0 | 63,0 | 35,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CM12M12M7 | BSPP THREAD G 1/2" | BSPP THREAD G 1/2" | 70,0 | 63,0 | 35,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CM12M12M9 | BSPP THREAD G 1/2" | BSPP THREAD G 1/2" | 70,0 | 63,0 | 35,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |
| SVP2CM34M34M1 | BSPP THREAD G 3/4" | BSPP THREAD G 3/4" | 69,0 | 63,5 | 34,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CM34M34M2 | BSPP THREAD G 3/4" | BSPP THREAD G 3/4" | 69,0 | 63,5 | 34,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CM34M34M5 | BSPP THREAD G 3/4" | BSPP THREAD G 3/4" | 69,0 | 63,5 | 34,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CM34M34M7 | BSPP THREAD G 3/4" | BSPP THREAD G 3/4" | 69,0 | 63,5 | 34,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CM34M34M9 | BSPP THREAD G 3/4" | BSPP THREAD G 3/4" | 69,0 | 63,5 | 34,0 | 31,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

*drawings and technical data are not binding & can be changed without notice*

## SVP2CAL-CL

Nylon solenoid valve, male BSPP thread - stem, 2/2 ways NC





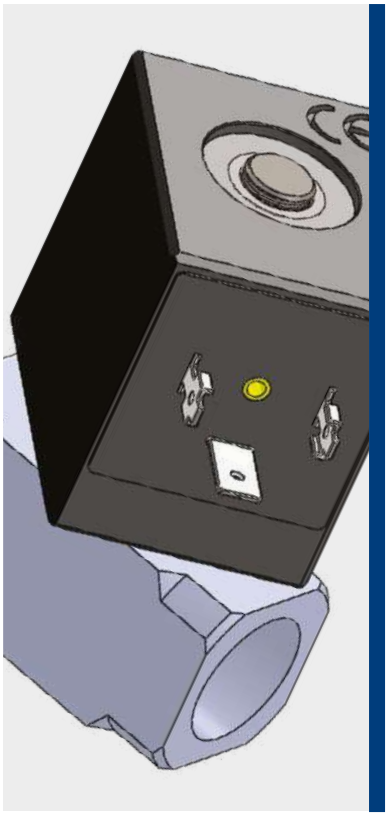

| CODE | INLET CONNECTION (T) | OUTLET CONNECTION (Ø) | L1 | L2 | L3 | A | C | FIXING | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| SVP2CAL34CL10M1 | BSPP THREAD G 3/4" | STEM Ø10 | 80,0 | 62,0 | 42,5 | 22,0 | 13,0 | 2 BORES Ø 2,7mm | 12V DC / AC |
| SVP2CAL34CL10M2 | BSPP THREAD G 3/4" | STEM Ø10 | 80,0 | 62,0 | 42,5 | 22,0 | 13,0 | 2 BORES Ø 2,7mm | 24V DC / AC |
| SVP2CAL34CL10M5 | BSPP THREAD G 3/4" | STEM Ø10 | 80,0 | 62,0 | 42,5 | 22,0 | 13,0 | 2 BORES Ø 2,7mm | 220/240V AC |
| SVP2CAL34CL10M7 | BSPP THREAD G 3/4" | STEM Ø10 | 80,0 | 62,0 | 42,5 | 22,0 | 13,0 | 2 BORES Ø 2,7mm | 110V AC |
| SVP2CAL34CL10M9 | BSPP THREAD G 3/4" | STEM Ø10 | 80,0 | 62,0 | 42,5 | 22,0 | 13,0 | 2 BORES Ø 2,7mm | BISTABLE 5,5 - 12V DC |

TierreGroup®

Always a fittings solution




## FOLLOW US!



**Environment temperature:**
-20°C ÷ 95°C
**Fluid temperature:**
- EPDM: -20°C ÷ 140°C
- FKM: -10°C ÷ 155°C
- PTFE: -30°C ÷ 180°C
- KALREZ: -30°C ÷ 250°C

**Working pressure:**
See pressure table

Compressed air, vapour, water and fluids suitable with construction materials

Parallel gas BSPP 228 from G1/8" to G1/2"

**AVAILABILITY - SVX2**
Seals available on request in EPDM, PTFE and Kalrez

**Body:** Stainless steel AISI 316L
**Orifice:** Stainless steel AISI 316L
**Guide tube:** Stainless steel
**Plunger:** Stainless steel IMRE
**Spring:** Stainless steel
**Insulation:** IP 65 with connector
**Coil:** PA 66 - Ryton (SM5 type)
**Seal:** FKM

Food contact materials EC 1935/2004

D.M. 174/2004

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

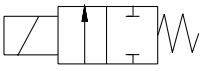
**FEATURES**
- Connection: EN 175301-803 A;
- Coil insulation class: H;
- Metallic seal between body and guide tube, 360° welding of the tube guide, guarantees endurance and reliability (SVX2);
- O-ring seal between body and guide tube, 360° welding of the tube guide, guarantees endurance and reliability (SVX3);
- 2/2-way & 3/2-way NC direct acting solenoid valve for neutral fluids compatible with food grade FKM and stainless steel AISI 316L;
- There are no minimum working pressure requirements;

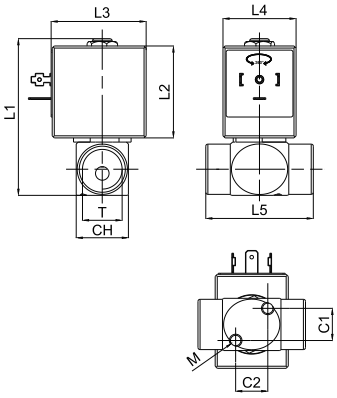
| MODEL | TYPE | CODE | THREAD | DN (mm) | KV ($m^3/h$) | COIL | ΔP BAR | | | TA. ENV. TEMP. °C | POWER | | ALTERNATIVE SEAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | MIN | MAX AC | MAX DC | | VA AC | W DC | EPDM | PTFE | KALREZ |
| STANDARD | 2/2 NC | SVX2C15G18 | G 1/8" | 1,5 | 0,07 | SH14/B | 0 | 25 | 20 | 80 | 25 | 12 | ✓ | ✓ | ✓ |
| | | SVX2C30G18 | G 1/8" | 3 | 0,2 | SH14/B | 0 | 16 | 12 | 80 | 25 | 12 | ✓ | ✓ | ✓ |
| | | SVX2C25G14 | G 1/4" | 2,5 | 0,13 | SH14/B | 0 | 20 | 12 | 80 | 25 | 12 | ✓ | ✓ | ✓ |
| | | SVX2C40G14 | G 1/4" | 4 | 0,38 | SH14/HP | 0 | | 8 | 80 | | 25 | ✓ | ✓ | ✓ |
| | | | | | | SH14 | 0 | 15 | 6 | 80 | 32 | 17 | ✓ | ✓ | ✓ |
| | | | | | | SH14/B | 0 | 7 | | 80 | 22 | | ✓ | ✓ | ✓ |
| | | SVX2C50G38 | G 3/8" | 5 | 0,48 | SH14/HP | 0 | | 5 | 80 | | 27 | ✓ | ✓ | ✓ |
| | | | | | | SH14 | 0 | 10 | 2 | 80 | 32 | 17 | ✓ | ✓ | ✓ |
| | | | | | | SH14/B | 0 | 5 | | 80 | 22 | | ✓ | ✓ | ✓ |
| | | SVX2C64G38 | G 3/8" | 6,4 | 0,66 | SH14/HP | 0 | | 4 | 80 | | 27 | ✓ | ✓ | ✓ |
| | | | | | | SH14 | 0 | 7 | 1,5 | 80 | 32 | 17 | ✓ | ✓ | ✓ |
| | | | | | | SH14/B | 0 | 3 | | 80 | 22 | | ✓ | ✓ | ✓ |
| | | SVX2C64G12 | G 1/2" | 6,4 | 0,66 | SH14/HP | 0 | | 4 | 80 | | 27 | ✓ | ✓ | ✓ |
| | | | | | | SH14 | 0 | 7 | 1,5 | 80 | 32 | 17 | ✓ | ✓ | ✓ |
| | | | | | | SH14/B | 0 | 3 | | 80 | 22 | | ✓ | ✓ | ✓ |
| | 3/2 NC | SVX3C15G18 | G 1/8" | 1,5 | 0,07 | SH14/B | 0 | 18 | 18 | 80 | 25 | 12 | | | |
| | | SVX3C25G14 | G 1/4" | 2,5 | 0,13 | SH14/B | 0 | 10 | 10 | 80 | 25 | 12 | | | |
| | | SVX3C40G14 | G 1/4" | 4 | 0,38 | SH14/B | 0 | 4 | 4 | 80 | 25 | 12 | | | |

## SVX2

Solenoid valve direct-acting 2/2-ways NC







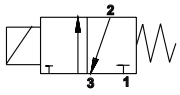

| CODE | T | L1 | L2 | L3 | L4 | L5 | M | C1 | C2 | CH |
|---|---|---|---|---|---|---|---|---|---|---|
| SVX2C15G18 | G 1/8" | 75,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C30G18 | G 1/8" | 75,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C25G14 | G 1/4" | 75,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C40G14 | G 1/4" | 75,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C50G38 | G 3/8" | 75,0 | 44,0 | 45,0 | 35,0 | 48,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C64G38 | G 3/8" | 75,0 | 44,0 | 45,0 | 35,0 | 48,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX2C64G12 | G 1/2" | 75,0 | 44,0 | 45,0 | 35,0 | 52,0 | M6x5 | 15,4 | 15,4 | 25 |

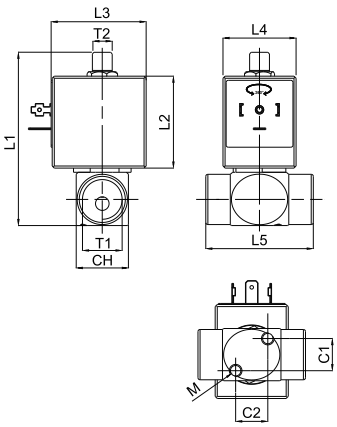
**SVX2:** With vapour the maximum recommended pressure is 6 Bar

## SVX3

Solenoid valve direct-acting 3/2-ways NC





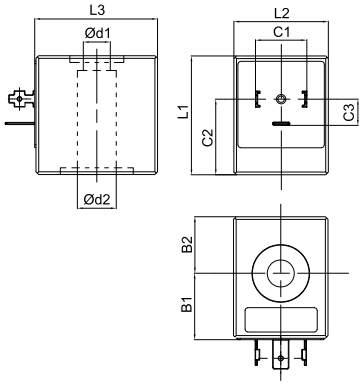




| CODE | T1 | T2 | L1 | L2 | L3 | L4 | L5 | M | C1 | C2 | CH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SVX3C15G18 | G 1/8" | G 1/8" | 85,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX3C25G14 | G 1/4" | G 1/8" | 85,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |
| SVX3C40G14 | G 1/4" | G 1/8" | 85,0 | 44,0 | 45,0 | 35,0 | 45,0 | M6x5 | 15,4 | 15,4 | 25 |

**SVX3:** With vapour the maximum recommended pressure is 5 Bar

## SH14-N — Coil

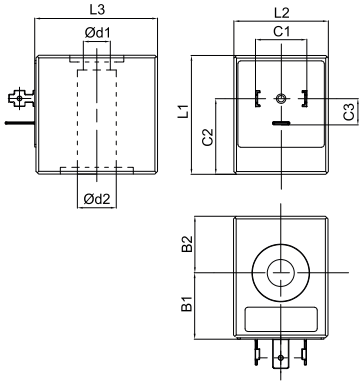





| CODE | Ød1 | Ød2 | L1 | L2 | L3 | B1 | B2 | C1 | C2 | C3 | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SH14AC24-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 24V AC |
| SH14AC110-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 110V AC |
| SH14AC220-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 230V AC |
| SH14AC240-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 220/240V AC |
| SH14DC12-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 12V DC |
| SH14DC24-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 24V DC |

## SH14-B-N — Low absorption coil

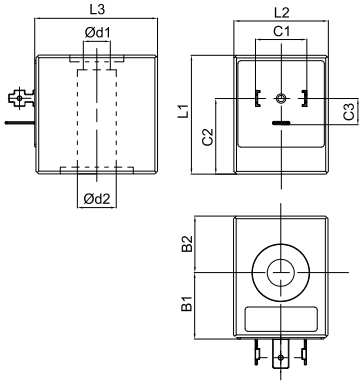





| CODE | Ød1 | Ød2 | L1 | L2 | L3 | B1 | B2 | C1 | C2 | C3 | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SH14AC24/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 24V AC |
| SH14AC110/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 110V AC |
| SH14AC220/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 230V AC |
| SH14AC240/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 220/240V AC |
| SH14DC12/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 12V DC |
| SH14DC24/B-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 24V DC |

## SH14-HP-N — High performance coil






| CODE | Ød1 | Ød2 | L1 | L2 | L3 | B1 | B2 | C1 | C2 | C3 | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SH14DC12/HP-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 12V DC |
| SH14DC24/HP-N | 10 | 14,4 | 44,0 | 35,0 | 46,0 | 25 | 21 | 19 | 28 | 9,5 | 24V DC |

## CN14 — Connector

| CODE | ELECTRIC CONNECTOR |
|---|---|
| CN14 | DIN 43650 |



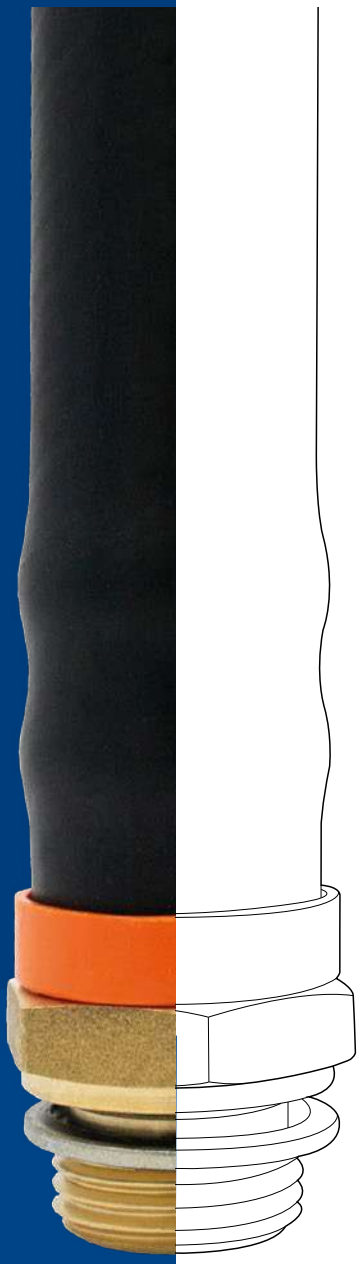
TierreGroup®

Always a fittings solution




## FOLLOW US!

# TECHNICAL TUBES



# TECHNICAL INDEX



p. 689

**POLYURETHANE TUBE ON POLYESTER BASIS**

**Material:** Polyurethane tube on polyester basis
**Temperature:** from -20°C to 60°C
**Range Ø:** 3x2 - 16x12



p. 693

**HIGH QUALITY POLYURETHANE TUBE ON POLYESTER BASIS**

**Material:** Polyurethane tube on polyester basis
**Temperature:** from -30°C to 80°C*
**Range Ø:** 4x2,5 - 16x11



p. 699

**POLYURETHANE TUBE ON POLYETHER BASIS**

**Material:** Polyurethane on polyether basis
**Temperature:** from -30°C to 60°C*
**Range Ø:** 4x2,5 - 16x11



p. 703

**ANTISTATIC POLYURETHANE TUBE**

**Material:** Polyurethane on polyester basis
**Temperature:** from -30°C to 80°C*
**Range Ø:** 4x2,5 - 12x9



p. 707

**ANTI-SPARK POLYURETHANE TUBE FLAMEX HYBRID**

**Material:** Anti-spark polyurethane FH
**Temperature:** from -30°C to 100°C*
**Range Ø:** 10x6 - 16x11 (PUFW)
4x2 - 16x11 (PUFA & PUFH)



p. 715

**SELF-EXTINGUISHING POLYURETHANE TUBE**

**Material:** Flame retardants polyurethane without halogen
**Temperature:** from -30°C to 100°C*
**Range Ø:** 6x4 - 16x11



p. 719

**POLYAMIDE TUBE PA12**

**Material:** Polyamide
**Temperature:** from -40°C to 80°C
**Range Ø:** 4x2 - 16x14



p. 725

**POLYETHYLENE TUBE**

**Material:** Polyethylene
**Temperature:** from -29°C to 66°C
**Range Ø:** 4x2,5 - 12x9



p. 729

**CALIBRATED PTFE TUBE**

**Material:** Calibrated teflon PTFE
**Temperature:** from -70°C to 260°C
**Range Ø:** 4x2 - 16x13

*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL INDEX



p. 733

**CALIBRATED FEP TUBE**

**Material:** Calibrated FEP
**Temperature:** from -60°C to 200°C
**Range Ø:** 3x1,5 - 8x6



p. 737

**SILICONE TUBE**

**Material:** Silicone
**Temperature:** from -60°C to 200°C
**Range Ø:** 5x3 - 15x12



p. 741

**PVC CRYSTAL CLEAR TUBE**

**Material:** Single layer transparent PVC
**Temperature:** from -10°C to 50°C
**Range Ø:** 6x4 - 33x25



p. 745

**PVC CRYSTAL REINFORCED TUBE**

**Material:** Double layer PVC with high tenacity polyester reinforcement
**Temperature:** from -20°C to 60°C
**Range Ø:** 12x6 - 33x25



p. 749

**POLYURETHANE TUBE WITH NON-TOXIC PVC INNER LAYER**

**Material:** PVC, polyurethane and synthetic textile insert
**Temperature:** from -20°C to 60°C
**Range Ø:** 10x6 - 19x13



p. 753

**PVC TUBE WITH POLYESTER FIBRE REINFORCEMENT**

**Material:** Black PVC and polyester synthetic textile insert
**Temperature:** from -20°C to 60°C
**Range Ø:** 14x6 - 28x19



p. 757

**COILED TUBES & ACCESSORIES**

**Materials:** Thermoplastic polyurethane on polyester basis (UCES)
**Temperature:** from -40°C to 60°C (UCES)
**Range Ø:** G1/4" and G3/8" (UCES-G)



p. 767

**PUSH-LOCK HOSES & FITTINGS**

**Materials:** Synthetic rubber and textile layer (ASR & ASR-HH)
Polyurethane and textile layer (ASR-PU)
**Range Ø:** 6-25 (ASR)
6-16 (ASR-HH)
6-20 (ASR-PU)

TierreGroup®

Always a fittings solution




**FOLLOW US!**

# TECHNICAL TUBES
## POLYURETHANE TUBE ON POLYESTER BASIS

### PLUS

- EXCELLENT FLEXIBILITY ALLOWS A GREAT BENDING RADIUS
- LIGHT, DURABLE AND ABRASION RESISTANT
- IDEAL FOR PNEUMATIC CONNECTIONS IN TIGHT SPACES
- WIDE RANGE OF COLOURS AVAILABLE WHICH ALLOWS TO DIVERSIFY CIRCUITS



p. 691 / **PUES**



p. 692 / **PUES-BX**



-20°C ÷ 60°C

**Working pressure:**
from Ø3x2 to Ø12x9: 10 Bar
Ø14x10 and Ø16x12: 8 Bar

**Bursting pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & vacuum
(do not use with water)

**HARDNESS**
Shore 96 A

**Material:** Polyurethane on polyester basis

**FEATURES**
The polyurethane tube on polyester basis has a high flexibility at low temperatures and good resistance to wear and chemicals.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUES

Polyurethane tube on polyester basis



| CODE | Ø ODxID | ØOD TOLERANCE | THICKNESS (mm) | MIN. BENDING RADIUS AT 23°C (mm) | WORKING PRESSURE AT 23°C (Bar) | BURST PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| PUES0302 | 3x2 | ±0,1 | 0,5 | 8 | 10 | 30 | 12 | 100 |
| PUES0425 | 4x2,5 | ±0,1 | 0,75 | 12 | 10 | 30 | 13 | 100 |
| PUES0604 | 6x4 | ±0,1 | 1 | 15 | 10 | 25 | 25,5 | 100 |
| PUES0805 | 8x5 | ±0,1 | 1,5 | 20 | 10 | 25 | 44,6 | 100 |
| PUES0855 | 8x5,5 | ±0,1 | 1,25 | 20 | 10 | 25 | 37,5 | 100 |
| PUES1065 | 10x6,5 | ±0,15 | 1,75 | 25 | 10 | 25 | 65,2 | 100 |
| PUES1007 | 10x7 | ±0,15 | 1,5 | 25 | 10 | 25 | 61,0 | 100 |
| PUES1208 | 12x8 | ±0,15 | 2 | 35 | 10 | 25 | 80,8 | 100 |
| PUES1209 | 12x9 | ±0,15 | 1,5 | 35 | 10 | 25 | 72,0 | 100 |
| PUES1410 | 14x10 | ±0,15 | 2 | 45 | 8 | 18 | 146,0 | 50 |
| PUES1612 | 16x12 | ±0,15 | 2 | 60 | 8 | 16 | 128,8 | 50 |

| Sizes ODxID | Light blue | Black | Red | Yellow | Green | Grey | Transparent | Transparent light blue |
|---|---|---|---|---|---|---|---|---|
| 3x2 | PUES0302AZ | | | | | | | |
| 4x2,5 | PUES0425AZ | PUES0425NE | PUES0425RO | PUES0425GL | PUES0425VD | PUES0425SL | PUES0425TR | PUES0425AZTR |
| 6x4 | PUES0604AZ | PUES0604NE | PUES0604RO | PUES0604GL | PUES0604VD | PUES0604SL | PUES0604TR | PUES0604AZTR |
| 8x5 | PUES0805AZ | | | PUES0805GL | | | | |
| 8x5,5 | PUES0855AZ | PUES0855NE | PUES0855RO | PUES0855GL | PUES0855VD | PUES0855SL | PUES0855TR | PUES0855AZTR |
| 10x6,5 | PUES1065AZ | | | PUES1065GL | | | | |
| 10x7 | PUES1007AZ | PUES1007NE | PUES1007RO | PUES1007GL | PUES1007VD | PUES1007SL | PUES1007TR | PUES1007AZTR |
| 12x8 | PUES1208AZ | PUES1208NE | | PUES1208GL | | | PUES1208TR | |
| 12x9 | PUES1209AZ | PUES1209NE | PUES1209RO | PUES1209GL | PUES1209VD | PUES1209SL | PUES1209TR | PUES1209AZTR |
| 14x10 | PUES1410AZ | | | | | | PUES1410TR | |
| 16x12 | PUES1612AZ | | | | | | | |

## PUES-BX

Polyurethane tube on polyester base in 25m box




| Sizes ODxID | Light blue | Black | Red | Yellow | Green | Grey | Transparent | Transparent light blue |
|---|---|---|---|---|---|---|---|---|
| 3x2 | PUES0302AZ-25BX | | | | | | | |
| 4x2,5 | PUES0425AZ-25BX | PUES0425NE-25BX | PUES0425RO-25BX | PUES0425GL-25BX | PUES0425VD-25BX | PUES0425SL-25BX | PUES0425TR-25BX | PUES0425AZTR-25BX |
| 6x4 | PUES0604AZ-25BX | PUES0604NE-25BX | PUES0604RO-25BX | PUES0604GL-25BX | PUES0604VD-25BX | PUES0604SL-25BX | PUES0604TR-25BX | PUES0604AZTR-25BX |
| 8x5 | PUES0805AZ-25BX | | | PUES0805GL-25BX | | | | |
| 8x5,5 | PUES0855AZ-25BX | PUES0855NE-25BX | PUES0855RO-25BX | PUES0855GL-25BX | PUES0855VD-25BX | PUES0855SL-25BX | PUES0855TR-25BX | PUES0855AZTR-25BX |
| 10x6,5 | PUES1065AZ-25BX | | | PUES1065GL-25BX | | | | |
| 10x7 | PUES1007AZ-25BX | PUES1007NE-25BX | PUES1007RO-25BX | PUES1007GL-25BX | PUES1007VD-25BX | PUES1007SL-25BX | PUES1007TR-25BX | PUES1007AZTR-25BX |
| 12x8 | PUES1208AZ-25BX | PUES1208NE-25BX | | PUES1208GL-25BX | | | PUES1208TR-25BX | |
| 12x9 | PUES1209AZ-25BX | PUES1209NE-25BX | PUES1209RO-25BX | PUES1209GL-25BX | PUES1209VD-25BX | PUES1209SL-25BX | PUES1209TR-25BX | PUES1209AZTR-25BX |

# TECHNICAL TUBES
## HIGH QUALITY POLYURETHANE TUBE ON POLYESTER BASIS

## PLUS

- VERY FLEXIBLE WITH EXCELLENT RESILIENCE PROPERTIES
- PLASTICIZER FREE
- EXCELLENT FLEXIBILITY EVEN AT LOW TEMPERATURES (UP TO -35°C)
- GOOD ABRASION RESISTANCE
- CAN BE USE INSIDE CABLE DRAG CHAINS
- SUITABLE FOR PNEUMATICS APPLICATIONS AND VACUUMS



p. 695 / **PUHQ**



p. 696 / **PUHQ-BLNE**



Environment temperature:
-30°C ÷ 80°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Bursting pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & vacuum

**HARDNESS**
Shore 98 A

**Material:** Polyurethane on polyester basis

**FEATURES**
- Stress at max. elongation (DIN53504-S2): 14 MPa
- Tensile strength (DIN53504-S2): 50 MPa
- Abrasion (DIN4649-A): 30 $mm^3$
- Density (DIN EN ISO 1183-1-A): 1,22 $g/cm^3$
- Impact value (Charpy) -30°C / +23°C (DIN EN ISO 179-1): 25 $KJ/m^2$

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUHQ-100m

High quality polyurethane tube on polyester basis with 100m roll



| CODE | Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | MIN. BURST PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUHQ0425 | 4x2,5 | 0,75 | 12 | 38 | 9,33 | 100 |
| PUHQ0604 | 6x4 | 1 | 18 | 34 | 19,16 | 100 |
| PUHQ0857 | 8x5,7 | 1,15 | 30 | 32 | 30,19 | 100 |
| PUHQ1075 | 10x7,5 | 1,25 | 45 | 26 | 41,92 | 100 |
| PUHQ1209 | 12x9 | 1,5 | 55 | 27 | 60,37 | 100 |
| PUHQ1411 | 14x11 | 1,5 | 60 | 23 | 71,86 | 100 |

| Sizes ODxID | Blue | Black |
|---|---|---|
| 4x2,5 | PUHQ0425BL | PUHQ0425NE |
| 6x4 | PUHQ0604BL | PUHQ0604NE |
| 8x5,7 | PUHQ0857BL | PUHQ0857NE |
| 10x7,5 | PUHQ1075BL | PUHQ1075NE |
| 12x9 | PUHQ1209BL | PUHQ1209NE |
| 14x11 | PUHQ1411BL | PUHQ1411NE |

*drawings and technical data are not binding & can be changed without notice*

## PUHQ-25m

High quality polyurethane tube on polyester basis with 25m roll



| CODE | Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | MIN. BURST PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUHQ0425-25 | 4x2,5 | 0,75 | 12 | 38 | 9,33 | 25 |
| PUHQ0604-25 | 6x4 | 1 | 18 | 34 | 19,16 | 25 |
| PUHQ0857-25 | 8x5,7 | 1,15 | 30 | 32 | 30,19 | 25 |
| PUHQ1075-25 | 10x7,5 | 1,25 | 45 | 26 | 41,92 | 25 |
| PUHQ1209-25 | 12x9 | 1,5 | 55 | 27 | 60,37 | 25 |
| PUHQ1411-25 | 14x11 | 1,5 | 60 | 23 | 71,86 | 25 |
| PUHQ1611-25 | 16x11 | 2,5 | 65 | 39 | 129,36 | 25 |

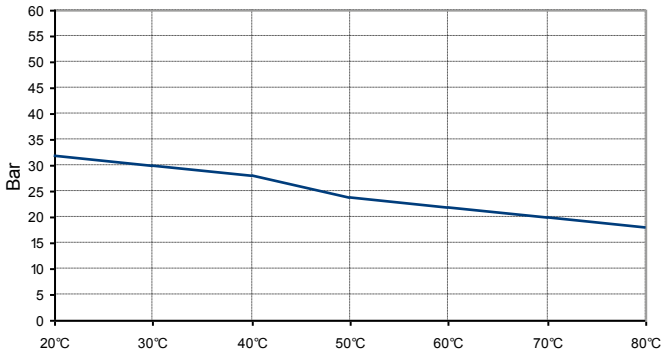
| Sizes ODxID | Blue | Black |
|---|---|---|
| 4x2,5 | PUHQ0425BL-25 | PUHQ0425NE-25 |
| 6x4 | PUHQ0604BL-25 | PUHQ0604NE-25 |
| 8x5,7 | PUHQ0857BL-25 | PUHQ0857NE-25 |
| 10x7,5 | PUHQ1075BL-25 | PUHQ1075NE-25 |
| 12x9 | PUHQ1209BL-25 | PUHQ1209NE-25 |
| 14x11 | PUHQ1411BL-25 | PUHQ1411NE-25 |
| 16x11 | PUHQ1611BL-25 | PUHQ1611NE-25 |

*drawings and technical data are not binding & can be changed without notice*

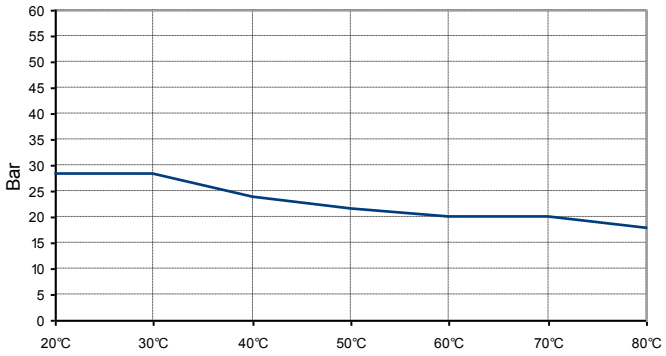
## WORKING PRESSURE - PUHQ

### Limit of pressure load depending on temperature

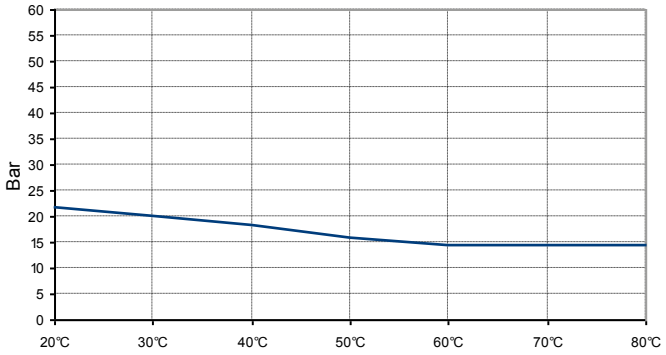
4x2,5



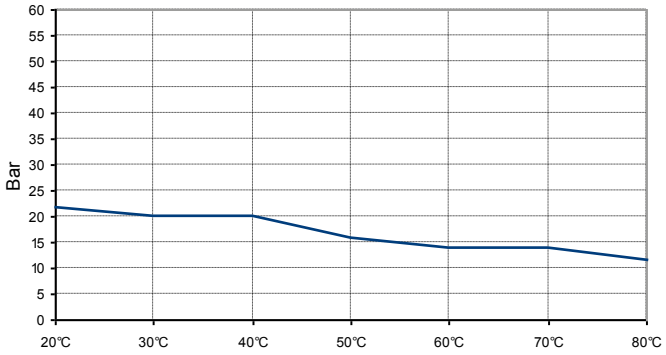

6x4



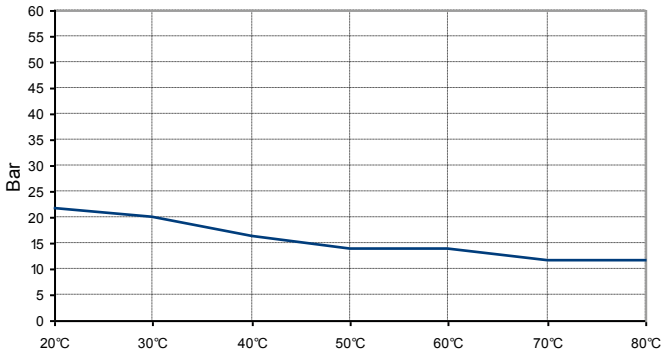

8x5,7



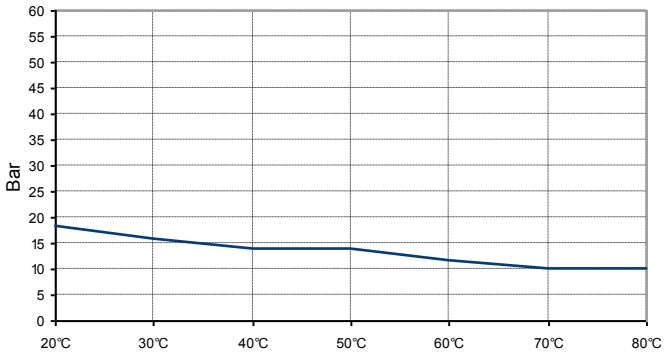

10x7,5



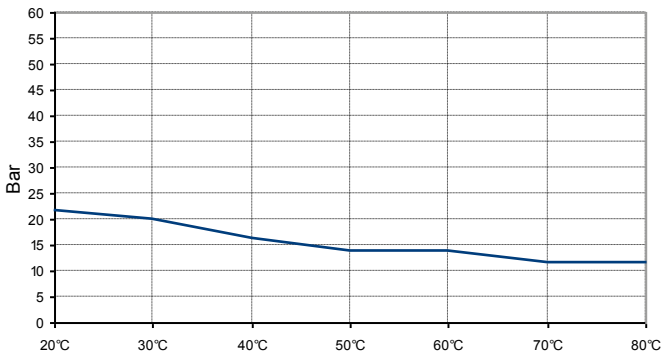

12x9




14x11




16x11



## PUHQ-BLNE

High quality twin polyurethane tubes on polyester basis

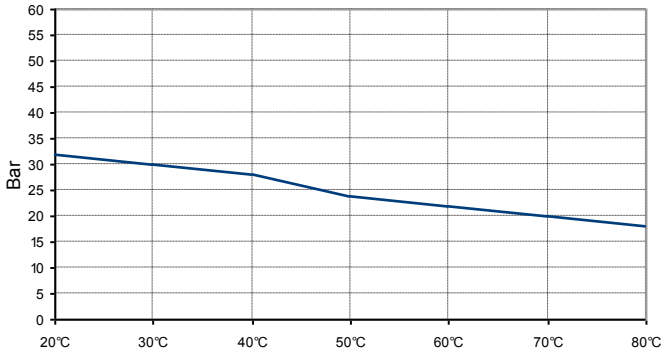


| CODE | Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | MIN. BURST PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUHQ0425BLNE | 4x2,5 | 0,75 | 12 | 38 | 18,66 | 50 |
| PUHQ0604BLNE | 6x4 | 1 | 18 | 34 | 38,32 | 50 |
| PUHQ0806BLNE | 8x5,7 | 1,15 | 27 | 34 | 64,66 | 50 |
| PUHQ1075BLNE | 10x7,5 | 1,25 | 45 | 26 | 83,84 | 50 |

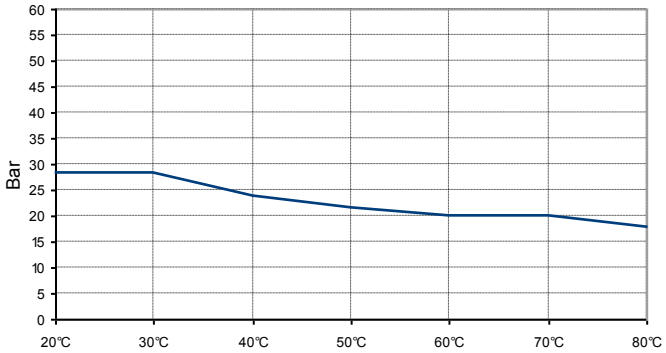
### WORKING PRESSURE - PUHQ-BLNE

Limit of pressure load depending on temperature

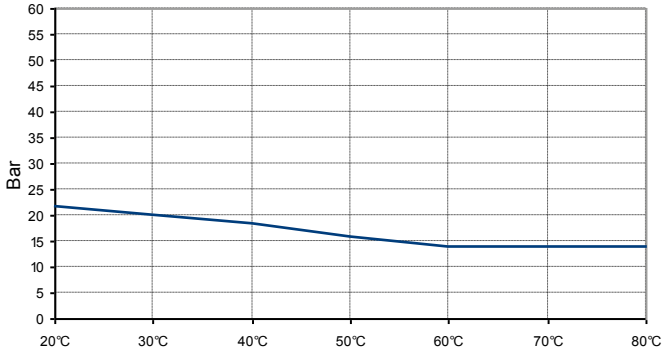
4x2,5



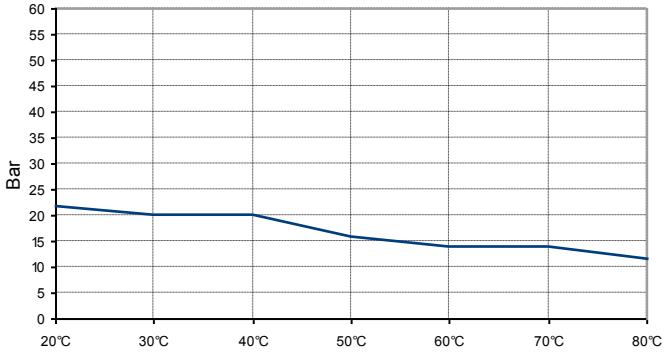

6x4




8x6




10x7,5



# TECHNICAL TUBES
## POLYURETHANE TUBE ON POLYETHER BASIS

D.M. 174

## PLUS

- RESISTANT TO HYDROLYSIS AND SUITABLE WITH FLUIDS
- MICROBE RESISTANT, CAN ALSO BE USED FOR EXTERNAL APPLICATIONS
- COMPLIES WITH THE HYGIENE REQUIREMENTS FOR CONTACT AREAS OF MACHINERY RELATED TO INDUSTRIAL PROCESSING AS REQUIRED BY DIN EN 1672-2 REGULATION
- SUITABLE FOR FOOD FLUIDS
- GOOD RESISTANCE TO ABRASION AND TO MANY CHEMICALS
- IDEAL FOR USE IN CABLE DRAG CHAINS AND SUITABLE FOR USE IN SEATHED CABLE BUNDLES



p. 701 / **PUET**



Environment temperature:
-30°C ÷ 60°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air, vacuum and fluids suitable with construction materials

**Material:** Polyurethane on polyether basis

**FEATURES**

- Stress at max. elongation (DIN53504-S2): 15 MPa
- Tensile strength (DIN53504-S2): 50 MPa
- Abrasion (DIN4649-A): 25 $mm^3$
- Density (DIN EN ISO 1183-1-A): 1,16 $g/cm^3$
- Impact value (Charpy) -30°C / +23°C (DIN EN ISO 179-1): 190 $KJ/m^2$

Food contact materials EC 1935/2004 Transparent red, light blue and black colours

D.M. 174/2004 Transparent red, light blue and black colours

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUET

Polyurethane tube on polyether basis



| CODE | Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUET0425 | 4x2,5 | 0,75 | 12 | 40 | 8,88 | 50 |
| PUET0639 | 6x3,9 | 1,05 | 15 | 34 | 18,84 | 50 |
| PUET0855 | 8x5,5 | 1,25 | 25 | 31 | 30,75 | 50 |
| PUET1007 | 10x7 | 1,5 | 40 | 27 | 46,46 | 50 |
| PUET1208 | 12x8 | 2 | 35 | 32 | 72,88 | 50 |
| PUET1410 | 14x10 | 2 | 55 | 25 | 87,46 | 50 |
| PUET1611 | 16x11 | 2,5 | 55 | 27 | 122,99 | 50 |

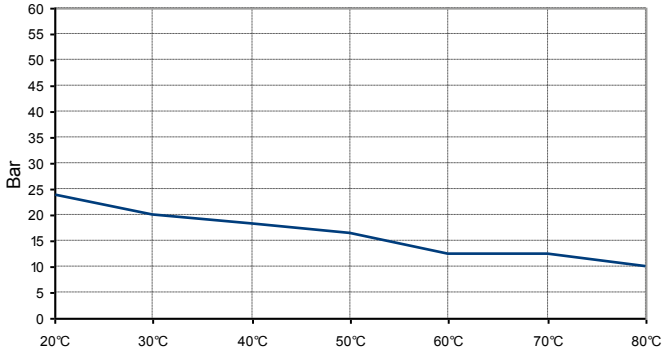
| Misure ODxID | Transparent red | Transparent light blue | Transparent | Transparent black |
|---|---|---|---|---|
| 4x2,5 | PUET0425ROTR | PUET0425AZTR | PUET0425TR | PUET0425NETR |
| 6x3,9 | PUET0639ROTR | PUET0639AZTR | PUET0639TR | PUET0639NETR |
| 8x5,5 | PUET0855ROTR | PUET0855AZTR | PUET0855TR | PUET0855NETR |
| 10x7 | PUET1007ROTR | PUET1007AZTR | PUET1007TR | PUET1007NETR |
| 12x8 | PUET1208ROTR | PUET1208AZTR | PUET1208TR | PUET1208NETR |
| 14x10 | PUET1410ROTR | PUET1410AZTR | PUET1410TR | PUET1410NETR |
| 16x11 | PUET1611ROTR | PUET1611AZTR | PUET1611TR | PUET1611NETR |

*drawings and technical data are not binding & can be changed without notice*

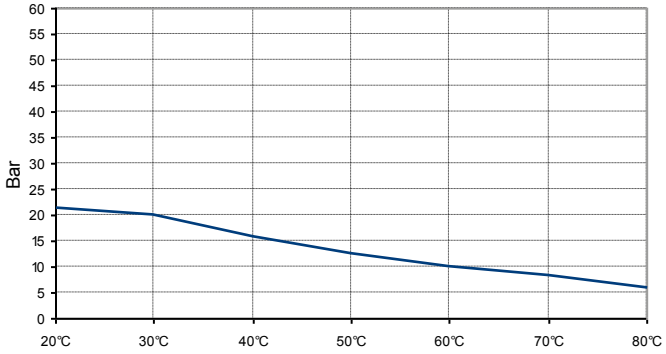
## WORKING PRESSURE - PUET

### Limit of pressure load depending on temperature

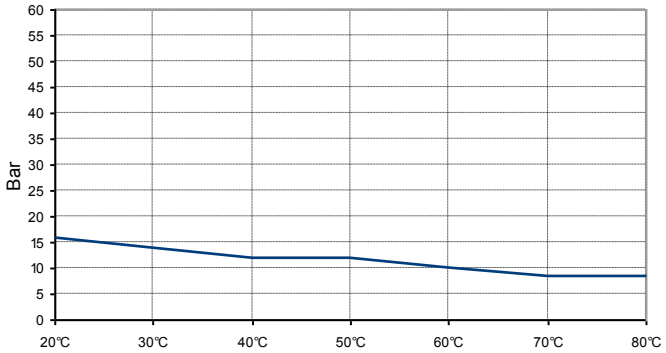
4x2,5



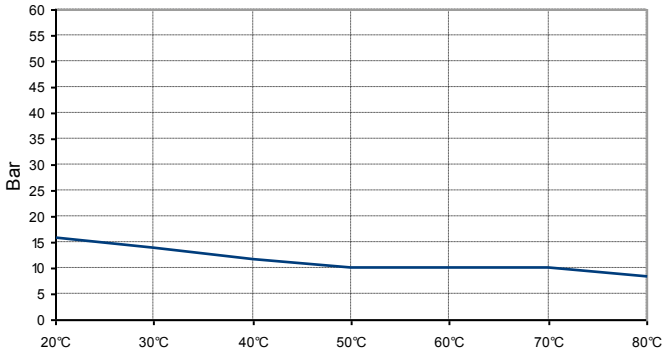

6x3,9



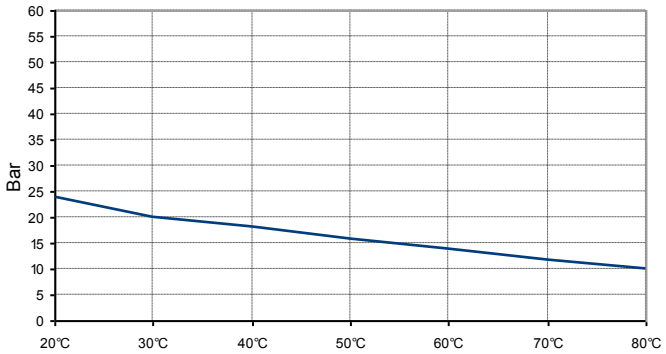

8x5,5



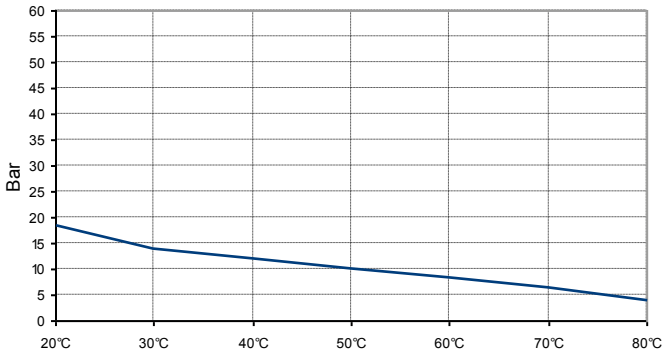

10x7



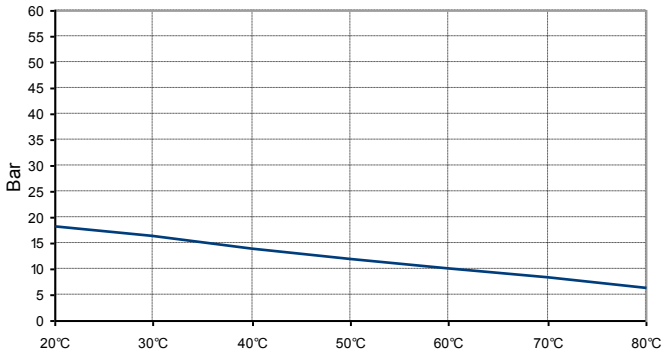

12x8




14x10




16x11




*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL TUBES ANTISTATIC POLYURETHANE TUBE

## PLUS

- HIGH ANTISTATIC PROTECTION WITH SUPERFICIAL RESISTANCE BETWEEN 10 AND 1000 KΩ
- EXCELLENT CRUSHING RESISTANCE
- RESISTANT TO MICROBES AND HYDROLYSIS
- GREAT UV RESISTANCE
- SUITABLE FOR PNEUMATICS AND VACUUMS



p. 705 / **PUAS**



Environment temperature:
-30°C ÷ 80°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air, vacuum, water and fluids suitable with construction materials

**Material:** Antistatic polyurethane

**FEATURES**

The PUAS tube is perfect for all applications areas where antistatic material is mandatory, (for example in the production of electronical components, in the surface refinement industry or in areas where explosion proof is necessary).

Is conform to the ATEX guideline 94/9/EG.

Density (DIN EN ISO 1183-1-A):
1,24 g/cm$^3$

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUAS

Antistatic polyurethane tube



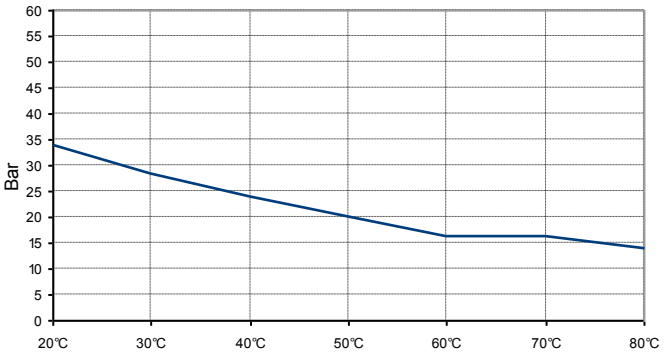
| CODE | Ø ODxID | THICKNESS (mm) | BENDING RADIUS (mm) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUAS0425 | 4x2,5 | 0,75 | 9 | 45 | 9,5 | 50 |
| PUAS0639 | 6x3,9 | 1,05 | 15 | 39 | 20,25 | 50 |
| PUAS0857 | 8x5,7 | 1,15 | 28 | 31 | 30,69 | 50 |
| PUAS1075 | 10x7,5 | 1,25 | 35 | 30 | 42,61 | 50 |
| PUAS1209 | 12x9 | 1,5 | 50 | 29 | 61,36 | 50 |

| Sizes ODxID | Black |
|---|---|
| 4x2,5 | PUAS0425NE |
| 6x3,9 | PUAS0639NE |
| 8x5,7 | PUAS0857NE |
| 10x7,5 | PUAS1075NE |
| 12x9 | PUAS1209NE |

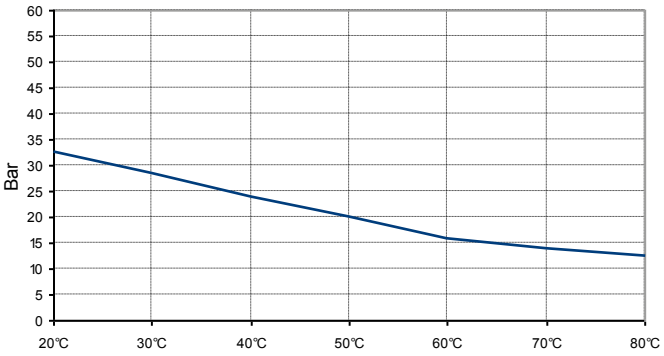
## WORKING PRESSURE - PUAS

### Limit of pressure load depending on temperature

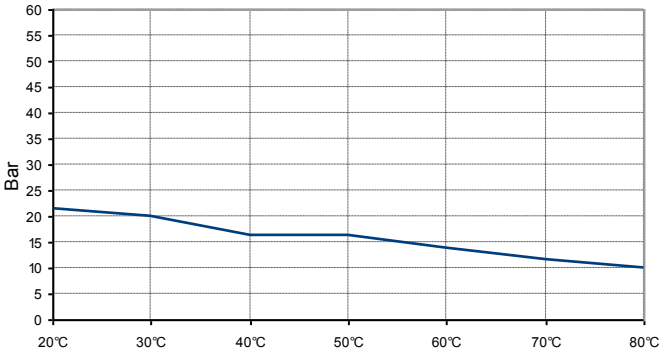
4x2,5



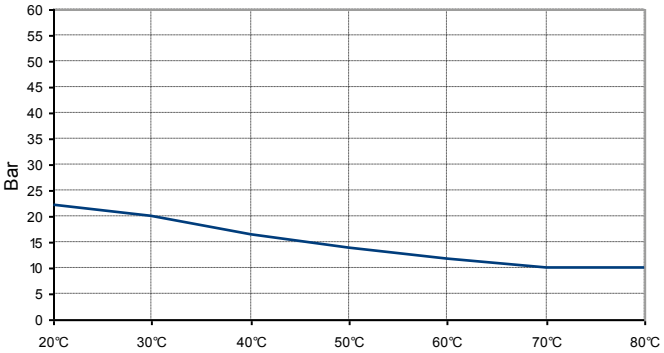

6x3,9



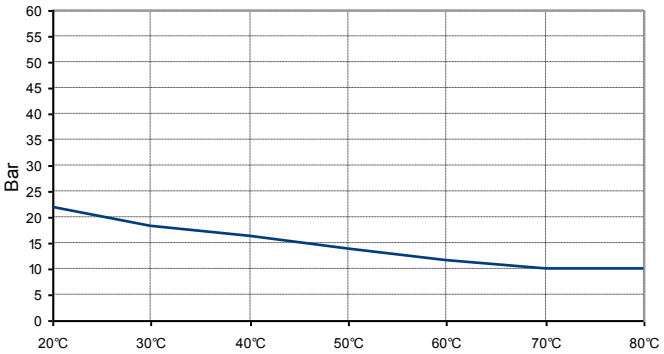

8x5,7




10x7,5




12x9



# TECHNICAL TUBES
# ANTI-SPARK POLYURETHANE TUBE FLAMEX HYBRID

## PLUS

- EXTREMELY RESISTANT TO ALL TYPES OF WELDING SPATTER AND SPARKS ENSURING DURABILITY OVER TIME
- HALOGEN-FREE, FIRE-RESISTANT AND SELF-EXSTINGUISHING IN CASE OF FIRE
- FIRE RESISTANCE CLASSIFICATION LISTED UL94 FROM V2 TO V0
- EASY AND FAST INSTALLATION WITH PUSH-IN FITTINGS THANKS TO MONOLAYER SURFACE
- MICROBE RESISTANT AND EXCELLENT CHEMICAL RESISTANCE (TO MOST DETERGENTS AND SOLVENTS)
- EXCELLENT UV RESISTANCE
- EXCELLENT ABRASION RESISTANCE, CAN BE USED INSIDE CABLE DRAG CHAINS
- RECYCABLE, APPROVED FOR DISPOSAL WITH COMMERCIAL WASTE



p. 709 / **PUFA**



p. 711 / **PUFW**



p. 713 / **PUFH**



Environment temperature:
-30°C ÷ 100°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & vacuum

**Material:** Halogen-free and anti-spark polyurethane Flamex Hybrid

**FEATURES**

Our PUFA tube, special for air and other gasses, has excellent durability, strength and good material flexibility for smaller bending radii. The tube offers reliable protection against weld spatter and flying sparks. In the event of a fire, the material is self-extinguishing, which further increases workplace safety in industry or commerce.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUFA

Anti-spark polyurethane tube flamex hybrid for air



| CODE | Ø ODxID | THICKNESS (mm) | BENDING RADIUS (mm) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUFA0402 | 4x2 | 1 | 7 | 40 | 12 | 50 |
| PUFA0804 | 8x4 | 2 | 15 | 47 | 48 | 50 |
| PUFA1006 | 10x6 | 2 | 20 | 36 | 63 | 50 |
| PUFA1208 | 12x8 | 2 | 28 | 30 | 78 | 50 |
| PUFA1410 | 14x10 | 2 | 50 | 32 | 96 | 50 |
| PUFA1611 | 16x11 | 2,5 | 55 | 34 | 135 | 50 |

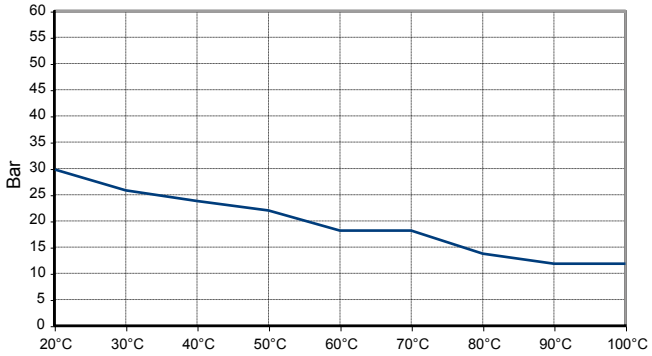
| Sizes ODxID | Light blue | White |
|---|---|---|
| 4x2 | PUFA0402AZ | PUFA0402BO |
| 8x4 | PUFA0804AZ | PUFA0804BO |
| 10x6 | PUFA1006AZ | PUFA1006BO |
| 12x8 | PUFA1208AZ | PUFA1208BO |
| 14x10 | PUFA1410AZ | PUFA1410BO |
| 16x11 | PUFA1611AZ | PUFA1611BO |

*drawings and technical data are not binding & can be changed without notice*

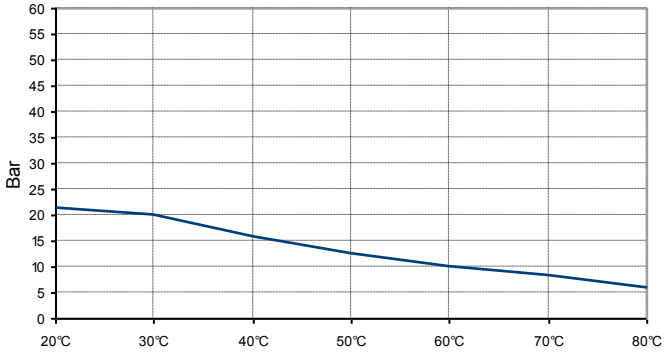
## WORKING PRESSURE - PUFA

### Limit of pressure load depending on temperature

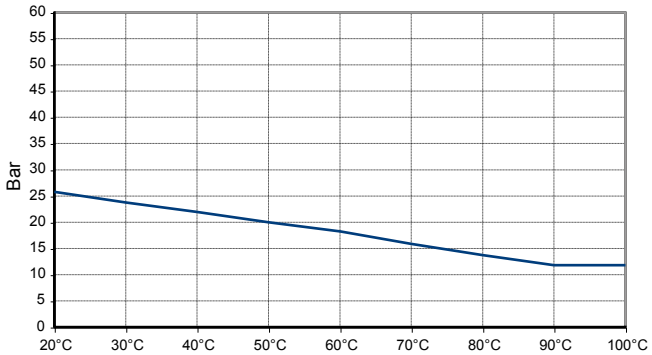
#### 4x2



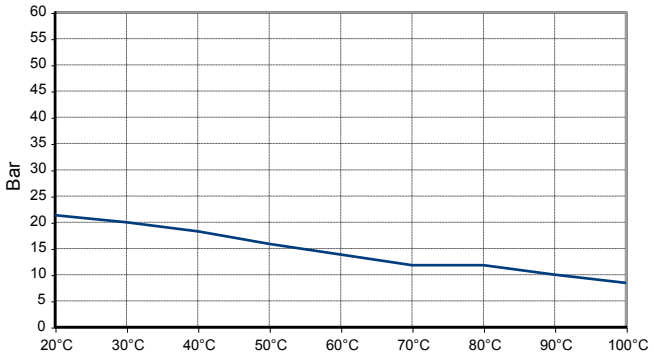

#### 8x4



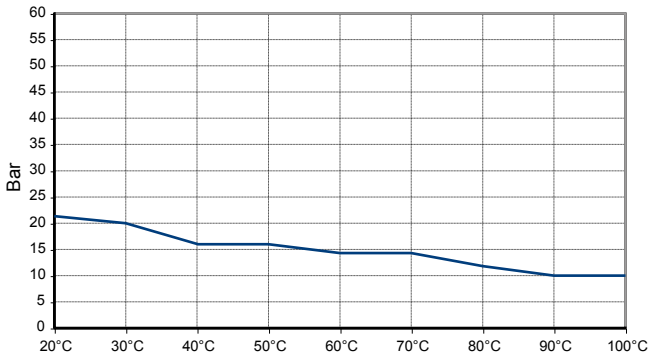

#### 10x6



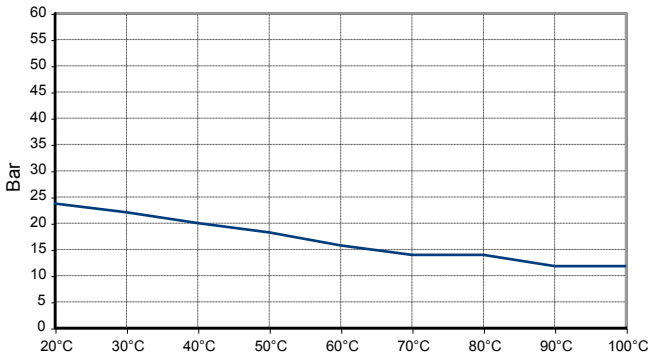

#### 12x8




#### 14x10




#### 16x11





Environment temperature:
-30°C ÷ 100°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Water, compressed air, vacuum and fluids suitable with construction materials

**Material:** Halogen-free and anti-spark polyurethane Flamex Hybrid

**FEATURES**

Our PUFW tube, special for water and other liquids, has excellent resistance in difficult work environments. The tube offers reliable protection against weld spatter near welding facilities and against flying sparks from grinding machines. In the event of a fire, the material is self-extinguishing, which further increases workplace safety in industry or commerce.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

RoHS3

Products in compliance with the directive EU 2015/863

## PUFW

Anti-spark polyurethane tube flamex hybrid for water and fluids



| CODE | Ø ODxID | THICKNESS (mm) | BENDING RADIUS (mm) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUFW1006 | 10x6 | 2 | 20 | 29 | 60 | 50 |
| PUFW1208 | 12x8 | 2 | 27 | 27 | 75 | 50 |
| PUFW1410 | 14x10 | 2 | 50 | 25 | 90 | 50 |
| PUFW1611 | 16x11 | 2,5 | 58 | 27 | 125 | 50 |

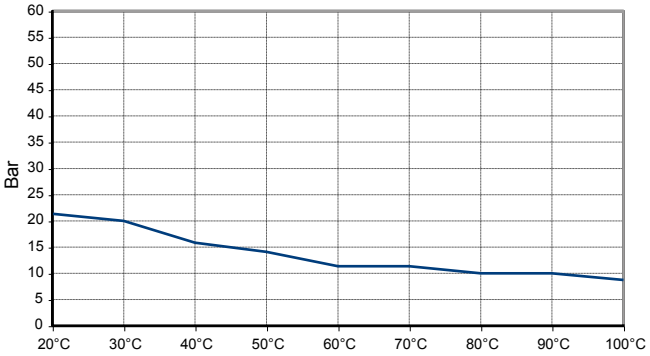
| Sizes ODxID | Red | Green |
|---|---|---|
| 10x6 | PUFW1006RO | PUFW1006VD |
| 12x8 | PUFW1208RO | PUFW1208VD |
| 14x10 | PUFW1410RO | PUFW1410VD |
| 16x11 | PUFW1611RO | PUFW1611VD |

*drawings and technical data are not binding & can be changed without notice*

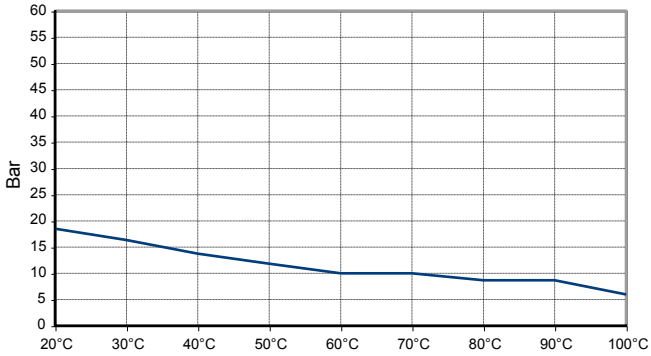
## WORKING PRESSURE - PUFW

### Limit of pressure load depending on temperature

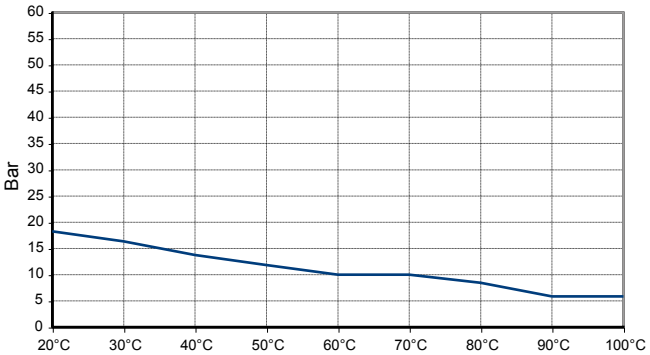
10x6



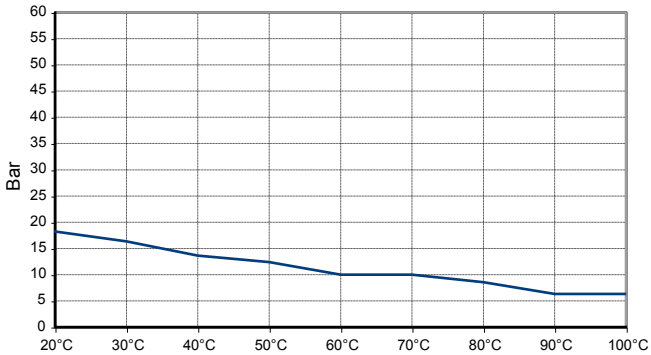

12x8




14x10




16x11





Environment temperature:
-30°C ÷ 100°C
The working temperature depends on the working pressure.

**Working pressure:**
See pressure charts

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air, water, vacuum and fluids suitable with construction materials

**Material:** Halogen-free and anti-spark polyurethane Flamex Hybrid

**FEATURES**

Our PUFH hose, can withstand extreme stress thanks to the quality of the material it is made out of. The most important features are its resistance to maximum pressure whilst being in a vacuum and its resistance to welding spatter and flying sparks. In the event of a fire, the material is self-extinguishing, which further increases workplace safety in industry or commerce.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUFH

Anti-spark polyurethane tube flamex hybrid for air & fluids



| CODE | Ø ODxID | THICKNESS (mm) | BENDING RADIUS (mm) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|
| PUFH0402 | 4x2 | 1 | 7 | 60 | 12 | 50 |
| PUFH0804 | 8x4 | 2 | 15 | 65 | 48 | 50 |
| PUFH1006 | 10x6 | 2 | 20 | 51 | 64 | 50 |
| PUFH1208 | 12x8 | 2 | 28 | 44 | 80 | 50 |
| PUFH1410 | 14x10 | 2 | 45 | 38 | 96 | 50 |
| PUFH1611 | 16x11 | 2,5 | 55 | 37 | 135 | 50 |

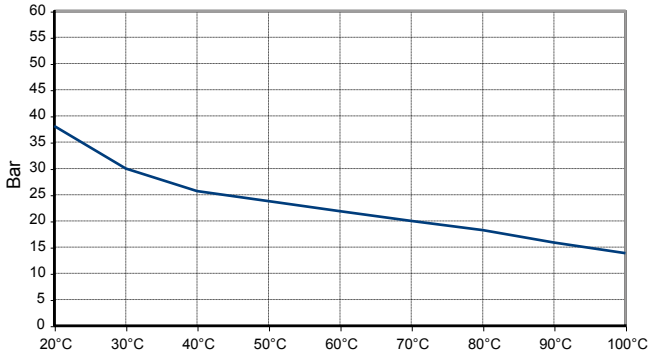
| Sizes ODxID | Black |
|---|---|
| 4x2 | PUFH0402 |
| 8x4 | PUFH0804 |
| 10x6 | PUFH1006 |
| 12x8 | PUFH1208 |
| 14x10 | PUFH1410 |
| 16x11 | PUFH1611 |

*drawings and technical data are not binding & can be changed without notice*

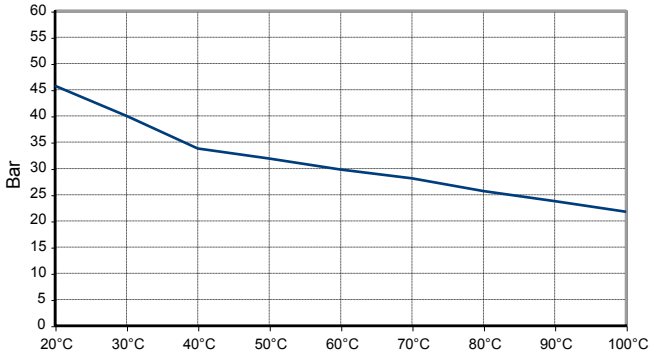
## WORKING PRESSURE - PUFH

### Limit of pressure load depending on temperature

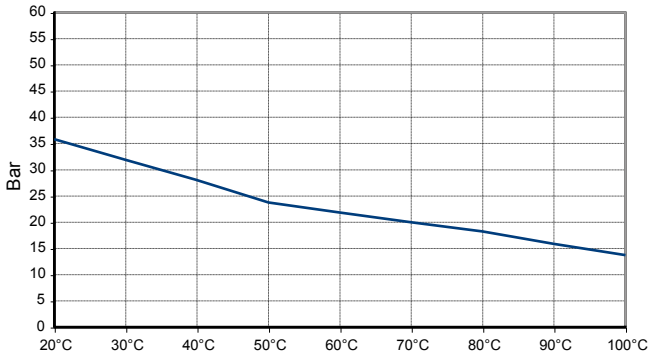
#### 4x2



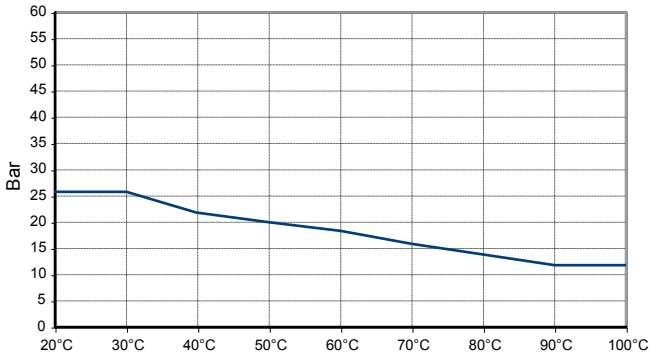

#### 8x4



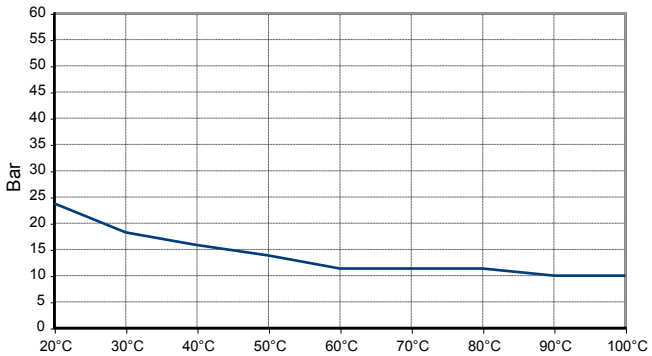

#### 10x6



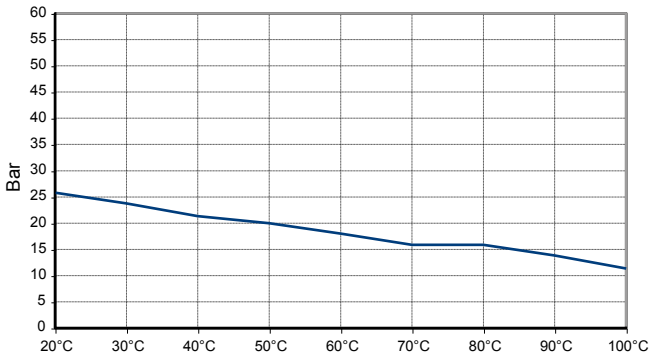

#### 12x8




#### 14x10




#### 16x11



# TECHNICAL TUBES
## SELF-EXTINGUISHING POLYURETHANE TUBE

## PLUS

- HALOGEN-FREE FLAME RETARDANT, SELF-EXSTINGUISHING IN CASE OF FIRE
- RESISTANT TO HYDROLYSIS AND MICROBES
- HIGH CHEMICAL RESISTANCE (RESISTANT TO MOST DETERGENTS, SOLVENTS AND OTHER FLUIDS CONTACT)
- REDUCED BENDING RADIUS THAT ALLOWS IT TO BE USED IN CONFINED SPACES
- EXCELLENT UV RESISTANCE
- MAXIMUM ABRASION RESISTANCE, CAN BE USE IN CABLE DRAG CHAINS
- RECYCABLES (THE BASE POLYMER CAN BE REUSED), EASILY DISPOSED OF AT THE END OF SERVICE LIFE
- USED IN THE INTERNATIONAL AIRCRAFT CONSTRUCTION AND GERMAN RAILWAYS, CORRESPONDING STANDARDS REGARDING RAILWAY FIRE PROTECTION DIN 5510-2 (GERMAN STANDARD) AND NF F 16-101 (FRENCH STANDARD)



p. 717 / **PUKS**



Environment temperature:
-30°C ÷ 100°C
The working temperature depends on the working pressure.

**Working pressure:**
6 - 8 Bar (standard)
See table for pressure at 20°C

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air, vacuum, water, gas and fluids suitable with construction materials

**AVAILABILITY**
Available on request and minimum order quantity PUKN tube that meets all requirements of the new European railway regulation EN 45545.

**Material:** Polyurethane with non-halogen flame retardants

**FEATURES**
- Hardness (DIN ISO 7619-1):
  58 Shore D
- Tensile strength (DIN53504-S2/ISO37):
  30 MPa
- Abrasion (DIN4649-A):
  30 $mm^3$
- Density (DIN EN ISO 1183-1-A):
  1,27 $g/cm^3$

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PUKS — Self-extinguishing polyurethane tube



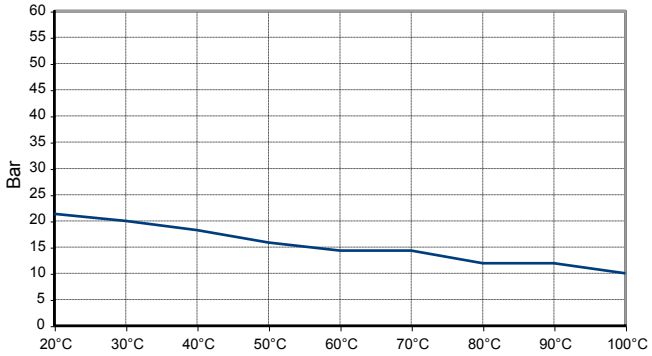
| CODE | Ø ODxID | THICKNESS (mm) | BENDING RADIUS (mm) | WORKING PRESSURE AT 20°C (Bar) | MIN. BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|
| PUKS0604 | 6x4 | 1 | 14 | 22 | 37 | 19,95 | 50 |
| PUKS0857 | 8x5,7 | 1,15 | 28 | 18 | 32 | 31,43 | 50 |
| PUKS1075 | 10x7,5 | 1,25 | 38 | 16 | 28 | 43,64 | 50 |
| PUKS1209 | 12x9 | 1,5 | 45 | 20 | 30 | 62,84 | 50 |
| PUKS1410 | 14x10 | 2 | 45 | 24 | 38 | 95,76 | 50 |
| PUKS1611 | 16x11 | 2,5 | 55 | 28 | 37 | 134,66 | 50 |

| Sizes ODxID | Light blue |
|---|---|
| 6x4 | PUKS0604AZ |
| 8x5,7 | PUKS0857AZ |
| 10x7,5 | PUKS1075AZ |
| 12x9 | PUKS1209AZ |
| 14x10 | PUKS1410AZ |
| 16x11 | PUKS1611AZ |

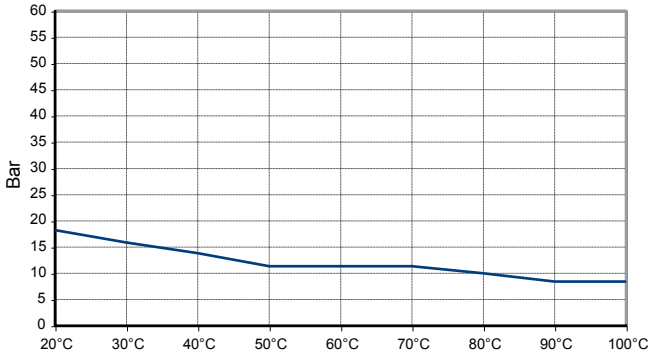
## WORKING PRESSURE - PUKS

### Limit of pressure load depending on temperature

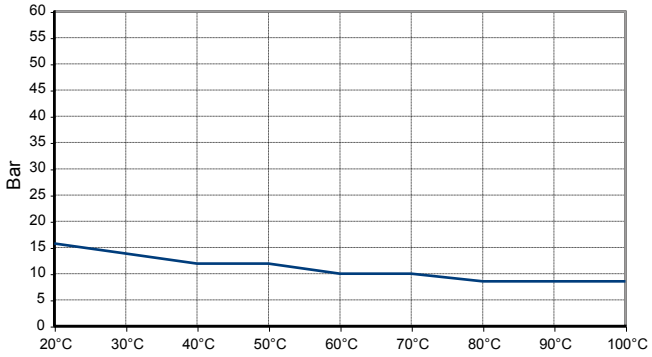
6x4



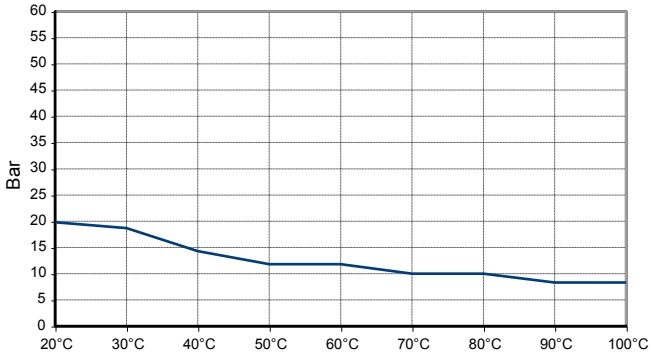

8x5,7



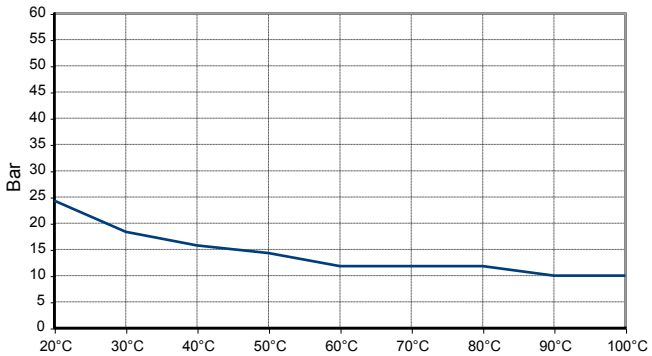

10x7,5



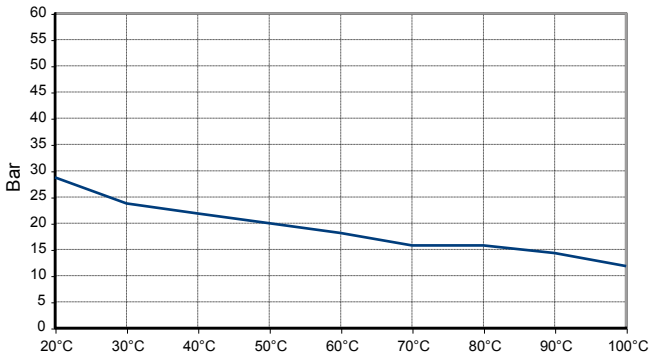

12x9




14x10




16x11



# TECHNICAL TUBES
# POLYAMIDE TUBE PA12

## PLUS

- HIGH TENSILE STRENGHT
- GOOD FLEXIBILITY, ALSO AT LOW TEMPERATURE
- GOOD AGEING RESISTANCE
- GOOD RESISTANCE TO HYDROCARBONS AND OIL
- HIGH CHEMICAL AND HYDROLYSIS RESISTANCE
- WIDE RANGE OF COLOURS AVAILABLE



p. 722 / **PA12**



p. 723 / **PA12-BX**



p. 723 / **PA12-INCH**



-40°C ÷ 80°C
For water-based fluids the working temperature at max. +70°C

**Working pressure:**
See table for pressure at 23°C

**Burst pressure:**
See the table

Compressed air, vacuum and fluids suitable with construction materials

**Material:** Polyamide according to DIN 74324 and 73378

**FEATURES**

- Hardness (ISO 868):
  65 Shore D
- Tensile stress at break (ISO R527):
  50 MPa
- Elongation at break (ISO R527):
  300 %
- Tensile strength modulus (ISO R527):
  400 MPa
- Bending modulus (ISO 178):
  400 MPa
- Density (ISO R 1183D)
  1,03 g/cm$^3$

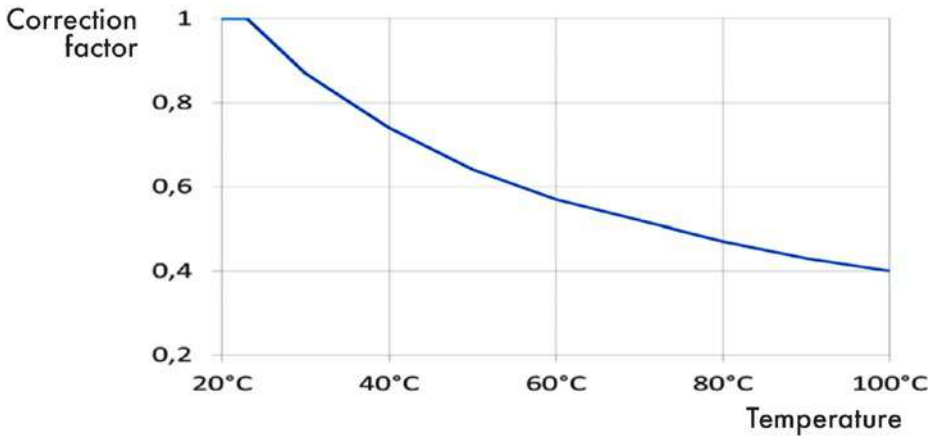
SILICONE FREE

Products in compliance with EC Regulation 1907/2006

RoHS3

Products in compliance with the directive EU 2015/863

## PRESSURE CORRECTION SCALE ACCORDING TO TEMPERATURE



## PA12

Polyamide tube PA12



| CODE | Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 23°C (Bar) | BURSTING PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|
| PA12-0402-Z | 4x2 | 1 | 16 | 44 | 132 | 9,7 | 100 |
| PA12-0425-Z | 4x2,5 | 0,75 | 24 | 31 | 93 | 7,9 | 100 |
| PA12-0427-Z | 4x2,7 | 0,65 | 26 | 23 | 69 | 7 | 100 |
| PA12-0604-Z | 6x4 | 1 | 30 | 28 | 84 | 16,2 | 100 |
| PA12-0806-Z | 8x6 | 1 | 40 | 20 | 60 | 22,6 | 100 |
| PA12-1007-Z | 10x7 | 1,5 | 58 | 23 | 69 | 41,2 | 50 |
| PA12-1008-Z | 10x8 | 1 | 60 | 16 | 48 | 29,1 | 50 |
| PA12-1208-Z | 12x8 | 2 | 60 | 28 | 84 | 64,7 | 50 |
| PA12-1209-Z | 12x9 | 1,5 | 60 | 20 | 60 | 50,9 | 50 |
| PA12-1210-Z | 12x10 | 1 | 85 | 12 | 36 | 35,6 | 50 |
| PA12-1412-Z | 14x12 | 1 | 90 | 10 | 30 | 42 | 50 |
| PA12-15125-Z | 15x12,5 | 1,25 | 100 | 12 | 36 | 55,6 | 50 |
| PA12-1614-Z | 16x14 | 1 | 120 | 9 | 27 | 48,5 | 50 |

| Sizes ODxID | Blue | * Black | Red | Green | Natural |
|---|---|---|---|---|---|
| 4x2 | PA12-0402BL-Z | PA12-0402NE-Z | PA12-0402RO-Z | PA12-0402VD-Z | PA12-0402NU-Z |
| 4x2,5 | PA12-0425BL-Z | PA12-0425NE-Z | | | PA12-0425NU-Z |
| 4x2,7 | PA12-0427BL-Z | PA12-0427NE-Z | PA12-0427RO-Z | PA12-0427VD-Z | PA12-0427NU-Z |
| 6x4 | PA12-0604BL-Z | PA12-0604NE-Z | PA12-0604RO-Z | PA12-0604VD-Z | PA12-0604NU-Z |
| 8x6 | PA12-0806BL-Z | PA12-0806NE-Z | PA12-0806RO-Z | PA12-0806VD-Z | PA12-0806NU-Z |
| 10x7 | PA12-1007BL-Z | PA12-1007NE-Z | | | PA12-1007NU-Z |
| 10x8 | PA12-1008BL-Z | PA12-1008NE-Z | PA12-1008RO-Z | PA12-1008VD-Z | PA12-1008NU-Z |
| 12x8 | PA12-1208BL-Z | PA12-1208NE-Z | | | PA12-1208NU-Z |
| 12x9 | PA12-1209BL-Z | PA12-1209NE-Z | | | PA12-1209NU-Z |
| 12x10 | PA12-1210BL-Z | PA12-1210NE-Z | PA12-1210RO-Z | PA12-1210VD-Z | PA12-1210NU-Z |
| 14x12 | PA12-1412BL-Z | PA12-1412NE-Z | | | PA12-1412NU-Z |
| 15x12,5 | PA12-15125BL-Z | PA12-15125NE-Z | | | PA12-15125NU-Z |
| 16x14 | PA12-1614BL-Z | PA12-1614NE-Z | | | PA12-1614NU-Z |

* **PA12:** The BLACK coloured tube is suitable for outdoor applications

*drawings and technical data are not binding & can be changed without notice*

## PA12-BX

Polyamide tube PA12 in 25m box




| Sizes ODxID | Blue | * Black | Red | Green | Natural |
|---|---|---|---|---|---|
| 4x2 | PA12-0402BL-25BX | PA12-0402NE-25BX | PA12-0402RO-25BX | PA12-0402VD-25BX | PA12-0402NU-25BX |
| 4x2,5 | PA12-0425BL-25BX | PA12-0425NE-25BX | | | PA12-0425NU-25BX |
| 4x2,7 | PA12-0427BL-25BX | PA12-0427NE-25BX | PA12-0427RO-25BX | PA12-0427VD-25BX | PA12-0427NU-25BX |
| 6x4 | PA12-0604BL-25BX | PA12-0604NE-25BX | PA12-0604RO-25BX | PA12-0604VD-25BX | PA12-0604NU-25BX |
| 8x6 | PA12-0806BL-25BX | PA12-0806NE-25BX | PA12-0806RO-25BX | PA12-0806VD-25BX | PA12-0806NU-25BX |
| 10x7 | PA12-1007BL-25BX | PA12-1007NE-25BX | | | PA12-1007NU-25BX |
| 10x8 | PA12-1008BL-25BX | PA12-1008NE-25BX | PA12-1008RO-25BX | PA12-1008VD-25BX | PA12-1008NU-25BX |

* **PA12:** The BLACK coloured tube is suitable for outdoor applications

## PA12-INCH

Polyamide tube PA12 in inches



| CODE | DN | Ø ODxID (mm) | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 23°C (Bar) | BURSTING PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| PA12-5/32-Z | 5/32" | 4x2,38 | 0,81 | 12,7 | 28 | 84 | 8,4 | 100 |
| PA12-3/16-Z | 3/16" | 4,75x2,97 | 0,89 | 19,1 | 28 | 84 | 11,1 | 100 |
| PA12-1/4-Z | 1/4" | 6,35x4,35 | 1 | 25,4 | 28 | 84 | 17,3 | 100 |
| PA12-5/16-Z | 5/16" | 8x6 | 1 | 32 | 23 | 70 | 22,7 | 100 |
| PA12-3/8-Z | 3/8" | 9,53x6,39 | 1,57 | 52 | 32 | 97 | 40 | 100 |
| PA12-1/2-Z | 1/2" | 12,7x9,56 | 1,57 | 65 | 22 | 66 | 56 | 100 |

| Sizes DN | Blue | * Black | Red | Yellow |
|---|---|---|---|---|
| 5/32″ | PA12-5/32BL-Z | PA12-5/32NE-Z | PA12-5/32RO-Z | PA12-5/32GL-Z |
| 3/16″ | PA12-3/16BL-Z | PA12-3/16NE-Z | PA12-3/16RO-Z | PA12-3/16GL-Z |
| 1/4″ | PA12-1/4BL-Z | PA12-1/4NE-Z | PA12-1/4RO-Z | PA12-1/4GL-Z |
| 5/16″ | PA12-5/16BL-Z | PA12-5/16NE-Z | PA12-5/16RO-Z | PA12-5/16GL-Z |
| 3/8″ | PA12-3/8BL-Z | PA12-3/8NE-Z | PA12-3/8RO-Z | PA12-3/8GL-Z |
| 1/2″ | PA12-1/2BL-Z | PA12-1/2NE-Z | PA12-1/2RO-Z | PA12-1/2GL-Z |

* **PA12-INCH:** The BLACK coloured tube is suitable for outdoor applications

# TECHNICAL TUBES POLYETHYLENE TUBE

## PLUS

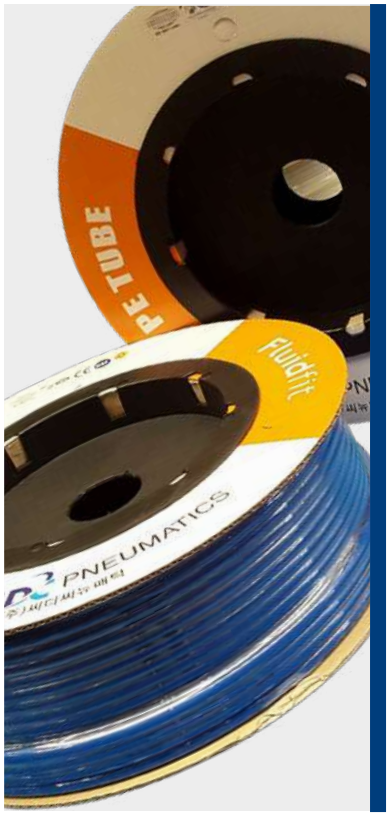
- COMPLIES TO FDA DIRECTIVE
- COMPATIBLE WITH DIFFERENT CHEMICALS
- GOOD COMPRIMISE BETWEEN PRESSURE AND TEMPERATURE
- APPROVED FOR PERMANENT CONTACT WITH BEVERAGES AND FOOD PRODUCTS
- WIDE RANGE OF COLOURS TO DIFFERENTIATE LIQUIDS



p. 727 / **PE**



p. 728 / **PE-INCH**




-29°C ÷ 66°C

**Working pressure:**
See the table

**Burst pressure:**
See the table

**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air & vacuum, suitable for purifiers, water conditioners, ice machines, nebulisers and food contact applications

**Material:** Polyethylene

Food contact materials EC 1935/2004

D.M. 174/2004

ICIM certified product food contact materials

ICIM certified product water contact materials

ACS certified tube for black and blue colours

NSF51 / NSF61
NSF certificate on behalf of CDC PNEUMATICS CORP.

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

**FEATURES**

- Tensile strength at break (MD): 430 kg/cm²
- Tensile strength at break (TD): 360 kg/cm²
- Elongation at break (MD): 750 %
- Elongation at break (TD): 850 %
- Density: 0,919 g/cm³

## PE — Polyethylene metric tube



| CODE | Ø ODxID | TOLERANCE Ø OD | THICKNESS (mm) | MIN. BENDING RADIUS AT 23°C (mm) | WORKING PRESSURE AT 20°C (Bar) | MAX. WORKING PRESSURE (Bar) | BURSTING PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|---|
| PE0425..-FF | 4x2,5 | ±0,08 | 0,75 | 25 | 15 | 16 | 30 | 9,65 | 200 |
| PE0604..-FF | 6x4 | ±0,08 | 1 | 25 | 15 | 16 | 30 | 19,8 | 100 |
| PE0806..-FF | 8x6 | ±0,08 | 1 | 25 | 10 | 12 | 20 | 25,5 | 100 |
| PE1007..-FF | 10x7 | ±0,08 | 1,5 | 32 | 10 | 12 | 20 | 45,1 | 100 |
| PE1209..-FF | 12x9 | ±0,08 | 1,5 | 63 | 10 | 12 | 20 | 50,6 | 100 |

| Sizes ODxID | Natural | Black | White | Red | Blue | Green | Yellow |
|---|---|---|---|---|---|---|---|
| 4x2,5 | PE0425NU-FF | PE0425NE-FF | PE0425BO-FF | PE0425RO-FF | PE0425BL-FF | PE0425VD-FF | PE0425GL-FF |
| 6x4 | PE0604NU-FF | PE0604NE-FF | PE0604BO-FF | PE0604RO-FF | PE0604BL-FF | PE0604VD-FF | PE0604GL-FF |
| 8x6 | PE0806NU-FF | PE0806NE-FF | PE0806BO-FF | PE0806RO-FF | PE0806BL-FF | PE0806VD-FF | PE0806GL-FF |
| 10x7 | PE1007NU-FF | PE1007NE-FF | PE1007BO-FF | PE1007RO-FF | PE1007BL-FF | PE1007VD-FF | PE1007GL-FF |
| 12x9 | PE1209NU-FF | PE1209NE-FF | PE1209BO-FF | PE1209RO-FF | PE1209BL-FF | PE1209VD-FF | PE1209GL-FF |

## PE-INCH

Polyethylene inch tube



| CODE | DN | TOLERANCE Ø OD | THICKNESS (mm) | MIN. BENDING RADIUS AT 23°C (mm) | WORKING PRESSURE AT 20°C (Bar) | MAX. WORKING PRESSURE (Bar) | BURSTING PRESSURE AT 23°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|---|
| PE3/16..-FF | 3/16" | ±0,08 | 0,79 | 25,4 | 15 | 16 | 30 | 12,2 | 200 |
| PE1/4..-FF | 1/4" | ±0,08 | 1,02 | 25,4 | 15 | 16 | 30 | 19,8 | 100 |
| PE5/16..-FF | 5/16" | ±0,08 | 1,22 | 28,7 | 10 | 12 | 20 | 31,2 | 100 |
| PE3/8..-FF | 3/8" | ±0,08 | 1,58 | 31,8 | 10 | 12 | 20 | 45,6 | 100 |
| PE1/2..-FF | 1/2" | ±0,08 | 1,58 | 63,5 | 10 | 12 | 20 | 60,1 | 100 |

**PE-INCH:** For the Ø5/32" tube we recommend PE0425..-FF

| Sizes DN | Natural | Black | White | Red | Blue | Green | Yellow |
|---|---|---|---|---|---|---|---|
| 3/16" | PE3/16NU-FF | PE3/16NE-FF | PE3/16BO-FF | PE3/16RO-FF | PE3/16BL-FF | PE3/16VD-FF | PE3/16GL-FF |
| 1/4" | PE1/4NU-FF | PE1/4NE-FF | PE1/4BO-FF | PE1/4RO-FF | PE1/4BL-FF | PE1/4VD-FF | PE1/4GL-FF |
| 5/16" | PE5/16NU-FF | PE5/16NE-FF | PE5/16BO-FF | PE5/16RO-FF | PE5/16BL-FF | PE5/16VD-FF | PE5/16GL-FF |
| 3/8" | PE3/8NU-FF | PE3/8NE-FF | PE3/8BO-FF | PE3/8RO-FF | PE3/8BL-FF | PE3/8VD-FF | PE3/8GL-FF |
| 1/2" | PE1/2NU-FF | PE1/2NE-FF | PE1/2BO-FF | PE1/2RO-FF | PE1/2BL-FF | PE1/2VD-FF | PE1/2GL-FF |

*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL TUBES CALIBRATED PTFE TUBE

D.M. 174

## PLUS

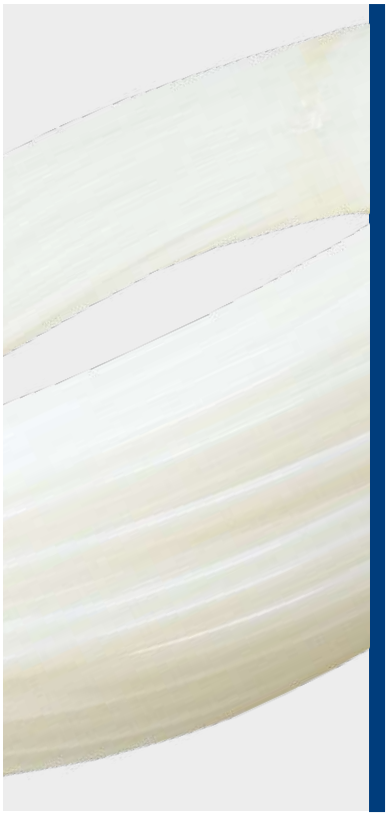
- GOOD FLEXIBILITY
- EXCELLENT RESISTANCE TO AGING
- TOTAL CHEMICAL INERTIA
- HIGH TENSILE STRENGHT AND HIGH TEMPERATURE RESISTANCE (UP TO 260°C)
- GOOD ISOLATION CAPACITY



p. 732 / **PTFE-C**



p. 732 / **PTFE-C-BX**



-70°C ÷ 260°C

**Working pressure:**
See the table

**Burst pressure:**
See the table

Compressed air, vacuum, water and fluids suitable with construction materials

**Material:** Calibrated Teflon PTFE (made by a process called 'paste extrusion' typical of this material)

**FEATURES**

- Hardness (ISO 868): 65 Shore D
- Elongation at break: 200 - 370 %
- Tensile strength: > 20 MPa
- Density: 2,13 - 2,23 g/cm$^3$

Food contact materials EC 1935/2004

D.M. 174/2004

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## POSSIBILITY OF USING PRESSURE AS A FUNCTION OF TEMPERATURE

| | -60°C ÷ 23°C | +40°C ÷ 100°C | +100°C ÷ 150°C | +150°C ÷ 200°C | +200°C ÷ 260°C |
|---|---|---|---|---|---|
| PERCENTAGE | 100% | 90% | 55% | 30% | 10% |

## PTFE-C

Calibrated teflon PTFE tube



| CODE | Ø ODxID | TOLERANCE ØOD (mm) | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 20°C (Bar) | BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| PTFE-C0402 | 4x2 | ± 0,1 | 1 | 15 | 37 | 110 | 21 | 100 |
| PTFE-C0425 | 4x2,5 | ± 0,1 | 0,75 | 15 | 22 | 65 | 17 | 100 |
| PTFE-C0604 | 6x4 | ± 0,1 | 1 | 35 | 22 | 66 | 35 | 100 |
| PTFE-C0806 | 8x6 | ± 0,1 | 1 | 65 | 14 | 42 | 49 | 100 |
| PTFE-C1008 | 10x8 | ± 0,15 | 1 | 100 | 11 | 32 | 62 | 100 |
| PTFE-C1210 | 12x10 | ± 0,15 | 1 | 150 | 10 | 30 | 76 | 100 |
| PTFE-C1412 | 14x12 | ± 0,2 | 1 | 200 | 8 | 24 | 90 | 50 |
| PTFE-C1613 | 16x13 | ± 0,2 | 1,5 | 150 | 10 | 30 | 150 | 50 |

| Sizes Ø ODxID | Blue | Red | Natural |
|---|---|---|---|
| 4x2 | | | PTFE-C0402NU100 |
| 4x2,5 | PTFE-C0425BL100 | PTFE-C0425RO100 | PTFE-C0425NU100 |
| 6x4 | PTFE-C0604BL100 | PTFE-C0604RO100 | PTFE-C0604NU100 |
| 8x6 | PTFE-C0806BL100 | PTFE-C0806RO100 | PTFE-C0806NU100 |
| 10x8 | PTFE-C1008BL100 | PTFE-C1008RO100 | PTFE-C1008NU100 |
| 12x10 | PTFE-C1210BL100 | PTFE-C1210RO100 | PTFE-C1210NU100 |
| 14x12 | PTFE-C1412BL50 | PTFE-C1412RO50 | PTFE-C1412NU50 |
| 16x13 | PTFE-C1613BL50 | PTFE-C1613RO50 | PTFE-C1613NU50 |

## PTFE-C-BX

Calibrated teflon PTFE tube in 25m box




| Sizes Ø ODxID | Blue | Red | Natural |
|---|---|---|---|
| 4x2 | | | PTFE-C0402NU100-25BX |
| 4x2,5 | PTFE-C0425BL100-25BX | PTFE-C0425RO100-25BX | PTFE-C0425NU100-25BX |
| 6x4 | PTFE-C0604BL100-25BX | PTFE-C0604RO100-25BX | PTFE-C0604NU100-25BX |
| 8x6 | PTFE-C0806BL100-25BX | PTFE-C0806RO100-25BX | PTFE-C0806NU100-25BX |
| 10x8 | PTFE-C1008BL100-25BX | PTFE-C1008RO100-25BX | PTFE-C1008NU100-25BX |

*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL TUBES CALIBRATED FEP TUBE

D.M. 174

## PLUS

- EXCELLENT CHEMICAL RESISTANCE
- WIDE RANGE OF WORKING TEMPERATURES
- RESISTANT TO UV RAYS
- NON-STICKING
- EXCELLENT DIELECTRIC RESISTANCE
- NON-FLAMMABLE
- EXTREMELY SMOOTH SURFACE
- EXCELLENT TRASPARENCY IN COLOURING
- RESTRICTED DIMENSIONAL TOLERANCES



p. 735 / **FEP**



p. 736 / **FEP-BX**



-60°C ÷ 200°C

**Working pressure:**
See the table

**Burst pressure:**
See the table

Compressed air, vacuum, water and fluids suitable with construction materials

**Material:** Calibrated FEP
(melt processable fluoropolymer resins)

**FEATURES**

- Hardness:
  55 - 60 Shore D
- Elongation at break:
  250 - 350 %
- Tensile strength at 23°C:
  19 - 25 MPa
- Density:
  2,12 - 2,17 g/cm$^3$

Food contact materials
EC 1935/2004

D.M. 174/2004

Products in compliance with
EC Regulation 1907/2006

Products in compliance with
the directive EU 2015/863

## PRESSURE CORRECTION SCALE ACCORDING TO THE TEMPERATURE

| | -40°C ÷ 0°C | 0°C ÷ 20°C | 20°C ÷ 40°C | 40°C ÷ 70°C | 70°C ÷ 100°C | 100°C ÷ 160°C | > 160°C |
|---|---|---|---|---|---|---|---|
| PRESSURE CORRECTION FACTOR | 1,1 | 1 | 0,8 | 0,6 | 0,4 | 0,3 | 0,2 |

## FEP

Calibrated FEP tube



| CODE | Ø ODxID | TOLERANCE Ø ODxID | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE (Bar) | BURSTING PRESSURE (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| FEP0315 | 3x1,5 | ±0,05 | 0,75 | 15 | 35 | 105 | 13 | 100 |
| FEP0425 | 4x2,5 | ±0,05 | 0,75 | 25 | 22 | 66 | 17 | 100 |
| FEP0604 | 6x4 | ±0,07 | 1 | 35 | 19 | 57 | 35 | 100 |
| FEP0806 | 8x6 | ±0,07 | 1 | 40 | 14 | 42 | 48 | 100 |

| Sizes<br>Ø ODxID | ∅<br>Transparent |
|---|---|
| 3x1,5 | FEP0315TR |
| 4x2,5 | FEP0425TR |
| 6x4 | FEP0604TR |
| 8x6 | FEP0806TR |

## FEP-BX

Calibrated FEP tube in 25m box




| Sizes<br>Ø ODxID | ∅<br>Transparent |
|---|---|
| 3x1,5 | FEP0315TR-25BX |
| 4x2,5 | FEP0425TR-25BX |
| 6x4 | FEP0604TR-25BX |
| 8x6 | FEP0806TR-25BX |

# TECHNICAL TUBES SILICONE TUBE

## PLUS

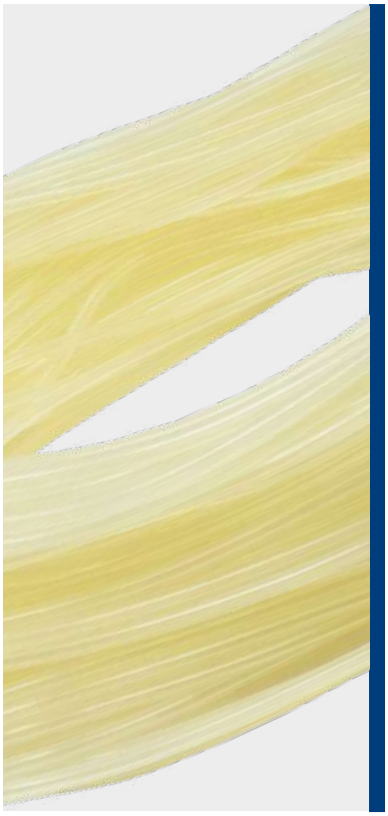
**MANY APPLICATIONS IN INDUSTRIAL AND FOOD SECTORS**

**OPTIMAL FOR USE WITH FOOD FLUIDS, SUITABLE FOR BEVERAGE AND COFFEE MACHINES**

**GOOD OXIDATION RESISTANCE**



p. 739 / **SI-FQ**



-60°C ÷ 200°C

**Working pressure:**
See the table

**Burst pressure:**
See the table

Compressed air, vacuum, water and fluids suitable with construction materials

**Material:** Silicone

**FEATURES**

- Hardness:
  55 - 65 Shore A
- Elongation at break (DIN53504 S2):
  300 - 330 %
- Tensile strength at 23°C (DIN 53504 S2):
  8 - 10 MPa
- Density:
  1,15 - 1,19 g/cm$^3$
- Tolerance:
  ISO 3302-1 E2 Class

Food contact materials EC 1935/2004

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## SI-FQ Silicone tube



| CODE | Ø IDxOD | TOLERANCE Ø ID | TOLERANCE Ø OD | THICKNESS (mm) | WORKING PRESSURE AT 20°C (Bar) | BURSTING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| SI0305FQ | 3x5 | ±0,5 | ±0,4 | 1 | 2 | 6 | 16 | 100 |
| SI0306FQ | 3x6 | ±0,5 | ±0,4 | 1,5 | 2,5 | 7,5 | 27 | 100 |
| SI3506FQ | 3,5x6 | ±0,5 | ±0,4 | 1,25 | 3 | 9 | 23 | 100 |
| SI0406FQ | 4x6 | ±0,5 | ±0,4 | 1 | 3,5 | 10,5 | 20 | 100 |
| SI0407FQ | 4x7 | ±0,7 | ±0,4 | 1,5 | 3,2 | 9,6 | 33 | 100 |
| SI0508FQ | 5x8 | ±0,7 | ±0,5 | 1,5 | 3,4 | 10,2 | 39 | 100 |
| SI0609FQ | 6x9 | ±0,7 | ±0,5 | 1,5 | 3,7 | 11,1 | 45 | 100 |
| SI0610FQ | 6x10 | ±0,8 | ±0,5 | 2 | 4 | 12 | 63 | 100 |
| SI0811FQ | 8x11 | ±0,8 | ±0,7 | 1,5 | 3,9 | 11,7 | 56 | 100 |
| SI0812FQ | 8x12 | ±0,8 | ±0,7 | 2 | 4,2 | 13,6 | 80 | 100 |
| SI0912FQ | 9x12 | ±0,8 | ±0,7 | 1,5 | 4 | 12 | 62 | 100 |
| SI1013FQ | 10x13 | ±0,8 | ±0,8 | 1,5 | 4,4 | 13,2 | 68 | 100 |
| SI1014FQ | 10x14 | ±0,8 | ±0,8 | 2 | 5 | 15 | 95 | 100 |
| SI1215FQ | 12x15 | ±0,8 | ±0,8 | 1,5 | 4,7 | 14,1 | 80 | 100 |

| Sizes<br>Ø IDxOD | ∅<br>Transparent |
|---|---|
| 3x5 | SI0305FQ |
| 3x6 | SI0306FQ |
| 3,5x6 | SI3506FQ |
| 4x6 | SI0406FQ |
| 4x7 | SI0407FQ |
| 5x8 | SI0508FQ |
| 6x9 | SI0609FQ |
| 6x10 | SI0610FQ |
| 8x11 | SI0811FQ |
| 8x12 | SI0812FQ |
| 9x12 | SI0912FQ |
| 10x13 | SI1013FQ |
| 10x14 | SI1014FQ |
| 12x15 | SI1215FQ |

# TECHNICAL TUBES
# PVC CRYSTAL CLEAR TUBE

## PLUS

**SUITABLE FOR AIR AND LIQUIDS**

**NON-TOXIC**

**TRASPARENT TO ALLOW VISUALISATION OF THE FLUID AND CLEANING**

**EXCELLENT FLEXIBILITY FOR SAVING SPACE IN INSTALLATIONS**



p. 743 / **PVC**



-10°C ÷ 50°C

Compressed air, vacuum and fluids suitable with construction materials

**Material:** Single layer transparent PVC

**FEATURES**

- Hardness:
  75 Shore A
- Breaking load at 23°C:
  ≥ 13,5 N/mm²
- Elongation at break at 23°C:
  ≥ 350 %
- Density (at 23°C):
  1,22 g/cm³

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

RoHS3

Products in compliance with the directive EU 2015/863

## PVC

Single layer transparent PVC tube



| CODE | Ø IDxOD | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|
| PVC0406 | 4x6 | 1 | 32 | 19 | 200 |
| PVC0407 | 4x7 | 1,5 | 32 | 32 | 200 |
| PVC0609 | 6x9 | 1,5 | 48 | 45 | 100 |
| PVC0710 | 7x10 | 1,5 | 56 | 50 | 100 |
| PVC0812 | 8x12 | 2 | 64 | 75 | 100 |
| PVC1014 | 10x14 | 2 | 80 | 92 | 100 |
| PVC1217 | 12x17 | 2,5 | 120 | 140 | 100 |
| PVC1419 | 14x19 | 2,5 | 140 | 155 | 100 |
| PVC1622 | 16x22 | 3 | 160 | 215 | 50 |
| PVC1824 | 18x24 | 3 | 175 | 240 | 50 |
| PVC2027 | 20x27 | 3,5 | 200 | 310 | 50 |
| PVC2533 | 25x33 | 4 | 250 | 440 | 50 |

| Sizes<br>Ø IDxOD | ∅<br>Transparent |
|---|---|
| 4x6 | PVC0406 |
| 4x7 | PVC0407 |
| 6x9 | PVC0609 |
| 7x10 | PVC0710 |
| 8x12 | PVC0812 |
| 10x14 | PVC1014 |
| 12x17 | PVC1217 |
| 14x19 | PVC1419 |
| 16x22 | PVC1622 |
| 18x24 | PVC1824 |
| 20x27 | PVC2027 |
| 25x33 | PVC2533 |

*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL TUBES
# PVC CRYSTAL REINFORCED TUBE

## PLUS

- **NON-TOXIC**
- **PVC IN POLYESTER AT HIGH TENACITY**
- **RESISTANT TO CLIMATE FACTORS/ WEATHER ELEMENTS**
- **TRASPARENT TO ALLOW VISUALISATION OF THE FLUID AND CLEANING**
- **EXCELLENT FLEXIILITY FOR SAVING SPACE IN INSTALLATIONS**



p. 747 / **PVC-RT**



-20°C ÷ 60°C

**Working pressure:**
See the table

**Burst pressure:**
See the table

Compressed air, vacuum and fluids suitable with construction materials

**Material:** Double layer PVC with high tenacity polyester reinforcement (hPES)

**FEATURES**

- Hardness:
  75 Shore A
- Breaking load at 23°C:
  ≥ 13,5 N/mm$^2$
- Elongation at break at 23°C:
  ≥ 350 %
- Density (at 23°C):
  1,22 g/cm$^3$

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PVC-RT

Flexible PVC braided tube



| CODE | Ø IDxOD | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 22°C (Bar) | BURSTING PRESSURE AT 22°C (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|
| PVC-RT0612 | 6x12 | 3 | 18 | 20 | 60 | 105 | 50 |
| PVC-RT0814 | 8x14 | 3 | 25 | 20 | 60 | 125 | 50 |
| PVC-RT1016 | 10x16 | 3 | 32 | 20 | 60 | 150 | 50 |
| PVC-RT1218 | 12x18 | 3 | 35 | 20 | 60 | 170 | 50 |
| PVC-RT1420 | 14x20 | 3 | 57 | 15 | 45 | 195 | 50 |
| PVC-RT1622 | 16x22 | 3 | 60 | 15 | 45 | 215 | 50 |
| PVC-RT1926 | 19x26 | 3,5 | 70 | 15 | 45 | 300 | 50 |
| PVC-RT2533 | 25x33 | 4 | 110 | 10 | 30 | 440 | 50 |

| Sizes<br>Ø IDxOD | ∅<br>Trasparente |
|---|---|
| 6x12 | PVC-RT0612 |
| 8x14 | PVC-RT0814 |
| 10x16 | PVC-RT1016 |
| 12x18 | PVC-RT1218 |
| 14x20 | PVC-RT1420 |
| 16x22 | PVC-RT1622 |
| 19x26 | PVC-RT1926 |
| 25x33 | PVC-RT2533 |

# TECHNICAL TUBES
## POLYURETHANE TUBE WITH NON-TOXIC PVC INNER LAYER

## PLUS

- **EXCELLENT FLEXIBILITY AND LIGHTNESS FOR IMPROVED ERGONOMICS**
- **SUITABLE FOR PNEUMATIC TOOLS, PAINT GUNS AND AIRBRUSHES**
- **NON-TOXIC PVC INNER LAYER**
- **MAINTAINS A GOOD SEAL OVER TIME**



p. 751 / **PU-PVC**



-20°C ÷ 60°C

**Working pressure:**
20 Bar

**Burst pressure:**
60 Bar

Compressed air, vacuum and fluids suitable with construction materials

**Inner layer:** Transparent PVC in special blend

**Reinforcement:** Synthetic textile insert

**Outer layer:** PVC with polyurethane

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PU-PVC

Polyurethane tube with non-toxic PVC inner layer



| | CODE | Ø IDxOD | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE (Bar) | BURSTING PRESSURE (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|---|
| | PU-PVC0610 | 6x10 | 2 | 55 | 20 | 60 | 65 | 100 |
| * | PU-PVC0812 | 8x12 | 2 | 65 | 20 | 60 | 80 | 100 |
| * | PU-PVC1015 | 10x15 | 2,5 | 68 | 20 | 60 | 100 | 100 |
| | PU-PVC1016 | 10x16 | 3 | 70 | 20 | 60 | 155 | 100 |
| | PU-PVC1319 | 13x19 | 3 | 105 | 20 | 60 | 180 | 100 |

* Sizes suitable for use with fittings 1295 on page 287

| Sizes<br>Ø IDxOD | Light blue |
|---|---|
| 6x10 | PU-PVC0610AZ |
| 8x12 | PU-PVC0812AZ |
| 10x15 | PU-PVC1015AZ |
| 10x16 | PU-PVC1016AZ |
| 13x19 | PU-PVC1319AZ |

# TECHNICAL TUBES
## PVC TUBE WITH POLYESTER FIBRE REINFORCEMENT

### PLUS

- EXCELLENT RESISTANCE TO LOW TEMPERATURES
- POLYESTER FIBRE REINFORCEMENT COVERED WITH SPECIAL RUBBER
- GOOD DURABILITY OVER TIME
- PERFECT FOR MANY INDUSTRIAL APPLICATIONS



p. 755 / **PVC-AC**



-20°C ÷ 60°C

**Working pressure:**
20 Bar

**Burst pressure:**
60 Bar

Compressed air, vacuum and fluids suitable with construction materials

**Inner layer:** Black PVC in special blend

**Reinforcement:** Synthetic polyester textile insert

**Outer layer:** Black weather-resistant PVC

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## PVC-AC

PVC tube with polyester fibre reinforcement



| CODE | Ø IDxOD | THICKNESS (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE (Bar) | BURSTING PRESSURE (Bar) | g/m | Q.TY FOR ROLL (mt) |
|---|---|---|---|---|---|---|---|
| PVC-AC0614 | 6x14 | 4 | 25 | 20 | 60 | 170 | 100 |
| PVC-AC0817 | 8x17 | 4,5 | 30 | 20 | 60 | 240 | 100 |
| PVC-AC1019 | 10x19 | 4,5 | 32 | 20 | 60 | 280 | 100 |
| PVC-AC1323 | 13x23 | 5 | 40 | 20 | 60 | 390 | 50 |
| PVC-AC1928 | 19x28 | 4,5 | 60 | 20 | 60 | 550 | 50 |

| Sizes<br>Ø IDxOD | Black |
|---|---|
| 6x14 | PVC-AC0614NE100 |
| 8x17 | PVC-AC0817NE100 |
| 10x19 | PVC-AC1019NE100 |
| 13x23 | PVC-AC1323NE |
| 19x28 | PVC-AC1928NE |

# TECHNICAL TUBES
## COILED TUBES & ACCESSORIES

## PLUS

**EXCELLENT RESISTANCE TO OXIDATION, HYDROLYSIS AND OZONE**

**ADAPTS PERFECTLY TO PNEUMATIC UTENSILS, BOTH MOBILE OR SUSPENDED**

**MADE OF HIGH QUALITY POLYURETHANE WHICH MAKES SPIRAL SOFT AND DURABLE**

**THE STRAIGHT ENDS OF THE COILED TUBE ALLOW MOUNTING WITH THE WIDE RANGE OF SPRING NUTS**

**RANGE IS MADE COMPLETE BY A WIDE SERIES OF HOSE CUTTERS, SINGLE OR MULTIPLE ELBOW HOSE CLAMPS, FOR A FAST INSTALLATION OF THE TUBE WITH A SIMPLE PRESSURE**

**RESISTANT TO VIBRATION AND TO CLIMATE FACTORS ELEMENTS**



p. 760 / **UCES**



p. 761 / **UCES-G**



p. 762 / **1505**



p. 762 / **1508**



p. 762 / **1509**



p. 763 / **1510**



p. 763 / **1515**



p. 764 / **1521**



p. 764 / **1522**



p. 765 / **1525**



p. 765 / **TT**



p. 765 / **PZ**



p. 765 / **LM**



p. 766 / **ETC-20**



p. 766 / **STF**



p. 766 / **HBC**



p. 766 / **HTBC**



-40°C ÷ 60°C

**Working pressure:**
See the table
**Negative pressure:**
- 0,95 Bar ( - 95 Kpa)

Compressed air

Parallel gas BSPP ISO 228
G1/4" and G3/8"

**Tube:** Thermoplastic polyurethane on polyester basis
**Fittings:** Nickel-plated brass (UCES-G)

## FEATURES

Very flexible tubing with good elastic properties even a low temperatures. Good chemical, abrasion and ageing resistance.

- Hardness:
  98 Shore A
- Ultimate tensile strength:
  50 MPa
- Ultimate tensile strain:
  400 %
- Ultimate shear strength:
  123 N/mm
- Abrasion resistance:
  30 $mm^3$
- Specific weight:
  1,23 g/cc

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

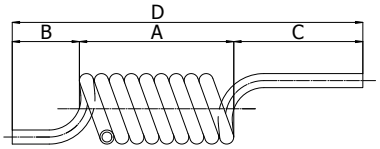
## WORKING PRESSURES EXPRESSED IN % AS A FUNCTION OF TEMPERATURE

| 20°C | 30°C | 40°C | 50°C | 60°C |
|---|---|---|---|---|
| 100% | 83% | 72% | 64% | 47% |

## UCES

Polyurethane coiled tube on polyester basis





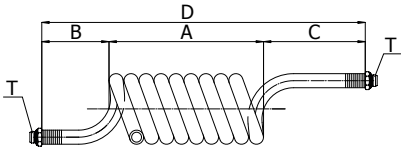

| CODE | Ø ODxID | A (mm) | B (mm) | C (mm) | D (mm) | WORKING PRESSURE AT 23°C (Bar) | BURSTING PRESSURE AT 23°C (Bar) | TUBE LENGTH | NUMBER OF TURNS | Ø INTERNAL COILED TUBE (mm) | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UCES060435 | 6x4 | 134 | 100 | 500 | 734 | 12 | 40 | 3,5 | 31 | 30 | 85 |
| UCES060405 | | 266 | 100 | 500 | 866 | 12 | 40 | 5,0 | 44 | 30 | 110 |
| UCES060475 | | 399 | 100 | 500 | 999 | 12 | 40 | 7,5 | 66 | 30 | 165 |
| UCES060410 | | 532 | 100 | 500 | 1132 | 12 | 40 | 10,0 | 88 | 30 | 215 |
| UCES080535 | 8x5 | 194 | 100 | 500 | 794 | 14 | 45 | 3,5 | 34 | 25 | 155 |
| UCES080505 | | 387 | 100 | 500 | 987 | 14 | 45 | 5,0 | 48 | 25 | 205 |
| UCES080575 | | 580 | 100 | 500 | 1180 | 14 | 45 | 7,5 | 72 | 25 | 300 |
| UCES080510 | | 773 | 100 | 500 | 1373 | 14 | 45 | 10,0 | 97 | 25 | 395 |
| UCES106505 | 10x6,5 | 399 | 100 | 500 | 999 | 13 | 42 | 5,0 | 40 | 30 | 315 |
| UCES106575 | | 598 | 100 | 500 | 1198 | 13 | 42 | 7,5 | 60 | 30 | 455 |
| UCES106510 | | 797 | 100 | 500 | 1397 | 13 | 42 | 10,0 | 80 | 30 | 600 |
| UCES120805 | 12x8 | 266 | 100 | 500 | 866 | 12 | 40 | 5,0 | 22 | 60 | 455 |
| UCES120875 | | 399 | 100 | 500 | 999 | 12 | 40 | 7,5 | 33 | 60 | 660 |
| UCES120810 | | 532 | 100 | 500 | 1132 | 12 | 40 | 10,0 | 44 | 60 | 860 |

| Sizes Ø ODxID | Light blue | Yellow |
|---|---|---|
| 6x4 | UCES060435AZ | UCES060435GL |
| | UCES060405AZ | UCES060405GL |
| | UCES060475AZ | UCES060475GL |
| | UCES060410AZ | UCES060410GL |
| 8x5 | UCES080535AZ | UCES080535GL |
| | UCES080505AZ | UCES080505GL |
| | UCES080575AZ | UCES080575GL |
| | UCES080510AZ | UCES080510GL |
| 10x6,5 | UCES106505AZ | UCES106505GL |
| | UCES106575AZ | UCES106575GL |
| | UCES106510AZ | UCES106510GL |
| 12x8 | UCES120805AZ | UCES120805GL |
| | UCES120875AZ | UCES120875GL |
| | UCES120810AZ | UCES120810GL |

## UCES-G

Polyurethane coiled tube on polyester basis with spring & BSPP thread fittings






| | CODE | Ø ODxID | T | A (mm) | B (mm) | C (mm) | D (mm) | WORKING PRESSURE AT 23°C (Bar) | BURSTING PRESSURE AT 23°C (Bar) | TUBE LENGTH | NUMBER OF TURNS | Ø INTERNAL COILED TUBE (mm) | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | UCES060435G14 | 6x4 | 2x G 1/4" | 134 | 100 | 500 | 734 | 12 | 40 | 3,5 | 31 | 30 | 165 |
| * | UCES060405G14 | | 2x G 1/4" | 266 | 100 | 500 | 866 | 12 | 40 | 5,0 | 44 | 30 | 190 |
| * | UCES060475G14 | | 2x G 1/4" | 399 | 100 | 500 | 999 | 12 | 40 | 7,5 | 66 | 30 | 240 |
| * | UCES060410G14 | | 2x G 1/4" | 532 | 100 | 500 | 1132 | 12 | 40 | 10,0 | 88 | 30 | 290 |
| | UCES080535G14 | 8x5 | 2x G 1/4" | 194 | 100 | 500 | 794 | 14 | 45 | 3,5 | 34 | 25 | 230 |
| | UCES080505G14 | | 2x G 1/4" | 387 | 100 | 500 | 987 | 14 | 45 | 5,0 | 48 | 25 | 280 |
| | UCES080575G14 | | 2x G 1/4" | 580 | 100 | 500 | 1180 | 14 | 45 | 7,5 | 72 | 25 | 375 |
| | UCES080510G14 | | 2x G 1/4" | 773 | 100 | 500 | 1373 | 14 | 45 | 10,0 | 97 | 25 | 470 |
| | UCES106505G14 | 10x6,5 | 2x G 1/4" | 399 | 100 | 500 | 999 | 13 | 42 | 5,0 | 40 | 30 | 385 |
| | UCES106575G14 | | 2x G 1/4" | 598 | 100 | 500 | 1198 | 13 | 42 | 7,5 | 60 | 30 | 525 |
| | UCES106510G14 | | 2x G 1/4" | 797 | 100 | 500 | 1397 | 13 | 42 | 10,0 | 80 | 30 | 670 |
| | UCES120805G38 | 12x8 | 2x G 3/8" | 266 | 100 | 500 | 866 | 12 | 40 | 5,0 | 22 | 60 | 550 |
| | UCES120875G38 | | 2x G 3/8" | 399 | 100 | 500 | 999 | 12 | 40 | 7,5 | 33 | 60 | 755 |
| | UCES120810G38 | | 2x G 3/8" | 532 | 100 | 500 | 1132 | 12 | 40 | 10,0 | 44 | 60 | 955 |

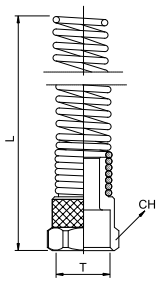
* Ø 6x4 fittings are in yellow brass

| Sizes Ø ODxID | Light blue | Yellow |
|---|---|---|
| 6x4 | UCES060435G14AZ | UCES060435G14GL |
| | UCES060405G14AZ | UCES060405G14GL |
| | UCES060475G14AZ | UCES060475G14GL |
| | UCES060410G14AZ | UCES060410G14GL |
| 8x5 | UCES080535G14AZ | UCES080535G14GL |
| | UCES080505G14AZ | UCES080505G14GL |
| | UCES080575G14AZ | UCES080575G14GL |
| | UCES080510G14AZ | UCES080510G14GL |
| 10x6,5 | UCES106505G14AZ | UCES106505G14GL |
| | UCES106575G14AZ | UCES106575G14GL |
| | UCES106510G14AZ | UCES106510G14GL |
| 12x8 | UCES120805G38AZ | UCES120805G38GL |
| | UCES120875G38AZ | UCES120875G38GL |
| | UCES120810G38AZ | UCES120810G38GL |

## 1505

Locking nut with spring



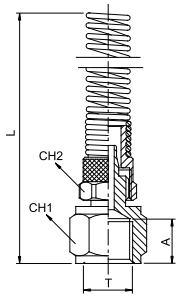



| CODE | ØD | T | L | CH |
|---|---|---|---|---|
| 1505TR0604-A | 6x4 | M10x1 | 95 | 12 |
| 1505TR0805-A | 8x5 | M12x1 | 93,5 | 14 |
| 1505TR0806-A | 8x6 | M12x1 | 93,5 | 14 |
| 1505TR1065-A | 10x6,5 | M14x1 | 96,5 | 16 |
| 1505TR1008-A | 10x8 | M14x1 | 96,5 | 16 |
| 1505TR1208-A | 12x8 | M16x1 | 106 | 18 |
| 1505TR1210-A | 12x10 | M16x1 | 106 | 18 |

## 1508

Straight female adapter BSPP thread with nut and spring



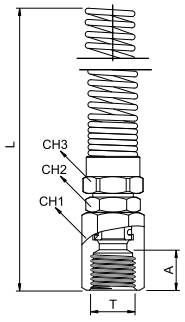



| CODE | ØD | T | A | L | CH1 | CH2 |
|---|---|---|---|---|---|---|
| 1508TR060418-A | 6x4 | G 1/8" | 8 | 105 | 14 | 12 |
| 1508TR060414-A | 6x4 | G 1/4" | 11 | 109 | 17 | 12 |
| 1508TR060438-A | 6x4 | G 3/8" | 11,5 | 110 | 20 | 12 |
| 1508TR080618-A | 8x6 | G 1/8" | 8 | 110 | 14 | 14 |
| 1508TR080614-A | 8x6 | G 1/4" | 11 | 114 | 17 | 14 |
| 1508TR080638-A | 8x6 | G 3/8" | 11,5 | 114,5 | 20 | 14 |
| 1508TR080612-A | 8x6 | G 1/2" | 15 | 118 | 24 | 14 |
| 1508TR100814-A | 10x8 | G 1/4" | 11 | 122 | 17 | 16 |
| 1508TR100838-A | 10x8 | G 3/8" | 11,5 | 122,5 | 20 | 16 |
| 1508TR100812-A | 10x8 | G 1/2" | 15 | 126 | 24 | 16 |
| 1508TR100838-A | 12x10 | G 3/8" | 11,5 | 130,5 | 20 | 18 |

## 1509

Swivel straight female adapter BSPP thread with nut and spring



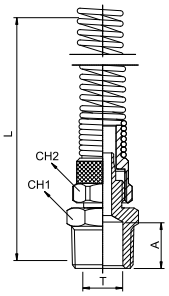



| CODE | ØD | T | A | L | CH1 | CH2 | CH3 |
|---|---|---|---|---|---|---|---|
| 1509TR060414-A | 6x4 | G 1/4" | 11 | 134 | 16 | 14 | 12 |
| 1509TR080514-A | 8x5 | G 1/4" | 11 | 134 | 16 | 14 | 14 |
| 1509TR080614-A | 8x6 | G 1/4" | 11 | 134 | 16 | 14 | 14 |
| 1509TR106514-A | 10x6,5 | G 1/4" | 11 | 134 | 16 | 14 | 16 |
| 1509TR100814-A | 10x8 | G 1/4" | 11 | 134 | 16 | 14 | 16 |

*drawings and technical data are not binding & can be changed without notice*

## 1510 Straight male adapter BSPT thread with nut and spring

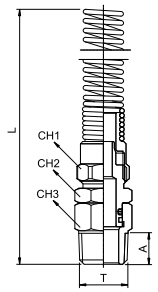





| CODE | ØD | T | A | L | CH1 | CH2 |
|---|---|---|---|---|---|---|
| 1510TR060418-A | 6x4 | R 1/8" | 8 | 109,5 | 12 | 12 |
| 1510TR060414-A | 6x4 | R 1/4" | 11 | 113 | 14 | 12 |
| 1510TR080618-A | 8x6 | R 1/8" | 8 | 124,5 | 12 | 14 |
| 1510TR080614-A | 8x6 | R 1/4" | 11 | 128 | 14 | 14 |
| 1510TR080638-A | 8x6 | R 3/8" | 11,5 | 128,5 | 17 | 14 |
| 1510TR080612-A | 8x6 | R 1/2" | 14 | 131,5 | 22 | 14 |
| 1510TR100818-A | 10x8 | R 1/8" | 8 | 123 | 14 | 16 |
| 1510TR100814-A | 10x8 | R 1/4" | 11 | 125 | 14 | 16 |
| 1510TR100838-A | 10x8 | R 3/8" | 11,5 | 125,5 | 17 | 16 |
| 1510TR100812-A | 10x8 | R 1/2" | 14 | 130 | 22 | 16 |
| 1510TR121038-A | 12x10 | R 3/8" | 11,5 | 134,5 | 17 | 18 |
| 1510TR121012-A | 12x10 | R 1/2" | 14 | 140 | 22 | 18 |

## 1515 Swivel straight male adapter BSPT thread and nut with spring

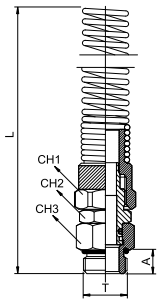





| CODE | ØD | T | A | L | CH1 | CH2 | CH3 |
|---|---|---|---|---|---|---|---|
| 1515TR060418-A | 6x4 | R 1/8" | 8 | 110 | 12 | 12 | 12 |
| 1515TR060414-A | 6x4 | R 1/4" | 11 | 113 | 12 | 14 | 14 |
| 1515TR080518-A | 8x5 | R 1/8" | 8 | 110 | 14 | 12 | 12 |
| 1515TR080514-A | 8x5 | R 1/4" | 11 | 113 | 14 | 14 | 14 |
| 1515TR080618-A | 8x6 | R 1/8" | 8 | 110 | 14 | 12 | 12 |
| 1515TR080614-A | 8x6 | R 1/4" | 11 | 113 | 14 | 14 | 14 |
| 1515TR106514-A | 10x6,5 | R 1/4" | 11 | 117 | 16 | 14 | 14 |
| 1515TR100814-A | 10x8 | R 1/4" | 11 | 117 | 16 | 14 | 14 |
| 1515TR120838-A | 12x8 | R 3/8" | 11,5 | 126 | 18 | 17 | 17 |
| 1515TR121038-A | 12x10 | R 3/8" | 11,5 | 126 | 18 | 17 | 17 |

## 1521 Swivel straight male adapter BSPP thread with O-ring and nut with spring

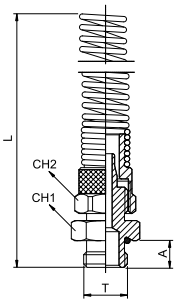





| CODE | ØD | T | A | L | CH1 | CH2 | CH3 |
|---|---|---|---|---|---|---|---|
| 1521TR060418-A | 6x4 | G 1/8" | 6 | 106 | 12 | 12 | 13 |
| 1521TR060414-A | 6x4 | G 1/4" | 8 | 108 | 12 | 14 | 16 |
| 1521TR080518-A | 8x5 | G 1/8" | 6 | 106 | 14 | 12 | 13 |
| 1521TR080514-A | 8x5 | G 1/4" | 8 | 108 | 14 | 14 | 16 |
| 1521TR080618-A | 8x6 | G 1/8" | 6 | 106 | 14 | 12 | 13 |
| 1521TR080614-A | 8x6 | G 1/4" | 8 | 108 | 14 | 14 | 16 |
| 1521TR106514-A | 10x6,5 | G 1/4" | 8 | 112 | 16 | 14 | 16 |
| 1521TR100814-A | 10x8 | G 1/4" | 8 | 112 | 16 | 14 | 16 |
| 1521TR120838-A | 12x8 | G 3/8" | 9 | 123 | 18 | 17 | 19 |
| 1521TR121038-A | 12x10 | G 3/8" | 9 | 123 | 18 | 17 | 19 |

## 1522 Straight male adapter BSPP thread with O-ring and nut with spring






| CODE | ØD | T | A | L | CH1 | CH2 |
|---|---|---|---|---|---|---|
| 1522TR060418-A | 6x4 | G 1/8" | 6 | 110 | 13 | 12 |
| 1522TR060414-A | 6x4 | G 1/4" | 8 | 111 | 16 | 12 |
| 1522TR060438-A | 6x4 | G 3/8" | 9 | 112 | 19 | 12 |
| 1522TR060412-A | 6x4 | G 1/2" | 10 | 113 | 24 | 12 |
| 1522TR080618-A | 8x6 | G 1/8" | 6 | 110 | 14 | 14 |
| 1522TR080614-A | 8x6 | G 1/4" | 8 | 111 | 16 | 14 |
| 1522TR080638-A | 8x6 | G 3/8" | 9 | 112 | 19 | 14 |
| 1522TR080612-A | 8x6 | G 1/2" | 10 | 113 | 24 | 14 |
| 1522TR100818-A | 10x8 | G 1/8" | 6 | 116 | 14 | 16 |
| 1522TR100814-A | 10x8 | G 1/4" | 8 | 117 | 16 | 16 |
| 1522TR100838-A | 10x8 | G 3/8" | 9 | 118 | 19 | 16 |
| 1522TR100812-A | 10x8 | G 1/2" | 10 | 119 | 24 | 16 |
| 1522TR121038-A | 12x10 | G 3/8" | 9 | 129 | 19 | 18 |
| 1522TR121012-A | 12x10 | G 1/2" | 10 | 130 | 24 | 18 |

### Straight male adapter metric thread with O-ring and nut with spring

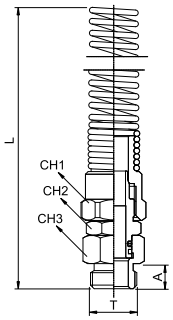
| CODE | ØD | T | A | L | CH1 | CH2 |
|---|---|---|---|---|---|---|
| 1522TR0604M121-A | 6x4 | M12x1 | 8 | 108 | 15 | 12 |
| 1522TR0604M12125-A | 6x4 | M12x1,25 | 8 | 108 | 15 | 12 |
| 1522TR0604M1215-A | 6x4 | M12x1,5 | 8 | 108 | 15 | 12 |

*drawings and technical data are not binding & can be changed without notice*

## 1525

Swivel straight male adapter BSPP thread with nut and spring






| CODE | ØD | T | A | L | CH1 | CH2 | CH3 |
|---|---|---|---|---|---|---|---|
| 1525TR060418-A | 6x4 | G 1/8" | 6 | 106 | 12 | 12 | 13 |
| 1525TR060414-A | 6x4 | G 1/4" | 8 | 108 | 12 | 14 | 16 |
| 1525TR080518-A | 8x5 | G 1/8" | 6 | 106 | 14 | 12 | 13 |
| 1525TR080514-A | 8x5 | G 1/4" | 8 | 108 | 14 | 14 | 16 |
| 1525TR080618-A | 8x6 | G 1/8" | 6 | 106 | 14 | 12 | 13 |
| 1525TR080614-A | 8x6 | G 1/4" | 8 | 108 | 14 | 14 | 16 |
| 1525TR106514-A | 10x6,5 | G 1/4" | 8 | 112 | 16 | 14 | 16 |
| 1525TR100814-A | 10x8 | G 1/4" | 8 | 112 | 16 | 14 | 16 |
| 1525TR120838-A | 12x8 | G 3/8" | 9 | 123 | 18 | 17 | 19 |
| 1525TR121038-A | 12x10 | G 3/8" | 9 | 123 | 18 | 17 | 19 |

## TT

Plastic tube cutter



| CODE | MAX. TUBE Ø (mm) | g |
|---|---|---|
| TT16 | 16 | 32,0 |

## PZ

Metal tube cutter



| CODE | MAX. TUBE Ø (mm) | BLADE MATERIAL | g |
|---|---|---|---|
| PZ-P | 12 | STEEL | 106,0 |
| PZ-G | 28 | STEEL | 291,0 |

## LM

Spare blade for PZ tube cutter



| CODE | FOR TUBE CUTTER | BLADE MATERIAL | g |
|---|---|---|---|
| LM-P | PZ-P | STEEL | 1,0 |
| LM-G | PZ-G | STEEL | 2,0 |

## ETC

Tube cutter with tape measure



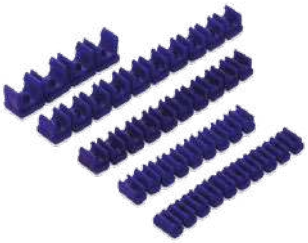
| CODE | MAX. TUBE Ø (mm) | BLADE MATERIAL | PLUS | g |
|---|---|---|---|---|
| ETC-20 | 20 | STEEL | TAPE MEASURE (1m) | 47,5 |

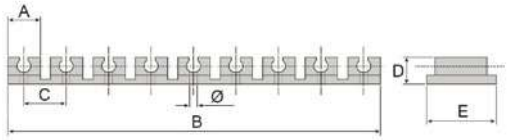
### Spare blade for ETC

| CODE | FOR TUBE CUTTER | BLADE MATERIAL | g |
|---|---|---|---|
| ETC-B | ETC-20 | STEEL | 1,0 |

## STF

Plastic tube fixing clips






| CODE | ØOD | A | B | C | D | Ø | E | N° OF POSITIONS | g |
|---|---|---|---|---|---|---|---|---|---|
| STF04 | 4 | 9 | 114 | 11,7 | 8,0 | 2,8 | 19 | 10 | 8,0 |
| STF06 | 6 | 9 | 114 | 11,7 | 10,0 | 2,8 | 19 | 10 | 8,0 |
| STF08 | 8 | 12 | 143 | 14,6 | 12,0 | 3,8 | 19 | 10 | 12,0 |
| STF10 | 10 | 15 | 172 | 17,4 | 13,8 | 4,1 | 19 | 10 | 16,0 |
| STF12 | 12 | 19 | 162 | 20,5 | 16,8 | 5,3 | 19 | 8 | 10,0 |
| STF14 | 14 | 21 | 180 | 22,5 | 18,8 | 5,3 | 19 | 4 | 11,0 |

**STF:** The recommended environment temperature is **from 0°C to 40°C**

## HBC

Curved tube clamp

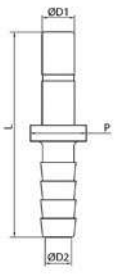


| CODE | TUBE Ø (mm) | TUBE Ø (inch) | HOLES Ø (mm) | g |
|---|---|---|---|---|
| HBC08-5/16B | 8 | 5/16 | 3,4 | 4,1 |
| HBC10-3/8B | 10 | 3/8 | 3,4 | 11,6 |

## HTBC

Barb connector with stem






| CODE | ØD1 | ØD2 | P | L | g |
|---|---|---|---|---|---|
| HTBC0606B | 6 | 6 | 10,35 | 38,5 | 4,0 |
| HTBC0806B | 8 | 6 | 10,35 | 39,7 | 5,5 |

*drawings and technical data are not binding & can be changed without notice*

# TECHNICAL TUBES
# PUSH-LOCK HOSES & FITTINGS

## PLUS

- RESISTANT TO REPEATED FLEXIONS WITH EXCELLENT BENDING RADIUS
- HIGH ABRASION RESISTANCE
- GOOD OZONE RESISTANCE (ASR & ASR-PU HOSES)
- DOES NOT REQUIRE HOSE CLAMP, RESULTING IN A CONSIDERABLE REDUCTION IN ASSEMBLY TIME
- SUITABLE FOR USE IN COOLING SYSTEMS
- AVAILABLE IN FOUR COLOURS (ASR & ASR-PU HOSES)
- FULL RANGE OF FITTINGS IN THREE MATERIALS: BRASS, STEEL AND STAINLESS STEEL AISI 316L

## **TECHNICAL TUBES - PUSH-LOCK HOSES & FITTINGS /** PUSH-LOCK HOSES



p. 769 / **ASR**



p. 770 / **ASR-HH**



p. 771 / **ASR-PU**

## **TECHNICAL TUBES - PUSH-LOCK HOSES & FITTINGS /** BRASS FITTINGS



p. 773 / **3467**



p. 773 / **3468**



p. 774 / **3400-SC**



p. 774 / **3440-SC**



p. 775 / **SPHM-R-BS**



p. 775 / **SPHM-N-BS**



p. 775 / **SPHU-BS**

## **TECHNICAL TUBES - PUSH-LOCK HOSES & FITTINGS /** GALVANISED STEEL FITTINGS



p. 776 / **3470**



p. 776 / **3471**



p. 776 / **3472**



p. 777 / **3474**

## **TECHNICAL TUBES - PUSH-LOCK HOSES & FITTINGS /** STAINLESS STEEL AISI 316L FITTINGS



p. 777 / **SPHM-R**



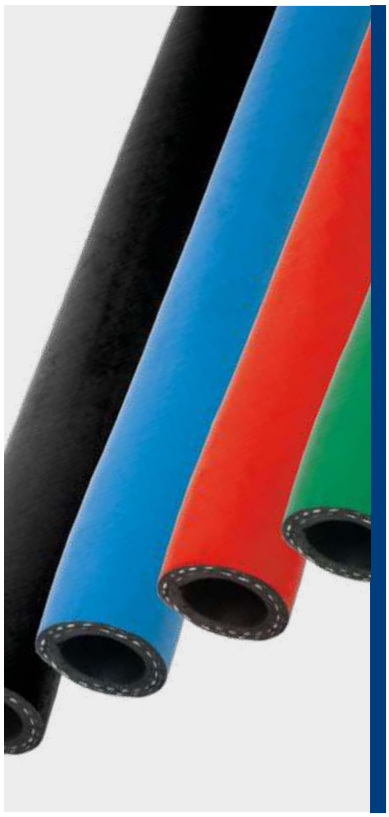
p. 777 / **SPHM-N**



p. 778 / **SPHU**



p. 778 / **SPHA**



-20°C ÷ +75°C air
0°C ÷ +95°C water
Environment temperature:
-20°C ÷ +95°C

**Max. working pressure:**
16 Bar

Compressed air & industrial water

**Inner layer:**
synthetic rubber

**Reinforcement:**
high tensile textile layer

**Outer layer:**
high performance synthetic rubber

**FEATURES**

- High flexibility
- High abrasion resistance
- 100% silicone free
- Ozone resistance
- For use without hose clamp
- Suitable for the automobile industry, with fluids such as water and air

SILICONE FREE

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

## ASR

Push-lock hose ASR



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | MAX. WORKING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (m) |
|---|---|---|---|---|---|---|---|---|
| ASR06 | 1/4" | 6 | 6,5 +0,4 -0,3 | 12,0 - 13,0 | 45 | 16 | 140 | 40 |
| ASR10 | 3/8" | 10 | 9,7 ±0,4 | 14,8 - 16,0 | 75 | 16 | 170 | 40 |
| ASR13 | 1/2" | 13 | 13,0 ±0,5 | 18,5 - 20,0 | 90 | 16 | 260 | 40 |
| ASR16 | 5/8" | 16 | 16,0 +0,7 -0,3 | 23,4 - 25,0 | 115 | 16 | 340 | 40 |
| ASR20 | 3/4" | 20 | 19,3 ±0,5 | 26,0 - 28,0 | 135 | 16 | 420 | 40 |
| ASR25 | 1" | 25 | 25,6 ±0,5 | 34,0 - 36,0 | 165 | 16 | 640 | 40 |

| DN | | Black | * Blue | * Red | * Green |
|---|---|---|---|---|---|
| 1/4" | 6 | ASR06NE | ASR06BL | ASR06RO | ASR06VD |
| 3/8" | 10 | ASR10NE | ASR10BL | ASR10RO | ASR10VD |
| 1/2" | 13 | ASR13NE | ASR13BL | ASR13RO | ASR13VD |
| 5/8" | 16 | ASR16NE | ASR16BL | ASR16RO | ASR16VD |
| 3/4" | 20 | ASR20NE | ASR20BL | ASR20RO | ASR20VD |
| 1" | 25 | ASR25NE | ASR25BL | ASR25RO | ASR25VD |

* **Blue, Red and Green:** available on demand and min. quantity

Restrictions: not permitted for use in air brake systems and high dynamic pulsation systems. Not recommended for fuels and hydraulic and lubricating oils. Use our ASR hoses only in conjunction with our barb connectors. The use of other type of connectors are under customers' responsability. All information mentioned in this document are based on tests done with the greatest care at a room temperature of +20°C. However, these data are not binding, being subjected to the different application areas, the working temperature and the hose lifetime.



-40°C ÷ +75°C air
0°C ÷ +120°C water
Environment temperature:
-40°C ÷ +120°C

**Max. working pressure:**
14 Bar

Compressed air & industrial water

**Inner layer:**
synthetic rubber

**Reinforcement:**
high tensile textile layer

**Outer layer:**
high performance synthetic rubber

**FEATURES**

- High flexibility
- High abrasion resistance
- 100% silicone free
- For use without hose clamp
- For use in the injection moulding sector and automobile industry for the transport of demineralized water up to 120°C with corrosion inhibitor and air up to 75°C.

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## ASR-HH

Push-lock hose ASR-HH



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | MAX. WORKING PRESSURE AT 20°C (Bar) | g/m | Q.TY FOR ROLL (m) |
|---|---|---|---|---|---|---|---|---|
| ASR-HH06 | 1/4" | 6 | 6,5 +0,4 -0,3 | 12,0 - 13,0 | 45 | 14 | 125 | 40 |
| ASR-HH10 | 3/8" | 10 | 9,7 ±0,4 | 14,8 - 16,0 | 75 | 14 | 150 | 40 |
| ASR-HH13 | 1/2" | 13 | 13,0 ±0,5 | 18,5 - 20,0 | 90 | 14 | 235 | 40 |
| ASR-HH16 | 5/8" | 16 | 16,0 +0,7 -0,3 | 23,4 - 25,0 | 115 | 14 | 350 | 40 |

| DN | | Blue | Red |
|---|---|---|---|
| 1/4" | 6 | * ASR-HH06BL | ASR-HH06RO |
| 3/8" | 10 | ASR-HH10BL | ASR-HH10RO |
| 1/2" | 13 | ASR-HH13BL | ASR-HH13RO |
| 5/8" | 16 | ASR-HH16BL | ASR-HH16RO |

* available on request and min. quantity

Restrictions: not permitted for use in air brake systems and high dynamic pulsation systems. Not recommended for fuels and hydraulic and lubricating oils. Use our ASR-HH hoses only in conjunction with our barb connectors. The use of other type of connectors are under customers' responsability. All information mentioned in this document are based on tests done with the greatest care at a room temperature of +20°C. However, these data are not binding, being subjected to the different application areas, the working temperature and the hose lifetime.



-20°C ÷ +80°C air
0°C ÷ +80°C water
Environment temperature:
-20°C ÷ +80°C

**Working pressure:**
See the table
**Negative pressure:**
See the table

Compressed air, industrial water and fluids suitable with construction materials

**Inner layer:**
polyurethane
**Reinforcement:**
high tensile textile layer
**Outer layer:**
polyurethane

**FEATURES**

- High abrasion resistance
- Tear resistance
- 100% silicone free
- UV & ozone resistance
- For use without hose clamp
- Good resistance to mineral oil, oily elements, oxygen, acids and diluted alkaline
- Suitable for individual applications, especially for the robotic and automobile industry for air, water and different gases

SILICONE FREE

REACH COMPLIANT — Products in compliance with EC Regulation 1907/2006

RoHS3 — Products in compliance with the directive EU 2015/863

## ASR-PU

Push-lock hose ASR-PU



| CODE | DN | | ID (mm) | OD (mm) | MIN. BENDING RADIUS (mm) | WORKING PRESSURE AT 20°C (Bar) | NEGATIVE PRESSURE (Bar) | g/m |
|---|---|---|---|---|---|---|---|---|
| ASR-PU06 | 1/4" | 6 | 6,4 | 13 | 25 | 13 | 0,8 | 110 |
| ASR-PU10 | 3/8" | 10 | 9,5 | 16 | 60 | 13 | 0,8 | 154 |
| ASR-PU13 | 1/2" | 13 | 12,5 | 19 | 75 | 13 | 0,8 | 218 |
| ASR-PU16 | 5/8" | 16 | 16,5 | 23 | 125 | 12 | 0,8 | 280 |
| ASR-PU20 | 3/4" | 20 | 19,5 | 27 | 150 | 10 | 0,8 | 325 |

| DN | | Black | ✱ Light blue | ✱ Red | ✱ Green |
|---|---|---|---|---|---|
| 1/4" | 6 | ASR-PU06NE | ASR-PU06AZ | ASR-PU06RO | ASR-PU06VD |
| 3/8" | 10 | ASR-PU10NE | ASR-PU10AZ | ASR-PU10RO | ASR-PU10VD |
| 1/2" | 13 | ASR-PU13NE | ASR-PU13AZ | ASR-PU13RO | ASR-PU13VD |
| 5/8" | 16 | ASR-PU16NE | ASR-PU16AZ | ASR-PU16RO | ASR-PU16VD |
| 3/4" | 20 | ASR-PU20NE | ASR-PU20AZ | ASR-PU20RO | ASR-PU20VD |

✱ **Light blue, Red and Green:** available on request and min. quantity

Restrictions: not permitted for use in air brake systems and high dynamic pulsation systems. Not recommended for fuels. Use our ASR-PU hoses only in conjunction with our barb connectors. The use of other type of connectors are under customers' responsability. All information mentioned in this document are based on tests done with the greatest care at a room temperature of +20°C. However, these data are not binding, being subjected to the different application areas, the working temperature and the hose lifetime.

# FITTINGS TECHNICAL DATA

## YELLOW BRASS FITTINGS:

**Materials:** Turning: Yellow brass UNI EN 12164 CW614N - Hot forging & machining: Yellow brass UNI EN 12165 CW617N
Turning: ASTM B16 C3600 - Hot forging & machining: ASTM B124 C3770 (SPHM-R-BS, SPHM-N-BS & SPHU-BS)
**Pressure:** 25 Bar (the working pressure depends on the tube used)
**Temperature:** from 0°C to 80°C (the working temperature depends on the tube used)
from -49°C to 149°C (SPHM-R-BS, SPHM-N-BS & SPHU-BS), the working temperature depends on the tube used
**Passage:** Compressed air and fluids suitable with construction materials

## GALVANISED STEEL FITTINGS:

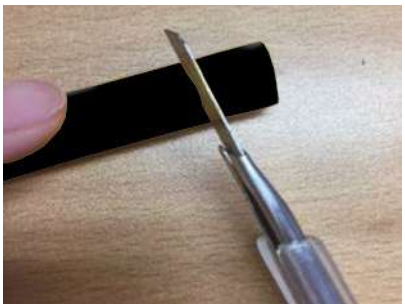
**Material:** Galvanised steel (Cr type II galvanisation)
**Pressure:** 16 Bar (the working pressure depends on the tube used)
**Temperature:** da -20°C a 120°C (the working temperature depends on the tube used)
**Passage:** Compressed air and fluids suitable with construction materials

## STAINLESS STEEL AISI 316L FITTINGS:

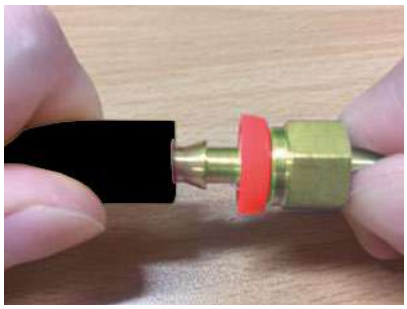
**Material:** Stainless steel AISI 316L
**Max pressure (at 38°C):** 25 Bar (the working pressure depends on the tube used)
**Temperature:** from -49°C to 149°C (the working temperature depends on the tube used)
**Passage:** Compressed air and fluids suitable with construction materials

# ASSEMBLY INSTRUCTIONS

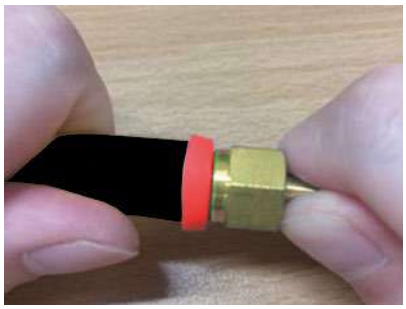
### HOW TO ASSEMBLY



1. Cut the hose vertically and leave its end clean.



2. Insert the barb connector into the hose (use soapy water to lubricate and make the insertion easier).

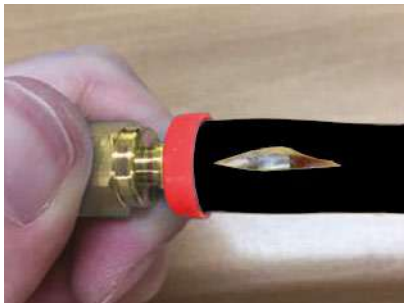


3. Insert the fitting into the hose till the end of the plastic cap.
4. Ensure that the hose is completely inserted.

### HOW TO DISASSEMBLY



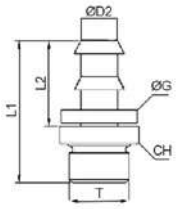
1. Cut the hose lenghtwise from the plastic cap to the end of the barb.



2. Bend the hose to expose the barbs, then remove the hose pulling.

## 3467 Brass male barb connector BSPP thread with metal-nitrile composite gasket






| CODE | DN | | T | ØD2 | L1 | L2 | ØG | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| 3467TR1814 | 1/4" | 6 | G 1/8" | 4,0 | 31,5 | 20,0 | 14,0 | 13 | 14,0 |
| 3467TR1438 | 3/8" | 10 | G 1/4" | 7,5 | 39,1 | 24,1 | 17,0 | 17 | 27,0 |
| 3467TR3838 | 3/8" | 10 | G 3/8" | 7,5 | 42,5 | 24,1 | 17,0 | 22 | 47,0 |
| 3467TR3812 | 1/2" | 13 | G 3/8" | 10,0 | 46,5 | 28,0 | 20,5 | 22 | 48,0 |
| 3467TR1212 | 1/2" | 13 | G 1/2" | 10,0 | 48,5 | 28,0 | 20,5 | 27 | 79,0 |
| 3467TR1258 | 5/8" | 16 | G 1/2" | 13,5 | 56,5 | 36,5 | 24,0 | 27 | 73,0 |
| 3467TR3434 | 3/4" | 20 | G 3/4" | 16,0 | 65,3 | 43,0 | 27,0 | 32 | 123,0 |

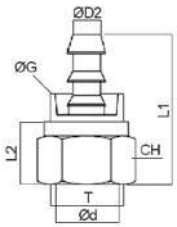


### 2605 Metal-nitrile composite gasket

| CODE | 2605TR18 | 2605TR14 | 2605TR38 | 2605TR12 | 2605TR34 | 2605TR1 |
|---|---|---|---|---|---|---|
| THREAD | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |

## 3468 Swivel brass female barb connector metric thread





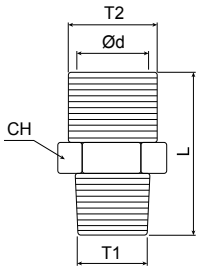

| CODE | DN | | T | ØD2 | Ød | L1 | L2 | ØG | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| 3468TRM1014 | 1/4" | 6 | M10x1 | 4,0 | 6 | 33,5 | 11,0 | 14,0 | 13 | 17,0 |
| 3468TRM1214 | 1/4" | 6 | M12x1 | 4,8 | 8 | 34,5 | 13,0 | 14,0 | 14 | 18,0 |
| 3468TRM1614 | 1/4" | 6 | M16x1,5 | 4,8 | 10 | 35,8 | 15,0 | 14,0 | 19 | 33,0 |
| 3468TRM1638 | 3/8" | 10 | M16x1,5 | 7,5 | 10 | 39,3 | 15,0 | 17,0 | 19 | 35,0 |
| 3468TRM2038 | 3/8" | 10 | M20x1,5 | 7,5 | 14 | 39,3 | 15,0 | 17,0 | 24 | 52,0 |
| 3468TRM2012 | 1/2" | 13 | M20x1,5 | 10,0 | 14 | 44,0 | 15,0 | 20,5 | 24 | 56,0 |
| 3468TRM2212 | 1/2" | 13 | M22x1,5 | 10,0 | 16 | 45,0 | 17,0 | 20,5 | 27 | 77,0 |
| 3468TRM2412 | 1/2" | 13 | M24x1,5 | 10,0 | 18 | 47,0 | 18,0 | 20,5 | 30 | 99,0 |
| 3468TRM2458 | 5/8" | 16 | M24x1,5 | 13,5 | 18 | 55,0 | 18,0 | 24,0 | 30 | 97,0 |
| 3468TRM3034 | 3/4" | 20 | M30x1,5 | 16,0 | 22 | 62,0 | 18,5 | 27,0 | 36 | 137,0 |
| 3468TRRM361 | 1" | 25 | M36x1,5 | 22,0 | 28 | 71,3 | 21,0 | 36,5 | 42 | 249,0 |

The barb connector 3468 can be combined with our yellow brass compression fittings range.
**Refer to Ød in order to chose the right combintion.**

## 3400-SC

Brass straight male adapter BSPT & metric thread



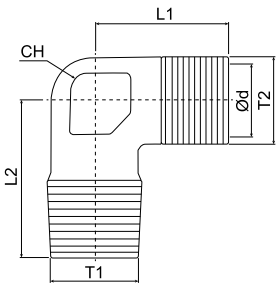



| CODE | T1 | T2 | Ød | L | CH | g |
|---|---|---|---|---|---|---|
| 3400TR186-SC | R 1/8" | M10x1 | 6 | 19,0 | 11 | 8,0 |
| 3400TR146-SC | R 1/4" | M10x1 | 6 | 22,5 | 14 | 14,0 |
| 3400TR188-SC | R 1/8" | M12x1 | 8 | 19,5 | 13 | 9,0 |
| 3400TR148-SC | R 1/4" | M12x1 | 8 | 23,0 | 14 | 14,0 |
| 3400TR388-SC | R 3/8" | M12x1 | 8 | 24,5 | 17 | 22,0 |
| 3400TR1810-SC | R 1/8" | M16x1,5 | 10 | 23,5 | 17 | 20,0 |
| 3400TR1410-SC | R 1/4" | M16x1,5 | 10 | 27,0 | 17 | 24,0 |
| 3400TR3810-SC | R 3/8" | M16x1,5 | 10 | 27,5 | 17 | 32,0 |
| 3400TR1210-SC | R 1/2" | M16x1,5 | 10 | 32,0 | 22 | 43,0 |
| 3400TR1414-SC | R 1/4" | M20x1,5 | 14 | 27,0 | 22 | 34,0 |
| 3400TR3814-SC | R 3/8" | M20x1,5 | 14 | 27,5 | 22 | 35,0 |
| 3400TR1214-SC | R 1/2" | M20x1,5 | 14 | 32,0 | 22 | 44,0 |
| 3400TR1216-SC | R 1/2" | M22x1,5 | 16 | 32,5 | 24 | 51,0 |
| 3400TR1218-SC | R 1/2" | M24x1,5 | 18 | 34,5 | 27 | 63,0 |
| 3400TR3418-SC | R 3/4" | M24x1,5 | 18 | 35,0 | 27 | 74,0 |
| 3400TR1222-SC | R 1/2" | M30x1,5 | 22 | 36,0 | 32 | 93,0 |
| 3400TR3422-SC | R 3/4" | M30x1,5 | 22 | 36,0 | 32 | 98,0 |
| 3400TR122-SC | R 1" | M30x1,5 | 22 | 41,0 | 36 | 135,0 |
| 3400TRR128-SC | R 1" | M36x1,5 | 28 | 46,0 | 41 | 160,5 |

## 3440-SC

Brass male elbow adapter BSPT & metric thread



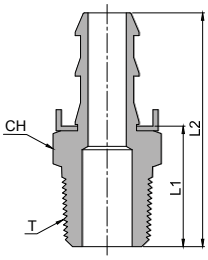



| CODE | T1 | T2 | Ød | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|
| 3440TR186-SC | R 1/8" | M10x1 | 6 | 17,6 | 18,0 | 8 | 12,0 |
| 3440TR146-SC | R 1/4" | M10x1 | 6 | 17,6 | 21,5 | 10 | 21,0 |
| 3440TR188-SC | R 1/8" | M12x1 | 8 | 22,4 | 18,5 | 10 | 18,0 |
| 3440TR148-SC | R 1/4" | M12x1 | 8 | 22,4 | 22,0 | 10 | 22,0 |
| 3440TR388-SC | R 3/8" | M12x1 | 8 | 22,4 | 24,0 | 12 | 33,0 |
| 3440TR1410-SC | R 1/4" | M16x1,5 | 10 | 24,0 | 25,0 | 12 | 31,0 |
| 3440TR3810-SC | R 3/8" | M16x1,5 | 10 | 24,0 | 25,0 | 12 | 42,0 |
| 3440TR1210-SC | R 1/2" | M16x1,5 | 10 | 28,8 | 32,0 | 19 | 88,0 |
| 3440TR3814-SC | R 3/8" | M20x1,5 | 14 | 28,0 | 30,0 | 19 | 70,0 |
| 3440TR1214-SC | R 1/2" | M20x1,5 | 14 | 28,0 | 32,0 | 19 | 74,0 |
| 3440TR3816-SC | R 3/8" | M22x1,5 | 16 | 31,2 | 30,0 | 19 | 87,0 |
| 3440TR1216-SC | R 1/2" | M22x1,5 | 16 | 31,2 | 33,5 | 19 | 69,0 |
| 3440TR1218-SC | R 1/2" | M24x1,5 | 18 | 32,8 | 35,5 | 23 | 109,0 |
| 3440TR3418-SC | R 3/4" | M24x1,5 | 18 | 32,8 | 36,5 | 23 | 145,0 |
| 3440TR3422-SC | R 3/4" | M30x1,5 | 22 | 40,0 | 40,0 | 27 | 203,0 |
| 3440TR122-SC | R 1" | M30x1,5 | 22 | 40,0 | 44,0 | 27 | 231,0 |

## SPHM-R-BS

Brass male barb connector BSPT thread



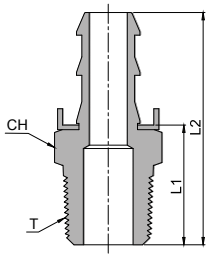



| CODE | DN | | T | CH | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| SPHM-4-4R-BS | 1/4" | 6 | R 1/4" | 15 | 22,9 | 42,7 | 24,0 |
| SPHM-6-4R-BS | 3/8" | 10 | R 1/4" | 15 | 22,9 | 45,0 | 27,0 |
| SPHM-6-6R-BS | 3/8" | 10 | R 3/8" | 18 | 24,6 | 46,7 | 27,0 |
| SPHM-8-8R-BS | 1/2" | 12 | R 1/2" | 22 | 28,7 | 55,6 | 76,0 |
| SPHM-12-12R-BS | 3/4" | 20 | R 3/4" | 27 | 33,8 | 76,0 | 143,0 |
| SPHM-16-16R-BS | 1" | 25 | R 1" | 35 | 38,6 | 85,6 | 255,0 |

## SPHM-N-BS

Brass male barb connector NPT thread



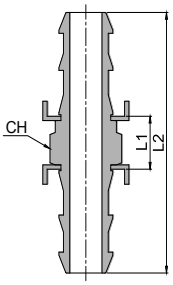



| CODE | DN | | T | CH | L1 | L2 | g |
|---|---|---|---|---|---|---|---|
| SPHM-4-4N-BS | 1/4" | 6 | N 1/4" | 15 | 22,9 | 42,7 | 24,0 |
| SPHM-6-4N-BS | 3/8" | 10 | N 1/4" | 15 | 22,9 | 45,0 | 27,0 |
| SPHM-6-6N-BS | 3/8" | 10 | N 3/8" | 18 | 24,6 | 46,7 | 27,0 |
| SPHM-8-8N-BS | 1/2" | 12 | N 1/2" | 22 | 28,7 | 55,6 | 76,0 |
| SPHM-12-12N-BS | 3/4" | 20 | N 3/4" | 27 | 33,8 | 76,0 | 143,0 |
| SPHM-16-16N-BS | 1" | 25 | N 1" | 35 | 38,6 | 85,6 | 255,0 |

## SPHU-BS

Brass union barb connector

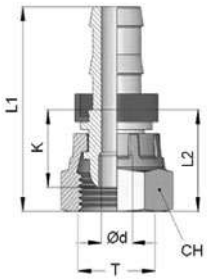





| CODE | DN | | CH | L1 | L2 | g |
|---|---|---|---|---|---|---|
| SPHU-4-4-BS | 1/4" | 6 | 11 | 10,7 | 50,3 | - |
| SPHU-6-6-BS | 3/8" | 10 | 15 | 13,2 | 57,4 | - |
| SPHU-8-8-BS | 1/2" | 12 | 18 | 13,7 | 67,5 | - |
| SPHU-12-12-BS | 3/4" | 20 | 24 | 14,3 | 98,7 | - |
| SPHU-16-16-BS | 1" | 25 | 32 | 16,5 | 110,5 | - |

## 3470 Swivel steel female barb connector BSPP thread, 60° ogival seat



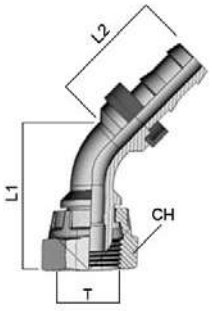



| | CODE | DN | | Ød | T | L1 | L2 | K | CH | g |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3470TR14 | 1/4" | 6 | 4,0 | G 1/4" | 37,2 | 17,9 | 13,2 | 19 | 30,0 |
| | 3470TR38 | 3/8" | 10 | 7,0 | G 3/8" | 44,2 | 21,7 | 14,2 | 22 | 48,0 |
| | 3470TR12 | 1/2" | 12 | 9,5 | G 1/2" | 51,2 | 28,5 | 22,5 | 27 | 81,0 |
| * | 3470TR34 | 3/4" | 20 | 14,5 | G 3/4" | 68,2 | 39,2 | 27,6 | 32 | 139,0 |
| * | 3470TR1 | 1" | 25 | 20,0 | G 1" | 74,0 | 38,4 | 28,4 | 41 | 239,0 |

* 3/4" and 1" thread without plastic collar

## 3471 Swivel steel elbow 45° female barb connector BSPP thread, 60° ogival seat



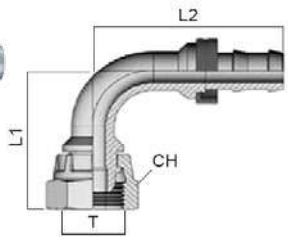



| | CODE | DN | | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| | 3471TR14 | 1/4" | 6 | G 1/4" | 39,5 | 25,0 | 19 | 40,0 |
| | 3471TR38 | 3/8" | 10 | G 3/8" | 51,0 | 31,0 | 22 | 65,0 |
| | 3471TR12 | 1/2" | 12 | G 1/2" | 64,5 | 36,0 | 27 | 118,0 |
| * | 3471TR34 | 3/4" | 20 | G 3/4" | 88,5 | 51,0 | 32 | 212,0 |
| * | 3471TR1 | 1" | 25 | G 1" | 88,5 | 73,5 | 46 | 398,0 |

* 3/4" and 1" thread without plastic collar

## 3472 Swivel steel elbow 90° female barb connector BSPP thread, 60° ogive seat





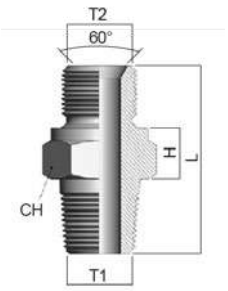

| | CODE | DN | | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|---|
| | 3472TR14 | 1/4" | 6 | G 1/4" | 29,5 | 40,0 | 19 | 40,0 |
| | 3472TR38 | 3/8" | 10 | G 3/8" | 42,0 | 53,5 | 22 | 70,0 |
| | 3472TR12 | 1/2" | 12 | G 1/2" | 50,0 | 62,5 | 27 | 120,0 |
| * | 3472TR34 | 3/4" | 20 | G 3/4" | 69,0 | 90,0 | 32 | 238,0 |
| * | 3472TR1 | 1" | 25 | G 1" | 86,5 | 105,0 | 40 | 433,0 |

* 3/4" and 1" thread without plastic collar

## 3474

Steel straight adapter BSPT thread, 60° ogive seat



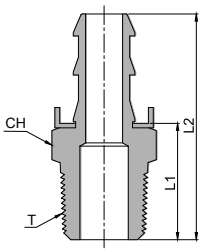



| CODE | T1 | T2 | L | H | CH | g |
|---|---|---|---|---|---|---|
| 3474TR14 | R 1/4" | G 1/4" | 33,0 | 8 | 19 | 31,0 |
| 3474TR38 | R 3/8" | G 3/8" | 39,0 | 11 | 22 | 50,0 |
| 3474TR12 | R 1/2" | G 1/2" | 43,0 | 10 | 27 | 86,0 |
| 3474TR34 | R 3/4" | G 3/4" | 46,5 | 11 | 32 | 144,0 |
| 3474TR1 | R 1" | G 1" | 56,0 | 13 | 41 | 236,0 |

## SPHM-R

Stainless steel AISI 316L male barb connector BSPT thread



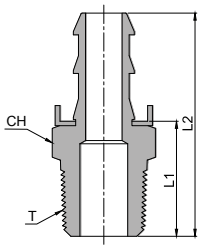



| CODE | DN | | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|
| SPHM-4-4R | 1/4" | 6 | R 1/4" | 22,9 | 42,7 | 15 | 21,0 |
| SPHM-6-4R | 3/8" | 10 | R 1/4" | 22,9 | 45,0 | 15 | 25,0 |
| SPHM-6-6R | 3/8" | 10 | R 3/8" | 24,6 | 46,7 | 18 | 25,0 |
| SPHM-8-8R | 1/2" | 12 | R 1/2" | 28,7 | 55,6 | 22 | 70,0 |
| SPHM-12-12R | 3/4" | 20 | R 3/4" | 33,8 | 76,0 | 27 | 130,0 |
| SPHM-16-16R | 1" | 25 | R 1" | 38,6 | 85,6 | 35 | 240,0 |

## SPHM-N

Stainless steel AISI 316L male barb connector NPT thread



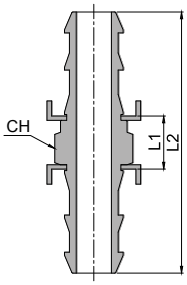



| CODE | DN | | T | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|
| SPHM-4-4N | 1/4" | 6 | N 1/4" | 22,9 | 42,7 | 15 | 21,0 |
| SPHM-6-4N | 3/8" | 10 | N 1/4" | 22,9 | 45,0 | 15 | 25,0 |
| SPHM-6-6N | 3/8" | 10 | N 3/8" | 24,6 | 46,7 | 18 | 25,0 |
| SPHM-8-8N | 1/2" | 12 | N 1/2" | 28,7 | 55,6 | 22 | 70,0 |
| SPHM-12-12N | 3/4" | 20 | N 3/4" | 33,8 | 76,0 | 27 | 130,0 |
| SPHM-16-16N | 1" | 25 | N 1" | 38,6 | 85,6 | 35 | 240,0 |

## SPHU

Stainless steel AISI 316L union barb connector



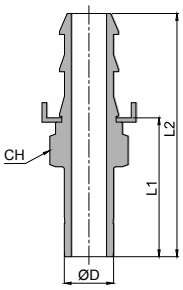



| CODE | DN | | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|
| SPHU-4-4 | 1/4" | 6 | 10,7 | 50,3 | 11 | - |
| SPHU-6-6 | 3/8" | 10 | 13,2 | 57,4 | 15 | 27,2 |
| SPHU-8-8 | 1/2" | 12 | 13,7 | 67,5 | 18 | - |
| SPHU-12-12 | 3/4" | 20 | 14,3 | 98,7 | 24 | - |
| SPHU-16-16 | 1" | 25 | 16,5 | 110,5 | 32 | - |

## SPHA

Stainless steel AISI 316L barb connector with stem

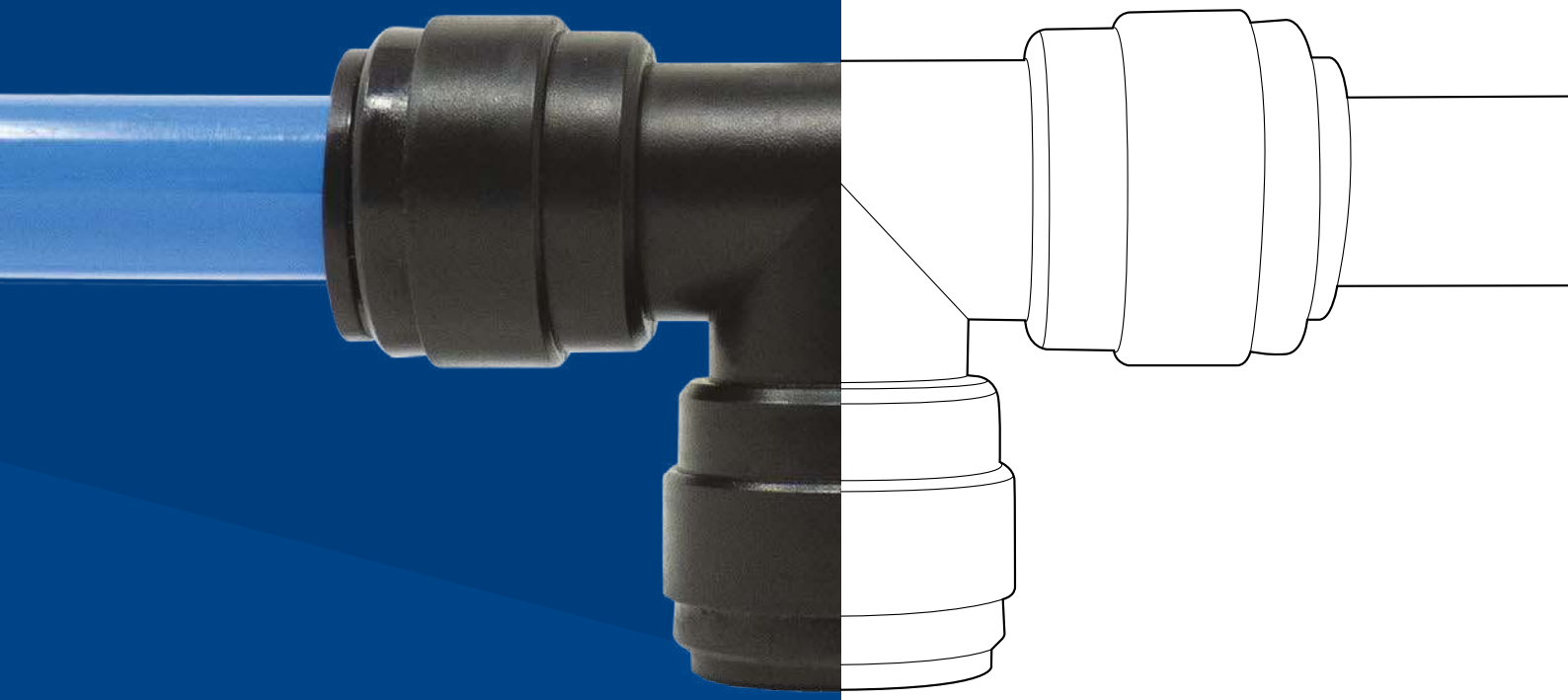





| CODE | DN | | ØD | L1 | L2 | CH | g |
|---|---|---|---|---|---|---|---|
| SPHA-4-4T | 1/4" | 6 | 1/4" | 25,2 | 45,0 | 11 | 57,0 |
| SPHA-6-6T | 3/8" | 10 | 3/8" | 29,5 | 51,6 | 15 | 57,0 |
| SPHA-8-8T | 1/2" | 12 | 1/2" | 35,8 | 62,7 | 18 | 57,0 |
| SPHA-12-12T | 3/4" | 20 | 3/4" | 37,6 | 79,8 | 24 | 89,6 |
| SPHA-16-16T | 1" | 25 | 1" | 46,7 | 93,7 | 32 | 176,5 |

The SPHA barb connector can be combined with our S-LOK range (INOX.Fit catalogue).
**Use the ØD as a reference to choose the correct combination.**

# AIR LINE SYSTEM



# TECHNICAL INDEX



p. 781
**AIR LINE SYSTEM**

# AIR LINE SYSTEM

## PLUS

**SIMPLE AND FAST INSTALLATION THANKS TO PUSH-IN FITTINGS WHICH GUARANTEE RELIABILITY AND AFFORDABILITY**

**IDEAL FOR SMALL AIR DISTRIBUTION NETWORKS AND FOR LINE EDGES ON INDUSTRIAL INSTALLATIONS**

**SYSTEM IS COMPATIBLE WITH WIDE RANGE OF TIERRE ACCESSORIES AND EASLY INTEGRATED**



p. 783 / **AL**



p. 783 / **CC**



p. 784 / **STFT**



p. 784 / **HPC-G**



p. 784 / **HUC**



p. 784 / **HUL**



p. 785 / **HUT**



p. 785 / **HCJ-G**



p. 785 / **HLJ**



p. 785 / **HPF**



p. 786 / **HPP**



p. 786 / **HGJ**



p. 786 / **HBVU**



p. 786 / **HCP**



p. 787 / **FPSAS**



p. 787 / **FPDAS**



p. 787 / **FPWLM1**



p. 787 / **FPWLM2**



-20°C ÷ 70°C

**Working pressure:**
15 Bar
**Negative pressure:**
- 0,8 Bar ( - 80 Kpa)

Compressed air, vacuum and nitrogen

Polyethylene PE, polyamide PA, aluminium (only our AL series)

The system is only guaranteed by using fittings and tubes from our range

Parallel gas BSPP ISO 228
G1/2" and G3/4"

**FEATURES**
RAL 5015 and 7001 electrostatic coating

**Tube:**
Aluminium EN AW-6060 T6 with fluotitanation treatment

**Fittings:**
Body: POM
Collet: POM
Lock claw: Stainless steel AISI 301
Seal: EPDM
O-ring: EPDM

**Applique for wall installation:**
FPSAS & FPDAS: SS AISI 316L
FPWLM1 & FPWLM2: Aluminium

Products in compliance with EC Regulation 1907/2006

Products in compliance with the directive EU 2015/863

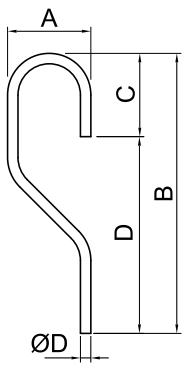
## AL — Aluminium pipe 4 meters light blue



| CODE | Ø ODxID | THICKNESS | LENGTH | g/m |
|---|---|---|---|---|
| AL1512-AZ-S | 15x12 | 1,5 | 4 m | 180,0 |
| AL2219-AZ-S | 22x19 | 1,5 | 4 m | 240,0 |

## CC — Aluminium drop bend light blue





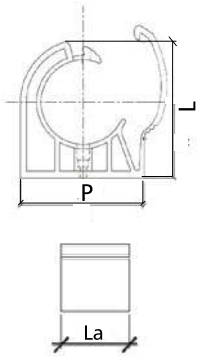

| CODE | ØD | A | B | C | D | g |
|---|---|---|---|---|---|---|
| CC15 | 15 | 110 | 435 | 102,5 | 332,5 | 120 |
| CC22 | 22 | 160 | 550 | 155 | 395 | 209 |

*drawings and technical data are not binding & can be changed without notice*

## STFT

Fixing clip for pipes



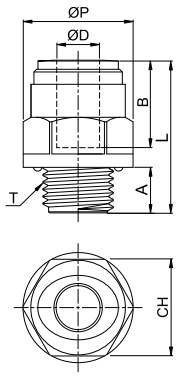



| CODE | ØOD | P | L | La | g |
|---|---|---|---|---|---|
| STFT15 | 15 | 29,7 | 30,2 | 15 | 4 |
| STFT22 | 22 | 39,5 | 38 | 15 | 6 |

## HPC-G

Male connector BSPP thread





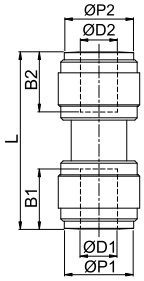

| | CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|---|
| * | HPC12G04B | 12 | G 1/2" | 28,5 | 12,5 | 24,7 | 32,7 | 26 | 12,4 |
| | HPC15G04B | 15 | G 1/2" | 28,8 | 12,5 | 29,4 | 43,4 | 26 | 17,0 |
| | HPC15G06B | 15 | G 3/4" | 39,0 | 14,5 | 29,4 | 39,0 | 33 | 24,5 |
| | HPC22G06B | 22 | G 3/4" | 37,0 | 14,5 | 33,8 | 51,0 | 33 | 28,2 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HUC

Union connector





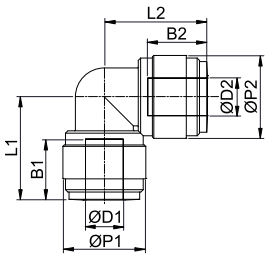

| | CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L | g |
|---|---|---|---|---|---|---|---|---|---|
| * | HUC1212B | 12 | 12 | 23 | 23 | 24,7 | 24,7 | 52,4 | 14,4 |
| | HUC1515B | 15 | 15 | 28 | 28 | 29,4 | 29,4 | 61,8 | 23,4 |
| | HUC2222B | 22 | 22 | 35,5 | 35,5 | 33,8 | 33,8 | 70,6 | 37,7 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HUL

Union elbow



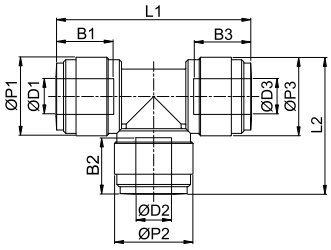



| | CODE | ØD1 | ØD2 | ØP1 | ØP2 | B1 | B2 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|---|
| * | HUL1212B | 12 | 12 | 23 | 23 | 24,7 | 24,7 | 43,2 | 43,2 | 16,4 |
| | HUL1515B | 15 | 15 | 28 | 28 | 29,4 | 29,4 | 52,2 | 52,2 | 27,4 |
| | HUL2222B | 22 | 22 | 35,5 | 35,5 | 33,8 | 33,8 | 63,9 | 63,9 | 46,8 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HUT — Union tee



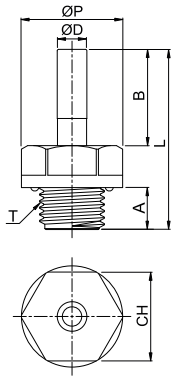



| | CODE | ØD1 | ØD2 | ØD3 | ØP1 | ØP2 | ØP3 | B1 | B2 | B3 | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | HUT1212B | 12 | 12 | 12 | 23 | 23 | 23 | 24,7 | 24,7 | 24,7 | 63,4 | 43,2 | 23,2 |
| | HUT1515B | 15 | 15 | 15 | 28 | 28 | 28 | 29,4 | 29,4 | 29,4 | 76,4 | 52,2 | 38,2 |
| | HUT2222B | 22 | 22 | 22 | 35,5 | 35,5 | 35,5 | 33,8 | 33,8 | 33,8 | 92,3 | 63,9 | 64 |
| | REDUCED UNION TEE | | | | | | | | | | | | |
| * | HUT221222B | 22 | 12 | 22 | 35,5 | 23 | 35,5 | 33,8 | 24,7 | 33,8 | 83 | 55,8 | 50,3 |
| | HUT221522B | 22 | 15 | 22 | 35,5 | 28 | 35,5 | 33,8 | 30,4 | 33,8 | 87 | 61 | 57,1 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HCJ-G — Stem adapter BSPP thread

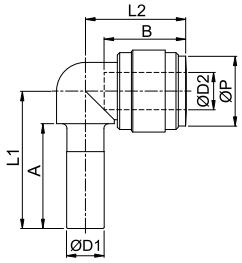





| CODE | ØD | T | ØP | A | B | L | CH | g |
|---|---|---|---|---|---|---|---|---|
| HCJ12G04B | 12 | G 1/2" | 28,5 | 12,5 | 28 | 49 | 26 | 11,2 |
| HCJ15G03B | 15 | G 3/8" | 24,2 | 9 | 35 | 52,5 | 22 | 9,5 |
| HCJ15G04B | 15 | G 1/2" | 28,8 | 12,5 | 36 | 57 | 26 | 13,1 |
| HCJ22G04B | 22 | G 1/2" | 28,4 | 12,5 | 41 | 62 | 26 | 16,8 |
| HCJ22G06B | 22 | G 3/4" | 39 | 14,5 | 41 | 67,5 | 33 | 25,8 |

## HLJ — Union elbow tube with stem



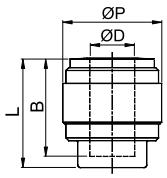



| | CODE | ØD1 | ØD2 | ØP | A | B | L1 | L2 | g |
|---|---|---|---|---|---|---|---|---|---|
| * | HLJ1212B | 12 | 12 | 23,6 | 29,5 | 24,7 | 51,2 | 39 | 12,6 |
| | HLJ1515B | 15 | 15 | 28 | 35 | 29,4 | 61,3 | 48,5 | 21,7 |
| | HLJ2222B | 22 | 22 | 35,5 | 41 | 33,8 | 75,5 | 58 | 38,9 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HPF — Female plug



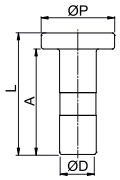



| | CODE | ØD | ØP | B | L | g |
|---|---|---|---|---|---|---|
| * | HPF12B | 12 | 23 | 24,7 | 26,7 | 7,3 |
| | HPF15B | 15 | 28 | 29,4 | 32,1 | 12,6 |
| | HPF22B | 22 | 35,5 | 33,8 | 36,6 | 20,6 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HPP — Male plug

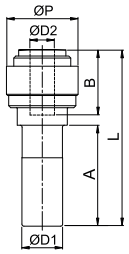





| CODE | ØD | ØP | A | L | g |
|---|---|---|---|---|---|
| HPP12B | 12 | 21 | 30 | 34 | 4 |
| HPP15B | 15 | 25 | 36 | 40 | 6,4 |
| HPP22B | 22 | 33 | 41 | 45,5 | 12,2 |

## HGJ — Stem reduction

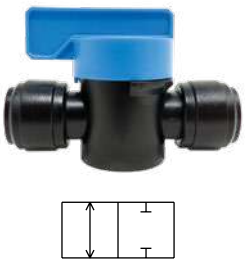


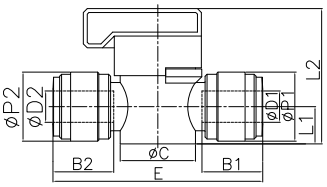



| | CODE | ØD1 | ØD2 | ØP | A | B | L | g |
|---|---|---|---|---|---|---|---|---|
| * | HGJ1512B | 15 | 12 | 23,6 | 35 | 24,7 | 61,7 | 11,3 |
| | HGJ2215B | 22 | 15 | 28 | 41 | 29,4 | 70,4 | 19,7 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HBVU — Two-ways union hand valve, flow tube-tube



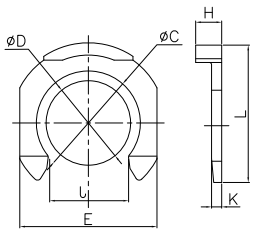



| | CODE | ØD1 | ØD2 | B1 | B2 | ØP1 | ØP2 | L1 | L2 | E | ØC | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | HBVU1212B | 12 | 12 | 23,7 | 23,7 | 23 | 23 | 12,5 | 42,3 | 70,4 | 24,2 | 35,4 |

* Ø12 usable with PA12 tube on page 722 and PE tube on page 727

## HCP — Locking clip

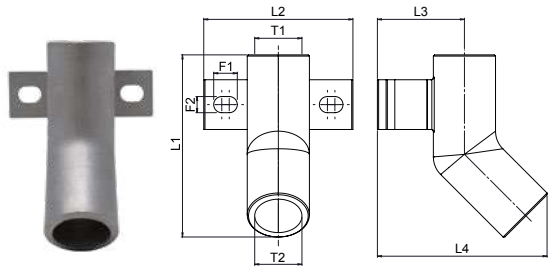





| CODE | ØD | ØC | E | L | H | J | K | g |
|---|---|---|---|---|---|---|---|---|
| HCP12-1/2BL | 12 | 14,4 | 19 | 19 | 3,6 | 11,1 | 1,4 | 0,3 |
| HCP15BL | 15 | 17 | 22,5 | 22,6 | 3,6 | 13,1 | 1,4 | 0,45 |
| HCP22BL | 22 | 24 | 30 | 29,3 | 3,8 | 19,1 | 1,9 | 0,84 |

## FPSAS

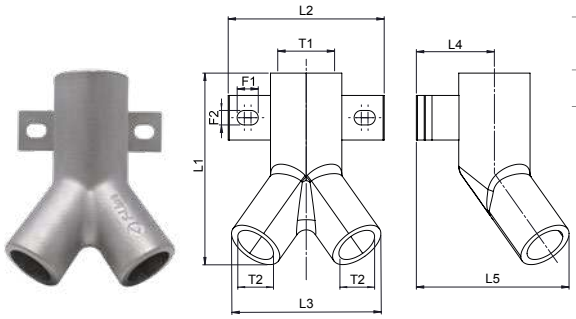
Single applique - Stainless steel AISI 316L




| CODE | T1 | T2 | L1 | L2 | L3 | L4 | F1 | F2 | g |
|---|---|---|---|---|---|---|---|---|---|
| FPSAS-G04G04 | G 1/2" | G 1/2" | 73,5 | 60 | 35 | 68,5 | 9,5 | 6,5 | 159 |

## FPDAS

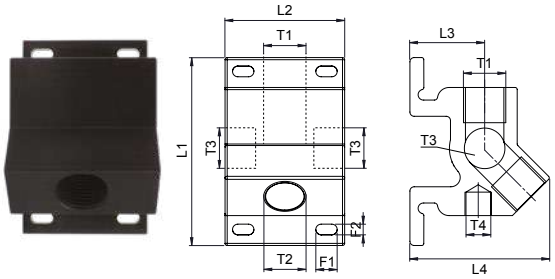
Double applique - Stainless steel AISI 316L




| CODE | T1 | T2 | L1 | L2 | L3 | L4 | L5 | F1 | F2 | g |
|---|---|---|---|---|---|---|---|---|---|---|
| FPDAS-G05G04 | G 3/4" | G 1/2" | 86 | 70 | 67 | 35 | 68,5 | 9,5 | 6,5 | 265 |

## FPWLM1

Single applique - Aluminium

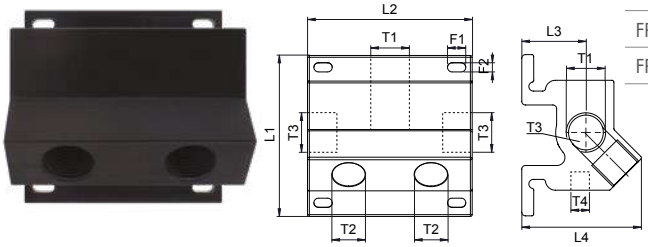



| CODE | T1 IN | T2 OUT | T3 | *T4 | L1 | L2 | L3 | L4 | F1 | F2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FPWLM1-G04G04 | G 1/2" | 1xG 1/2" | G 1/2" | G 1/4" | 88 | 56 | 35 | 66 | 10 | 5 | 325 |

* Blind thread

## FPWLM2

Double applique - Aluminium




| CODE | T1 IN | T2 OUT | T3 | *T4 | L1 | L2 | L3 | L4 | F1 | F2 | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FPWLM2-G04G04 | G 1/2" | 2xG 1/2" | G 1/2" | G 1/4" | 88 | 90 | 35 | 65,7 | 10 | 5 | 530 |
| FPWLM2-G05G04 | G 3/4" | 2xG 1/2" | G 1/2" | G 1/4" | 88 | 90 | 35 | 65,7 | 10 | 5 | 515 |

* Blind thread

TierreGroup®
Always a fittings solution

# Soluzioni innovative e prestazioni perfette hanno un **leg**  **ame** unico.

TierreGroup®
Always a fitting solution

**FOLLOW US!**

# CHEMICAL SEAL TABLE AT 23°C

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| ACETALDEHYDE | B - G | | | B | B |
| AMYL ACETATE | B | L | | | B |
| AMMONIUM ACETATE | B | | | | |
| BUTYL ACETATE | B | L | L | | B |
| POTASSIUM ACETATE (25°C) | B | B | | B | B |
| METHYL ACETATE | B | | | | B |
| ACETYLENE | B | B | | | B |
| VINEGAR | | | | B | |
| ACETONE | B | L | P | L | B |
| ACETIC ACID 5% | B | B | L | B | B |
| BENZOIC ACID | B | | | | B |
| BORIC ACID | B | B | L | B | B |
| BROMIC ACID | | | | B | |
| CARBONIC ACID | | | | B | B |
| PRUSSIC ACID | | | | B | B |
| CITRIC ACID | B | B | L | B | B |
| HYDROCHLORIC ACID 10% | B | L | P | B | B |
| CHROMIC ACID 10% ACID | P | P | P | L | B |
| HYDROFLUORIC ACID 40% | P | P | P | B | P |
| FORMIC ACID 50% | P | P | P | B | B |
| PHOSPHORIC ACID 10% | B | | L | | B |
| LACTIC ACID 10% | B | L | P | B | B |
| MALEIC ACID | | | | B | B |
| NITRIC ACID | P | P | P | P | B |
| OLEIC ACID | B | B | | | B |
| OXALIC ACID | B | | | | B |
| PERCHLORIC ACID | P | P | P | P | B |
| PICRIC ACID | L | | | | B |
| SALICYLIC ACID | B | | | | |
| SUPHURIC ACID 10% | B | B | L | B | B |
| SUPHURIC ACID 30% | L | | | B | B |
| STEARIC ACID | B | L | | | B |
| SUCCINIC ACID | B | | | | |
| TANNIC ACID 10%. | | B | | | B |
| TARTARIC ACID | B | L | | | B |
| URIC ACID | B | | | | |
| WATER | B | B | B | | |
| WATER + CO2 | B | B | | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| BROMINE WATER - CHLORINE | P | | | | |
| SEA WATER | B | B | B | | |
| HYDROGEN PEROXIDE 20 VOL. | L | | | B | B |
| AQUA REGIA | P | | | P | B |
| AMYL ALCOHOL | B - G | | L | | |
| BENZYLIC ALCOHOL | L | | P | | B |
| BUTYL ALCOHOL | | | | B | B |
| DENATURED ALCOHOL | B - G | | | | B |
| DIACETONE ALCOHOL | B | | | | |
| ETHYL ALCOHOL | B - G | B | P | B | B |
| ISOPROPYL ALCOHOL | B - G | B | | | B |
| METHYL ALCOHOL | B - G | B | P | B | B |
| ACETIC ALDEHYDE | B - G | | | B | B |
| BENZALDEHYDE | B | | | | |
| ALUM | B | | | B | |
| ALUMINIUM | | | | B | |
| STARCH | B | | | | |
| PURE AMYL ACETATE | | | | P | |
| AMINE | | | P | | |
| AMMONIA | L | P | P | B | B |
| AMMONIA 10% | B | P | P | B | B |
| ACETIC ANHYDRIDE | L | L | | | B |
| CARBON DIOXIDE | B | B | | | B |
| PHOSPHORIC ANHYDRIDE | | | | B | |
| SULFUR DIOXIDE | L | P | | P | B |
| ANILINE | L - G | P | P | | B |
| ANTIFREEZE | B | | L | | |
| ARCOPAL | | | | B | |
| ARGON | B | | P | | |
| CALCIUM ARSENATE | B | | | | |
| NITROGEN | B | | | | |
| BENZALDEHYDE | B | | | | |
| BENZENE | B | | L | P | B |
| BENZINE | B | L | B | P | B |
| BENZOL | B | L | L | | |
| SODIUM BICARBONATE | B | | | | B |
| POTASSIUM BICHROMATE | L | | | | |
| BIO DIESEL | B | L | | | |
| BEER | | | | B | B |
| CARBON DISULPHIDE | B - G | | | | |
| BITUMEN | B | L | | | |
| BORON | B | | | | B |
| BROMINE | P | P | P | P | B |
| POTASSIUM BROMIDE | | | | B | |
| ETHYL AND METHYL BROMIDE | B | | | | |
| BUTTER | | | | B | |
| BUTANE | B | B | | | B |
| COFFEE | | | | B | |
| HYDRATED LIME | B | | | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| CHLORINE WATER 5% | B | L | P | B | B |
| CAMPHOR | | | | B - L | |
| ASTM FUEL C + METHANOL 85/15 | | | L | | |
| AMMONIUM CARBONATE | B | | | | |
| CHLORINE CARBONATE | | | L | | |
| FLUORINE CARBONATE | | | L | | |
| POTASSIUM CARBONATE | B | | | | |
| SODIUM CARBONATE 50% | B | | | | |
| CARBON | | | | B | |
| ASTM FUEL A-B-C-D DIN 51604 | | | P | | |
| LIQUID WAX | B | | | | |
| KETONES | | | | L | B |
| CYCLOPENTANE | B | | | | |
| SODIUM CHLORATE 25% | B | | | | |
| CHLORINE | P | P | | P | B |
| CHLORINE BENZENE | L | P | | | B |
| CHLOROFORM | L | P | P | P | B |
| CHLORONITROBENZENE | P | | | | |
| ALUMINIUM CHLORIDE | | | | B | B |
| AMMONIUM CHLORIDE | L | B | | | B |
| ETHYLENE CHLORIDE | B | L | | | B |
| BARIUM CHLORIDE | B | | | | B |
| CALCIUM CHLORIDE | B | B | B | | B |
| MAGNESIUM CHLORIDE 50% | B | L | | | B |
| METHYL CHLORIDE GAS | B | | | | B |
| METHYLENE CHLORIDE LIQUID | L | P | P | | B |
| POTASSIUM CHLORIDE | B | | | | B |
| SODIUM CHLORIDE | B | B | B | | B |
| TIN CHLORIDE | B | | | | |
| VINYL CHLORIDE | B | | | | B |
| ZINC CHLORIDE | B | B | | | B |
| FERRIC CHLORIDE | B | L | | B | B |
| FERROUS CHLORIDE | | | | B | B |
| CYCLOHEXANE | B | B | L | | B |
| CYCLOHEXANOL | B | | | | |
| CYCLOHEXANONE | B | | P | | B |
| DDT POWDER | | | | B | |
| DECAYDRONAPHTHALINE | B | | | | |
| DECALIN | B | | | | B |
| SYNTHETIC DETERGENTS | B | L | | | |
| DETERGENTS | | | | B | |
| DIBUTYL PHTHALATE | | | | P | B |
| DICHLOROETHANE | L | | | | |
| DICHLOROETHYLENE | L | | P | | |
| DIETHALONAMINE | B | | | | B |
| DIPHENYL | B | | | | |
| DIMETHYL KETONE | B | L | P | | |
| DIMETHYLETHER (DME) | B | | | | |
| DIMETHYLFORMAMIDE | B | | P | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| DIMETHYLSULPHATE | B | | P | | |
| DIOCTYLPHOSPHATE | B | | | | |
| DIOXINE | B | | | | B |
| HELIUM | B | | B | | |
| PHOTOGRAPHIC EMULSIONS | | | | B | |
| HEPTANE | B | | | | |
| HEXANE | B | | | | |
| ESSENCE OF TURPENTINE | B | | | | |
| PETROLEUM ETHER | B | | | | |
| ETHYL ESTER | B | | | | |
| PHOSPHORIC ESTER | B | | | | B |
| SULFATED ESTER | B | | | | |
| FATTY ACID ESTERS | B | | | | |
| TANNING EXTRACTS | | | | B | |
| ETHER | | | | P | |
| ETHYLBENZENE | B | | | | |
| ETHYLENE | B | | | | |
| PHENOL | P | P | P | P | B |
| IRON | | | | B | |
| POTASSIUM FERROCYANIDE | B | | | | |
| FLUORINE | P | | | P | P |
| FORANE | B | | | | |
| FORANE 12 B1 | L | | | | |
| FORMALDEHYDE | L | L | P | B | B |
| FORMALIN | B | | | | |
| FORMOL | B | | | | |
| AMMONIUM PHOSPHATE | B | | | | |
| AMMONIUM PHOSPHATE | B | | | | B |
| TRISODIUM PHOSPHATE | B | | | | |
| PHOSPHORUS | | | | B | |
| FREON 11 | B | B | | | L |
| FREON 12 - R22 - R134A - R404 - R407 - R410 | B | B | | | L |
| FURFURAL | B - G | | | | B |
| FURFUROL | B | | | | B |
| LIGHTING GAS | B | | | | |
| NATURAL GAS | B | | | | B |
| DIESEL | B | B | B | P | B |
| GELATINE | | | | B | |
| GLYCERINE | B - G | B | B | | B |
| GLYCOL | B | L | L | | B |
| GLUCOSE | B | | | | B |
| GRAPHITE + WATER | B | | | | |
| AMYL FAT | B | | | | |
| ANIMAL FAT | B | | | | B |
| HALON 2402 | B | | | | |
| HEXANOL | | | L | | |
| AROMATIC HYDROCARBONS | B | | P | P | B |
| HYDROQUINONE | | | | B | |
| HYDROGEN | B | B | P | | B |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| HYDROGEN SULFIDE ( HYDROSULFURIC ACID) | | | | B | B |
| AMMONIUM HYDROXIDE | | | L | | B |
| POTASSIUM HYDROXIDE 50% (CAUSTIC POTASH) | L | P | P | | B |
| SODIUM HYDROXIDE 10% (CAUSTIC SODA) | B | P | P | B | B |
| SODIUM HYDROXIDE 50% (CAUSTIC SODA) | L | P | P | B | B |
| SODIUM HYDROXIDE 100% (CAUSTIC SODA) | L | P | P | B | B |
| IGEPAL | | | | L | |
| INKS | | | | B | |
| IODINE | | | | L | |
| IODINE OF POTASSIUM | B | | | | |
| CALCIUM HYPOCHLORITE | | | | B | B |
| ISOBUTANE | B | | L | | |
| ISOCYANATES | L | L | L | | B |
| ISOCTANE | B | | | | B |
| ISOFORANE | B | | | | |
| ISOPROPANE | | | P | | |
| KEROSENE | B | L | | | B |
| LANOLIN | B | | | | |
| MILK | | | B | B | B |
| MILK OF LIME | B | | | | |
| LATEX | | | | B | |
| LEGUMINOUS VEGETABLES | | | | B | |
| YEASTS | | | | B | |
| POTASSIUM LYE | B | | | | |
| CONCENTRATED SODA LYE | P | | | | B |
| MAYONNAISE | | | | B | |
| MARGARINE | | | | B | |
| MERCURY | B | | | | B |
| MERCURY CHROMIUM | B | | | | |
| METHANE | B | | | | |
| METHANOL (METHYL ALCOHOL) | B - G | B | P | B | |
| METHYL ETHYL KETONE | B | P | P | P | B |
| CREOSOL | P | | | | B |
| HONEY | | | | B | |
| CHLORBENZENE | L | | | | B |
| CARBON MONOXIDE | | | | | B |
| MUSTARD | | | | B | |
| DIESEL OIL | B | B | | | B |
| NAPHTHALENE | B | L | | | B |
| NEKANIL | | | | P | |
| NICKEL | | | | B | |
| AMMONIUM NITRATE | B | | B | | B |
| SILVER NITRATE | | | | B | B |
| CALCIUM NITRATE | B | | | | B |
| POTASSIUM NITRATE | B - G | | | | B |
| SODIUM NITRATE | B | | B | | B |
| FERRIC NITRATE | | | | B | B |
| NITROBENZENE | L - G | P | | | B |
| NITROMETHANE + 40/60% METHYL ALCOHOL | B - G | | | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| OCTANO | B | | | | |
| OLEUM | P | P | | | |
| PEANUT OIL | B | B | | | |
| ASTM OIL N°1, N°2, N°3 | | B | B | | |
| FUEL OIL | | | | L | B |
| CUTTING OIL | | | | | B |
| TRANSFORMER OIL | B | | | | B |
| RAPESEED OIL | B | L | | | B |
| COTTON OIL | | | | B | B |
| LINSEED OIL | B | L | | | B |
| METHYL OIL | | | | P | |
| PARAFFIN OIL | B | | | | |
| PINE OIL | B | | | | B |
| PYRIDINE OIL | L | | | | |
| CASTOR OIL | | | | B | |
| SILICONE OIL | B | | | | |
| BRAKE OIL DOT 3-4-5 | L | B | P | | B |
| HYDRAULIC OIL | B | B | B | | B |
| ENGINE OIL | B | B | | | B |
| SAE 10 OIL | | B | | | B |
| VEGETABLE OIL | B | | B | | B |
| ORTHO-DICHLOROBENZENE | L | | | | |
| PHOSPHORUS OXYCHLORIDE | P | | | | |
| ETHYLENE OXIDE | B | B | | | |
| OXYGEN | B | B | P | | B |
| OZONE | P | L | L | P | B |
| PARADICHLOROBENZENE | B | | | | |
| PARAFFIN | B | | | | |
| ANTIMONY PENTACHLORIDE | P | | | | |
| PENTANE | B | | L | | |
| PERCHLOROETHYLENE | L | P | P | | B |
| POTASSIUM PERMANGANATE 5% | P | | | | |
| DILAUROYL PEROXIDE | B | | | | |
| ORGANIC PEROXIDE | L | | L | | B |
| PETROLEUM | B | | | | B |
| TETRAETHYL LEAD | B | | | | |
| PURE PYRIDINE | L | P | P | | B |
| ALUMINIUM POLYCHLORIDE | | | | | B |
| POTASSIUM 50% | B | | | B | |
| PROPANE | B | | | | B |
| NITROUS OXIDE | L | B | | | B |
| COPPER | | | | B | |
| RESORCIN | P | | | | |
| SEA SALT | | | | B | |
| AQUEOUS ALUMINIUM SALTS | B | | | | |
| SILVER SALTS | B | | | | |
| BARIUM SALTS | B | | | | |
| IRON SALTS | B | | | | |
| MAGNESIUM SALTS | B | | | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| NICKEL SALTS | B | | | | |
| COPPER SALTS | B | | | | |
| ZINC SALTS | B | | | | |
| SOAP SOLUTION | B | B | | | B |
| TALLOW | B | | | | |
| SHAMPOO | | | | B | |
| CIDER | | | | B | |
| SILICATE | B | | | | |
| CIANACRILIC SILICONE | B | | | | |
| SILICONE GREASE - OIL | B | B | B | | |
| SKYDROL 500B | | B | L | | B |
| ALUMINIUM SULPHATE | B | | B | | B |
| AMMONIUM SULPHATE | B | L | B | | B |
| CALCIUM SULPHATE | | | | B | B |
| MAGNESIUM SULPHATE | | | | B | B |
| METHYL SULPHATE | B | | | | |
| POTASSIUM SULPHATE | B | | | | B |
| COPPER SULPHATE | B | B | | | |
| SODIUM SULPHATE | B | | | | |
| ZINC SULPHATE | | | | B | B |
| FERROUS SULPHATE | | | | B | B |
| SODIUM SULPHITE | B | | B | | |
| AMMONIUM SULPHIDE | | | | B | |
| CARBON SULPHIDE | B - G | | | | |
| SODIUM SULPHIDE | B | | | | |
| ZINC SULPHIDE | B | | | | |
| WHITE SPIRIT | B | | | | |
| STEARIN | B | | | | |
| STYRENE | B | P | | | B |
| FRUIT JUICE | | | B | B | |
| CARBON TETRACHLORIDE | L | P | P | | B |
| TITANIUM TETRACHLORIDE | P | | | | |
| TETRAHYDROFURAN | B | L | P | | |
| TETRAHYDRONAPHTHALENE | B | | | | |
| TETRALIN | B | | | | |
| THIOCARBONATE | B | | | | |
| THIOPHEN | B | | | | |
| SODIUM THIOSULPHATE | B | | | | |
| TOLUENE | B | | P | P | B |
| TOLUOL | B | L | | | |
| TRIBUTYLPHOSPHATE | B | | | | B |
| TRICHLOROETHANE | L | | P | | |
| TRICHLOROETHYLENE | L - G | P | P | P | B |
| PHOSPHOROUS TRICHLORIDE | P | | | | |
| TRICHRESYLPHOSPHATE | B | | | | |
| UREA | B | | L | | B |
| URINE | | | | B | |
| WATER VAPOUR | P | P | P | B - L | B |
| VASELINE | B | | | | |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

| CHEMICAL COMPOUND | POLYAMIDES | POLYESTER | POLYURETHANE | POLYETHYLENE | PTFE |
|---|---|---|---|---|---|
| NITROCELLULOSE PAINTS | B | | | | B |
| OIL PAINTS | | | | P | B |
| VINYL PAINTS | | | | L | B |
| WINE | | | | B | B |
| WHISKY | | | | B | B |
| XYLENE | B | L | P | L | |
| SULPHUR | B | L | | | B |
| SUGAR | | | | B | B |

**B:** Good resistance - **L:** Limited resistance - **P:** Poor resistance - **G:** Swelling action

# ALPHANUMERIC INDEX


| | |
|---|---|
| 1100TR1 | 364 |
| 1100TR12 | 364 |
| 1100TR14 | 364 |
| 1100TR18 | 364 |
| 1100TR34 | 364 |
| 1100TR38 | 364 |
| 1100TRM5 | 364 |
| 1100TRN12 | 364 |
| 1100TRN14 | 364 |
| 1100TRN18 | 364 |
| 1100TRN38 | 364 |
| 1101TR1 | 364 |
| 1101TR12 | 364 |
| 1101TR14 | 364 |
| 1101TR18 | 364 |
| 1101TR34 | 364 |
| 1101TR38 | 364 |
| 1101TRM5 | 364 |
| 1102TR1 | 364 |
| 1102TR12 | 364 |
| 1102TR14 | 364 |
| 1102TR18 | 364 |
| 1102TR34 | 364 |
| 1102TR38 | 364 |
| 1102TRM5 | 364 |
| 1105TR1 | 266 |
| 1105TR12 | 266 |
| 1105TR14 | 266 |
| 1105TR18 | 266 |
| 1105TR34 | 266 |
| 1105TR38 | 266 |
| 1105TRM5 | 266 |
| 1106TR12 | 266 |
| 1106TR14 | 266 |
| 1106TR18 | 266 |
| 1106TR38 | 266 |
| 1107TR1234 | 266 |
| 1107TR1412 | 266 |
| 1107TR1438 | 266 |
| 1107TR1814 | 266 |
| 1107TR1838 | 266 |
| 1107TR341 | 266 |
| 1107TR3812 | 266 |
| 1107TR3834 | 266 |
| 1107TRM518 | 266 |
| 1108TR1412 | 266 |
| 1108TR1438 | 266 |
| 1108TR1814 | 266 |
| 1108TR1838 | 266 |
| 1108TR3812 | 266 |
| 1110TR1 | 267 |
| 1110TR1-3P | 278 |
| 1110TR12 | 267 |
| 1110TR12-3P | 278 |
| 1110TR14 | 267 |
| 1110TR14-3P | 278 |
| 1110TR18 | 267 |
| 1110TR18-3P | 278 |
| 1110TR34 | 267 |
| 1110TR34-3P | 278 |
| 1110TR38 | 267 |
| 1110TR38-3P | 278 |
| 1112TR1234 | 267 |
| 1112TR1412 | 267 |
| 1112TR1438 | 267 |
| 1112TR1814 | 267 |
| 1112TR1838 | 267 |
| 1112TR341 | 267 |
| 1112TR3812 | 267 |
| 1113TR1212 | 267 |
| 1113TR1414 | 267 |
| 1113TR1818 | 267 |
| 1113TR3838 | 267 |
| 1115TR1 | 268 |
| 1115TR12 | 268 |
| 1115TR121 | 268 |
| 1115TR1234 | 268 |
| 1115TR14 | 268 |
| 1115TR1412 | 268 |
| 1115TR1438 | 268 |
| 1115TR18 | 268 |
| 1115TR1814 | 268 |
| 1115TR1838 | 268 |
| 1115TR34 | 268 |
| 1115TR341 | 268 |
| 1115TR38 | 268 |
| 1115TR3812 | 268 |
| 1115TR3834 | 268 |
| 1115TRM5 | 268 |
| 1115TRM518 | 268 |
| 1115TRM618 | 268 |
| 1116TR14 | 268 |
| 1116TR1412 | 268 |
| 1116TR1438 | 268 |
| 1116TR18 | 268 |
| 1116TR1814 | 268 |
| 1116TR1838 | 268 |
| 1116TR38 | 268 |
| 1116TR3812 | 268 |
| 1118TR14 | 268 |
| 1118TR18 | 268 |
| 1118TR38 | 268 |
| 1120TR1 | 269 |
| 1120TR12 | 269 |

| | |
|---|---|
| 1120TR121 | 269 |
| 1120TR1234 | 269 |
| 1120TR14 | 269 |
| 1120TR1412 | 269 |
| 1120TR1438 | 269 |
| 1120TR18 | 269 |
| 1120TR1814 | 269 |
| 1120TR1838 | 269 |
| 1120TR34 | 269 |
| 1120TR341 | 269 |
| 1120TR38 | 269 |
| 1120TR3812 | 269 |
| 1120TR3834 | 269 |
| 1122TR14 | 269 |
| 1122TR18 | 269 |
| 1122TR1838 | 269 |
| 1125TR1 | 269 |
| 1125TR12 | 269 |
| 1125TR14 | 269 |
| 1125TR18 | 269 |
| 1125TR34 | 269 |
| 1125TR38 | 269 |
| 1125TRM5 | 269 |
| 1126TR121 | 270 |
| 1126TR1234 | 270 |
| 1126TR1412 | 270 |
| 1126TR1438 | 270 |
| 1126TR1814 | 270 |
| 1126TR1838 | 270 |
| 1126TR341 | 270 |
| 1126TR3812 | 270 |
| 1126TR3834 | 270 |
| 1126TRM518 | 270 |
| 1130TR141735 | 270 |
| 1130TR141751 | 270 |
| 1130TR181422 | 270 |
| 1130TR181442 | 270 |
| 1130TR181451 | 270 |
| 1135TR112 | 270 |
| 1135TR1214 | 270 |
| 1135TR1218 | 270 |
| 1135TR1238 | 270 |
| 1135TR134 | 270 |
| 1135TR138 | 270 |
| 1135TR1418 | 270 |
| 1135TR3412 | 270 |
| 1135TR3414 | 270 |
| 1135TR3438 | 270 |
| 1135TR3814 | 270 |
| 1135TR3818 | 270 |
| 1135TRM518 | 270 |
| 1136TR1214 | 271 |
| 1136TR1218 | 271 |
| 1136TR1238 | 271 |
| 1136TR1418 | 271 |
| 1136TR3814 | 271 |
| 1136TR3818 | 271 |
| 1136TR18M5 | 271 |
| 1140TR112 | 271 |
| 1140TR1214 | 271 |
| 1140TR1218 | 271 |
| 1140TR1238 | 271 |
| 1140TR134 | 271 |
| 1140TR138 | 271 |
| 1140TR1418 | 271 |
| 1140TR3412 | 271 |
| 1140TR3414 | 271 |
| 1140TR3438 | 271 |
| 1140TR3814 | 271 |
| 1140TR3818 | 271 |
| 1145TR1 | 271 |
| 1145TR12 | 271 |
| 1145TR14 | 271 |
| 1145TR18 | 271 |
| 1145TR34 | 271 |
| 1145TR38 | 271 |
| 1145TRM5 | 271 |
| 1148TR1 | 272 |
| 1148TR12 | 272 |
| 1148TR14 | 272 |
| 1148TR18 | 272 |
| 1148TR34 | 272 |
| 1148TR38 | 272 |
| 1148TRM5 | 272 |
| 1149TR12 | 272 |
| 1149TR14 | 272 |
| 1149TR18 | 272 |
| 1149TR38 | 272 |
| 1149TRM5 | 272 |
| 1150TR1 | 272 |
| 1150TR12 | 272 |
| 1150TR14 | 272 |
| 1150TR18 | 272 |
| 1150TR34 | 272 |
| 1150TR38 | 272 |
| 1152TR12 | 272 |
| 1152TR14 | 272 |
| 1152TR18 | 272 |
| 1152TR38 | 272 |
| 1155TR1 | 273 |
| 1155TR12 | 273 |
| 1155TR14 | 273 |
| 1155TR18 | 273 |
| 1155TR34 | 273 |
| 1155TR38 | 273 |
| 1155TRM5 | 273 |
| 1160TR12 | 273 |
| 1160TR14 | 273 |
| 1160TR18 | 273 |
| 1160TR38 | 273 |
| 1161TR1 | 273 |
| 1161TR12 | 273 |
| 1161TR14 | 273 |
| 1161TR18 | 273 |
| 1161TR34 | 273 |
| 1161TR38 | 273 |
| 1163TR101514 | 285 |
| 1163TR101538 | 285 |
| 1163TR101714 | 285 |
| 1163TR101738 | 285 |
| 1163TR101914 | 285 |
| 1163TR101938 | 285 |
| 1163TR111638 | 285 |
| 1163TR61014 | 285 |
| 1163TR61038 | 285 |
| 1163TR61214 | 285 |
| 1163TR61238 | 285 |
| 1163TR61314 | 285 |
| 1163TR61338 | 285 |
| 1163TR61414 | 285 |
| 1163TR61438 | 285 |
| 1163TR71614 | 285 |
| 1163TR71638 | 285 |
| 1163TR81214 | 285 |
| 1163TR81238 | 285 |
| 1163TR81314 | 285 |
| 1163TR81338 | 285 |
| 1163TR81514 | 285 |
| 1163TR81538 | 285 |
| 1163TR81714 | 285 |
| 1163TR81738 | 285 |
| 1164TR101514 | 286 |
| 1164TR101538 | 286 |
| 1164TR101714 | 286 |
| 1164TR101738 | 286 |
| 1164TR101914 | 286 |
| 1164TR101938 | 286 |
| 1164TR61014 | 286 |
| 1164TR61038 | 286 |
| 1164TR61214 | 286 |
| 1164TR61238 | 286 |
| 1164TR61314 | 286 |
| 1164TR61338 | 286 |
| 1164TR61414 | 286 |
| 1164TR61438 | 286 |
| 1164TR71614 | 286 |
| 1164TR71638 | 286 |
| 1164TR81214 | 286 |
| 1164TR81238 | 286 |
| 1164TR81314 | 286 |
| 1164TR81338 | 286 |
| 1164TR81514 | 286 |
| 1164TR81538 | 286 |
| 1164TR81714 | 286 |
| 1164TR81738 | 286 |
| 1165TR1212 | 212 |
| 1165TR1214 | 212 |
| 1165TR1217 | 212 |
| 1165TR1220 | 212 |
| 1165TR1410 | 212 |
| 1165TR1412 | 212 |
| 1165TR146 | 212 |
| 1165TR147 | 212 |
| 1165TR148 | 212 |
| 1165TR149 | 212 |
| 1165TR1810 | 212 |
| 1165TR186 | 212 |
| 1165TR187 | 212 |
| 1165TR188 | 212 |
| 1165TR189 | 212 |
| 1165TR3418 | 212 |
| 1165TR3420 | 212 |
| 1165TR3810 | 212 |
| 1165TR3812 | 212 |
| 1165TR3814 | 212 |
| 1165TR3817 | 212 |
| 1165TR388 | 212 |
| 1165TR389 | 212 |
| 1165TRM545 | 212 |
| 1166TR61014 | 285 |
| 1166TR61214 | 285 |
| 1166TR61314 | 285 |
| 1166TR61414 | 285 |
| 1166TR81214 | 285 |
| 1166TR81314 | 285 |
| 1166TR81514 | 285 |
| 1166TR81714 | 285 |
| 1167TR1212 | 212 |
| 1167TR1217 | 212 |
| 1167TR1410 | 212 |
| 1167TR1412 | 212 |
| 1167TR146 | 212 |
| 1167TR147 | 212 |
| 1167TR148 | 212 |
| 1167TR149 | 212 |
| 1167TR1810 | 212 |
| 1167TR186 | 212 |
| 1167TR187 | 212 |

| | |
|---|---|
| 1167TR188 | 212 |
| 1167TR189 | 212 |
| 1167TR3812 | 212 |
| 1167TR3817 | 212 |
| 1167TR386 | 212 |
| 1167TR388 | 212 |
| 1167TR389 | 212 |
| 1167TRM545 | 212 |
| 1169TR121 | 213 |
| 1169TR1210 | 213 |
| 1169TR1212 | 213 |
| 1169TR1214 | 213 |
| 1169TR1216 | 213 |
| 1169TR1217 | 213 |
| 1169TR1218 | 213 |
| 1169TR1220 | 213 |
| 1169TR1221 | 213 |
| 1169TR125 | 213 |
| 1169TR127 | 213 |
| 1169TR129 | 213 |
| 1169TR1410 | 213 |
| 1169TR1412 | 213 |
| 1169TR146 | 213 |
| 1169TR147 | 213 |
| 1169TR148 | 213 |
| 1169TR149 | 213 |
| 1169TR1810 | 213 |
| 1169TR186 | 213 |
| 1169TR187 | 213 |
| 1169TR188 | 213 |
| 1169TR189 | 213 |
| 1169TR3416 | 213 |
| 1169TR3418 | 213 |
| 1169TR3420 | 213 |
| 1169TR3421 | 213 |
| 1169TR3425 | 213 |
| 1169TR3427 | 213 |
| 1169TR3810 | 213 |
| 1169TR3812 | 213 |
| 1169TR3814 | 213 |
| 1169TR3816 | 213 |
| 1169TR3817 | 213 |
| 1169TR3818 | 213 |
| 1169TR3820 | 213 |
| 1169TR389 | 213 |
| 1170TR1210 | 214 |
| 1170TR1212 | 214 |
| 1170TR1214 | 214 |
| 1170TR1216 | 214 |
| 1170TR1217 | 214 |
| 1170TR1218 | 214 |
| 1170TR1410 | 214 |
| 1170TR1412 | 214 |
| 1170TR146 | 214 |
| 1170TR147 | 214 |
| 1170TR148 | 214 |
| 1170TR149 | 214 |
| 1170TR1810 | 214 |
| 1170TR186 | 214 |
| 1170TR187 | 214 |
| 1170TR188 | 214 |
| 1170TR189 | 214 |
| 1170TR3418 | 214 |
| 1170TR3420 | 214 |
| 1170TR3425 | 214 |
| 1170TR3810 | 214 |
| 1170TR3812 | 214 |
| 1170TR3814 | 214 |
| 1170TR3816 | 214 |
| 1170TR3817 | 214 |
| 1170TR389 | 214 |
| 1171TR14623 | 214 |
| 1171TR14723 | 214 |
| 1171TR186185 | 214 |
| 1171TR18623 | 214 |
| 1171TR187185 | 214 |
| 1171TR18723 | 214 |
| 1171TR18819 | 214 |
| 1172TR146325 | 215 |
| 1172TR147325 | 215 |
| 1172TR186325 | 215 |
| 1172TR18638 | 215 |
| 1172TR187325 | 215 |
| 1172TR18738 | 215 |
| 1173TR186 | 215 |
| 1173TR187 | 215 |
| 1174TR146 | 215 |
| 1174TR147 | 215 |
| 1174TR186 | 215 |
| 1174TR187 | 215 |
| 1175TR1 | 273 |
| 1175TR12 | 273 |
| 1175TR14 | 273 |
| 1175TR18 | 273 |
| 1175TR34 | 273 |
| 1175TR38 | 273 |
| 1175TRM5 | 273 |
| 1176TRM101 | 274 |
| 1176TRM121 | 274 |
| 1176TRM1615 | 274 |
| 1176TRM1815 | 274 |
| 1176TRM2015 | 274 |
| 1176TRM2215 | 274 |
| 1176TRM2615 | 274 |
| 1176TRM2815 | 274 |
| 1200TR1 | 274 |
| 1200TR12 | 274 |
| 1200TR14 | 274 |
| 1200TR18 | 274 |
| 1200TR34 | 274 |
| 1200TR38 | 274 |
| 1200TRM5 | 274 |
| 1205TR1 | 274 |
| 1205TR12 | 274 |
| 1205TR14 | 274 |
| 1205TR18 | 274 |
| 1205TR34 | 274 |
| 1205TR38 | 274 |
| 1205TRM5 | 274 |
| 1210TR1 | 274 |
| 1210TR12 | 274 |
| 1210TR14 | 274 |
| 1210TR18 | 274 |
| 1210TR34 | 274 |
| 1210TR38 | 274 |
| 1210TRM5 | 274 |
| 1215TR12 | 275 |
| 1215TR14 | 275 |
| 1215TR18 | 275 |
| 1215TR38 | 275 |
| 1216TR12 | 275 |
| 1216TR14 | 275 |
| 1216TR18 | 275 |
| 1216TR38 | 275 |
| 1218TR14 | 275 |
| 1220TR1 | 275 |
| 1220TR12 | 275 |
| 1220TR14 | 275 |
| 1220TR18 | 275 |
| 1220TR34 | 275 |
| 1220TR38 | 275 |
| 1220TRM5 | 275 |
| 1225TR1 | 276 |
| 1225TR12 | 276 |
| 1225TR14 | 276 |
| 1225TR18 | 276 |
| 1225TR34 | 276 |
| 1225TR38 | 276 |
| 1225TRM5 | 276 |
| 1230TR1 | 276 |
| 1230TR12 | 276 |
| 1230TR14 | 276 |
| 1230TR18 | 276 |
| 1230TR34 | 276 |
| 1230TR38 | 276 |
| 1230TRM5 | 276 |
| 1235TR1 | 276 |
| 1235TR12 | 276 |
| 1235TR14 | 276 |
| 1235TR18 | 276 |
| 1235TR34 | 276 |
| 1235TR38 | 276 |
| 1235TRM5 | 276 |
| 1240TR1 | 276 |
| 1240TR12 | 276 |
| 1240TR14 | 276 |
| 1240TR18 | 276 |
| 1240TR34 | 276 |
| 1240TR38 | 276 |
| 1240TRM5 | 276 |
| 1245TR1 | 277 |
| 1245TR12 | 277 |
| 1245TR14 | 277 |
| 1245TR18 | 277 |
| 1245TR34 | 277 |
| 1245TR38 | 277 |
| 1245TRM5 | 277 |
| 1255TR14 | 282 |
| 1255TR14125 | 282 |
| 1255TR38 | 282 |
| 1256 | 283 |
| 1256-GG | 283 |
| 1260TR14 | 282 |
| 1265TR12 | 282 |
| 1265TR14 | 282 |
| 1265TR18 | 282 |
| 1265TR38 | 282 |
| 1270TR14 | 282 |
| 1275TR1015 | 284 |
| 1275TR1017 | 284 |
| 1275TR1019 | 284 |
| 1275TR610 | 284 |
| 1275TR612 | 284 |
| 1275TR613 | 284 |
| 1275TR614 | 284 |
| 1275TR716 | 284 |
| 1275TR812 | 284 |
| 1275TR813 | 284 |
| 1275TR815 | 284 |
| 1275TR817 | 284 |
| 1278TR1019 | 287 |
| 1278TR612 | 287 |
| 1278TR614 | 287 |
| 1278TR817 | 287 |
| 1280TR14 | 283 |
| 1280TR18 | 283 |
| 1280TR38 | 283 |
| 1285TR14 | 283 |

| | |
|---|---|
| 1285TR18 | 283 |
| 1285TR38 | 283 |
| 1288TR10 | 284 |
| 1288TR11 | 284 |
| 1288TR12 | 284 |
| 1288TR14 | 284 |
| 1288TR6 | 284 |
| 1288TR7 | 284 |
| 1288TR8 | 284 |
| 1288TR9 | 284 |
| 1290TR14 | 283 |
| 1290TR18 | 283 |
| 1290TR38 | 283 |
| 1291BG1019 | 284 |
| 1291BG1020 | 284 |
| 1291BG1021 | 284 |
| 1291BG1022 | 284 |
| 1291BG1023 | 284 |
| 1291BG1319 | 284 |
| 1291BG1320 | 284 |
| 1291BG1323 | 284 |
| 1291BG1324 | 284 |
| 1291BG1325 | 284 |
| 1292TR101912 | 286 |
| 1292TR101938 | 286 |
| 1292TR102012 | 286 |
| 1292TR102038 | 286 |
| 1292TR102112 | 286 |
| 1292TR102138 | 286 |
| 1292TR102212 | 286 |
| 1292TR102238 | 286 |
| 1292TR102312 | 286 |
| 1292TR102338 | 286 |
| 1292TR131912 | 286 |
| 1292TR131938 | 286 |
| 1292TR132012 | 286 |
| 1292TR132038 | 286 |
| 1292TR132112 | 286 |
| 1292TR132138 | 286 |
| 1292TR132312 | 286 |
| 1292TR132338 | 286 |
| 1292TR132412 | 286 |
| 1292TR132438 | 286 |
| 1292TR132512 | 286 |
| 1292TR132538 | 286 |
| 1295TR14128 | 287 |
| 1295TR381510 | 287 |
| 1300TR12 | 277 |
| 1300TR14 | 277 |
| 1300TR18 | 277 |
| 1300TR38 | 277 |
| 1310TR12 | 277 |
| 1310TR14 | 277 |
| 1310TR18 | 277 |
| 1310TR38 | 277 |
| 1320TR12M2815 | 277 |
| 1320TR14M2015 | 277 |
| 1320TR18M1615 | 277 |
| 1320TR38M2615 | 277 |
| 1320TRM5M101 | 277 |
| 1322TR114M492 | 278 |
| 1322TR12M282 | 278 |
| 1322TR14M2015 | 278 |
| 1322TR18M1615 | 278 |
| 1322TR34M342 | 278 |
| 1322TR38M2615 | 278 |
| 1400TR1 | 366 |
| 1400TR12 | 366 |
| 1400TR14 | 366 |
| 1400TR18 | 366 |
| 1400TR34 | 366 |
| 1400TR38 | 366 |
| 1400TRN1 | 366 |
| 1400TRN12 | 366 |
| 1400TRN14 | 366 |
| 1410MF1 | 256 |
| 1410MF112 | 256 |
| 1410MF114 | 256 |
| 1410MF12 | 256 |
| 1410MF14 | 256 |
| 1410MF18 | 256 |
| 1410MF2 | 256 |
| 1410MF212 | 256 |
| 1410MF3 | 256 |
| 1410MF34 | 256 |
| 1410MF38 | 256 |
| 1410MF4 | 256 |
| 1410TR12 | 310 |
| 1410TR14 | 310 |
| 1410TR18 | 310 |
| 1410TR34 | 310 |
| 1410TR38 | 310 |
| 1412MF112 | 256 |
| 1412MF1121 | 256 |
| 1412MF112114 | 256 |
| 1412MF1141 | 256 |
| 1412MF11412 | 256 |
| 1412MF1214 | 256 |
| 1412MF1218 | 256 |
| 1412MF1238 | 256 |
| 1412MF134 | 256 |
| 1412MF1418 | 256 |
| 1412MF21 | 256 |
| 1412MF2112 | 256 |
| 1412MF2114 | 256 |
| 1412MF3412 | 256 |
| 1412MF3414 | 256 |
| 1412MF3814 | 256 |
| 1412TR1234 | 310 |
| 1412TR1412 | 310 |
| 1412TR1438 | 310 |
| 1412TR1814 | 310 |
| 1412TR3812 | 310 |
| 1416MF1 | 257 |
| 1416MF112 | 257 |
| 1416MF114 | 257 |
| 1416MF12 | 257 |
| 1416MF14 | 257 |
| 1416MF2 | 257 |
| 1416MF34 | 257 |
| 1416MF38 | 257 |
| 1420MF112P3 | 257 |
| 1420MF114P3 | 257 |
| 1420MF12P3 | 257 |
| 1420MF14P3 | 257 |
| 1420MF18P3 | 257 |
| 1420MF1P3 | 257 |
| 1420MF212P3 | 257 |
| 1420MF2P3 | 257 |
| 1420MF34P3 | 257 |
| 1420MF38P3 | 257 |
| 1420MF3P3 | 257 |
| 1420MF4P3 | 257 |
| 1420TR1438 | 310 |
| 1420TR1814 | 310 |
| 1420TR3812 | 310 |
| 1425MF1 | 258 |
| 1425MF112 | 258 |
| 1425MF112P3 | 257 |
| 1425MF114 | 258 |
| 1425MF114P3 | 257 |
| 1425MF12 | 258 |
| 1425MF12P3 | 257 |
| 1425MF14 | 258 |
| 1425MF14P3 | 257 |
| 1425MF18 | 258 |
| 1425MF18P3 | 257 |
| 1425MF1P3 | 257 |
| 1425MF2 | 258 |
| 1425MF212 | 258 |
| 1425MF212P3 | 257 |
| 1425MF2P3 | 257 |
| 1425MF3 | 258 |
| 1425MF34 | 258 |
| 1425MF34P3 | 257 |
| 1425MF38 | 258 |
| 1425MF38P3 | 257 |
| 1425MF3P3 | 257 |
| 1425MF4 | 258 |
| 1425MF4P3 | 257 |
| 1425TR12 | 311 |
| 1425TR14 | 311 |
| 1425TR18 | 311 |
| 1425TR34 | 311 |
| 1425TR38 | 311 |
| 1426MF112114 | 258 |
| 1426MF1141 | 258 |
| 1426MF1238 | 258 |
| 1426MF134 | 258 |
| 1426MF2112 | 258 |
| 1426MF3412 | 258 |
| 1426MF3814 | 258 |
| 1426TR1234 | 311 |
| 1426TR1412 | 311 |
| 1426TR1438 | 311 |
| 1426TR1814 | 311 |
| 1426TR3812 | 311 |
| 1430TR12M2815 | 311 |
| 1430TR14M2015 | 311 |
| 1440MF112 | 259 |
| 1440MF1121 | 259 |
| 1440MF112114 | 259 |
| 1440MF11234 | 259 |
| 1440MF1141 | 259 |
| 1440MF11412 | 259 |
| 1440MF11434 | 259 |
| 1440MF1214 | 259 |
| 1440MF1218 | 259 |
| 1440MF1238 | 259 |
| 1440MF134 | 259 |
| 1440MF1418 | 259 |
| 1440MF21 | 259 |
| 1440MF2112 | 259 |
| 1440MF2114 | 259 |
| 1440MF212112 | 259 |
| 1440MF2122 | 259 |
| 1440MF32 | 259 |
| 1440MF3212 | 259 |
| 1440MF3412 | 259 |
| 1440MF3414 | 259 |
| 1440MF3438 | 259 |
| 1440MF3814 | 259 |
| 1440MF3818 | 259 |
| 1440MF43 | 259 |
| 1440TR1238 | 312 |
| 1440TR1418 | 312 |
| 1440TR3814 | 312 |
| 1449TRH1-V | 315 |

| | |
|---|---|
| 1449TRH112-V | 315 |
| 1449TRH114-V | 315 |
| 1449TRH12-V | 315 |
| 1449TRH14-V | 315 |
| 1449TRH18-V | 315 |
| 1449TRH34-V | 315 |
| 1449TRH38-V | 315 |
| 1450MF1 | 259 |
| 1450MF112 | 259 |
| 1450MF114 | 259 |
| 1450MF12 | 259 |
| 1450MF14 | 259 |
| 1450MF18 | 259 |
| 1450MF2 | 259 |
| 1450MF212 | 259 |
| 1450MF3 | 259 |
| 1450MF34 | 259 |
| 1450MF38 | 259 |
| 1450MF4 | 259 |
| 1455MF1 | 260 |
| 1455MF112 | 260 |
| 1455MF114 | 260 |
| 1455MF12 | 260 |
| 1455MF14 | 260 |
| 1455MF18 | 260 |
| 1455MF2 | 260 |
| 1455MF212 | 260 |
| 1455MF3 | 260 |
| 1455MF34 | 260 |
| 1455MF38 | 260 |
| 1455MF4 | 260 |
| 1461TR12 | 312 |
| 1461TR14 | 312 |
| 1461TR18 | 312 |
| 1461TR34 | 312 |
| 1461TR38 | 312 |
| 1469MF112T40 | 260 |
| 1469MF114T34 | 260 |
| 1469MF12T15 | 260 |
| 1469MF14T9 | 260 |
| 1469MF18T7 | 260 |
| 1469MF1T27 | 260 |
| 1469MF212T65 | 260 |
| 1469MF2T52 | 260 |
| 1469MF34T20 | 260 |
| 1469MF38T11 | 260 |
| 1469MF3T77 | 260 |
| 1469MF4T105 | 260 |
| 1469TR1214 | 244 |
| 1469TR148 | 244 |
| 1469TR149 | 244 |
| 1469TR186 | 244 |
| 1469TR3420 | 244 |
| 1469TR3810 | 244 |
| 1475MF1 | 260 |
| 1475MF112 | 260 |
| 1475MF114 | 260 |
| 1475MF12 | 260 |
| 1475MF14 | 260 |
| 1475MF18 | 260 |
| 1475MF2 | 260 |
| 1475MF34 | 260 |
| 1475MF38 | 260 |
| 1480MF1 | 261 |
| 1480MF112 | 261 |
| 1480MF114 | 261 |
| 1480MF12 | 261 |
| 1480MF14 | 261 |
| 1480MF18 | 261 |
| 1480MF2 | 261 |
| 1480MF212 | 261 |
| 1480MF3 | 261 |
| 1480MF34 | 261 |
| 1480MF38 | 261 |
| 1480MF4 | 261 |
| 1482MF1 | 261 |
| 1482MF112 | 261 |
| 1482MF114 | 261 |
| 1482MF12 | 261 |
| 1482MF14 | 261 |
| 1482MF2 | 261 |
| 1482MF34 | 261 |
| 1482MF38 | 261 |
| 1485MF1 | 261 |
| 1485MF112 | 261 |
| 1485MF114 | 261 |
| 1485MF12 | 261 |
| 1485MF14 | 261 |
| 1485MF18 | 261 |
| 1485MF2 | 261 |
| 1485MF212 | 261 |
| 1485MF3 | 261 |
| 1485MF34 | 261 |
| 1485MF38 | 261 |
| 1485MF4 | 261 |
| 1490MF1 | 262 |
| 1490MF112 | 262 |
| 1490MF114 | 262 |
| 1490MF12 | 262 |
| 1490MF14 | 262 |
| 1490MF18 | 262 |
| 1490MF2 | 262 |
| 1490MF212 | 262 |
| 1490MF3 | 262 |
| 1490MF34 | 262 |
| 1490MF38 | 262 |
| 1490MF4 | 262 |
| 1505TR0604-A | 762 |
| 1505TR0805-A | 762 |
| 1505TR0806-A | 762 |
| 1505TR1008-A | 762 |
| 1505TR1065-A | 762 |
| 1505TR1208-A | 762 |
| 1505TR1210-A | 762 |
| 1508TR060414-A | 762 |
| 1508TR060418-A | 762 |
| 1508TR060438-A | 762 |
| 1508TR080612-A | 762 |
| 1508TR080614-A | 762 |
| 1508TR080618-A | 762 |
| 1508TR080638-A | 762 |
| 1508TR100812-A | 762 |
| 1508TR100814-A | 762 |
| 1508TR100838-A | 762 |
| 1509TR060414-A | 762 |
| 1509TR080514-A | 762 |
| 1509TR080614-A | 762 |
| 1509TR100814-A | 762 |
| 1509TR106514-A | 762 |
| 1510TR060414-A | 763 |
| 1510TR060418-A | 763 |
| 1510TR080612-A | 763 |
| 1510TR080614-A | 763 |
| 1510TR080618-A | 763 |
| 1510TR080638-A | 763 |
| 1510TR100812-A | 763 |
| 1510TR100814-A | 763 |
| 1510TR100818-A | 763 |
| 1510TR100838-A | 763 |
| 1510TR121012-A | 763 |
| 1510TR121038-A | 763 |
| 1515TR060414-A | 763 |
| 1515TR060418-A | 763 |
| 1515TR080514-A | 763 |
| 1515TR080518-A | 763 |
| 1515TR080614-A | 763 |
| 1515TR080618-A | 763 |
| 1515TR100814-A | 763 |
| 1515TR106514-A | 763 |
| 1515TR120838-A | 763 |
| 1515TR121038-A | 763 |
| 1521TR060414-A | 764 |
| 1521TR060418-A | 764 |
| 1521TR080514-A | 764 |
| 1521TR080518-A | 764 |
| 1521TR080614-A | 764 |
| 1521TR080618-A | 764 |
| 1521TR100814-A | 764 |
| 1521TR106514-A | 764 |
| 1521TR120838-A | 764 |
| 1521TR121038-A | 764 |
| 1522TR060412-A | 764 |
| 1522TR060414-A | 764 |
| 1522TR060418-A | 764 |
| 1522TR060438-A | 764 |
| 1522TR0604M121-A | 764 |
| 1522TR0604M12125-A | 764 |
| 1522TR0604M1215-A | 764 |
| 1522TR080612-A | 764 |
| 1522TR080614-A | 764 |
| 1522TR080618-A | 764 |
| 1522TR080638-A | 764 |
| 1522TR100812-A | 764 |
| 1522TR100814-A | 764 |
| 1522TR100818-A | 764 |
| 1522TR100838-A | 764 |
| 1522TR121012-A | 764 |
| 1522TR121038-A | 764 |
| 1525TR060414-A | 765 |
| 1525TR060418-A | 765 |
| 1525TR080514-A | 765 |
| 1525TR080518-A | 765 |
| 1525TR080614-A | 765 |
| 1525TR080618-A | 765 |
| 1525TR100814-A | 765 |
| 1525TR106514-A | 765 |
| 1525TR120838-A | 765 |
| 1525TR121038-A | 765 |
| 1600TR1214 | 278 |
| 1600TR1238 | 278 |
| 1600TR134 | 278 |
| 1600TR1418 | 278 |
| 1600TR3412 | 278 |
| 1600TR3814 | 278 |
| 1600TR3818 | 278 |
| 1600TRM518 | 278 |
| 1605TR12 | 402 |
| 1605TR14 | 402 |
| 1605TR38 | 402 |
| 1610TR12 | 400 |
| 1610TR14 | 400 |
| 1610TR18 | 400 |
| 1610TR34 | 400 |
| 1610TR38 | 400 |
| 1610TRM5 | 400 |
| 1620TR12 | 400 |
| 1620TR14 | 400 |
| 1620TR18 | 400 |

| | |
|---|---|
| 1620TR38 | 400 |
| 1700TR12L | 381 |
| 1700TR14L | 381 |
| 1700TR18L | 381 |
| 1700TR38L | 381 |
| 1700TRM5L | 381 |
| 1705TR1 | 389 |
| 1705TR112L | 384 |
| 1705TR114L | 384 |
| 1705TR12 | 389 |
| 1705TR12L | 384 |
| 1705TR14 | 389 |
| 1705TR18 | 389 |
| 1705TR1L | 384 |
| 1705TR212L | 384 |
| 1705TR2L | 384 |
| 1705TR34 | 389 |
| 1705TR34L | 384 |
| 1705TR38 | 389 |
| 1705TR38L | 384 |
| 1705TR3L | 384 |
| 1705TR4L | 384 |
| 1710TR1 | 390 |
| 1710TR12 | 390 |
| 1710TR14 | 390 |
| 1710TR18 | 390 |
| 1710TR34 | 390 |
| 1710TR38 | 390 |
| 1730TR1 | 391 |
| 1730TR12 | 391 |
| 1730TR14 | 391 |
| 1730TR18 | 391 |
| 1730TR34 | 391 |
| 1730TR38 | 391 |
| 1800TR12 | 292 |
| 1800TR14 | 292 |
| 1800TR18 | 292 |
| 1800TR34 | 292 |
| 1800TR38 | 292 |
| 1800TRN12 | 296 |
| 1800TRN14 | 296 |
| 1800TRN18 | 296 |
| 1800TRN34 | 296 |
| 1800TRN38 | 296 |
| 1802TR1214 | 292 |
| 1802TR1238 | 292 |
| 1802TR1418 | 292 |
| 1802TR3412 | 292 |
| 1802TR3814 | 292 |
| 1802TR3818 | 292 |
| 1802TRN1214 | 296 |
| 1802TRN1218 | 296 |
| 1802TRN1238 | 296 |
| 1802TRN1418 | 296 |
| 1802TRN3412 | 296 |
| 1802TRN3414 | 296 |
| 1802TRN3418 | 296 |
| 1802TRN3438 | 296 |
| 1802TRN3814 | 296 |
| 1802TRN3818 | 296 |
| 1810TR12 | 292 |
| 1810TR14 | 292 |
| 1810TR18 | 292 |
| 1810TR38 | 292 |
| 1810TRN14 | 296 |
| 1810TRN18 | 296 |
| 1812TR1238 | 292 |
| 1812TR1418 | 292 |
| 1812TR3814 | 292 |
| 1812TRN1418 | 296 |
| 1820TR1212 | 293 |
| 1820TR1214 | 293 |
| 1820TR1218 | 293 |
| 1820TR1238 | 293 |
| 1820TR1412 | 293 |
| 1820TR1414 | 293 |
| 1820TR1418 | 293 |
| 1820TR1438 | 293 |
| 1820TR1812 | 293 |
| 1820TR1814 | 293 |
| 1820TR1818 | 293 |
| 1820TR1838 | 293 |
| 1820TR3812 | 293 |
| 1820TR3814 | 293 |
| 1820TR3818 | 293 |
| 1820TR3838 | 293 |
| 1820TRN1212 | 297 |
| 1820TRN1214 | 297 |
| 1820TRN1218 | 297 |
| 1820TRN1238 | 297 |
| 1820TRN1412 | 297 |
| 1820TRN1414 | 297 |
| 1820TRN1418 | 297 |
| 1820TRN1438 | 297 |
| 1820TRN1812 | 297 |
| 1820TRN1814 | 297 |
| 1820TRN1818 | 297 |
| 1820TRN1838 | 297 |
| 1820TRN3812 | 297 |
| 1820TRN3814 | 297 |
| 1820TRN3818 | 297 |
| 1820TRN3838 | 297 |
| 1825TR12 | 293 |
| 1825TR14 | 293 |
| 1825TR18 | 293 |
| 1825TR34 | 293 |
| 1825TR38 | 293 |
| 1825TRN12 | 297 |
| 1825TRN14 | 297 |
| 1825TRN18 | 297 |
| 1825TRN38 | 297 |
| 1827TR1214 | 293 |
| 1827TR1238 | 293 |
| 1827TR1418 | 293 |
| 1827TR3412 | 293 |
| 1827TR3414 | 293 |
| 1827TR3814 | 293 |
| 1827TR3818 | 293 |
| 1827TRN1214 | 297 |
| 1827TRN1238 | 297 |
| 1827TRN1418 | 297 |
| 1827TRN3814 | 297 |
| 1827TRN3818 | 297 |
| 1830TR12 | 394 |
| 1830TR14 | 394 |
| 1830TR18 | 394 |
| 1830TR38 | 394 |
| 1830TRN14 | 298 |
| 1830TRN18 | 298 |
| 1832TR1238 | 394 |
| 1832TR1418 | 394 |
| 1832TR1438 | 394 |
| 1832TR1814 | 394 |
| 1832TR3812 | 394 |
| 1832TR3814 | 394 |
| 1832TRN1418 | 298 |
| 1834TR1238 | 394 |
| 1834TR1418 | 394 |
| 1834TR1438 | 394 |
| 1834TR1814 | 394 |
| 1834TR3812 | 394 |
| 1834TR3814 | 394 |
| 1840TR1214 | 394 |
| 1840TR1218 | 394 |
| 1840TR1238 | 394 |
| 1840TR1418 | 394 |
| 1840TR3412 | 394 |
| 1840TR3414 | 394 |
| 1840TR3438 | 394 |
| 1840TR3814 | 394 |
| 1840TR3818 | 394 |
| 1840TRN1214 | 298 |
| 1840TRN1218 | 298 |
| 1840TRN1238 | 298 |
| 1840TRN1418 | 298 |
| 1840TRN3412 | 298 |
| 1840TRN3414 | 298 |
| 1840TRN3438 | 298 |
| 1840TRN3814 | 298 |
| 1840TRN3818 | 298 |
| 1850TR1 | 295 |
| 1850TR12 | 295 |
| 1850TR14 | 295 |
| 1850TR18 | 295 |
| 1850TR34 | 295 |
| 1850TR38 | 295 |
| 1850TRN12 | 298 |
| 1850TRN14 | 298 |
| 1850TRN18 | 298 |
| 1850TRN34 | 298 |
| 1850TRN38 | 298 |
| 1855TR12 | 295 |
| 1855TR14 | 295 |
| 1855TR18 | 295 |
| 1855TR34 | 295 |
| 1855TR38 | 295 |
| 1875TR12 | 295 |
| 1875TR14 | 295 |
| 1900TR12 | 302 |
| 1900TR14 | 302 |
| 1900TR18 | 302 |
| 1900TR38 | 302 |
| 1902TR1214 | 302 |
| 1902TR1218 | 302 |
| 1902TR1238 | 302 |
| 1902TR1418 | 302 |
| 1902TR3412 | 302 |
| 1902TR3814 | 302 |
| 1902TR3818 | 302 |
| 1910TR12 | 302 |
| 1910TR14 | 302 |
| 1910TR18 | 302 |
| 1910TR38 | 302 |
| 1912TR1238 | 302 |
| 1912TR1418 | 302 |
| 1912TR3814 | 302 |
| 1920TR1212 | 303 |
| 1920TR1214 | 303 |
| 1920TR1218 | 303 |
| 1920TR1238 | 303 |
| 1920TR1412 | 303 |
| 1920TR1414 | 303 |
| 1920TR1418 | 303 |
| 1920TR1438 | 303 |
| 1920TR1812 | 303 |
| 1920TR1814 | 303 |
| 1920TR1818 | 303 |
| 1920TR1838 | 303 |

| | |
|---|---|
| 1920TR3812 | 303 |
| 1920TR3814 | 303 |
| 1920TR3818 | 303 |
| 1920TR3838 | 303 |
| 1925TR12 | 303 |
| 1925TR14 | 303 |
| 1925TR18 | 303 |
| 1925TR34 | 303 |
| 1925TR38 | 303 |
| 1927TR1214 | 303 |
| 1927TR1238 | 303 |
| 1927TR1418 | 303 |
| 1927TR3412 | 303 |
| 1927TR3414 | 303 |
| 1927TR3814 | 303 |
| 1927TR3818 | 303 |
| 1930TR12 | 304 |
| 1930TR14 | 304 |
| 1930TR18 | 304 |
| 1930TR38 | 304 |
| 1932TR1238 | 304 |
| 1932TR1418 | 304 |
| 1932TR1438 | 304 |
| 1932TR1814 | 304 |
| 1932TR3812 | 304 |
| 1932TR3814 | 304 |
| 1934TR1238 | 304 |
| 1934TR1418 | 304 |
| 1934TR1438 | 304 |
| 1934TR1814 | 304 |
| 1934TR3812 | 304 |
| 1934TR3814 | 304 |
| 1940TR1214 | 304 |
| 1940TR1218 | 304 |
| 1940TR1238 | 304 |
| 1940TR1418 | 304 |
| 1940TR3412 | 304 |
| 1940TR3414 | 304 |
| 1940TR3438 | 304 |
| 1940TR3814 | 304 |
| 1940TR3818 | 304 |
| 1950TR1 | 305 |
| 1950TR12 | 305 |
| 1950TR14 | 305 |
| 1950TR18 | 305 |
| 1950TR34 | 305 |
| 1950TR38 | 305 |
| 1955TR12 | 305 |
| 1955TR14 | 305 |
| 1955TR18 | 305 |
| 1955TR34 | 305 |
| 1955TR38 | 305 |
| 20AC100L-R01 | 492 |
| 20AC100L-R02 | 492 |
| 20AC100V-R01 | 492 |
| 20AC100V-R02 | 492 |
| 20AC101L-R01 | 493 |
| 20AC101V-R01 | 493 |
| 20AC110L-48 | 492 |
| 20AC110L-63 | 492 |
| 20AC110L-76 | 492 |
| 20AC110V-48 | 492 |
| 20AC110V-63 | 492 |
| 20AC110V-76 | 492 |
| 20AC111L-48 | 494 |
| 20AC111L-63 | 494 |
| 20AC111L-76 | 494 |
| 20AC111V-48 | 494 |
| 20AC111V-63 | 494 |
| 20AC111V-76 | 494 |
| 20AC120L-48 | 493 |
| 20AC120L-63 | 493 |
| 20AC120L-76 | 493 |
| 20AC120V-48 | 493 |
| 20AC120V-63 | 493 |
| 20AC120V-76 | 493 |
| 20AC121L-48 | 494 |
| 20AC121L-63 | 494 |
| 20AC121V-48 | 494 |
| 20AC121V-63 | 494 |
| 20AC121V-76 | 494 |
| 20AC131L-48 | 495 |
| 20AC131L-76 | 495 |
| 20AC131V-48 | 495 |
| 20AC131V-76 | 495 |
| 2105TR1210 | 142 |
| 2105TR128 | 142 |
| 2105TR1410 | 142 |
| 2105TR146 | 142 |
| 2105TR148 | 142 |
| 2105TR186 | 142 |
| 2105TR188 | 142 |
| 2105TR3810 | 142 |
| 2105TR388 | 142 |
| 2105TRN1238 | 145 |
| 2105TRN12516 | 145 |
| 2105TRN1438 | 145 |
| 2105TRN14516 | 145 |
| 2105TRN1814 | 145 |
| 2105TRN18516 | 145 |
| 2105TRN3838 | 145 |
| 2105TRN38516 | 145 |
| 2110TR1210 | 142 |
| 2110TR1212 | 142 |
| 2110TR126 | 142 |
| 2110TR128 | 142 |
| 2110TR1410 | 142 |
| 2110TR1412 | 142 |
| 2110TR146 | 142 |
| 2110TR148 | 142 |
| 2110TR186 | 142 |
| 2110TR188 | 142 |
| 2110TR3410 | 142 |
| 2110TR3412 | 142 |
| 2110TR346 | 142 |
| 2110TR348 | 142 |
| 2110TR3810 | 142 |
| 2110TR3812 | 142 |
| 2110TR386 | 142 |
| 2110TR388 | 142 |
| 2110TRN1212 | 145 |
| 2110TRN1214 | 145 |
| 2110TRN1238 | 145 |
| 2110TRN1412 | 145 |
| 2110TRN1414 | 145 |
| 2110TRN1438 | 145 |
| 2110TRN14516 | 145 |
| 2110TRN1814 | 145 |
| 2110TRN18516 | 145 |
| 2110TRN3438 | 145 |
| 2110TRN3812 | 145 |
| 2110TRN3838 | 145 |
| 2110TRN38516 | 145 |
| 2115TR12 | 142 |
| 2115TR6 | 142 |
| 2115TR8 | 142 |
| 2115TR86 | 142 |
| 2115TRN12 | 145 |
| 2115TRN14 | 145 |
| 2115TRN516 | 145 |
| 2130TR146 | 143 |
| 2130TR148 | 143 |
| 2130TR186 | 143 |
| 2135TR12 | 143 |
| 2135TR6 | 143 |
| 2135TR8 | 143 |
| 2135TR86 | 143 |
| 2135TRN14 | 146 |
| 2135TRN516 | 146 |
| 2140TR1212 | 143 |
| 2140TR1412 | 143 |
| 2140TR146 | 143 |
| 2140TR148 | 143 |
| 2140TR186 | 143 |
| 2140TR188 | 143 |
| 2140TR3812 | 143 |
| 2140TR388 | 143 |
| 2140TRN1414 | 146 |
| 2140TRN14516 | 146 |
| 2140TRN1814 | 146 |
| 2140TRN18516 | 146 |
| 2150TR148 | 143 |
| 2150TR186 | 143 |
| 2155TR1212 | 144 |
| 2155TR1412 | 144 |
| 2155TR146 | 144 |
| 2155TR148 | 144 |
| 2155TR186 | 144 |
| 2155TR188 | 144 |
| 2155TR3812 | 144 |
| 2155TR388 | 144 |
| 2155TRN1212 | 146 |
| 2155TRN1414 | 146 |
| 2155TRN14516 | 146 |
| 2155TRN1814 | 146 |
| 2155TRN18516 | 146 |
| 2155TRN3812 | 146 |
| 2160TR1212 | 144 |
| 2160TR1412 | 144 |
| 2160TR146 | 144 |
| 2160TR148 | 144 |
| 2160TR186 | 144 |
| 2160TR188 | 144 |
| 2160TR3812 | 144 |
| 2160TR388 | 144 |
| 2160TRN1414 | 147 |
| 2160TRN14516 | 147 |
| 2160TRN1814 | 147 |
| 2160TRN18516 | 147 |
| 2165TR12 | 144 |
| 2165TR6 | 144 |
| 2165TR68 | 144 |
| 2165TR8 | 144 |
| 2165TR86 | 144 |
| 2165TRN12 | 147 |
| 2165TRN14 | 147 |
| 2165TRN516 | 147 |
| 2230TR10BL | 144 |
| 2230TR12BK | 144 |
| 2230TR6BL | 144 |
| 2230TR6W | 155 |
| 2230TR8BL | 144 |
| 2230TR8W | 155 |
| 2500TR12108 | 128 |
| 2500TR121210 | 128 |
| 2500TR1215125 | 128 |
| 2500TR14108 | 128 |
| 2500TR1464 | 128 |

| | |
|---|---|
| 2500TR1486 | 128 |
| 2500TR18108 | 128 |
| 2500TR1853 | 128 |
| 2500TR1864 | 128 |
| 2500TR1886 | 128 |
| 2500TR38108 | 128 |
| 2500TR381210 | 128 |
| 2500TR3864 | 128 |
| 2500TR3886 | 128 |
| 2502TR12108 | 128 |
| 2502TR121210 | 128 |
| 2502TR1215125 | 128 |
| 2502TR1264 | 128 |
| 2502TR1286 | 128 |
| 2502TR14108 | 128 |
| 2502TR1464 | 128 |
| 2502TR1486 | 128 |
| 2502TR18108 | 128 |
| 2502TR18427 | 128 |
| 2502TR1853 | 128 |
| 2502TR1864 | 128 |
| 2502TR1886 | 128 |
| 2502TR38108 | 128 |
| 2502TR381210 | 128 |
| 2502TR3864 | 128 |
| 2502TR3886 | 128 |
| 2503TR141065 | 129 |
| 2503TR14108 | 129 |
| 2503TR1464 | 129 |
| 2503TR1485 | 129 |
| 2503TR1486 | 129 |
| 2503TR1864 | 129 |
| 2503TR1885 | 129 |
| 2503TR1886 | 129 |
| 2503TR381210 | 129 |
| 2503TR38128 | 129 |
| 2505TR12108 | 129 |
| 2505TR1286 | 129 |
| 2505TR14108 | 129 |
| 2505TR1464 | 129 |
| 2505TR1486 | 129 |
| 2505TR18108 | 129 |
| 2505TR18427 | 129 |
| 2505TR1853 | 129 |
| 2505TR1864 | 129 |
| 2505TR1886 | 129 |
| 2505TR38108 | 129 |
| 2505TR381210 | 129 |
| 2505TR3864 | 129 |
| 2505TR3886 | 129 |
| 2506TR141065 | 129 |
| 2506TR14108 | 129 |
| 2506TR1464 | 129 |
| 2506TR1485 | 129 |
| 2506TR1486 | 129 |
| 2510TR12108 | 130 |
| 2510TR121210 | 130 |
| 2510TR1215125 | 130 |
| 2510TR1286 | 130 |
| 2510TR14108 | 130 |
| 2510TR1464 | 130 |
| 2510TR1486 | 130 |
| 2510TR18108 | 130 |
| 2510TR18427 | 130 |
| 2510TR1853 | 130 |
| 2510TR1864 | 130 |
| 2510TR1886 | 130 |
| 2510TR38108 | 130 |
| 2510TR381210 | 130 |
| 2510TR3864 | 130 |
| 2510TR3886 | 130 |
| 2511TR141065 | 130 |
| 2511TR14108 | 130 |
| 2511TR1464 | 130 |
| 2511TR1485 | 130 |
| 2511TR1486 | 130 |
| 2511TR1864 | 130 |
| 2511TR1885 | 130 |
| 2511TR1886 | 130 |
| 2511TR381210 | 130 |
| 2511TR38128 | 130 |
| 2512TRM1212564 | 130 |
| 2512TRM1212586 | 130 |
| 2512TRM121564 | 130 |
| 2512TRM121586 | 130 |
| 2512TRM553 | 130 |
| 2512TRM564 | 130 |
| 2512TRM653 | 130 |
| 2512TRM664 | 130 |
| 2513TRM1212564 | 131 |
| 2513TRM1212586 | 131 |
| 2513TRM121564 | 131 |
| 2513TRM121586 | 131 |
| 2513TRM12164 | 131 |
| 2513TRM5427 | 131 |
| 2513TRM553 | 131 |
| 2513TRM564 | 131 |
| 2513TRM6427 | 131 |
| 2513TRM653 | 131 |
| 2513TRM664 | 131 |
| 2515TR108 | 131 |
| 2515TR1210 | 131 |
| 2515TR15125 | 131 |
| 2515TR427 | 131 |
| 2515TR53 | 131 |
| 2515TR64 | 131 |
| 2515TR86 | 131 |
| 2515TR8664 | 131 |
| 251V14 | 137 |
| 251V18 | 137 |
| 251VM5 | 137 |
| 251VM6 | 137 |
| 2520TR108 | 131 |
| 2520TR1210 | 131 |
| 2520TR15125 | 131 |
| 2520TR427 | 131 |
| 2520TR53 | 131 |
| 2520TR64 | 131 |
| 2520TR86 | 131 |
| 252V14 | 137 |
| 252V18 | 137 |
| 2530TR14108 | 131 |
| 2530TR1464 | 131 |
| 2530TR1486 | 131 |
| 2530TR1853 | 131 |
| 2530TR1864 | 131 |
| 2530TR1886 | 131 |
| 2530TR381210 | 131 |
| 2535TR108 | 132 |
| 2535TR1210 | 132 |
| 2535TR15125 | 132 |
| 2535TR427 | 132 |
| 2535TR53 | 132 |
| 2535TR64 | 132 |
| 2535TR86 | 132 |
| 2535TR8664 | 132 |
| 2540TR12108 | 132 |
| 2540TR121210 | 132 |
| 2540TR1215125 | 132 |
| 2540TR1286 | 132 |
| 2540TR14108 | 132 |
| 2540TR141210 | 132 |
| 2540TR1464 | 132 |
| 2540TR1486 | 132 |
| 2540TR18108 | 132 |
| 2540TR18427 | 132 |
| 2540TR1853 | 132 |
| 2540TR1864 | 132 |
| 2540TR1886 | 132 |
| 2540TR38108 | 132 |
| 2540TR381210 | 132 |
| 2540TR3864 | 132 |
| 2540TR3886 | 132 |
| 2541TR14108 | 132 |
| 2541TR1464 | 132 |
| 2541TR1486 | 132 |
| 2541TR18427 | 132 |
| 2541TR1864 | 132 |
| 2541TR1886 | 132 |
| 2542TR14108 | 133 |
| 2542TR1464 | 133 |
| 2542TR1486 | 133 |
| 2542TR18427 | 133 |
| 2542TR1864 | 133 |
| 2542TR1886 | 133 |
| 2543TR14108 | 133 |
| 2543TR1464 | 133 |
| 2543TR1486 | 133 |
| 2543TR18427 | 133 |
| 2543TR1864 | 133 |
| 2543TR1886 | 133 |
| 2548TRM1212564 | 133 |
| 2548TRM1212586 | 133 |
| 2548TRM121564 | 133 |
| 2548TRM121586 | 133 |
| 2548TRM5427 | 133 |
| 2548TRM553 | 133 |
| 2548TRM564 | 133 |
| 2548TRM6427 | 133 |
| 2550TR108 | 134 |
| 2550TR53 | 134 |
| 2550TR64 | 134 |
| 2550TR86 | 134 |
| 2552TR14108 | 134 |
| 2552TR1464 | 134 |
| 2552TR1486 | 134 |
| 2552TR18427 | 134 |
| 2552TR1864 | 134 |
| 2552TR1886 | 134 |
| 2553TR14108 | 134 |
| 2553TR1464 | 134 |
| 2553TR1486 | 134 |
| 2553TR18427 | 134 |
| 2553TR1864 | 134 |
| 2553TR1886 | 134 |
| 2555TR12108 | 135 |
| 2555TR121210 | 135 |
| 2555TR1215125 | 135 |
| 2555TR14108 | 135 |
| 2555TR1464 | 135 |
| 2555TR1486 | 135 |
| 2555TR18108 | 135 |
| 2555TR18427 | 135 |
| 2555TR1853 | 135 |
| 2555TR1864 | 135 |
| 2555TR1886 | 135 |
| 2555TR38108 | 135 |
| 2555TR381210 | 135 |

| | |
|---|---|
| 2555TR3864 | 135 |
| 2555TR3886 | 135 |
| 2555TRM553 | 135 |
| 2560TR12108 | 135 |
| 2560TR121210 | 135 |
| 2560TR1215125 | 135 |
| 2560TR14108 | 135 |
| 2560TR1464 | 135 |
| 2560TR1486 | 135 |
| 2560TR18108 | 135 |
| 2560TR18427 | 135 |
| 2560TR1853 | 135 |
| 2560TR1864 | 135 |
| 2560TR1886 | 135 |
| 2560TR38108 | 135 |
| 2560TR381210 | 135 |
| 2560TR3864 | 135 |
| 2560TR3886 | 135 |
| 2560TRM553 | 135 |
| 2565TR108 | 136 |
| 2565TR1210 | 136 |
| 2565TR15125 | 136 |
| 2565TR427 | 136 |
| 2565TR53 | 136 |
| 2565TR64 | 136 |
| 2565TR86 | 136 |
| 2565TR8664 | 136 |
| 2570TR14108 | 136 |
| 2570TR1464 | 136 |
| 2570TR1486 | 136 |
| 2570TR18427 | 136 |
| 2570TR1853 | 136 |
| 2570TR1864 | 136 |
| 2570TR1886 | 136 |
| 2570TRM5427 | 136 |
| 2570TRM553 | 136 |
| 2570TRM564 | 136 |
| 2570TRM6427 | 136 |
| 2575TR14108 | 136 |
| 2575TR1464 | 136 |
| 2575TR1486 | 136 |
| 2575TR18427 | 136 |
| 2575TR1853 | 136 |
| 2575TR1864 | 136 |
| 2575TR1886 | 136 |
| 2580TR14 | 136 |
| 2580TR18 | 136 |
| 2605TR1 | 465 |
| 2605TR12 | 465 |
| 2605TR14 | 465 |
| 2605TR18 | 465 |
| 2605TR34 | 465 |
| 2605TR38 | 465 |
| 2610TR12 | 465 |
| 2610TR14 | 465 |
| 2610TR18 | 465 |
| 2610TR38 | 465 |
| 2610TRM5 | 465 |
| 2612TR12 | 465 |
| 2612TR14 | 465 |
| 2612TR18 | 465 |
| 2612TR38 | 465 |
| 2615TR12 | 465 |
| 2615TR14 | 465 |
| 2615TR18 | 465 |
| 2615TR34 | 465 |
| 2615TR38 | 465 |
| 2615TRM5 | 465 |
| 2620TR12 | 466 |
| 2620TR14 | 466 |
| 2620TR18 | 466 |
| 2620TR38 | 466 |
| 2625TR14 | 138 |
| 2625TR18 | 138 |
| 2630TRM10164 | 137 |
| 2630TRM12186 | 137 |
| 2630TRM141108 | 137 |
| 2630TRM1611210 | 137 |
| 2630TRM20115125 | 137 |
| 2630TRM605427 | 137 |
| 2630TRM707553 | 137 |
| 2630TRM807564 | 137 |
| 2700TR121210 | 160 |
| 2700TR14108 | 160 |
| 2700TR1464 | 160 |
| 2700TR1486 | 160 |
| 2700TR18108 | 160 |
| 2700TR1864 | 160 |
| 2700TR1886 | 160 |
| 2700TR38108 | 160 |
| 2700TR381210 | 160 |
| 2710TR121210 | 160 |
| 2710TR14108 | 160 |
| 2710TR1464 | 160 |
| 2710TR1486 | 160 |
| 2710TR18108 | 160 |
| 2710TR1864 | 160 |
| 2710TR1886 | 160 |
| 2710TR38108 | 160 |
| 2710TR381210 | 160 |
| 2720TR121210 | 160 |
| 2720TR14108 | 160 |
| 2720TR1464 | 160 |
| 2720TR1486 | 160 |
| 2720TR18108 | 160 |
| 2720TR1864 | 160 |
| 2720TR1886 | 160 |
| 2720TR38108 | 160 |
| 2720TR381210 | 160 |
| 2720TR3886 | 160 |
| 2725TR14108 | 161 |
| 2725TR1464 | 161 |
| 2725TR1486 | 161 |
| 2725TR1864 | 161 |
| 2725TR1886 | 161 |
| 2730TR14108 | 161 |
| 2730TR1464 | 161 |
| 2730TR1486 | 161 |
| 2730TR1864 | 161 |
| 2730TR1886 | 161 |
| 2740TR121210 | 161 |
| 2740TR14108 | 161 |
| 2740TR1464 | 161 |
| 2740TR1486 | 161 |
| 2740TR18108 | 161 |
| 2740TR1864 | 161 |
| 2740TR1886 | 161 |
| 2740TR38108 | 161 |
| 2740TR381210 | 161 |
| 2745TR14108 | 162 |
| 2745TR1464 | 162 |
| 2745TR1486 | 162 |
| 2745TR1864 | 162 |
| 2745TR1886 | 162 |
| 2750TR14108 | 162 |
| 2750TR1464 | 162 |
| 2750TR1486 | 162 |
| 2750TR1864 | 162 |
| 2750TR1886 | 162 |
| 2760TR14108 | 162 |
| 2760TR1464 | 162 |
| 2760TR1486 | 162 |
| 2760TR18108 | 162 |
| 2760TR1864 | 162 |
| 2760TR1886 | 162 |
| 2760TR38108 | 162 |
| 2770TR108 | 162 |
| 2770TR1210 | 162 |
| 2770TR64 | 162 |
| 2770TR86 | 162 |
| 2780TR108 | 163 |
| 2780TR1210 | 163 |
| 2780TR64 | 163 |
| 2780TR86 | 163 |
| 2790TRM10164 | 163 |
| 2790TRM12186 | 163 |
| 2790TRM141108 | 163 |
| 2790TRM1611210 | 163 |
| 2900TR1410 | 152 |
| 2900TR146 | 152 |
| 2900TR148 | 152 |
| 2900TR1810 | 152 |
| 2900TR186 | 152 |
| 2900TR188 | 152 |
| 2905TR1210 | 152 |
| 2905TR128 | 152 |
| 2905TR1410 | 152 |
| 2905TR146 | 152 |
| 2905TR148 | 152 |
| 2905TR186 | 152 |
| 2905TR188 | 152 |
| 2905TR3810 | 152 |
| 2905TR388 | 152 |
| 2910TR1210 | 152 |
| 2910TR1212 | 152 |
| 2910TR126 | 152 |
| 2910TR128 | 152 |
| 2910TR1410 | 152 |
| 2910TR1412 | 152 |
| 2910TR146 | 152 |
| 2910TR148 | 152 |
| 2910TR186 | 152 |
| 2910TR188 | 152 |
| 2910TR3410 | 152 |
| 2910TR3412 | 152 |
| 2910TR346 | 152 |
| 2910TR348 | 152 |
| 2910TR3810 | 152 |
| 2910TR3812 | 152 |
| 2910TR386 | 152 |
| 2910TR388 | 152 |
| 2915TR12 | 153 |
| 2915TR6 | 153 |
| 2915TR8 | 153 |
| 2915TR86 | 153 |
| 2930TR146 | 153 |
| 2930TR148 | 153 |
| 2930TR186 | 153 |
| 2935TR12 | 153 |
| 2935TR6 | 153 |
| 2935TR8 | 153 |
| 2940TR1212 | 153 |
| 2940TR1412 | 153 |
| 2940TR146 | 153 |
| 2940TR148 | 153 |
| 2940TR186 | 153 |
| 2940TR188 | 153 |
| 2940TR3812 | 153 |

| | |
|---|---|
| 2940TR388 | 153 |
| 2943TR148 | 154 |
| 2943TR188 | 154 |
| 2950TR148 | 154 |
| 2950TR186 | 154 |
| 2955TR1212 | 154 |
| 2955TR1412 | 154 |
| 2955TR146 | 154 |
| 2955TR148 | 154 |
| 2955TR186 | 154 |
| 2955TR188 | 154 |
| 2955TR3812 | 154 |
| 2955TR388 | 154 |
| 2960TR1212 | 154 |
| 2960TR1412 | 154 |
| 2960TR146 | 154 |
| 2960TR148 | 154 |
| 2960TR186 | 154 |
| 2960TR188 | 154 |
| 2960TR3812 | 154 |
| 2960TR388 | 154 |
| 2965TR12 | 155 |
| 2965TR6 | 155 |
| 2965TR68 | 155 |
| 2965TR8 | 155 |
| 2965TR86 | 155 |
| 2970TR148 | 155 |
| 3100TR1210 | 184 |
| 3100TR1212 | 184 |
| 3100TR1214 | 184 |
| 3100TR1215 | 184 |
| 3100TR1216 | 184 |
| 3100TR1218 | 184 |
| 3100TR1410 | 184 |
| 3100TR146 | 184 |
| 3100TR148 | 184 |
| 3100TR184 | 184 |
| 3100TR186 | 184 |
| 3100TR188 | 184 |
| 3100TR3810 | 184 |
| 3100TR3812 | 184 |
| 3100TR388 | 184 |
| 3120TR1410 | 184 |
| 3120TR146 | 184 |
| 3120TR148 | 184 |
| 3120TR184 | 184 |
| 3120TR186 | 184 |
| 3120TR188 | 184 |
| 3120TR3810 | 184 |
| 3120TR388 | 184 |
| 3130TR1212 | 185 |
| 3130TR1214 | 185 |
| 3130TR1215 | 185 |
| 3130TR1216 | 185 |
| 3130TR1218 | 185 |
| 3130TR1410 | 185 |
| 3130TR146 | 185 |
| 3130TR148 | 185 |
| 3130TR184 | 185 |
| 3130TR186 | 185 |
| 3130TR188 | 185 |
| 3130TR3810 | 185 |
| 3130TR3812 | 185 |
| 3130TR388 | 185 |
| 3140TR1210 | 185 |
| 3140TR1212 | 185 |
| 3140TR1214 | 185 |
| 3140TR1215 | 185 |
| 3140TR1216 | 185 |
| 3140TR1218 | 185 |
| 3140TR1410 | 185 |
| 3140TR146 | 185 |
| 3140TR148 | 185 |
| 3140TR184 | 185 |
| 3140TR186 | 185 |
| 3140TR188 | 185 |
| 3140TR3810 | 185 |
| 3140TR3812 | 185 |
| 3140TR388 | 185 |
| 3150TR146 | 186 |
| 3150TR148 | 186 |
| 3150TR184 | 186 |
| 3150TR186 | 186 |
| 3150TR188 | 186 |
| 3160TR1212 | 186 |
| 3160TR1214 | 186 |
| 3160TR1215 | 186 |
| 3160TR1216 | 186 |
| 3160TR1218 | 186 |
| 3160TR1410 | 186 |
| 3160TR146 | 186 |
| 3160TR148 | 186 |
| 3160TR184 | 186 |
| 3160TR186 | 186 |
| 3160TR188 | 186 |
| 3160TR3810 | 186 |
| 3160TR3812 | 186 |
| 3160TR388 | 186 |
| 3170TR1212 | 186 |
| 3170TR1214 | 186 |
| 3170TR1215 | 186 |
| 3170TR1216 | 186 |
| 3170TR1218 | 186 |
| 3170TR1410 | 186 |
| 3170TR146 | 186 |
| 3170TR148 | 186 |
| 3170TR184 | 186 |
| 3170TR186 | 186 |
| 3170TR188 | 186 |
| 3170TR3810 | 186 |
| 3170TR3812 | 186 |
| 3170TR388 | 186 |
| 3180TR10 | 187 |
| 3180TR12 | 187 |
| 3180TR14 | 187 |
| 3180TR15 | 187 |
| 3180TR16 | 187 |
| 3180TR18 | 187 |
| 3180TR4 | 187 |
| 3180TR6 | 187 |
| 3180TR8 | 187 |
| 3190TR10 | 187 |
| 3190TR12 | 187 |
| 3190TR14 | 187 |
| 3190TR15 | 187 |
| 3190TR6 | 187 |
| 3190TR8 | 187 |
| 3200TR10 | 187 |
| 3200TR12 | 187 |
| 3200TR14 | 187 |
| 3200TR15 | 187 |
| 3200TR16 | 187 |
| 3200TR18 | 187 |
| 3200TR4 | 187 |
| 3200TR6 | 187 |
| 3200TR8 | 187 |
| 3210TR10 | 188 |
| 3210TR12 | 188 |
| 3210TR14 | 188 |
| 3210TR15 | 188 |
| 3210TR16 | 188 |
| 3210TR18 | 188 |
| 3210TR4 | 188 |
| 3210TR6 | 188 |
| 3210TR8 | 188 |
| 3230TRM1016 | 188 |
| 3230TRM1218 | 188 |
| 3230TRM161510 | 188 |
| 3230TRM181512 | 188 |
| 3230TRM221514 | 188 |
| 3230TRM221515 | 188 |
| 3230TRM241516 | 188 |
| 3230TRM261518 | 188 |
| 3230TRM814 | 188 |
| 3240TR10 | 188 |
| 3240TR12 | 188 |
| 3240TR14 | 188 |
| 3240TR15 | 188 |
| 3240TR16 | 188 |
| 3240TR18 | 188 |
| 3240TR4 | 188 |
| 3240TR6 | 188 |
| 3240TR8 | 188 |
| 3250TR10 | 189 |
| 3250TR12 | 189 |
| 3250TR14 | 189 |
| 3250TR15 | 189 |
| 3250TR16 | 189 |
| 3250TR18 | 189 |
| 3250TR4 | 189 |
| 3250TR6 | 189 |
| 3250TR8 | 189 |
| 3400TR1210 | 170 |
| 3400TR1210-SC | 774 |
| 3400TR1212 | 170 |
| 3400TR1214 | 170 |
| 3400TR1214-SC | 774 |
| 3400TR1216 | 170 |
| 3400TR1216-SC | 774 |
| 3400TR1218 | 170 |
| 3400TR1218-SC | 774 |
| 3400TR122 | 170 |
| 3400TR122-SC | 774 |
| 3400TR1220 | 170 |
| 3400TR1222 | 170 |
| 3400TR1222-SC | 774 |
| 3400TR1410 | 170 |
| 3400TR1410-SC | 774 |
| 3400TR1412 | 170 |
| 3400TR1414 | 170 |
| 3400TR1414-SC | 774 |
| 3400TR144 | 170 |
| 3400TR146 | 170 |
| 3400TR146-SC | 774 |
| 3400TR148 | 170 |
| 3400TR148-SC | 774 |
| 3400TR1810 | 170 |
| 3400TR1810-SC | 774 |
| 3400TR184 | 170 |
| 3400TR186 | 170 |
| 3400TR186-SC | 774 |
| 3400TR188 | 170 |
| 3400TR188-SC | 774 |
| 3400TR3416 | 170 |
| 3400TR3418 | 170 |
| 3400TR3418-SC | 774 |
| 3400TR3422 | 170 |
| 3400TR3422-SC | 774 |

| | |
|---|---|
| 3400TR3810 | 170 |
| 3400TR3810-SC | 774 |
| 3400TR3812 | 170 |
| 3400TR3814 | 170 |
| 3400TR3814-SC | 774 |
| 3400TR386 | 170 |
| 3400TR388 | 170 |
| 3400TR388-SC | 774 |
| 3400TRR128-SC | 774 |
| 3422TR1214 | 171 |
| 3422TR1216 | 171 |
| 3422TR1218 | 171 |
| 3422TR122 | 171 |
| 3422TR1410 | 171 |
| 3422TR1412 | 171 |
| 3422TR146 | 171 |
| 3422TR148 | 171 |
| 3422TR184 | 171 |
| 3422TR186 | 171 |
| 3422TR188 | 171 |
| 3422TR3418 | 171 |
| 3422TR3422 | 171 |
| 3422TR3810 | 171 |
| 3422TR3814 | 171 |
| 3422TR3816 | 171 |
| 3422TR388 | 171 |
| 3430TR1210 | 171 |
| 3430TR1214 | 171 |
| 3430TR1216 | 171 |
| 3430TR1218 | 171 |
| 3430TR1410 | 171 |
| 3430TR144 | 171 |
| 3430TR146 | 171 |
| 3430TR148 | 171 |
| 3430TR184 | 171 |
| 3430TR186 | 171 |
| 3430TR188 | 171 |
| 3430TR3418 | 171 |
| 3430TR3422 | 171 |
| 3430TR3810 | 171 |
| 3430TR3814 | 171 |
| 3430TR388 | 171 |
| 3440TR1210 | 172 |
| 3440TR1210-SC | 774 |
| 3440TR1212 | 172 |
| 3440TR1214 | 172 |
| 3440TR1214-SC | 774 |
| 3440TR1216 | 172 |
| 3440TR1216-SC | 774 |
| 3440TR1218 | 172 |
| 3440TR1218-SC | 774 |
| 3440TR122 | 172 |
| 3440TR122-SC | 774 |
| 3440TR1410 | 172 |
| 3440TR1410-SC | 774 |
| 3440TR1412 | 172 |
| 3440TR144 | 172 |
| 3440TR146 | 172 |
| 3440TR146-SC | 774 |
| 3440TR148 | 172 |
| 3440TR148-SC | 774 |
| 3440TR184 | 172 |
| 3440TR186 | 172 |
| 3440TR186-SC | 774 |
| 3440TR188 | 172 |
| 3440TR188-SC | 774 |
| 3440TR3416 | 172 |
| 3440TR3418 | 172 |
| 3440TR3418-SC | 774 |
| 3440TR3420 | 172 |
| 3440TR3422 | 172 |
| 3440TR3422-SC | 774 |
| 3440TR3810 | 172 |
| 3440TR3810-SC | 774 |
| 3440TR3812 | 172 |
| 3440TR3814 | 172 |
| 3440TR3814-SC | 774 |
| 3440TR3816 | 172 |
| 3440TR3816-SC | 774 |
| 3440TR388 | 172 |
| 3440TR388-SC | 774 |
| 3442TR1210 | 172 |
| 3442TR1214 | 172 |
| 3442TR1218 | 172 |
| 3442TR122 | 172 |
| 3442TR128 | 172 |
| 3442TR1410 | 172 |
| 3442TR144 | 172 |
| 3442TR146 | 172 |
| 3442TR148 | 172 |
| 3442TR184 | 172 |
| 3442TR186 | 172 |
| 3442TR188 | 172 |
| 3442TR3418 | 172 |
| 3442TR3810 | 172 |
| 3442TR3814 | 172 |
| 3442TR388 | 172 |
| 3460TR1214 | 173 |
| 3460TR1215 | 173 |
| 3460TR1216 | 173 |
| 3460TR1410 | 173 |
| 3460TR146 | 173 |
| 3460TR148 | 173 |
| 3460TR184 | 173 |
| 3460TR185 | 173 |
| 3460TR186 | 173 |
| 3460TR188 | 173 |
| 3460TR3810 | 173 |
| 3460TR3812 | 173 |
| 3460TR3814 | 173 |
| 3460TR3815 | 173 |
| 3460TR3816 | 173 |
| 3465TR1214 | 173 |
| 3465TR1218 | 173 |
| 3465TR122 | 173 |
| 3465TR128 | 173 |
| 3465TR1410 | 173 |
| 3465TR144 | 173 |
| 3465TR146 | 173 |
| 3465TR148 | 173 |
| 3465TR184 | 173 |
| 3465TR186 | 173 |
| 3465TR188 | 173 |
| 3465TR3418 | 173 |
| 3465TR3422 | 173 |
| 3465TR3810 | 173 |
| 3465TR3814 | 173 |
| 3467TR1212 | 773 |
| 3467TR1258 | 773 |
| 3467TR1438 | 773 |
| 3467TR1814 | 773 |
| 3467TR3434 | 773 |
| 3467TR3812 | 773 |
| 3467TR3838 | 773 |
| 3468TRM1014 | 773 |
| 3468TRM1214 | 773 |
| 3468TRM1614 | 773 |
| 3468TRM1638 | 773 |
| 3468TRM2012 | 773 |
| 3468TRM2038 | 773 |
| 3468TRM2212 | 773 |
| 3468TRM2412 | 773 |
| 3468TRM2458 | 773 |
| 3468TRM3034 | 773 |
| 3468TRRM361 | 773 |
| 3470TR1 | 776 |
| 3470TR12 | 776 |
| 3470TR14 | 776 |
| 3470TR34 | 776 |
| 3470TR38 | 776 |
| 3471TR1 | 776 |
| 3471TR12 | 776 |
| 3471TR14 | 776 |
| 3471TR34 | 776 |
| 3471TR38 | 776 |
| 3472TR1 | 776 |
| 3472TR12 | 776 |
| 3472TR14 | 776 |
| 3472TR34 | 776 |
| 3472TR38 | 776 |
| 3474TR1 | 777 |
| 3474TR12 | 777 |
| 3474TR14 | 777 |
| 3474TR34 | 777 |
| 3474TR38 | 777 |
| 3480TR10 | 174 |
| 3480TR12 | 174 |
| 3480TR14 | 174 |
| 3480TR16 | 174 |
| 3480TR18 | 174 |
| 3480TR22 | 174 |
| 3480TR28 | 174 |
| 3480TR4 | 174 |
| 3480TR6 | 174 |
| 3480TR8 | 174 |
| 3490TR10 | 174 |
| 3490TR12 | 174 |
| 3490TR14 | 174 |
| 3490TR18 | 174 |
| 3490TR22 | 174 |
| 3490TR28 | 174 |
| 3490TR4 | 174 |
| 3490TR6 | 174 |
| 3490TR8 | 174 |
| 3500TR10 | 174 |
| 3500TR12 | 174 |
| 3500TR14 | 174 |
| 3500TR16 | 174 |
| 3500TR18 | 174 |
| 3500TR20 | 174 |
| 3500TR22 | 174 |
| 3500TR4 | 174 |
| 3500TR6 | 174 |
| 3500TR8 | 174 |
| 3510TR10 | 175 |
| 3510TR12 | 175 |
| 3510TR14 | 175 |
| 3510TR16 | 175 |
| 3510TR18 | 175 |
| 3510TR20 | 175 |
| 3510TR22 | 175 |
| 3510TR28 | 175 |
| 3510TR4 | 175 |
| 3510TR6 | 175 |
| 3510TR8 | 175 |
| 3520TR10 | 175 |
| 3520TR12 | 175 |
| 3520TR14 | 175 |

| | |
|---|---|
| 3520TR16 | 175 |
| 3520TR18 | 175 |
| 3520TR20 | 175 |
| 3520TR22 | 175 |
| 3520TR6 | 175 |
| 3520TR8 | 175 |
| 3530TR10 | 175 |
| 3530TR12 | 175 |
| 3530TR14 | 175 |
| 3530TR16 | 175 |
| 3530TR18 | 175 |
| 3530TR20 | 175 |
| 3530TR22 | 175 |
| 3530TR28 | 175 |
| 3530TR4 | 175 |
| 3530TR6 | 175 |
| 3530TR8 | 175 |
| 3540TR10 | 176 |
| 3540TR12 | 176 |
| 3540TR14 | 176 |
| 3540TR16 | 176 |
| 3540TR18 | 176 |
| 3540TR20 | 176 |
| 3540TR22 | 176 |
| 3540TR28 | 176 |
| 3540TR4 | 176 |
| 3540TR6 | 176 |
| 3540TR8 | 176 |
| 3560TR1210 | 176 |
| 3560TR1212 | 176 |
| 3560TR1214 | 176 |
| 3560TR1216 | 176 |
| 3560TR1218 | 176 |
| 3560TR1410 | 176 |
| 3560TR1412 | 176 |
| 3560TR146 | 176 |
| 3560TR148 | 176 |
| 3560TR186 | 176 |
| 3560TR188 | 176 |
| 3560TR3418 | 176 |
| 3560TR3422 | 176 |
| 3560TR3810 | 176 |
| 3560TR3812 | 176 |
| 3560TR3814 | 176 |
| 3560TR388 | 176 |
| 3572TR1210 | 177 |
| 3572TR1214 | 177 |
| 3572TR1218 | 177 |
| 3572TR122 | 177 |
| 3572TR128 | 177 |
| 3572TR1410 | 177 |
| 3572TR146 | 177 |
| 3572TR184 | 177 |
| 3572TR186 | 177 |
| 3572TR188 | 177 |
| 3572TR3418 | 177 |
| 3572TR3422 | 177 |
| 3572TR3810 | 177 |
| 3572TR3814 | 177 |
| 40AC100L-R02 | 492 |
| 40AC100L-R03 | 492 |
| 40AC100V-R02 | 492 |
| 40AC100V-R03 | 492 |
| 40AC101L-R02 | 493 |
| 40AC101L-R03 | 493 |
| 40AC110L-107 | 492 |
| 40AC110L-76 | 492 |
| 40AC110L-91 | 492 |
| 40AC110V-107 | 492 |
| 40AC110V-76 | 492 |
| 40AC110V-91 | 492 |
| 40AC111L-107 | 494 |
| 40AC111L-76 | 494 |
| 40AC111L-91 | 494 |
| 40AC111V-107 | 494 |
| 40AC111V-76 | 494 |
| 40AC111V-91 | 494 |
| 40AC120L-107 | 493 |
| 40AC120L-76 | 493 |
| 40AC120V-107 | 493 |
| 40AC120V-76 | 493 |
| 40AC120V-91 | 493 |
| 40AC121L-76 | 494 |
| 40AC121V-76 | 494 |
| 40AC121V-91 | 494 |
| 40AC131L-107 | 495 |
| 40AC131L-76 | 495 |
| 40AC131V-107 | 495 |
| 40AC131V-76 | 495 |
| 4100TR12-A | 438 |
| 4100TR14-A | 438 |
| 4100TR18-A | 438 |
| 4100TR38 | 438 |
| 4100TR38-A | 438 |
| 4150TR12122 | 438 |
| 4150TR12123 | 438 |
| 4150TR12124 | 438 |
| 4150TR12125 | 438 |
| 4150TR12126 | 438 |
| 4150TR12382 | 438 |
| 4150TR12383 | 438 |
| 4150TR12384 | 438 |
| 4150TR12385 | 438 |
| 4150TR12386 | 438 |
| 4150TR14182 | 438 |
| 4150TR14183 | 438 |
| 4150TR14184 | 438 |
| 4150TR14185 | 438 |
| 4150TR14186 | 438 |
| 4150TR18M52 | 438 |
| 4150TR18M53 | 438 |
| 4150TR18M54 | 438 |
| 4150TR18M55 | 438 |
| 4150TR18M56 | 438 |
| 4150TR38142 | 438 |
| 4150TR38143 | 438 |
| 4150TR38144 | 438 |
| 4150TR38145 | 438 |
| 4150TR38146 | 438 |
| 4150TRX1123410 | 440 |
| 4150TRX1123411 | 440 |
| 4150TRX1123412 | 440 |
| 4150TRX1123413 | 440 |
| 4150TRX1123414 | 440 |
| 4150TRX112344 | 440 |
| 4150TRX112345 | 440 |
| 4150TRX112346 | 440 |
| 4150TRX112347 | 440 |
| 4150TRX112348 | 440 |
| 4150TRX112349 | 440 |
| 4150TRX23410 | 440 |
| 4150TRX23411 | 440 |
| 4150TRX23412 | 440 |
| 4150TRX23413 | 440 |
| 4150TRX23414 | 440 |
| 4150TRX2344 | 440 |
| 4150TRX2345 | 440 |
| 4150TRX2346 | 440 |
| 4150TRX2347 | 440 |
| 4150TRX2348 | 440 |
| 4150TRX2349 | 440 |
| 4200TR121222 | 439 |
| 4200TR121233 | 439 |
| 4200TR121244 | 439 |
| 4200TR121255 | 439 |
| 4200TR121266 | 439 |
| 4200TR123822 | 439 |
| 4200TR123833 | 439 |
| 4200TR123844 | 439 |
| 4200TR123855 | 439 |
| 4200TR123866 | 439 |
| 4200TR141822 | 439 |
| 4200TR141833 | 439 |
| 4200TR141844 | 439 |
| 4200TR141855 | 439 |
| 4200TR141866 | 439 |
| 4200TR18M522 | 439 |
| 4200TR18M533 | 439 |
| 4200TR18M544 | 439 |
| 4200TR18M555 | 439 |
| 4200TR18M566 | 439 |
| 4200TR381422 | 439 |
| 4200TR381433 | 439 |
| 4200TR381444 | 439 |
| 4200TR381455 | 439 |
| 4200TR381466 | 439 |
| 5005TR1210 | 220 |
| 5005TR1212 | 220 |
| 5005TR1214 | 220 |
| 5005TR1216 | 220 |
| 5005TR1219 | 220 |
| 5005TR125 | 220 |
| 5005TR126 | 220 |
| 5005TR128 | 220 |
| 5005TR1410 | 220 |
| 5005TR1412 | 220 |
| 5005TR145 | 220 |
| 5005TR146 | 220 |
| 5005TR148 | 220 |
| 5005TR185 | 220 |
| 5005TR186 | 220 |
| 5005TR188 | 220 |
| 5005TR3810 | 220 |
| 5005TR3812 | 220 |
| 5005TR3814 | 220 |
| 5005TR385 | 220 |
| 5005TR386 | 220 |
| 5005TR388 | 220 |
| 5007TR1212 | 226 |
| 5007TR1214 | 226 |
| 5007TR1234 | 226 |
| 5007TR1238 | 226 |
| 5007TR12516 | 226 |
| 5007TR1258 | 226 |
| 5007TR12916 | 226 |
| 5007TR1412 | 226 |
| 5007TR1414 | 226 |
| 5007TR1438 | 226 |
| 5007TR14516 | 226 |
| 5007TR1814 | 226 |
| 5007TR18516 | 226 |
| 5007TR3812 | 226 |
| 5007TR3814 | 226 |
| 5007TR3838 | 226 |
| 5007TR38516 | 226 |
| 5007TR38916 | 226 |
| 5010TR0125 | 220 |
| 5010TR119 | 220 |

| | |
|---|---|
| 5010TR1210 | 220 |
| 5010TR1212 | 220 |
| 5010TR1214 | 220 |
| 5010TR1216 | 220 |
| 5010TR1219 | 220 |
| 5010TR125 | 220 |
| 5010TR126 | 220 |
| 5010TR128 | 220 |
| 5010TR1410 | 220 |
| 5010TR1412 | 220 |
| 5010TR144 | 220 |
| 5010TR145 | 220 |
| 5010TR146 | 220 |
| 5010TR148 | 220 |
| 5010TR184 | 220 |
| 5010TR185 | 220 |
| 5010TR186 | 220 |
| 5010TR188 | 220 |
| 5010TR3410 | 220 |
| 5010TR3412 | 220 |
| 5010TR3414 | 220 |
| 5010TR3416 | 220 |
| 5010TR3419 | 220 |
| 5010TR3425 | 220 |
| 5010TR346 | 220 |
| 5010TR348 | 220 |
| 5010TR3810 | 220 |
| 5010TR3812 | 220 |
| 5010TR3814 | 220 |
| 5010TR386 | 220 |
| 5010TR388 | 220 |
| 5015TR12 | 226 |
| 5015TR1214 | 226 |
| 5015TR1234 | 226 |
| 5015TR1238 | 226 |
| 5015TR12516 | 226 |
| 5015TR1258 | 226 |
| 5015TR12916 | 226 |
| 5015TR14 | 226 |
| 5015TR1412 | 226 |
| 5015TR14316 | 226 |
| 5015TR1438 | 226 |
| 5015TR14516 | 226 |
| 5015TR14532 | 226 |
| 5015TR1814 | 226 |
| 5015TR18316 | 226 |
| 5015TR18516 | 226 |
| 5015TR18532 | 226 |
| 5015TR34 | 226 |
| 5015TR3412 | 226 |
| 5015TR3438 | 226 |
| 5015TR3458 | 226 |
| 5015TR34916 | 226 |
| 5015TR38 | 226 |
| 5015TR3812 | 226 |
| 5015TR3814 | 226 |
| 5015TR38516 | 226 |
| 5015TR38916 | 226 |
| 5020TR1210 | 221 |
| 5020TR1212 | 221 |
| 5020TR1214 | 221 |
| 5020TR1216 | 221 |
| 5020TR1219 | 221 |
| 5020TR125 | 221 |
| 5020TR126 | 221 |
| 5020TR128 | 221 |
| 5020TR1410 | 221 |
| 5020TR1412 | 221 |
| 5020TR144 | 221 |
| 5020TR145 | 221 |
| 5020TR146 | 221 |
| 5020TR148 | 221 |
| 5020TR184 | 221 |
| 5020TR185 | 221 |
| 5020TR186 | 221 |
| 5020TR188 | 221 |
| 5020TR3410 | 221 |
| 5020TR3412 | 221 |
| 5020TR3414 | 221 |
| 5020TR3416 | 221 |
| 5020TR3419 | 221 |
| 5020TR3810 | 221 |
| 5020TR3812 | 221 |
| 5020TR3814 | 221 |
| 5020TR386 | 221 |
| 5020TR388 | 221 |
| 5022TR1212 | 227 |
| 5022TR1214 | 227 |
| 5022TR12316 | 227 |
| 5022TR1234 | 227 |
| 5022TR1238 | 227 |
| 5022TR12516 | 227 |
| 5022TR1258 | 227 |
| 5022TR12916 | 227 |
| 5022TR1412 | 227 |
| 5022TR1414 | 227 |
| 5022TR14316 | 227 |
| 5022TR1438 | 227 |
| 5022TR14516 | 227 |
| 5022TR14532 | 227 |
| 5022TR1814 | 227 |
| 5022TR18316 | 227 |
| 5022TR18516 | 227 |
| 5022TR18532 | 227 |
| 5022TR3412 | 227 |
| 5022TR3434 | 227 |
| 5022TR3438 | 227 |
| 5022TR3458 | 227 |
| 5022TR34916 | 227 |
| 5022TR3812 | 227 |
| 5022TR3814 | 227 |
| 5022TR3838 | 227 |
| 5022TR38516 | 227 |
| 5022TR38916 | 227 |
| 5025TR1210 | 222 |
| 5025TR1212 | 222 |
| 5025TR1214 | 222 |
| 5025TR1216 | 222 |
| 5025TR1219 | 222 |
| 5025TR126 | 222 |
| 5025TR128 | 222 |
| 5025TR1410 | 222 |
| 5025TR1412 | 222 |
| 5025TR144 | 222 |
| 5025TR145 | 222 |
| 5025TR146 | 222 |
| 5025TR148 | 222 |
| 5025TR184 | 222 |
| 5025TR185 | 222 |
| 5025TR186 | 222 |
| 5025TR188 | 222 |
| 5025TR3410 | 222 |
| 5025TR3412 | 222 |
| 5025TR3414 | 222 |
| 5025TR3416 | 222 |
| 5025TR3419 | 222 |
| 5025TR3810 | 222 |
| 5025TR3812 | 222 |
| 5025TR3814 | 222 |
| 5025TR386 | 222 |
| 5025TR388 | 222 |
| 5027TR1212 | 228 |
| 5027TR1214 | 228 |
| 5027TR12316 | 228 |
| 5027TR1234 | 228 |
| 5027TR1238 | 228 |
| 5027TR12516 | 228 |
| 5027TR1258 | 228 |
| 5027TR1412 | 228 |
| 5027TR1414 | 228 |
| 5027TR1438 | 228 |
| 5027TR14516 | 228 |
| 5027TR1814 | 228 |
| 5027TR18516 | 228 |
| 5027TR3412 | 228 |
| 5027TR3434 | 228 |
| 5027TR3438 | 228 |
| 5027TR3458 | 228 |
| 5027TR3812 | 228 |
| 5027TR3814 | 228 |
| 5027TR3838 | 228 |
| 5027TR38516 | 228 |
| 5030TR10 | 222 |
| 5030TR12 | 222 |
| 5030TR14 | 222 |
| 5030TR16 | 222 |
| 5030TR19 | 222 |
| 5030TR4 | 222 |
| 5030TR5 | 222 |
| 5030TR6 | 222 |
| 5030TR8 | 222 |
| 5032TR12 | 228 |
| 5032TR14 | 228 |
| 5032TR316 | 228 |
| 5032TR34 | 228 |
| 5032TR38 | 228 |
| 5032TR516 | 228 |
| 5032TR532 | 228 |
| 5032TR58 | 228 |
| 5032TR916 | 228 |
| 5035TR106 | 223 |
| 5035TR108 | 223 |
| 5035TR1210 | 223 |
| 5035TR1412 | 223 |
| 5035TR1614 | 223 |
| 5035TR1916 | 223 |
| 5035TR54 | 223 |
| 5035TR64 | 223 |
| 5035TR65 | 223 |
| 5035TR86 | 223 |
| 5037TR1238 | 228 |
| 5037TR14316 | 228 |
| 5037TR316532 | 228 |
| 5037TR3458 | 228 |
| 5037TR3814 | 228 |
| 5037TR38516 | 228 |
| 5037TR51614 | 228 |
| 5037TR58916 | 228 |
| 5037TR91612 | 228 |
| 5040TR10 | 223 |
| 5040TR12 | 223 |
| 5040TR14 | 223 |
| 5040TR16 | 223 |
| 5040TR19 | 223 |
| 5040TR4 | 223 |
| 5040TR5 | 223 |
| 5040TR6 | 223 |
| 5040TR8 | 223 |

| | |
|---|---|
| 5042TR1116 | 229 |
| 5042TR12 | 229 |
| 5042TR14 | 229 |
| 5042TR316 | 229 |
| 5042TR34 | 229 |
| 5042TR38 | 229 |
| 5042TR516 | 229 |
| 5042TR532 | 229 |
| 5042TR58 | 229 |
| 5042TR916 | 229 |
| 5045TR106 | 223 |
| 5045TR108 | 223 |
| 5045TR1210 | 223 |
| 5045TR128 | 223 |
| 5045TR1410 | 223 |
| 5045TR1412 | 223 |
| 5045TR1612 | 223 |
| 5045TR1614 | 223 |
| 5045TR1914 | 223 |
| 5045TR1916 | 223 |
| 5045TR54 | 223 |
| 5045TR64 | 223 |
| 5045TR65 | 223 |
| 5045TR85 | 223 |
| 5045TR86 | 223 |
| 5047TR1238 | 229 |
| 5047TR12516 | 229 |
| 5047TR14316 | 229 |
| 5047TR14532 | 229 |
| 5047TR316532 | 229 |
| 5047TR3458 | 229 |
| 5047TR34916 | 229 |
| 5047TR3814 | 229 |
| 5047TR38516 | 229 |
| 5047TR51614 | 229 |
| 5047TR516316 | 229 |
| 5047TR5812 | 229 |
| 5047TR58916 | 229 |
| 5047TR91612 | 229 |
| 5047TR91638 | 229 |
| 5050TR10 | 224 |
| 5050TR12 | 224 |
| 5050TR14 | 224 |
| 5050TR16 | 224 |
| 5050TR19 | 224 |
| 5050TR4 | 224 |
| 5050TR5 | 224 |
| 5050TR6 | 224 |
| 5050TR8 | 224 |
| 5052TR12 | 230 |
| 5052TR14 | 230 |
| 5052TR316 | 230 |
| 5052TR34 | 230 |
| 5052TR38 | 230 |
| 5052TR516 | 230 |
| 5052TR532 | 230 |
| 5052TR58 | 230 |
| 5052TR916 | 230 |
| 5055TR108 | 224 |
| 5055TR1210 | 224 |
| 5055TR1412 | 224 |
| 5055TR1614 | 224 |
| 5055TR1916 | 224 |
| 5055TR54 | 224 |
| 5055TR65 | 224 |
| 5055TR86 | 224 |
| 5057TR1238 | 230 |
| 5057TR14316 | 230 |
| 5057TR316532 | 230 |
| 5057TR3458 | 230 |
| 5057TR38516 | 230 |
| 5057TR51614 | 230 |
| 5057TR58916 | 230 |
| 5057TR91612 | 230 |
| 5060TR10 | 224 |
| 5060TR17 | 224 |
| 5060TR4 | 224 |
| 5060TR6 | 224 |
| 5060TR8 | 224 |
| 5062TR1116 | 230 |
| 5062TR14 | 230 |
| 5062TR38 | 230 |
| 5062TR516 | 230 |
| 5062TR532 | 230 |
| 5070TR1210 | 225 |
| 5070TR1212 | 225 |
| 5070TR1214 | 225 |
| 5070TR126 | 225 |
| 5070TR128 | 225 |
| 5070TR144 | 225 |
| 5070TR145 | 225 |
| 5070TR146 | 225 |
| 5070TR148 | 225 |
| 5070TR184 | 225 |
| 5070TR185 | 225 |
| 5070TR3410 | 225 |
| 5070TR3412 | 225 |
| 5070TR3414 | 225 |
| 5070TR3416 | 225 |
| 5070TR3419 | 225 |
| 5070TR348 | 225 |
| 5070TR3810 | 225 |
| 5070TR385 | 225 |
| 5070TR386 | 225 |
| 5070TR388 | 225 |
| 5090TR1012 | 249 |
| 5090TR1113 | 249 |
| 5090TR1315 | 249 |
| 5090TR1416 | 249 |
| 5090TR1517 | 249 |
| 5090TR1618 | 249 |
| 5090TR1719 | 249 |
| 5090TR1820 | 249 |
| 5090TR2022 | 249 |
| 5090TR2123 | 249 |
| 5090TR2325 | 249 |
| 5090TR2628 | 249 |
| 5090TR4749 | 249 |
| 5090TR810 | 249 |
| 5510TR120 | 205 |
| 5510TR1212 | 205 |
| 5510TR1216 | 205 |
| 5510TR1220 | 205 |
| 5510TR1225 | 205 |
| 5510TR125 | 205 |
| 5510TR1412 | 205 |
| 5510TR1416 | 205 |
| 5510TR1812 | 205 |
| 5510TR3412 | 205 |
| 5510TR3416 | 205 |
| 5510TR3420 | 205 |
| 5510TR3425 | 205 |
| 5510TR3812 | 205 |
| 5520TR1212 | 205 |
| 5520TR1216 | 205 |
| 5520TR1220 | 205 |
| 5520TR1225 | 205 |
| 5520TR1412 | 205 |
| 5520TR3412 | 205 |
| 5520TR3416 | 205 |
| 5520TR3420 | 205 |
| 5520TR3425 | 205 |
| 5520TR3812 | 205 |
| 5520TR3816 | 205 |
| 5530TR1212 | 205 |
| 5530TR1216 | 205 |
| 5530TR1220 | 205 |
| 5530TR1225 | 205 |
| 5530TR1412 | 205 |
| 5530TR3412 | 205 |
| 5530TR3416 | 205 |
| 5530TR3420 | 205 |
| 5530TR3425 | 205 |
| 5530TR3812 | 205 |
| 5530TR3816 | 205 |
| 5540TR12 | 206 |
| 5540TR16 | 206 |
| 5540TR20 | 206 |
| 5540TR25 | 206 |
| 5545TR1612 | 206 |
| 5545TR2012 | 206 |
| 5545TR2016 | 206 |
| 5545TR2520 | 206 |
| 5550TR12 | 206 |
| 5550TR16 | 206 |
| 5550TR20 | 206 |
| 5550TR25 | 206 |
| 5555TR1612 | 206 |
| 5555TR2012 | 206 |
| 5555TR2016 | 206 |
| 5555TR2520 | 206 |
| 5560TR12 | 207 |
| 5560TR16 | 207 |
| 5560TR20 | 207 |
| 5560TR25 | 207 |
| 5565TR1216 | 207 |
| 5565TR1620 | 207 |
| 5565TR2025 | 207 |
| 5570TR112 | 207 |
| 5570TR114 | 207 |
| 5570TR116 | 207 |
| 5570TR119 | 207 |
| 5570TR1212 | 207 |
| 5570TR18 | 207 |
| 5570TR3410 | 207 |
| 5570TR3412 | 207 |
| 5570TR3414 | 207 |
| 5570TR3416 | 207 |
| 5570TR3419 | 207 |
| 5570TR346 | 207 |
| 5570TR348 | 207 |
| 5570TR3810 | 207 |
| 5580TR1 | 207 |
| 5580TR12 | 207 |
| 5580TR34 | 207 |
| 5580TR38 | 207 |
| 5905TR1210 | 234 |
| 5905TR1212 | 234 |
| 5905TR1214 | 234 |
| 5905TR1216 | 234 |
| 5905TR1219 | 234 |
| 5905TR125 | 234 |
| 5905TR126 | 234 |
| 5905TR128 | 234 |
| 5905TR1410 | 234 |
| 5905TR1412 | 234 |
| 5905TR145 | 234 |
| 5905TR146 | 234 |

| | |
|---|---|
| 5905TR148 | 234 |
| 5905TR185 | 234 |
| 5905TR186 | 234 |
| 5905TR188 | 234 |
| 5905TR3810 | 234 |
| 5905TR3812 | 234 |
| 5905TR3814 | 234 |
| 5905TR385 | 234 |
| 5905TR386 | 234 |
| 5905TR388 | 234 |
| 5910TR119 | 235 |
| 5910TR1210 | 235 |
| 5910TR1212 | 235 |
| 5910TR1214 | 235 |
| 5910TR1216 | 235 |
| 5910TR1219 | 235 |
| 5910TR125 | 235 |
| 5910TR126 | 235 |
| 5910TR128 | 235 |
| 5910TR1410 | 235 |
| 5910TR1412 | 235 |
| 5910TR144 | 235 |
| 5910TR145 | 235 |
| 5910TR146 | 235 |
| 5910TR148 | 235 |
| 5910TR184 | 235 |
| 5910TR185 | 235 |
| 5910TR186 | 235 |
| 5910TR188 | 235 |
| 5910TR3410 | 235 |
| 5910TR3412 | 235 |
| 5910TR3414 | 235 |
| 5910TR3416 | 235 |
| 5910TR3419 | 235 |
| 5910TR3425 | 235 |
| 5910TR346 | 235 |
| 5910TR348 | 235 |
| 5910TR3810 | 235 |
| 5910TR3812 | 235 |
| 5910TR3814 | 235 |
| 5910TR386 | 235 |
| 5910TR388 | 235 |
| 5920TR1210 | 236 |
| 5920TR1212 | 236 |
| 5920TR1214 | 236 |
| 5920TR1216 | 236 |
| 5920TR1219 | 236 |
| 5920TR125 | 236 |
| 5920TR126 | 236 |
| 5920TR128 | 236 |
| 5920TR1410 | 236 |
| 5920TR1412 | 236 |
| 5920TR144 | 236 |
| 5920TR145 | 236 |
| 5920TR146 | 236 |
| 5920TR148 | 236 |
| 5920TR184 | 236 |
| 5920TR185 | 236 |
| 5920TR186 | 236 |
| 5920TR188 | 236 |
| 5920TR3410 | 236 |
| 5920TR3412 | 236 |
| 5920TR3414 | 236 |
| 5920TR3416 | 236 |
| 5920TR3419 | 236 |
| 5920TR3810 | 236 |
| 5920TR3812 | 236 |
| 5920TR3814 | 236 |
| 5920TR386 | 236 |
| 5920TR388 | 236 |
| 5925TR1210 | 237 |
| 5925TR1212 | 237 |
| 5925TR1214 | 237 |
| 5925TR1216 | 237 |
| 5925TR1219 | 237 |
| 5925TR126 | 237 |
| 5925TR128 | 237 |
| 5925TR1410 | 237 |
| 5925TR1412 | 237 |
| 5925TR144 | 237 |
| 5925TR145 | 237 |
| 5925TR146 | 237 |
| 5925TR148 | 237 |
| 5925TR184 | 237 |
| 5925TR185 | 237 |
| 5925TR186 | 237 |
| 5925TR188 | 237 |
| 5925TR3410 | 237 |
| 5925TR3412 | 237 |
| 5925TR3414 | 237 |
| 5925TR3416 | 237 |
| 5925TR3419 | 237 |
| 5925TR3810 | 237 |
| 5925TR3812 | 237 |
| 5925TR3814 | 237 |
| 5925TR386 | 237 |
| 5925TR388 | 237 |
| 5930TR10 | 237 |
| 5930TR12 | 237 |
| 5930TR14 | 237 |
| 5930TR16 | 237 |
| 5930TR19 | 237 |
| 5930TR4 | 237 |
| 5930TR5 | 237 |
| 5930TR6 | 237 |
| 5930TR8 | 237 |
| 5935TR106 | 238 |
| 5935TR108 | 238 |
| 5935TR1210 | 238 |
| 5935TR1412 | 238 |
| 5935TR1614 | 238 |
| 5935TR1916 | 238 |
| 5935TR54 | 238 |
| 5935TR64 | 238 |
| 5935TR65 | 238 |
| 5935TR86 | 238 |
| 5940TR10 | 238 |
| 5940TR12 | 238 |
| 5940TR14 | 238 |
| 5940TR16 | 238 |
| 5940TR19 | 238 |
| 5940TR4 | 238 |
| 5940TR5 | 238 |
| 5940TR6 | 238 |
| 5940TR8 | 238 |
| 5945TR106 | 238 |
| 5945TR108 | 238 |
| 5945TR1210 | 238 |
| 5945TR128 | 238 |
| 5945TR1410 | 238 |
| 5945TR1412 | 238 |
| 5945TR1612 | 238 |
| 5945TR1614 | 238 |
| 5945TR1914 | 238 |
| 5945TR1916 | 238 |
| 5945TR54 | 238 |
| 5945TR64 | 238 |
| 5945TR65 | 238 |
| 5945TR85 | 238 |
| 5945TR86 | 238 |
| 5950TR10 | 239 |
| 5950TR12 | 239 |
| 5950TR14 | 239 |
| 5950TR16 | 239 |
| 5950TR19 | 239 |
| 5950TR4 | 239 |
| 5950TR5 | 239 |
| 5950TR6 | 239 |
| 5950TR8 | 239 |
| 5955TR108 | 239 |
| 5955TR1210 | 239 |
| 5955TR1412 | 239 |
| 5955TR1614 | 239 |
| 5955TR1916 | 239 |
| 5955TR54 | 239 |
| 5955TR65 | 239 |
| 5955TR86 | 239 |
| 5960TR10 | 239 |
| 5960TR17 | 239 |
| 5960TR4 | 239 |
| 5960TR6 | 239 |
| 5960TR8 | 239 |
| 6100TR1 | 428 |
| 6100TR12 | 428 |
| 6100TR14 | 428 |
| 6100TR18 | 428 |
| 6100TR34 | 428 |
| 6100TR38 | 428 |
| 6100TRM5 | 428 |
| 6150TR1 | 428 |
| 6150TR12 | 428 |
| 6150TR14 | 428 |
| 6150TR18 | 428 |
| 6150TR34 | 428 |
| 6150TR38 | 428 |
| 6200TR1 | 428 |
| 6200TR12 | 428 |
| 6200TR14 | 428 |
| 6200TR18 | 428 |
| 6200TR34 | 428 |
| 6200TR38 | 428 |
| 6200TRM5 | 428 |
| 6250TR1 | 428 |
| 6250TR12 | 428 |
| 6250TR14 | 428 |
| 6250TR18 | 428 |
| 6250TR34 | 428 |
| 6250TR38 | 428 |
| 6300TR1 | 429 |
| 6300TR12 | 429 |
| 6300TR14 | 429 |
| 6300TR18 | 429 |
| 6300TR34 | 429 |
| 6300TR38 | 429 |
| 6300TRM5 | 429 |
| 6350TR1 | 429 |
| 6350TR12 | 429 |
| 6350TR14 | 429 |
| 6350TR18 | 429 |
| 6350TR34 | 429 |
| 6350TR38 | 429 |
| 6400TR1 | 429 |
| 6400TR12 | 429 |
| 6400TR14 | 429 |
| 6400TR18 | 429 |
| 6400TR34 | 429 |
| 6400TR38 | 429 |
| 6450TR1 | 429 |

| | |
|---|---|
| 6450TR12 | 429 |
| 6450TR14 | 429 |
| 6450TR18 | 429 |
| 6450TR34 | 429 |
| 6450TR38 | 429 |
| 6450TRM5 | 429 |
| 6500TR1 | 430 |
| 6500TR12 | 430 |
| 6500TR14 | 430 |
| 6500TR18 | 430 |
| 6500TR34 | 430 |
| 6500TR38 | 430 |
| 6550TR1 | 430 |
| 6550TR12 | 430 |
| 6550TR14 | 430 |
| 6550TR18 | 430 |
| 6550TR34 | 430 |
| 6550TR38 | 430 |
| 6600TR1 | 430 |
| 6600TR12 | 430 |
| 6600TR14 | 430 |
| 6600TR18 | 430 |
| 6600TR34 | 430 |
| 6600TR38 | 430 |
| 6650TR12 | 430 |
| 6650TR14 | 430 |
| 6650TR18 | 430 |
| 6650TR38 | 430 |
| 6655TR12 | 431 |
| 6655TR14 | 431 |
| 6655TR18 | 431 |
| 6655TR38 | 431 |
| 6670TR1 | 431 |
| 6670TR12 | 431 |
| 6670TR14 | 431 |
| 6670TR18 | 431 |
| 6670TR34 | 431 |
| 6670TR38 | 431 |
| 6700TR1 | 431 |
| 6700TR12 | 431 |
| 6700TR14 | 431 |
| 6700TR18 | 431 |
| 6700TR34 | 431 |
| 6700TR38 | 431 |
| 6750TR12 | 431 |
| 6750TR14 | 431 |
| 6750TR18 | 431 |
| 6750TR38 | 431 |
| 6780TR1 | 432 |
| 6780TR12 | 432 |
| 6780TR14 | 432 |
| 6780TR18 | 432 |
| 6780TR34 | 432 |
| 6780TR38 | 432 |
| 6780TRM5 | 432 |
| 6820TR12 | 432 |
| 6820TR14 | 432 |
| 6820TR18 | 432 |
| 6820TR38 | 432 |
| 6850TR1 | 432 |
| 6850TR12 | 432 |
| 6850TR14 | 432 |
| 6850TR18 | 432 |
| 6850TR34 | 432 |
| 6850TR38 | 432 |
| 6880TR1 | 432 |
| 6880TR12 | 432 |
| 6880TR14 | 432 |
| 6880TR18 | 432 |
| 6880TR34 | 432 |
| 6880TR38 | 432 |
| 6882TR1 | 433 |
| 6882TR12 | 433 |
| 6882TR14 | 433 |
| 6882TR18 | 433 |
| 6882TR34 | 433 |
| 6882TR38 | 433 |
| 6885TR14 | 433 |
| 6885TR18 | 433 |
| 8001TR14 | 488 |
| 8006TR14 | 488 |
| 8007TR14 | 488 |
| 8008TR10 | 488 |
| 8008TR12 | 488 |
| 8008TR5 | 488 |
| 8008TR6 | 488 |
| 8008TR8 | 488 |
| 8060MM02 | 518 |
| 8060MM03 | 518 |
| 8060MM04 | 518 |
| 8070FM02 | 518 |
| 8070FM03 | 518 |
| 8070FM04 | 518 |
| 8080RE06 | 518 |
| 8080RE08 | 518 |
| 8080RE10 | 518 |
| 8080RE12 | 518 |
| 8085PO10145 | 519 |
| 8085PO1017 | 519 |
| 8085PO1019 | 519 |
| 8085PO610 | 519 |
| 8085PO612 | 519 |
| 8085PO614 | 519 |
| 8085PO812 | 519 |
| 8085PO814 | 519 |
| 8085PO817 | 519 |
| 8090MO1012 | 519 |
| 8090MO46 | 519 |
| 8090MO58 | 519 |
| 8090MO6510 | 519 |
| 8090MO68 | 519 |
| 8090MO810 | 519 |
| 8090MO812 | 519 |
| 8110FM01 | 502 |
| 8110FM02 | 502 |
| 8120FF01 | 502 |
| 8120FF02 | 502 |
| 8130RE06 | 502 |
| 8130RE08 | 502 |
| 8140CA46 | 502 |
| 8140CA68 | 502 |
| 8140CA810 | 502 |
| 8150MO46 | 503 |
| 8150MO68 | 503 |
| 8150MO810 | 503 |
| 8155BU46 | 503 |
| 8155BU68 | 503 |
| 8160MM01 | 503 |
| 8160MM02 | 503 |
| 8170FM01 | 503 |
| 8170FM02 | 503 |
| 8180RE06 | 504 |
| 8180RE08 | 504 |
| 8190CA46 | 504 |
| 8190CA68 | 504 |
| 8190CA810 | 504 |
| 8195MO46 | 504 |
| 8195MO68 | 504 |
| 8195MO810 | 504 |
| 8210FM01 | 510 |
| 8210FM02 | 510 |
| 8210FM03 | 510 |
| 8210FM04 | 510 |
| 8215FM03 | 526 |
| 8215FM04 | 526 |
| 8220FF01 | 510 |
| 8220FF02 | 510 |
| 8220FF03 | 510 |
| 8220FF04 | 510 |
| 8225FF03 | 526 |
| 8225FF04 | 526 |
| 8230PO1017 | 512 |
| 8230PO1019 | 512 |
| 8230PO610 | 512 |
| 8230PO612 | 512 |
| 8230PO613 | 512 |
| 8230PO614 | 512 |
| 8230PO716 | 512 |
| 8230PO812 | 512 |
| 8230PO813 | 512 |
| 8230PO815 | 512 |
| 8230PO817 | 512 |
| 8235PO1019 | 526 |
| 8235PO1020 | 526 |
| 8235PO1021 | 526 |
| 8235PO1022 | 526 |
| 8235PO1023 | 526 |
| 8235PO1319 | 526 |
| 8235PO1320 | 526 |
| 8235PO1321 | 526 |
| 8235PO1323 | 526 |
| 8235PO1324 | 526 |
| 8235PO1325 | 526 |
| 8240PO1017 | 510 |
| 8240PO1019 | 510 |
| 8240PO610 | 510 |
| 8240PO612 | 510 |
| 8240PO613 | 510 |
| 8240PO614 | 510 |
| 8240PO716 | 510 |
| 8240PO812 | 510 |
| 8240PO813 | 510 |
| 8240PO815 | 510 |
| 8240PO817 | 510 |
| 8245PO1019 | 527 |
| 8245PO1020 | 527 |
| 8245PO1021 | 527 |
| 8245PO1022 | 527 |
| 8245PO1023 | 527 |
| 8245PO1319 | 527 |
| 8245PO1320 | 527 |
| 8245PO1321 | 527 |
| 8245PO1323 | 527 |
| 8245PO1324 | 527 |
| 8245PO1325 | 527 |
| 8250MO1012 | 511 |
| 8250MO46 | 511 |
| 8250MO58 | 511 |
| 8250MO6510 | 511 |
| 8250MO68 | 511 |
| 8250MO810 | 511 |
| 8255MM03 | 527 |
| 8255MM04 | 527 |
| 8260MM01 | 511 |
| 8260MM02 | 511 |
| 8260MM03 | 511 |
| 8260MM04 | 511 |
| 8270FM01 | 511 |

| | |
|---|---|
| 8270FM02 | 511 |
| 8270FM03 | 511 |
| 8270FM04 | 511 |
| 8285BM55 | 512 |
| 8295MO1012 | 512 |
| 8295MO46 | 512 |
| 8295MO58 | 512 |
| 8295MO6510 | 512 |
| 8295MO68 | 512 |
| 8295MO810 | 512 |
| 8295MO812 | 512 |
| 8310FM01 | 514 |
| 8310FM02 | 514 |
| 8310FM03 | 514 |
| 8310FM04 | 514 |
| 8320FF02 | 514 |
| 8320FF03 | 514 |
| 8320FF04 | 514 |
| 8330RE06 | 514 |
| 8330RE07 | 514 |
| 8330RE08 | 514 |
| 8330RE09 | 514 |
| 8330RE10 | 514 |
| 8330RE11 | 514 |
| 8330RE12 | 514 |
| 8330RE13 | 514 |
| 8330RE14 | 514 |
| 8340PO1019 | 516 |
| 8340PO610 | 516 |
| 8340PO612 | 516 |
| 8340PO614 | 516 |
| 8340PO716 | 516 |
| 8340PO812 | 516 |
| 8340PO815 | 516 |
| 8340PO817 | 516 |
| 8350MO1012 | 515 |
| 8350MO46 | 515 |
| 8350MO58 | 515 |
| 8350MO6510 | 515 |
| 8350MO68 | 515 |
| 8350MO810 | 515 |
| 8350MO812 | 515 |
| 8360MM01 | 515 |
| 8360MM02 | 515 |
| 8360MM03 | 515 |
| 8360MM04 | 515 |
| 8370FM02 | 515 |
| 8370FM03 | 515 |
| 8370FM04 | 515 |
| 8380RE06 | 516 |
| 8380RE07 | 516 |
| 8380RE08 | 516 |
| 8380RE09 | 516 |
| 8380RE10 | 516 |
| 8380RE11 | 516 |
| 8380RE12 | 516 |
| 8380RE13 | 516 |
| 8380RE14 | 516 |
| 8390PO1019 | 515 |
| 8390PO610 | 515 |
| 8390PO612 | 515 |
| 8390PO614 | 515 |
| 8390PO716 | 515 |
| 8390PO812 | 515 |
| 8390PO815 | 515 |
| 8390PO817 | 515 |
| 8395MO1012 | 516 |
| 8395MO46 | 516 |
| 8395MO58 | 516 |
| 8395MO6510 | 516 |
| 8395MO68 | 516 |
| 8395MO810 | 516 |
| 8395MO812 | 516 |
| 8410FM02 | 506 |
| 8410FM02LU | 507 |
| 8410FM03 | 506 |
| 8410FM03LU | 507 |
| 8410FM04 | 506 |
| 8410FM04LU | 507 |
| 8420FF02 | 506 |
| 8420FF02LU | 507 |
| 8420FF03 | 506 |
| 8420FF03LU | 507 |
| 8420FF04 | 506 |
| 8430RE06 | 506 |
| 8430RE08 | 506 |
| 8430RE10 | 506 |
| 8430RE12 | 506 |
| 8440PO10145 | 506 |
| 8440PO1017 | 506 |
| 8440PO1019 | 506 |
| 8440PO610 | 506 |
| 8440PO612 | 506 |
| 8440PO614 | 506 |
| 8440PO812 | 506 |
| 8440PO814 | 506 |
| 8440PO817 | 506 |
| 8450MO1012 | 507 |
| 8450MO58 | 507 |
| 8450MO6510 | 507 |
| 8450MO68 | 507 |
| 8450MO810 | 507 |
| 8450MO812 | 507 |
| 8460MM02 | 522 |
| 8460MM03 | 522 |
| 8460MM04 | 522 |
| 8470FF02 | 522 |
| 8470FF03 | 522 |
| 8470FF04 | 522 |
| 8480RE06 | 522 |
| 8480RE08 | 522 |
| 8480RE10 | 522 |
| 8480RE12 | 522 |
| 8485PO10145 | 523 |
| 8485PO1017 | 523 |
| 8485PO1019 | 523 |
| 8485PO610 | 523 |
| 8485PO612 | 523 |
| 8485PO614 | 523 |
| 8485PO812 | 523 |
| 8485PO814 | 523 |
| 8485PO817 | 523 |
| 8490MO1012 | 523 |
| 8490MO46 | 523 |
| 8490MO58 | 523 |
| 8490MO6510 | 523 |
| 8490MO68 | 523 |
| 8490MO810 | 523 |
| 8490MO812 | 523 |
| 8910FM02 | 530 |
| 8910FM03 | 530 |
| 8910FM04 | 530 |
| 8920FF02 | 530 |
| 8920FF03 | 530 |
| 8920FF04 | 530 |
| 8930RE08 | 530 |
| 8930RE10 | 530 |
| 8930RE12 | 530 |
| 8960MM02 | 531 |
| 8960MM03 | 531 |
| 8960MM04 | 531 |
| 8970FM02 | 531 |
| 8970FM03 | 531 |
| 8970FM04 | 531 |
| 8980RE06 | 531 |
| 8980RE08 | 531 |
| 8980RE10 | 531 |
| 9020TR14 | 413 |
| 9020TR14-PVDF | 414 |
| 9030TR14 | 418 |
| 9030TR18 | 418 |
| 9031TR8 | 418 |
| 9110TR12 | 630 |
| 9110TR12-F | 632 |
| 9110TR14 | 630 |
| 9110TR14-F | 632 |
| 9110TR18 | 630 |
| 9110TR18-F | 632 |
| 9110TR34 | 630 |
| 9110TR38 | 630 |
| 9110TR38-F | 632 |
| 9120TR12 | 630 |
| 9120TR12-F | 632 |
| 9120TR14 | 630 |
| 9120TR14-F | 632 |
| 9120TR18 | 630 |
| 9120TR18-F | 632 |
| 9120TR34 | 630 |
| 9120TR38 | 630 |
| 9120TR38-F | 632 |
| 9130TR12 | 630 |
| 9130TR14 | 630 |
| 9130TR38 | 630 |
| 9142TR12 | 634 |
| 9142TR14 | 634 |
| 9142TR18 | 634 |
| 9142TR38 | 634 |
| 9162TR12 | 634 |
| 9162TR14 | 634 |
| 9162TR18 | 634 |
| 9162TR38 | 634 |
| 9170TR1 | 656 |
| 9170TR12 | 656 |
| 9170TR14 | 656 |
| 9170TR18 | 656 |
| 9170TR34 | 656 |
| 9170TR38 | 656 |
| 9180TR1 | 656 |
| 9180TR12 | 656 |
| 9180TR14 | 656 |
| 9180TR18 | 656 |
| 9180TR34 | 656 |
| 9180TR38 | 656 |
| 9203TR1 | 636 |
| 9203TR112 | 636 |
| 9203TR114 | 636 |
| 9203TR12 | 636 |
| 9203TR2 | 636 |
| 9203TR34 | 636 |
| 9203TR38 | 636 |
| 9204TR1 | 636 |
| 9204TR112 | 636 |
| 9204TR114 | 636 |
| 9204TR12 | 636 |
| 9204TR2 | 636 |
| 9204TR34 | 636 |
| 9204TR38 | 636 |
| 9208TR1 | 638 |

| | |
|---|---|
| 9208TR112 | 638 |
| 9208TR114 | 638 |
| 9208TR12 | 638 |
| 9208TR14 | 638 |
| 9208TR2 | 638 |
| 9208TR34 | 638 |
| 9208TR38 | 638 |
| 9210TR1 | 644 |
| 9210TR112 | 644 |
| 9210TR114 | 644 |
| 9210TR12 | 644 |
| 9210TR14 | 644 |
| 9210TR2 | 644 |
| 9210TR212 | 644 |
| 9210TR3 | 644 |
| 9210TR34 | 644 |
| 9210TR38 | 644 |
| 9210TR4 | 644 |
| 9210TRH1 | 648 |
| 9210TRH112 | 648 |
| 9210TRH114 | 648 |
| 9210TRH12 | 648 |
| 9210TRH14 | 648 |
| 9210TRH2 | 648 |
| 9210TRH212 | 648 |
| 9210TRH3 | 648 |
| 9210TRH34 | 648 |
| 9210TRH38 | 648 |
| 9210TRH4 | 648 |
| 9210TRHS1 | 650 |
| 9210TRHS112 | 650 |
| 9210TRHS114 | 650 |
| 9210TRHS12 | 650 |
| 9210TRHS2 | 650 |
| 9210TRHS34 | 650 |
| 9210TRHS38 | 650 |
| 9212TR1 | 640 |
| 9212TR112 | 640 |
| 9212TR114 | 640 |
| 9212TR12 | 640 |
| 9212TR14 | 640 |
| 9212TR2 | 640 |
| 9212TR212 | 640 |
| 9212TR3 | 640 |
| 9212TR34 | 640 |
| 9212TR38 | 640 |
| 9212TR4 | 640 |
| 9214TR1 | 642 |
| 9214TR112 | 642 |
| 9214TR114 | 642 |
| 9214TR12 | 642 |
| 9214TR14 | 642 |
| 9214TR2 | 642 |
| 9214TR34 | 642 |
| 9214TR38 | 642 |
| 9220TR1 | 644 |
| 9220TR112 | 644 |
| 9220TR114 | 644 |
| 9220TR12 | 644 |
| 9220TR14 | 644 |
| 9220TR2 | 644 |
| 9220TR34 | 644 |
| 9220TR38 | 644 |
| 9230TR1 | 645 |
| 9230TR112 | 645 |
| 9230TR114 | 645 |
| 9230TR12 | 645 |
| 9230TR14 | 645 |
| 9230TR2 | 645 |
| 9230TR34 | 645 |
| 9230TR38 | 645 |
| 9240TR1 | 644 |
| 9240TR114 | 644 |
| 9240TR12 | 644 |
| 9240TR14 | 644 |
| 9240TR34 | 644 |
| 9240TR38 | 644 |
| 9250TR1 | 645 |
| 9250TR114 | 645 |
| 9250TR12 | 645 |
| 9250TR14 | 645 |
| 9250TR34 | 645 |
| 9250TR38 | 645 |
| 9260TR1 | 645 |
| 9260TR12 | 645 |
| 9260TR14 | 645 |
| 9260TR34 | 645 |
| 9260TR38 | 645 |
| 9270TR1 | 652 |
| 9270TR112 | 652 |
| 9270TR114 | 652 |
| 9270TR12 | 652 |
| 9270TR14 | 652 |
| 9270TR2 | 652 |
| 9270TR34 | 652 |
| 9270TR38 | 652 |
| 9272TR1 | 653 |
| 9272TR112 | 653 |
| 9272TR114 | 653 |
| 9272TR12 | 653 |
| 9272TR14 | 653 |
| 9272TR2 | 653 |
| 9272TR34 | 653 |
| 9272TR38 | 653 |
| 9280TR1 | 652 |
| 9280TR112 | 652 |
| 9280TR114 | 652 |
| 9280TR12 | 652 |
| 9280TR14 | 652 |
| 9280TR2 | 652 |
| 9280TR34 | 652 |
| 9280TR38 | 652 |
| 9282TR1 | 653 |
| 9282TR112 | 653 |
| 9282TR114 | 653 |
| 9282TR12 | 653 |
| 9282TR14 | 653 |
| 9282TR2 | 653 |
| 9282TR34 | 653 |
| 9282TR38 | 653 |
| 9320TR1 | 658 |
| 9320TR112 | 658 |
| 9320TR114 | 658 |
| 9320TR12 | 658 |
| 9320TR14 | 658 |
| 9320TR2 | 658 |
| 9320TR212 | 658 |
| 9320TR3 | 658 |
| 9320TR34 | 658 |
| 9320TR38 | 658 |
| 9320TR4 | 658 |
| 9325TR1 | 660 |
| 9325TR112 | 660 |
| 9325TR114 | 660 |
| 9325TR12 | 660 |
| 9325TR14 | 660 |
| 9325TR2 | 660 |
| 9325TR212 | 660 |
| 9325TR3 | 660 |
| 9325TR34 | 660 |
| 9325TR38 | 660 |
| 9325TR4 | 660 |
| 9340TR1 | 662 |
| 9340TR112 | 662 |
| 9340TR114 | 662 |
| 9340TR12 | 662 |
| 9340TR14 | 662 |
| 9340TR2 | 662 |
| 9340TR34 | 662 |
| 9340TR38 | 662 |
| 9342TR1 | 662 |
| 9342TR112 | 662 |
| 9342TR114 | 662 |
| 9342TR12 | 662 |
| 9342TR14 | 662 |
| 9342TR2 | 662 |
| 9342TR34 | 662 |
| 9342TR38 | 662 |
| 9350TR1 | 664 |
| 9350TR112 | 664 |
| 9350TR114 | 664 |
| 9350TR12 | 664 |
| 9350TR2 | 664 |
| 9350TR212 | 664 |
| 9350TR3 | 664 |
| 9350TR34 | 664 |
| 9350TR4 | 664 |
| 9350TR5 | 664 |
| 9350TR6 | 664 |
| 9400TR1 | 665 |
| 9400TR112 | 665 |
| 9400TR114 | 665 |
| 9400TR12 | 665 |
| 9400TR14 | 665 |
| 9400TR2 | 665 |
| 9400TR34 | 665 |
| 9400TR38 | 665 |
| 9611TR12 | 671 |
| 9611TR14 | 671 |
| 9611TR18 | 671 |
| 9611TR38 | 671 |
| 9613TR12 | 668 |
| 9613TR14 | 668 |
| 9613TR38 | 668 |
| 9614TR12 | 669 |
| 9614TR14 | 669 |
| 9614TR38 | 669 |
| 9615TR12 | 670 |
| 9615TR14 | 670 |
| 9615TR38 | 670 |
| ACD-100E | 557 |
| ACD-100E-10 | 557 |
| ACD-100E-10-L | 557 |
| ACD-100E-10X | 557 |
| ACD-100E-12X | 557 |
| ACD-100E-L | 557 |
| ACD-100E-X | 557 |
| ACD-100H | 557 |
| ACD-100H-L | 557 |
| ACD-100H-X | 557 |
| ACD-100H-X-316 | 557 |
| ACD-100M | 556 |
| ACD-100M-L | 556 |
| ACD-100M-X | 556 |
| ACD-12E6 | 539 |
| ACD-12E6-X | 539 |
| ACD-12E8 | 539 |
| ACD-12E8-X | 539 |

| | |
|---|---|
| ACD-12H | 539 |
| ACD-12H-X | 539 |
| ACD-12H1 | 539 |
| ACD-12H1-X | 539 |
| ACD-12M | 539 |
| ACD-12M-X | 539 |
| ACD-12M1 | 539 |
| ACD-12M1-X | 539 |
| ACD-150E-L | 561 |
| ACD-150E-X | 561 |
| ACD-150E-X-316 | 561 |
| ACD-150H-L | 561 |
| ACD-150H-L-P | 561 |
| ACD-150H-X | 561 |
| ACD-150H-X-316 | 561 |
| ACD-150H-X-316-P | 561 |
| ACD-150H-X-P | 561 |
| ACD-150M-L | 560 |
| ACD-150M-L-P | 560 |
| ACD-150M-X | 560 |
| ACD-150M-X-316 | 560 |
| ACD-150M-X-316-P | 560 |
| ACD-150M-X-P | 560 |
| ACD-25-PM08 | 549 |
| ACD-25-PM10 | 549 |
| ACD-25E | 549 |
| ACD-25E-10 | 549 |
| ACD-25E-L | 549 |
| ACD-25E-X | 549 |
| ACD-25H | 549 |
| ACD-25H-3/8 | 549 |
| ACD-25H-L | 549 |
| ACD-25H-X | 549 |
| ACD-25M | 548 |
| ACD-25M-3/8 | 548 |
| ACD-25M-3/8-X | 548 |
| ACD-25M-L | 548 |
| ACD-25M-X | 548 |
| ACD-50E | 553 |
| ACD-50E-L | 553 |
| ACD-50E-X | 553 |
| ACD-50H | 553 |
| ACD-50H-L | 553 |
| ACD-50H-X | 553 |
| ACD-50M | 552 |
| ACD-50M-L | 552 |
| ACD-50M-X | 552 |
| ACLD-100-L | 557 |
| ACLD-100-X | 557 |
| ACLD-150-L | 561 |
| ACLD-150-X | 561 |
| ACLD-150L-P | 561 |
| ACLD-150X-316 | 561 |
| ACLD-150X-316-P | 561 |
| ACLD-150X-P | 561 |
| ACLD-25-L | 544 |
| ACLD-25-X | 544 |
| ACLD-50-L | 553 |
| ACLD-50-X | 553 |
| ACRHL12-H12 | 615 |
| ACRHL12-H12-303 | 615 |
| ACRHL12-H12-316 | 615 |
| ACRHL12-H14 | 615 |
| ACRHL12-H14-303 | 615 |
| ACRHL12-H38 | 615 |
| ACRHL12-H38-303 | 615 |
| ACRHL12-H38-316 | 615 |
| ACRHL12-M12G-303C | 615 |
| ACRHL12-M12G-316C | 615 |
| ACRM-55-E8 | 619 |
| ACRM-55H | 619 |
| ACRM-55H-3/8 | 619 |
| ACRM-55H-L | 619 |
| ACRM-55H-X | 619 |
| ACRM-55H1 | 619 |
| ACRM-55H1-L | 619 |
| ACRM-55M | 619 |
| ACRM-55M-3/8 | 619 |
| ACRM-55M-L | 619 |
| ACRM-55M-X | 619 |
| ACRM-55M1 | 619 |
| ACRM-55M1-L | 619 |
| AEU-75E | 602 |
| AEU-75E-X | 602 |
| AEU-75E10 | 602 |
| AEU-75E10-316 | 602 |
| AEU-75E12-316 | 602 |
| AEU-75H | 602 |
| AEU-75H-316 | 602 |
| AEU-75H-X | 602 |
| AEU-75H12-316 | 602 |
| AEU-75H38 | 602 |
| AEU-75H38-316 | 602 |
| AEU-75M | 601 |
| AEU-75M-316 | 601 |
| AEU-75M-X | 601 |
| AEU-75M12-316 | 601 |
| AEU-75M38 | 601 |
| AEU-75M38-316 | 601 |
| AEU-75PM08 | 602 |
| AEU-75PM08-X | 602 |
| AEU-75PM10 | 602 |
| AEU-DO75E10 | 606 |
| AEU-DO75E8 | 606 |
| AEU-DO75E8-316V | 606 |
| AEU-DO75H12 | 605 |
| AEU-DO75H12-316V | 605 |
| AEU-DO75H14 | 605 |
| AEU-DO75H14-316V | 605 |
| AEU-DO75H38 | 605 |
| AEU-DO75H38-316V | 605 |
| AEU-DO75M12 | 605 |
| AEU-DO75M12-316V | 605 |
| AEU-DO75M14 | 605 |
| AEU-DO75M14-316V | 605 |
| AEU-DO75M38 | 605 |
| AEU-DO75M38-316V | 605 |
| AL1512-AZ-S | 783 |
| AL2219-AZ-S | 783 |
| AMC-H18-L | 584 |
| AMN-E6-L | 588 |
| AMN-E8-L | 588 |
| AMN-H-316 | 588 |
| AMN-H-L | 588 |
| AMN-H1-316 | 588 |
| AMN-H1-L | 588 |
| AMN-M-316 | 588 |
| AMN-M-L | 588 |
| AMN-M1-316 | 588 |
| AMN-M1-L | 588 |
| AMN-RR6-316 | 589 |
| AMN-RR6-L | 589 |
| AMN-RR6R-L | 589 |
| AMN-RR8-316 | 589 |
| AMN-RR8-L | 589 |
| AMN-RR8R-L | 589 |
| AMNDO-E6-316V | 595 |
| AMNDO-E6-L | 595 |
| AMNDO-E8-316V | 595 |
| AMNDO-E8-L | 595 |
| AMNDO-H-316V | 594 |
| AMNDO-H-L | 594 |
| AMNDO-H1-316V | 594 |
| AMNDO-H1-L | 594 |
| AMNDO-M-316V | 594 |
| AMNDO-M-L | 594 |
| AMNDO-M1-316V | 594 |
| AMNDO-M1-L | 594 |
| AMNDO-M3-316V | 594 |
| AMNDO-MM6-316V | 595 |
| AMNDO-MM6-L | 595 |
| AMNDO-MM8-L | 595 |
| AMNDO-RR6-L | 595 |
| AMNDO-RR8-L | 595 |
| AMNDO-RR6R-L | 596 |
| AMNDO-RR8R-L | 596 |
| ASF-B01N | 342 |
| ASF-B02N | 342 |
| ASF-B03N | 342 |
| ASF-B04N | 342 |
| ASF-U01N | 342 |
| ASF-U02N | 342 |
| ASF-U03N | 342 |
| ASF-U04N | 342 |
| ASR-HH06 | 770 |
| ASR-HH06BL | 770 |
| ASR-HH06RO | 770 |
| ASR-HH10 | 770 |
| ASR-HH10BL | 770 |
| ASR-HH10RO | 770 |
| ASR-HH13 | 770 |
| ASR-HH13BL | 770 |
| ASR-HH13RO | 770 |
| ASR-HH16 | 770 |
| ASR-HH16BL | 770 |
| ASR-HH16RO | 770 |
| ASR-PU06 | 771 |
| ASR-PU06AZ | 771 |
| ASR-PU06NE | 771 |
| ASR-PU06RO | 771 |
| ASR-PU06VD | 771 |
| ASR-PU10 | 771 |
| ASR-PU10AZ | 771 |
| ASR-PU10NE | 771 |
| ASR-PU10RO | 771 |
| ASR-PU10VD | 771 |
| ASR-PU13 | 771 |
| ASR-PU13AZ | 771 |
| ASR-PU13NE | 771 |
| ASR-PU13RO | 771 |
| ASR-PU13VD | 771 |
| ASR-PU16 | 771 |
| ASR-PU16AZ | 771 |
| ASR-PU16NE | 771 |
| ASR-PU16RO | 771 |
| ASR-PU16VD | 771 |
| ASR-PU20 | 771 |
| ASR-PU20AZ | 771 |
| ASR-PU20NE | 771 |
| ASR-PU20RO | 771 |
| ASR-PU20VD | 771 |
| ASR06 | 769 |
| ASR06BL | 769 |
| ASR06NE | 769 |
| ASR06RO | 769 |
| ASR06VD | 769 |
| ASR10 | 769 |
| ASR10BL | 769 |

| | |
|---|---|
| ASR10NE | 769 |
| ASR10RO | 769 |
| ASR10VD | 769 |
| ASR13 | 769 |
| ASR13BL | 769 |
| ASR13NE | 769 |
| ASR13RO | 769 |
| ASR13VD | 769 |
| ASR16 | 769 |
| ASR16BL | 769 |
| ASR16NE | 769 |
| ASR16RO | 769 |
| ASR16VD | 769 |
| ASR20 | 769 |
| ASR20BL | 769 |
| ASR20NE | 769 |
| ASR20RO | 769 |
| ASR20VD | 769 |
| ASR25 | 769 |
| ASR25BL | 769 |
| ASR25NE | 769 |
| ASR25RO | 769 |
| ASR25VD | 769 |
| CAF005FG | 470 |
| CAF010FG | 470 |
| CAF020FG | 470 |
| CAF030FG | 470 |
| CAS04N | 112 |
| CAS06N | 112 |
| CAS08N | 112 |
| CAS10N | 112 |
| CAS12N | 112 |
| CB01F010FG | 474 |
| CB01F020FG | 474 |
| CB01F030FG | 474 |
| CC15 | 783 |
| CC22 | 783 |
| CD-100 | 556 |
| CD-100-L | 556 |
| CD-100-L-PL | 556 |
| CD-100-PL | 556 |
| CD-100-X | 556 |
| CD-100-X-316 | 556 |
| CD-100-X-316-PL | 556 |
| CD-100-X-PL | 556 |
| CD-12E6 | 538 |
| CD-12E6-PL | 538 |
| CD-12E6-X | 538 |
| CD-12E6-X-PL | 538 |
| CD-12E8 | 538 |
| CD-12E8-PL | 538 |
| CD-12E8-X | 538 |
| CD-12E8-X-PL | 538 |
| CD-12H | 538 |
| CD-12H-PL | 538 |
| CD-12H-X | 538 |
| CD-12H-X-PL | 538 |
| CD-12H1 | 538 |
| CD-12H1-PL | 538 |
| CD-12H1-X | 538 |
| CD-12H1-X-PL | 538 |
| CD-12M | 538 |
| CD-12M-PL | 538 |
| CD-12M-X | 538 |
| CD-12M-X-PL | 538 |
| CD-12M1 | 538 |
| CD-12M1-PL | 538 |
| CD-12M1-X | 538 |
| CD-12M1-X-PL | 538 |
| CD-150-L | 560 |
| CD-150-L-P | 560 |
| CD-150-L-P-PL | 560 |
| CD-150-L-PL | 560 |
| CD-150-X | 560 |
| CD-150-X-316 | 560 |
| CD-150-X-316-P | 560 |
| CD-150-X-316-P-PL | 560 |
| CD-150-X-316-PL | 560 |
| CD-150-X-P | 560 |
| CD-150-X-P-PL | 560 |
| CD-150-X-PL | 560 |
| CD-25 | 542 |
| CD-25-3/8 | 542 |
| CD-25-3/8-PL | 542 |
| CD-25-3/8X | 542 |
| CD-25-3/8X-PL | 542 |
| CD-25-L | 542 |
| CD-25-L-PL | 542 |
| CD-25-PL | 542 |
| CD-25-X | 542 |
| CD-25-X-PL | 542 |
| CD-25N-E10 | 546 |
| CD-25N-E10-PL | 546 |
| CD-25N-E12 | 546 |
| CD-25N-E12-PL | 546 |
| CD-25N-E13 | 546 |
| CD-25N-E13-PL | 546 |
| CD-25N-E6 | 546 |
| CD-25N-E6-PL | 546 |
| CD-25N-E8 | 546 |
| CD-25N-E8-PL | 546 |
| CD-25N-H1/2 | 546 |
| CD-25N-H1/2-PL | 546 |
| CD-25N-H1/4 | 546 |
| CD-25N-H1/4-PL | 546 |
| CD-25N-H3/8 | 546 |
| CD-25N-H3/8-PL | 546 |
| CD-25N-M1/2 | 546 |
| CD-25N-M1/2-PL | 546 |
| CD-25N-M1/2G | 546 |
| CD-25N-M1/2G-PL | 546 |
| CD-25N-M1/4 | 546 |
| CD-25N-M1/4-PL | 546 |
| CD-25N-M1/4G | 546 |
| CD-25N-M1/4G-PL | 546 |
| CD-25N-M3/8 | 546 |
| CD-25N-M3/8-PL | 546 |
| CD-25N-M3/8G | 546 |
| CD-25N-M3/8G-PL | 546 |
| CD-25N-PM08 | 547 |
| CD-25N-PM08-PL | 547 |
| CD-25N-PM10 | 547 |
| CD-25N-PM10-PL | 547 |
| CD-25S-E10 | 548 |
| CD-25S-E12 | 548 |
| CD-25S-E13 | 548 |
| CD-25S-E6 | 548 |
| CD-25S-E8 | 548 |
| CD-25S-H1/2 | 547 |
| CD-25S-H1/4 | 547 |
| CD-25S-H3/8 | 547 |
| CD-25S-M1/2 | 547 |
| CD-25S-M1/2G | 547 |
| CD-25S-M1/4 | 547 |
| CD-25S-M1/4G | 547 |
| CD-25S-M3/8 | 547 |
| CD-25S-M3/8G | 547 |
| CD-25S-PM08 | 548 |
| CD-25S-PM10 | 548 |
| CD-50 | 552 |
| CD-50-L | 552 |
| CD-50-L-PL | 552 |
| CD-50-PL | 552 |
| CD-50-X | 552 |
| CD-50-X-PL | 552 |
| CK04R01 | 122 |
| CK06R01 | 122 |
| CK06R02 | 122 |
| CK08R01 | 122 |
| CK08R02 | 122 |
| CK08R03 | 122 |
| CK10R02 | 122 |
| CK10R03 | 122 |
| CK12R02 | 122 |
| CK12R03 | 122 |
| CK12R04 | 122 |
| CN14 | 683 |
| CRHL12-H12 | 614 |
| CRHL12-H12-303 | 614 |
| CRHL12-H12-303R | 615 |
| CRHL12-H12-316 | 614 |
| CRHL12-H12-316R | 615 |
| CRHL12-H12R | 615 |
| CRHL12-H38 | 614 |
| CRHL12-H38-303 | 614 |
| CRHL12-H38-303R | 615 |
| CRHL12-H38-316 | 614 |
| CRHL12-H38-316R | 615 |
| CRHL12-H38R | 615 |
| CRHL12-M12G-303 | 614 |
| CRHL12-M12G-303R | 614 |
| CRHL12-M12G-316 | 614 |
| CRHL12-M12G-316R | 614 |
| CRM-55-1/2-M | 618 |
| CRM-55-1/2-PL-M | 618 |
| CRM-55-3/8 | 618 |
| CRM-55-3/8-M | 618 |
| CRM-55-3/8-PL | 618 |
| CRM-55-3/8-PL-M | 618 |
| CRM-55-E | 618 |
| CRM-55-PL-E | 618 |
| CVFF-R01 | 380 |
| CVFF-R02 | 380 |
| CVFF-R03 | 380 |
| CVFF-R04 | 380 |
| CVPC04G01 | 378 |
| CVPC04G01-IN | 379 |
| CVPC04M5 | 378 |
| CVPC04M5-IN | 379 |
| CVPC04M6 | 378 |
| CVPC04M6-IN | 379 |
| CVPC04R01 | 378 |
| CVPC04R01-IN | 378 |
| CVPC06G01 | 378 |
| CVPC06G01-IN | 379 |
| CVPC06G02 | 378 |
| CVPC06G02-IN | 379 |
| CVPC06R01 | 378 |
| CVPC06R01-IN | 378 |
| CVPC06R02 | 378 |
| CVPC06R02-IN | 378 |
| CVPC08G01 | 378 |
| CVPC08G01-IN | 379 |
| CVPC08G02 | 378 |
| CVPC08G02-IN | 379 |
| CVPC08R01 | 378 |
| CVPC08R01-IN | 378 |
| CVPC08R02 | 378 |

| | |
|---|---|
| CVPC08R02-IN | 378 |
| CVPC10G03 | 378 |
| CVPC10G03-IN | 379 |
| CVPC10G04 | 378 |
| CVPC10G04-IN | 379 |
| CVPC10R03 | 378 |
| CVPC10R03-IN | 378 |
| CVPC10R04 | 378 |
| CVPC10R04-IN | 378 |
| CVPC12G03 | 378 |
| CVPC12G03-IN | 379 |
| CVPC12G04 | 378 |
| CVPC12G04-IN | 379 |
| CVPC12R03 | 378 |
| CVPC12R03-IN | 378 |
| CVPC12R04 | 378 |
| CVPC12R04-IN | 378 |
| CVPF01G01 | 380 |
| CVPF01G01-IN | 380 |
| CVPF01R01 | 379 |
| CVPF01R01-IN | 380 |
| CVPF02G02 | 380 |
| CVPF02G02-IN | 380 |
| CVPF02R02 | 379 |
| CVPF02R02-IN | 380 |
| CVPF03G03 | 380 |
| CVPF03G03-IN | 380 |
| CVPF03R03 | 379 |
| CVPF03R03-IN | 380 |
| CVPF04G04 | 380 |
| CVPF04G04-IN | 380 |
| CVPF04R04 | 379 |
| CVPF04R04-IN | 380 |
| CVPU04 | 379 |
| CVPU06 | 379 |
| CVPU08 | 379 |
| CVPU10 | 379 |
| CVPU12 | 379 |
| DDBU-06L | 197 |
| DDBU-08L | 197 |
| DDBU-10L | 197 |
| DDBU-12L | 197 |
| DDBU-15L | 197 |
| DDBU-16S | 197 |
| DDFC-06L-01G | 196 |
| DDFC-06S-02G | 196 |
| DDFC-08L-02G | 196 |
| DDFC-08L-03G | 196 |
| DDFC-08L-04G | 196 |
| DDFC-10L-02G | 196 |
| DDFC-10L-03G | 196 |
| DDFC-10L-04G | 196 |
| DDFC-12L-03G | 196 |
| DDFC-12L-04G | 196 |
| DDFC-15L-04G | 196 |
| DDFC-16S-04G | 196 |
| DDL-04LL | 197 |
| DDL-06L | 197 |
| DDL-08L | 197 |
| DDL-10L | 197 |
| DDL-12L | 197 |
| DDL-15L | 197 |
| DDL-16S | 197 |
| DDLM-04LL-01R | 196 |
| DDLM-06L-01R | 196 |
| DDLM-06S-02R | 196 |
| DDLM-08L-02R | 196 |
| DDLM-08LL-01R | 196 |
| DDLM-10L-02R | 196 |
| DDLM-10S-03R | 196 |
| DDLM-12L-03R | 196 |
| DDLM-15L-04R | 196 |
| DDLM-16S-04R | 196 |
| DDMC-04LL-01R | 195 |
| DDMC-06L-01G | 195 |
| DDMC-06L-01R | 195 |
| DDMC-06L-02G | 195 |
| DDMC-06L-03G | 195 |
| DDMC-06L-04G | 195 |
| DDMC-08L-01G | 195 |
| DDMC-08L-02G | 195 |
| DDMC-08L-02R | 195 |
| DDMC-08L-03G | 195 |
| DDMC-08L-04G | 195 |
| DDMC-08LL-01R | 195 |
| DDMC-10L-02G | 195 |
| DDMC-10L-02R | 195 |
| DDMC-10L-03G | 195 |
| DDMC-10L-04G | 195 |
| DDMC-12L-02G | 195 |
| DDMC-12L-02R | 195 |
| DDMC-12L-03G | 195 |
| DDMC-12L-03R | 195 |
| DDMC-12L-04G | 195 |
| DDMC-12L-04R | 195 |
| DDMC-12L-06G | 195 |
| DDMC-15L-03G | 195 |
| DDMC-15L-03R | 195 |
| DDMC-15L-04G | 195 |
| DDMC-15L-04R | 195 |
| DDMC-15L-06G | 195 |
| DDMC-16S-03G | 195 |
| DDMC-16S-04G | 195 |
| DDMC-16S-06G | 195 |
| DDN-04LL | 197 |
| DDN-06L | 197 |
| DDN-08L | 197 |
| DDN-10L | 197 |
| DDN-12L | 197 |
| DDN-15L | 197 |
| DDN-16S | 197 |
| DDS-04LL | 198 |
| DDS-06L | 198 |
| DDS-08L | 198 |
| DDS-10L | 198 |
| DDS-12L | 198 |
| DDS-15L | 198 |
| DDS-16S | 198 |
| DDT-04LL | 197 |
| DDT-06L | 197 |
| DDT-08L | 197 |
| DDT-10L | 197 |
| DDT-12L | 197 |
| DDT-15L | 197 |
| DDT-16S | 197 |
| DDU-04LL | 196 |
| DDU-06L | 196 |
| DDU-08L | 196 |
| DDU-10L | 196 |
| DDU-12L | 196 |
| DDU-15L | 196 |
| DDU-16S | 196 |
| ESC04M3 | 360 |
| ESC04M5 | 360 |
| ESC06G01-S | 362 |
| ESC06G02-S | 362 |
| ESC06M5 | 360 |
| ESC06R01-S | 362 |
| ESC06R02-S | 362 |
| ESC08G01-M | 362 |
| ESC08G01-S | 362 |
| ESC08G02-M | 362 |
| ESC08G02-S | 362 |
| ESC08G03-M | 362 |
| ESC08R01-M | 362 |
| ESC08R01-S | 362 |
| ESC08R02-M | 362 |
| ESC08R02-S | 362 |
| ESC08R03-M | 362 |
| ESC10G01-M | 362 |
| ESC10G02-L | 362 |
| ESC10G02-M | 362 |
| ESC10G03-L | 362 |
| ESC10G03-M | 362 |
| ESC10G04-L | 362 |
| ESC10R01-M | 362 |
| ESC10R02-L | 362 |
| ESC10R02-M | 362 |
| ESC10R03-L | 362 |
| ESC10R03-M | 362 |
| ESC10R04-L | 362 |
| ESC12G02-L | 362 |
| ESC12G03-L | 362 |
| ESC12G04-L | 362 |
| ESC12R02-L | 362 |
| ESC12R03-L | 362 |
| ESC12R04-L | 362 |
| ETC-20 | 766 |
| ETC-B | 766 |
| EU-75N-E10 | 599 |
| EU-75N-E10-316V | 599 |
| EU-75N-E10-316V-PL | 599 |
| EU-75N-E10-PL | 599 |
| EU-75N-E10-X | 599 |
| EU-75N-E10-X-PL | 599 |
| EU-75N-E12 | 599 |
| EU-75N-E12-PL | 599 |
| EU-75N-E12-X | 599 |
| EU-75N-E12-X-PL | 599 |
| EU-75N-E13 | 599 |
| EU-75N-E13-PL | 599 |
| EU-75N-E6 | 599 |
| EU-75N-E6-PL | 599 |
| EU-75N-E8 | 599 |
| EU-75N-E8-316V | 599 |
| EU-75N-E8-316V-PL | 599 |
| EU-75N-E8-PL | 599 |
| EU-75N-E8-X | 599 |
| EU-75N-E8-X-PL | 599 |
| EU-75N-H1/2 | 599 |
| EU-75N-H1/2-316V | 599 |
| EU-75N-H1/2-316V-PL | 599 |
| EU-75N-H1/2-PL | 599 |
| EU-75N-H1/2-X | 599 |
| EU-75N-H1/2-X-PL | 599 |
| EU-75N-H1/4 | 599 |
| EU-75N-H1/4-316V | 599 |
| EU-75N-H1/4-316V-PL | 599 |
| EU-75N-H1/4-PL | 599 |
| EU-75N-H1/4-X | 599 |
| EU-75N-H1/4-X-PL | 599 |
| EU-75N-H3/8 | 599 |
| EU-75N-H3/8-316V | 599 |
| EU-75N-H3/8-316V-PL | 599 |
| EU-75N-H3/8-PL | 599 |
| EU-75N-H3/8-X | 599 |
| EU-75N-H3/8-X-PL | 599 |
| EU-75N-M1/2 | 598 |

| | |
|---|---|
| EU-75N-M1/2-316V | 598 |
| EU-75N-M1/2-316V-PL | 598 |
| EU-75N-M1/2-PL | 598 |
| EU-75N-M1/2-X | 598 |
| EU-75N-M1/2-X-PL | 598 |
| EU-75N-M1/2G | 598 |
| EU-75N-M1/2G-PL | 598 |
| EU-75N-M1/4 | 598 |
| EU-75N-M1/4-316V | 598 |
| EU-75N-M1/4-316V-PL | 598 |
| EU-75N-M1/4-PL | 598 |
| EU-75N-M1/4-X | 598 |
| EU-75N-M1/4-X-PL | 598 |
| EU-75N-M1/4G | 598 |
| EU-75N-M1/4G-PL | 598 |
| EU-75N-M3/8 | 598 |
| EU-75N-M3/8-316V | 598 |
| EU-75N-M3/8-316V-PL | 598 |
| EU-75N-M3/8-PL | 598 |
| EU-75N-M3/8-X | 598 |
| EU-75N-M3/8-X-PL | 598 |
| EU-75N-M3/8G | 598 |
| EU-75N-M3/8G-PL | 598 |
| EU-75N-PM08 | 600 |
| EU-75N-PM08-PL | 600 |
| EU-75N-PM08-X | 600 |
| EU-75N-PM08-X-PL | 600 |
| EU-75N-PM10 | 600 |
| EU-75N-PM10-PL | 600 |
| EU-75S-E10 | 601 |
| EU-75S-E12 | 601 |
| EU-75S-E13 | 601 |
| EU-75S-E6 | 601 |
| EU-75S-E8 | 601 |
| EU-75S-H1/2 | 600 |
| EU-75S-H1/4 | 600 |
| EU-75S-H3/8 | 600 |
| EU-75S-M1/2 | 600 |
| EU-75S-M1/2G | 600 |
| EU-75S-M1/4 | 600 |
| EU-75S-M1/4G | 600 |
| EU-75S-M3/8 | 600 |
| EU-75S-M3/8G | 600 |
| EU-75S-PM08 | 601 |
| EU-75S-PM10 | 601 |
| EU-DO75E10 | 605 |
| EU-DO75E10-316V | 605 |
| EU-DO75E12 | 605 |
| EU-DO75E13 | 605 |
| EU-DO75E6 | 605 |
| EU-DO75E8 | 605 |
| EU-DO75E8-316V | 605 |
| EU-DO75H12 | 604 |
| EU-DO75H12-316V | 604 |
| EU-DO75H14 | 604 |
| EU-DO75H14-316V | 604 |
| EU-DO75H38 | 604 |
| EU-DO75H38-316V | 604 |
| EU-DO75M12 | 604 |
| EU-DO75M12-316V | 604 |
| EU-DO75M14 | 604 |
| EU-DO75M14-316V | 604 |
| EU-DO75M38 | 604 |
| EU-DO75M38-316V | 604 |
| EUROFLUID-E10 | 608 |
| EUROFLUID-E10-PL | 608 |
| EUROFLUID-E12 | 608 |
| EUROFLUID-E12-PL | 608 |
| EUROFLUID-E13 | 608 |
| EUROFLUID-E13-PL | 608 |
| EUROFLUID-E6 | 608 |
| EUROFLUID-E6-PL | 608 |
| EUROFLUID-E8 | 608 |
| EUROFLUID-E8-PL | 608 |
| EUROFLUID-H1/2 | 608 |
| EUROFLUID-H1/2-PL | 608 |
| EUROFLUID-H1/4 | 608 |
| EUROFLUID-H1/4-PL | 608 |
| EUROFLUID-H3/8 | 608 |
| EUROFLUID-H3/8-PL | 608 |
| EUROFLUID-M1/2 | 608 |
| EUROFLUID-M1/2-PL | 608 |
| EUROFLUID-M1/2G | 608 |
| EUROFLUID-M1/2G-PL | 608 |
| EUROFLUID-M1/4 | 608 |
| EUROFLUID-M1/4-PL | 608 |
| EUROFLUID-M1/4G | 608 |
| EUROFLUID-M1/4G-PL | 608 |
| EUROFLUID-M3/8 | 608 |
| EUROFLUID-M3/8-PL | 608 |
| EUROFLUID-M3/8G | 608 |
| EUROFLUID-M3/8G-PL | 608 |
| EUROFLUID-PM08 | 609 |
| EUROFLUID-PM08-PL | 609 |
| EUROFLUID-PM10 | 609 |
| EUROFLUID-PM10-PL | 609 |
| FCK0400 | 122 |
| FCK0600 | 122 |
| FCK0800 | 122 |
| FCK1000 | 122 |
| FCK1200 | 122 |
| FEP0315 | 736 |
| FEP0315TR | 736 |
| FEP0315TR-25BX | 736 |
| FEP0425 | 736 |
| FEP0425TR | 736 |
| FEP0425TR-25BX | 736 |
| FEP0604 | 736 |
| FEP0604TR | 736 |
| FEP0604TR-25BX | 736 |
| FEP0806 | 736 |
| FEP0806TR | 736 |
| FEP0806TR-25BX | 736 |
| FLUID-10N-E10 | 571 |
| FLUID-10N-E10-LX | 571 |
| FLUID-10N-E10-LX-PL | 571 |
| FLUID-10N-E10-PL | 571 |
| FLUID-10N-E10-X | 571 |
| FLUID-10N-E10-X-PL | 571 |
| FLUID-10N-E12 | 571 |
| FLUID-10N-E12-PL | 571 |
| FLUID-10N-E12-X | 571 |
| FLUID-10N-E12-X-PL | 571 |
| FLUID-10N-E6 | 571 |
| FLUID-10N-E6-PL | 571 |
| FLUID-10N-E8 | 571 |
| FLUID-10N-E8-316X | 571 |
| FLUID-10N-E8-316X–PL | 571 |
| FLUID-10N-E8-LX | 571 |
| FLUID-10N-E8-LX-PL | 571 |
| FLUID-10N-E8-PL | 571 |
| FLUID-10N-E8-X | 571 |
| FLUID-10N-E8-X-PL | 571 |
| FLUID-10N-H1/2 | 571 |
| FLUID-10N-H1/2-LX | 571 |
| FLUID-10N-H1/2-LX-PL | 571 |
| FLUID-10N-H1/2-PL | 571 |
| FLUID-10N-H1/2-X | 571 |
| FLUID-10N-H1/2-X-PL | 571 |
| FLUID-10N-H1/4 | 571 |
| FLUID-10N-H1/4-316X | 571 |
| FLUID-10N-H1/4-316X-PL | 571 |
| FLUID-10N-H1/4-LX | 571 |
| FLUID-10N-H1/4-LX-PL | 571 |
| FLUID-10N-H1/4-PL | 571 |
| FLUID-10N-H1/4-X | 571 |
| FLUID-10N-H1/4-X-PL | 571 |
| FLUID-10N-H3/8 | 571 |
| FLUID-10N-H3/8-LX | 571 |
| FLUID-10N-H3/8-LX-PL | 571 |
| FLUID-10N-H3/8-PL | 571 |
| FLUID-10N-H3/8-X | 571 |
| FLUID-10N-H3/8-X-PL | 571 |
| FLUID-10N-M1/2 | 570 |
| FLUID-10N-M1/2-LX | 570 |
| FLUID-10N-M1/2-LX-PL | 570 |
| FLUID-10N-M1/2-PL | 570 |
| FLUID-10N-M1/2-X | 570 |
| FLUID-10N-M1/2-X-PL | 570 |
| FLUID-10N-M1/2G | 570 |
| FLUID-10N-M1/2G-PL | 570 |
| FLUID-10N-M1/4 | 570 |
| FLUID-10N-M1/4-316X | 570 |
| FLUID-10N-M1/4-316X-PL | 570 |
| FLUID-10N-M1/4-LX | 570 |
| FLUID-10N-M1/4-LX-PL | 570 |
| FLUID-10N-M1/4-PL | 570 |
| FLUID-10N-M1/4-X | 570 |
| FLUID-10N-M1/4-X-PL | 570 |
| FLUID-10N-M1/4G | 570 |
| FLUID-10N-M1/4G-PL | 570 |
| FLUID-10N-M3/8 | 570 |
| FLUID-10N-M3/8-LX | 570 |
| FLUID-10N-M3/8-LX-PL | 570 |
| FLUID-10N-M3/8-PL | 570 |
| FLUID-10N-M3/8-X | 570 |
| FLUID-10N-M3/8-X-PL | 570 |
| FLUID-10N-M3/8G | 570 |
| FLUID-10N-M3/8G-PL | 570 |
| FLUID-10N-PM08 | 572 |
| FLUID-10N-PM08-PL | 572 |
| FLUID-10N-PM08-X | 572 |
| FLUID-10N-PM08-X-PL | 572 |
| FLUID-10N-PM10 | 572 |
| FLUID-10N-PM10-PL | 572 |
| FLUID-10S-E10 | 573 |
| FLUID-10S-E12 | 573 |
| FLUID-10S-E13 | 573 |
| FLUID-10S-E6 | 573 |
| FLUID-10S-E8 | 573 |
| FLUID-10S-H1/2 | 572 |
| FLUID-10S-H1/4 | 572 |
| FLUID-10S-H3/8 | 572 |
| FLUID-10S-M1/2 | 572 |
| FLUID-10S-M1/2G | 572 |
| FLUID-10S-M1/4 | 572 |
| FLUID-10S-M1/4G | 572 |
| FLUID-10S-M3/8 | 572 |
| FLUID-10S-M3/8G | 572 |
| FLUID-10S-PM08 | 573 |
| FLUID-10S-PM10 | 573 |
| FLUID-20N-E10 | 576 |
| FLUID-20N-E10-PL | 576 |
| FLUID-20N-E12 | 576 |
| FLUID-20N-E12-PL | 576 |
| FLUID-20N-H1/2 | 576 |
| FLUID-20N-H1/2-PL | 576 |
| FLUID-20N-H3/8 | 576 |

| | |
|---|---|
| FLUID-20N-H3/8-PL | 576 |
| FLUID-20N-M1/2 | 576 |
| FLUID-20N-M1/2-PL | 576 |
| FLUID-20N-M3/8 | 576 |
| FLUID-20N-M3/8-PL | 576 |
| FLUID-30 | 580 |
| FLUID-30-PL | 580 |
| FLUID-30M | 580 |
| FLUID-30M-PL | 580 |
| FPDAS-G05G04 | 787 |
| FPSAS-G04G04 | 787 |
| FPWLM1-G04G04 | 787 |
| FPWLM2-G04G04 | 787 |
| FPWLM2-G05G04 | 787 |
| GCK04R01 | 122 |
| GCK06R01 | 122 |
| GCK06R02 | 122 |
| GCK08R01 | 122 |
| GCK08R02 | 122 |
| GCK08R03 | 122 |
| GCK10R02 | 122 |
| GCK10R03 | 122 |
| GCK12R02 | 122 |
| GCK12R03 | 122 |
| GCK12R04 | 122 |
| HBC08-5/16B | 766 |
| HBC10-3/8B | 766 |
| HBVL10R03B | 422 |
| HBVU-S0606B | 422 |
| HBVU-S0808B | 422 |
| HBVU-S1010B | 422 |
| HBVU-S1212B | 422 |
| HBVU0606B | 422 |
| HBVU0808B | 422 |
| HBVU1010B | 422 |
| HBVU1212B | 422 |
| HCAS-F04 | 116 |
| HCAS-F06 | 116 |
| HCAS-F08 | 116 |
| HCAS-F10 | 116 |
| HCAS-F12 | 116 |
| HCAS-H04 | 116 |
| HCAS-H06 | 116 |
| HCAS-H08 | 116 |
| HCAS-H10 | 116 |
| HCAS-H12 | 116 |
| HCAS-P04 | 116 |
| HCAS-P06 | 116 |
| HCAS-P08 | 116 |
| HCAS-P10 | 116 |
| HCAS-P12 | 116 |
| HCBB1210W | 90 |
| HCF04G01W | 88 |
| HCF06G01W | 88 |
| HCF06G02W | 88 |
| HCF06G03W | 88 |
| HCF08G01W | 88 |
| HCF08G02W | 88 |
| HCF08G03W | 88 |
| HCF08G04W | 88 |
| HCF08G06W | 88 |
| HCF10G02W | 88 |
| HCF10G03W | 88 |
| HCF10G04W | 88 |
| HCF10G06W | 88 |
| HCF12G02W | 88 |
| HCF12G03W | 88 |
| HCF12G04W | 88 |
| HCJ04G01W | 89 |
| HCJ04G02W | 89 |
| HCJ04R01W | 89 |
| HCJ04R02W | 89 |
| HCJ06G01W | 89 |
| HCJ06G02W | 89 |
| HCJ06R01W | 89 |
| HCJ06R02W | 89 |
| HCJ08G01W | 89 |
| HCJ08G02W | 89 |
| HCJ08G03W | 89 |
| HCJ08R01W | 89 |
| HCJ08R02W | 89 |
| HCJ08R03W | 89 |
| HCJ10G02W | 89 |
| HCJ10G03W | 89 |
| HCJ10G04W | 89 |
| HCJ10R02W | 89 |
| HCJ10R03W | 89 |
| HCJ10R04W | 89 |
| HCJ12G03W | 89 |
| HCJ12G04B | 785 |
| HCJ12G04W | 89 |
| HCJ12R03W | 89 |
| HCJ12R04W | 89 |
| HCJ15G03B | 785 |
| HCJ15G04B | 785 |
| HCJ22G04B | 785 |
| HCJ22G06B | 785 |
| HCJB0604W | 92 |
| HCJB0606W | 92 |
| HCJB0806W | 92 |
| HCJB1006W | 92 |
| HCJB1008W | 92 |
| HCJB1010W | 92 |
| HCJB1210W | 92 |
| HCP04-5/32 | 97 |
| HCP04-5/32BK | 97 |
| HCP04-5/32BL | 97 |
| HCP04-5/32GR | 97 |
| HCP04-5/32RD | 97 |
| HCP05-3/16 | 97 |
| HCP05-3/16BK | 97 |
| HCP05-3/16BL | 97 |
| HCP05-3/16GR | 97 |
| HCP05-3/16RD | 97 |
| HCP06-1/4 | 97 |
| HCP06-1/4BK | 97 |
| HCP06-1/4BL | 97 |
| HCP06-1/4GR | 97 |
| HCP06-1/4RD | 97 |
| HCP08-5/16 | 97 |
| HCP08-5/16BK | 97 |
| HCP08-5/16BL | 97 |
| HCP08-5/16GR | 97 |
| HCP08-5/16RD | 97 |
| HCP10-3/8 | 97 |
| HCP10-3/8BK | 97 |
| HCP10-3/8BL | 97 |
| HCP10-3/8GR | 97 |
| HCP10-3/8RD | 97 |
| HCP12-1/2 | 97 |
| HCP12-1/2BK | 97 |
| HCP12-1/2BL | 97 |
| HCP12-1/2GR | 97 |
| HCP12-1/2RD | 97 |
| HCP15BL | 786 |
| HCP22BL | 786 |
| HCVU0404W | 386 |
| HCVU0606W | 386 |
| HCVU0808W | 386 |
| HCVU1010W | 386 |
| HCVU1212W | 386 |
| HFRA04G01 | 79 |
| HFRA06G01 | 79 |
| HFRA06G02 | 79 |
| HFRA08G01 | 79 |
| HFRA08G02 | 79 |
| HFRA10G01 | 79 |
| HFRA10G02 | 79 |
| HFRA12G02 | 79 |
| HFRC04G01 | 77 |
| HFRC04G02 | 77 |
| HFRC04M5 | 77 |
| HFRC06G01 | 77 |
| HFRC06G02 | 77 |
| HFRC06M5 | 77 |
| HFRC08G01 | 77 |
| HFRC08G02 | 77 |
| HFRC08G03 | 77 |
| HFRC10G02 | 77 |
| HFRC10G03 | 77 |
| HFRC12G02 | 77 |
| HFRC12G03 | 77 |
| HFRC12G04 | 77 |
| HFRCF04G01 | 77 |
| HFRCF04G02 | 77 |
| HFRCF06G01 | 77 |
| HFRCF06G02 | 77 |
| HFRCF08G01 | 77 |
| HFRCF08G02 | 77 |
| HFRGJ0604 | 80 |
| HFRGJ0806 | 80 |
| HFRGJ1008 | 80 |
| HFRGJ1210 | 80 |
| HFRL04G01 | 78 |
| HFRL04G02 | 78 |
| HFRL04M5 | 78 |
| HFRL06G01 | 78 |
| HFRL06G02 | 78 |
| HFRL06M5 | 78 |
| HFRL08G01 | 78 |
| HFRL08G02 | 78 |
| HFRL08G03 | 78 |
| HFRL10G02 | 78 |
| HFRL10G03 | 78 |
| HFRL12G02 | 78 |
| HFRL12G03 | 78 |
| HFRL12G04 | 78 |
| HFRMM04 | 78 |
| HFRMM06 | 78 |
| HFRMM08 | 78 |
| HFRMM10 | 78 |
| HFRMM12 | 78 |
| HFROC04M7 | 77 |
| HFROC06M7C | 77 |
| HFRST04G01 | 79 |
| HFRT04G01 | 78 |
| HFRT06G01 | 78 |
| HFRT06G02 | 78 |
| HFRT08G01 | 78 |
| HFRT08G02 | 78 |
| HFRUC04 | 79 |
| HFRUC06 | 79 |
| HFRUC08 | 79 |
| HFRUC10 | 79 |
| HFRUC12 | 79 |
| HFRUL04 | 80 |
| HFRUL06 | 80 |
| HFRUL08 | 80 |

| | |
|---|---|
| HFRUL10 | 80 |
| HFRUL12 | 80 |
| HFRUT04 | 80 |
| HFRUT06 | 80 |
| HFRUT08 | 80 |
| HFRUT10 | 80 |
| HFRUT12 | 80 |
| HGJ0405W | 89 |
| HGJ0604W | 89 |
| HGJ0804W | 89 |
| HGJ0806W | 89 |
| HGJ0810W | 89 |
| HGJ1006W | 89 |
| HGJ1008W | 89 |
| HGJ1208W | 89 |
| HGJ1210W | 89 |
| HGJ1512B | 786 |
| HGJ2215B | 786 |
| HLJ0404W | 90 |
| HLJ0606W | 90 |
| HLJ0608W | 90 |
| HLJ0808W | 90 |
| HLJ1006W | 90 |
| HLJ1008W | 90 |
| HLJ1010W | 90 |
| HLJ1212B | 785 |
| HLJ1212W | 90 |
| HLJ1515B | 785 |
| HLJ2222B | 785 |
| HLJB1006W | 92 |
| HLJB1008W | 92 |
| HMCP06-1/4 | 422 |
| HMCP06-1/4B | 422 |
| HMCP06-1/4G | 422 |
| HMCP06-1/4W | 422 |
| HMCP10-3/8 | 422 |
| HMCP10-3/8B | 422 |
| HMCP10-3/8G | 422 |
| HMCP10-3/8W | 422 |
| HMM0404W | 88 |
| HMM0604W | 88 |
| HMM0606W | 88 |
| HMM0806W | 88 |
| HMM0808W | 88 |
| HMM1010W | 88 |
| HMM1212W | 88 |
| HPC04G01W | 87 |
| HPC04G02W | 87 |
| HPC04R01W | 87 |
| HPC06G01W | 87 |
| HPC06G02W | 87 |
| HPC06R01W | 87 |
| HPC06R02W | 87 |
| HPC06R03W | 87 |
| HPC08G01W | 87 |
| HPC08G02W | 87 |
| HPC08G03W | 87 |
| HPC08G04W | 87 |
| HPC08R01W | 87 |
| HPC08R02W | 87 |
| HPC08R03W | 87 |
| HPC10G02W | 87 |
| HPC10G03W | 87 |
| HPC10G04W | 87 |
| HPC10R03W | 87 |
| HPC10R04W | 87 |
| HPC12G03W | 87 |
| HPC12G04B | 784 |
| HPC12G04W | 87 |
| HPC12R03W | 87 |
| HPC12R04W | 87 |
| HPC15G04B | 784 |
| HPC15G06B | 784 |
| HPC22G06B | 784 |
| HPF06W | 93 |
| HPF08W | 93 |
| HPF10W | 93 |
| HPF12B | 785 |
| HPF12W | 93 |
| HPF15B | 785 |
| HPF22B | 785 |
| HPL04R01W | 88 |
| HPL04R02W | 88 |
| HPL06R01W | 88 |
| HPL06R02W | 88 |
| HPL06R03W | 88 |
| HPL08R02W | 88 |
| HPL08R03W | 88 |
| HPL10R02W | 88 |
| HPL10R03W | 88 |
| HPL12R02W | 88 |
| HPL12R03W | 88 |
| HPL12R04W | 88 |
| HPP04W | 93 |
| HPP06W | 93 |
| HPP08W | 93 |
| HPP10W | 93 |
| HPP12B | 786 |
| HPP12W | 93 |
| HPP15B | 786 |
| HPP22B | 786 |
| HRPL04G01W | 94 |
| HRPL04G02W | 94 |
| HRPL04R01W | 94 |
| HRPL04R02W | 94 |
| HRPL06G01W | 94 |
| HRPL06G02W | 94 |
| HRPL06R01W | 94 |
| HRPL06R02W | 94 |
| HRPL08G01W | 94 |
| HRPL08G02W | 94 |
| HRPL08G03W | 94 |
| HRPL08R01W | 94 |
| HRPL08R02W | 94 |
| HRPL08R03W | 94 |
| HRPL10G02W | 94 |
| HRPL10G03W | 94 |
| HRPL10G04W | 94 |
| HRPL10R02W | 94 |
| HRPL10R03W | 94 |
| HRPL10R04W | 94 |
| HRPL12G03W | 94 |
| HRPL12G04W | 94 |
| HRPL12R03W | 94 |
| HRPL12R04W | 94 |
| HRPT04G01W | 95 |
| HRPT04G02W | 95 |
| HRPT04R01W | 94 |
| HRPT04R02W | 94 |
| HRPT06G01W | 95 |
| HRPT06G02W | 95 |
| HRPT06R01W | 94 |
| HRPT06R02W | 94 |
| HRPT08G01W | 95 |
| HRPT08G02W | 95 |
| HRPT08G03W | 95 |
| HRPT08R01W | 94 |
| HRPT08R02W | 94 |
| HRPT08R03W | 94 |
| HRPT10G02W | 95 |
| HRPT10G03W | 95 |
| HRPT10G04W | 95 |
| HRPT10R02W | 94 |
| HRPT10R03W | 94 |
| HRPT10R04W | 94 |
| HRPT12G03W | 95 |
| HRPT12G04W | 95 |
| HRPT12R03W | 94 |
| HRPT12R04W | 94 |
| HRST04G01W | 95 |
| HRST04G02W | 95 |
| HRST04R01W | 95 |
| HRST04R02W | 95 |
| HRST06G01W | 95 |
| HRST06G02W | 95 |
| HRST06R01W | 95 |
| HRST06R02W | 95 |
| HRST08G01W | 95 |
| HRST08G02W | 95 |
| HRST08G03W | 95 |
| HRST08R01W | 95 |
| HRST08R02W | 95 |
| HRST08R03W | 95 |
| HRST10G02W | 95 |
| HRST10G03W | 95 |
| HRST10G04W | 95 |
| HRST10R02W | 95 |
| HRST10R03W | 95 |
| HRST10R04W | 95 |
| HRST12G03W | 95 |
| HRST12G04W | 95 |
| HRST12R03W | 95 |
| HRST12R04W | 95 |
| HRWT04G01W | 96 |
| HRWT04G02W | 96 |
| HRWT04R01W | 96 |
| HRWT04R02W | 96 |
| HRWT06G01W | 96 |
| HRWT06G02W | 96 |
| HRWT06R01W | 96 |
| HRWT06R02W | 96 |
| HRWT08G01W | 96 |
| HRWT08G02W | 96 |
| HRWT08G03W | 96 |
| HRWT08R01W | 96 |
| HRWT08R02W | 96 |
| HRWT08R03W | 96 |
| HRWT10G02W | 96 |
| HRWT10G03W | 96 |
| HRWT10G04W | 96 |
| HRWT10R02W | 96 |
| HRWT10R03W | 96 |
| HRWT10R04W | 96 |
| HRWT12G03W | 96 |
| HRWT12G04W | 96 |
| HRWT12R03W | 96 |
| HRWT12R04W | 96 |
| HSJ0404W | 90 |
| HSJ0606W | 90 |
| HSJ0808W | 90 |
| HSJ1010W | 90 |
| HSJ1212W | 90 |
| HSLB0606B | 344 |
| HSLB1010B | 344 |
| HSLU0606B | 344 |
| HSLU1010B | 344 |
| HSTB0606B | 344 |
| HSTB1010B | 344 |

| | |
|---|---|
| HSTU0606B | 344 |
| HSTU1010B | 344 |
| HTBC0606B | 766 |
| HTBC0806B | 766 |
| HUC0404W | 91 |
| HUC0604W | 91 |
| HUC0605W | 91 |
| HUC0606W | 91 |
| HUC0804W | 91 |
| HUC0806W | 91 |
| HUC0808W | 91 |
| HUC1006W | 91 |
| HUC1008W | 91 |
| HUC1010W | 91 |
| HUC1208W | 91 |
| HUC1210W | 91 |
| HUC1212B | 784 |
| HUC1212W | 91 |
| HUC1515B | 784 |
| HUC2222B | 784 |
| HUFFG02-G06G | 97 |
| HUFFG03-G06G | 97 |
| HUL0404W | 91 |
| HUL0606W | 91 |
| HUL0804W | 91 |
| HUL0806W | 91 |
| HUL0808W | 91 |
| HUL1006W | 91 |
| HUL1008W | 91 |
| HUL1010W | 91 |
| HUL1206W | 91 |
| HUL1208W | 91 |
| HUL1210W | 91 |
| HUL1212B | 784 |
| HUL1212W | 91 |
| HUL1515B | 784 |
| HUL2222B | 784 |
| HUT0404W | 92 |
| HUT0606W | 92 |
| HUT0808W | 92 |
| HUT100608W | 92 |
| HUT100610W | 92 |
| HUT1010W | 92 |
| HUT121012W | 92 |
| HUT1212B | 785 |
| HUT1212W | 92 |
| HUT1515B | 785 |
| HUT221222B | 785 |
| HUT221522B | 785 |
| HUT2222B | 785 |
| HUY0404W | 92 |
| HUY0606W | 92 |
| HUY0808W | 92 |
| HUY1008W | 92 |
| HUY1010W | 92 |
| HUY1212W | 92 |
| HZA0606W | 93 |
| HZA0808W | 93 |
| IS43S | 462 |
| KC9-0812 | 248 |
| KC9-1016 | 248 |
| KC9-1220 | 248 |
| KC9-1222 | 248 |
| KC9-1625 | 248 |
| KC9-1627 | 248 |
| KC9-2032 | 248 |
| KC9-2535 | 248 |
| KC9-2540 | 248 |
| KC9-3045 | 248 |
| KC9-3250 | 248 |
| KC9-4060 | 248 |
| KC9-5070 | 248 |
| KC9-6080 | 248 |
| KC9-7090 | 248 |
| KCW9-0812 | 248 |
| KCW9-1016 | 248 |
| KCW9-1220 | 248 |
| KCW9-1222 | 248 |
| KCW9-1625 | 248 |
| KCW9-1627 | 248 |
| KCW9-2032 | 248 |
| KCW9-2535 | 248 |
| KCW9-2540 | 248 |
| KCW9-3045 | 248 |
| KCW9-3250 | 248 |
| KCW9-4060 | 248 |
| KCW9-5070 | 248 |
| KCW9-6080 | 248 |
| KCW9-7090 | 248 |
| KCX9-0812 | 249 |
| KCX9-1016 | 249 |
| KCX9-1220 | 249 |
| KCX9-1222 | 249 |
| KCX9-1625 | 249 |
| KCX9-1627 | 249 |
| KCX9-2032 | 249 |
| KCX9-2535 | 249 |
| KCX9-2540 | 249 |
| KCX9-3045 | 249 |
| KCX9-3250 | 249 |
| KCX9-4060 | 249 |
| KCX9-5070 | 249 |
| KCX9-6080 | 249 |
| KCX9-7090 | 249 |
| L-150 | 478 |
| L-225 | 478 |
| LFSF-B02 | 346 |
| LM-G | 765 |
| LM-P | 765 |
| LOC5331 | 463 |
| LOX1810 | 457 |
| LOX5314 | 459 |
| LOX5503 | 460 |
| LOX5811 | 458 |
| LOX5920 | 461 |
| MABP40R0120 | 444 |
| MABP40R0132 | 444 |
| MABP40R0133 | 444 |
| MABP40R0134 | 444 |
| MABP40R0135 | 444 |
| MABP40R0136 | 444 |
| MABP40R0137 | 444 |
| MABP40R0138 | 444 |
| MABP40R0139 | 444 |
| MABP40R0140 | 444 |
| MABP40R0143 | 444 |
| MABP50R0120 | 444 |
| MABP50R0132 | 444 |
| MABP50R0133 | 444 |
| MABP50R0134 | 444 |
| MABP50R0135 | 444 |
| MABP50R0136 | 444 |
| MABP50R0138 | 444 |
| MABP50R0139 | 444 |
| MABP50R0140 | 444 |
| MABP50R0234 | 444 |
| MABP50R0235 | 444 |
| MABP50R0236 | 444 |
| MABP50R0238 | 444 |
| MABP50R0239 | 444 |
| MABP50R0240 | 444 |
| MABP63R0220 | 444 |
| MABP63R0232 | 444 |
| MABP63R0233 | 444 |
| MABP63R0234 | 444 |
| MABP63R0235 | 444 |
| MABP63R0236 | 444 |
| MABP63R0237 | 444 |
| MABP63R0238 | 444 |
| MABP63R0239 | 444 |
| MABP63R0240 | 444 |
| MABP63R0245 | 444 |
| MABR40R0120 | 443 |
| MABR40R0132 | 443 |
| MABR40R0133 | 443 |
| MABR40R0134 | 443 |
| MABR40R0135 | 443 |
| MABR40R0136 | 443 |
| MABR40R0137 | 443 |
| MABR40R0138 | 443 |
| MABR40R0139 | 443 |
| MABR40R0140 | 443 |
| MABR50R0234 | 443 |
| MABR50R0235 | 443 |
| MABR50R0236 | 443 |
| MABR50R0238 | 443 |
| MABR50R0239 | 443 |
| MABR50R0240 | 443 |
| MABR63R0220 | 443 |
| MABR63R0232 | 443 |
| MABR63R0233 | 443 |
| MABR63R0234 | 443 |
| MABR63R0235 | 443 |
| MABR63R0236 | 443 |
| MABR63R0237 | 443 |
| MABR63R0238 | 443 |
| MABR63R0239 | 443 |
| MABR63R0240 | 443 |
| MEVS04W | 358 |
| MEVS06W | 358 |
| MEVU04W | 358 |
| MEVU06W | 358 |
| MICRO-H18-L | 584 |
| MICRO-HM5-L | 584 |
| MINI-E6-316V | 586 |
| MINI-E6-L | 586 |
| MINI-E8-316V | 586 |
| MINI-E8-L | 586 |
| MINI-H-316V | 586 |
| MINI-H-L | 586 |
| MINI-H1-316V | 586 |
| MINI-H1-L | 586 |
| MINI-M-316V | 586 |
| MINI-M-L | 586 |
| MINI-M1-316V | 586 |
| MINI-M1-L | 586 |
| MINI-M3-316V | 586 |
| MINI-MM6-L | 587 |
| MINI-MM8-L | 587 |
| MINI-RR6-L | 587 |
| MINI-RR6R-L | 587 |
| MINI-RR8-L | 587 |
| MINI-RR8R-L | 587 |
| MINIDO-E6-316V | 593 |
| MINIDO-E6-L | 593 |
| MINIDO-E8-316V | 593 |
| MINIDO-E8-L | 593 |
| MINIDO-H-316V | 592 |

| | |
|---|---|
| MINIDO-H-L | 592 |
| MINIDO-H1-316V | 592 |
| MINIDO-H1-L | 592 |
| MINIDO-M-316V | 592 |
| MINIDO-M-L | 592 |
| MINIDO-M1-316V | 592 |
| MINIDO-M1-L | 592 |
| MINIDO-M3-316V | 592 |
| MINIDO-MM6-316V | 593 |
| MINIDO-MM6-L | 593 |
| MINIDO-MM8-316V | 593 |
| MINIDO-MM8-L | 593 |
| MINIDO-RR6-L | 593 |
| MINIDO-RR6R-L | 594 |
| MINIDO-RR8-L | 593 |
| MINIDO-RR8R-L | 594 |
| MPC04G01W | 47 |
| MPC04G02W | 47 |
| MPC04G03W | 47 |
| MPC04M5W | 47 |
| MPC04M6W | 47 |
| MPC04R01W | 47 |
| MPC04R02W | 47 |
| MPC04R03W | 47 |
| MPC06G01W | 47 |
| MPC06G02W | 47 |
| MPC06G03W | 47 |
| MPC06M5W | 47 |
| MPC06M6W | 47 |
| MPC06R01W | 47 |
| MPC06R02W | 47 |
| MPC06R03W | 47 |
| MPC06R04W | 47 |
| MPC08G01W | 47 |
| MPC08G02W | 47 |
| MPC08G03W | 47 |
| MPC08G04W | 47 |
| MPC08R01W | 47 |
| MPC08R02W | 47 |
| MPC08R03W | 47 |
| MPC08R04W | 47 |
| MPC10G01W | 47 |
| MPC10G02W | 47 |
| MPC10G03W | 47 |
| MPC10G04W | 47 |
| MPC10R01W | 47 |
| MPC10R02W | 47 |
| MPC10R03W | 47 |
| MPC10R04W | 47 |
| MPC12G02W | 47 |
| MPC12G03W | 47 |
| MPC12G04W | 47 |
| MPC12R01W | 47 |
| MPC12R02W | 47 |
| MPC12R03W | 47 |
| MPC12R04W | 47 |
| MPG0604W | 50 |
| MPG0804W | 50 |
| MPG0806W | 50 |
| MPG1006W | 50 |
| MPG1008W | 50 |
| MPG1208W | 50 |
| MPG1210W | 50 |
| MPL04G01W | 48 |
| MPL04G02W | 48 |
| MPL04G03W | 48 |
| MPL04G04W | 48 |
| MPL04M5W | 48 |
| MPL04M6W | 48 |
| MPL04R01W | 48 |
| MPL04R02W | 48 |
| MPL04R03W | 48 |
| MPL06G01W | 48 |
| MPL06G02W | 48 |
| MPL06G03W | 48 |
| MPL06G04W | 48 |
| MPL06M5W | 48 |
| MPL06M6W | 48 |
| MPL06R01W | 48 |
| MPL06R02W | 48 |
| MPL06R03W | 48 |
| MPL08G01W | 48 |
| MPL08G02W | 48 |
| MPL08G03W | 48 |
| MPL08G04W | 48 |
| MPL08R01W | 48 |
| MPL08R02W | 48 |
| MPL08R03W | 48 |
| MPL08R04W | 48 |
| MPL10G01W | 48 |
| MPL10G02W | 48 |
| MPL10G03W | 48 |
| MPL10G04W | 48 |
| MPL10R02W | 48 |
| MPL10R03W | 48 |
| MPL10R04W | 48 |
| MPL12G01W | 48 |
| MPL12G02W | 48 |
| MPL12G03W | 48 |
| MPL12G04W | 48 |
| MPL12R02W | 48 |
| MPL12R03W | 48 |
| MPL12R04W | 48 |
| MPT04G01W | 49 |
| MPT04G02W | 49 |
| MPT04G03W | 49 |
| MPT04G04W | 49 |
| MPT04M5W | 49 |
| MPT04R01W | 49 |
| MPT04R02W | 49 |
| MPT04R03W | 49 |
| MPT06G01W | 49 |
| MPT06G02W | 49 |
| MPT06G03W | 49 |
| MPT06G04W | 49 |
| MPT06M5W | 49 |
| MPT06R01W | 49 |
| MPT06R02W | 49 |
| MPT06R03W | 49 |
| MPT08G01W | 49 |
| MPT08G02W | 49 |
| MPT08G03W | 49 |
| MPT08G04W | 49 |
| MPT08R01W | 49 |
| MPT08R02W | 49 |
| MPT08R03W | 49 |
| MPT08R04W | 49 |
| MPT10G01W | 49 |
| MPT10G02W | 49 |
| MPT10G03W | 49 |
| MPT10G04W | 49 |
| MPT10R02W | 49 |
| MPT10R03W | 49 |
| MPT10R04W | 49 |
| MPT12G01W | 49 |
| MPT12G02W | 49 |
| MPT12G03W | 49 |
| MPT12G04W | 49 |
| MPT12R02W | 49 |
| MPT12R03W | 49 |
| MPT12R04W | 49 |
| MPUC04W | 50 |
| MPUC06W | 50 |
| MPUC08W | 50 |
| MPUC10W | 50 |
| MPUC12W | 50 |
| MPUL04W | 50 |
| MPUL06W | 50 |
| MPUL08W | 50 |
| MPUL10W | 50 |
| MPUL12W | 50 |
| MPUT04W | 51 |
| MPUT06W | 51 |
| MPUT08W | 51 |
| MPUT10W | 51 |
| MPUT12W | 51 |
| MPY04W | 51 |
| MPY06W | 51 |
| MPY08W | 51 |
| MPY10W | 51 |
| MPY12W | 51 |
| MSC04G01 | 331 |
| MSC04G02 | 331 |
| MSC04M5 | 331 |
| MSC04R01 | 331 |
| MSC04R02 | 331 |
| MSC06G01 | 331 |
| MSC06G02 | 331 |
| MSC06G03 | 331 |
| MSC06G04 | 331 |
| MSC06M5 | 331 |
| MSC06R01 | 331 |
| MSC06R02 | 331 |
| MSC06R03 | 331 |
| MSC06R04 | 331 |
| MSC08G01 | 331 |
| MSC08G02 | 331 |
| MSC08G03 | 331 |
| MSC08G04 | 331 |
| MSC08R01 | 331 |
| MSC08R02 | 331 |
| MSC08R03 | 331 |
| MSC08R04 | 331 |
| MSC10G01 | 331 |
| MSC10G02 | 331 |
| MSC10G03 | 331 |
| MSC10G04 | 331 |
| MSC10R01 | 331 |
| MSC10R02 | 331 |
| MSC10R03 | 331 |
| MSC10R04 | 331 |
| MSC12G02 | 331 |
| MSC12G03 | 331 |
| MSC12G04 | 331 |
| MSC12R02 | 331 |
| MSC12R03 | 331 |
| MSC12R04 | 331 |
| MSF04 | 334 |
| MSF06 | 334 |
| MSF08 | 334 |
| MSF10 | 334 |
| MSF12 | 334 |
| MXBF63G0220 | 448 |
| MXBF63G0232 | 448 |
| MXBF63G0233 | 448 |
| MXBF63G0234 | 448 |
| MXBF63G0235 | 448 |
| MXBF63G0236 | 448 |

| | |
|---|---|
| MXBF63G0237 | 448 |
| MXBF63G0239 | 448 |
| MXBF63G0240 | 448 |
| MXBF63G0241 | 448 |
| MXBF63G0242 | 448 |
| MXBF63G0243 | 448 |
| MXBF63G0244 | 448 |
| MXBF63G0245 | 448 |
| MXBF63G0246 | 448 |
| MXBF63G0247 | 448 |
| MXBF63G0248 | 448 |
| MXBF63G0250 | 448 |
| MXBP40G0135 | 447 |
| MXBP40G0136 | 447 |
| MXBP40G0137 | 447 |
| MXBP40G0139 | 447 |
| MXBP40G0140 | 447 |
| MXBP40G0142 | 447 |
| MXBP40G0143 | 447 |
| MXBP40G0144 | 447 |
| MXBP40G0145 | 447 |
| MXBP40G0147 | 447 |
| MXBP40G0148 | 447 |
| MXBP50G0234 | 447 |
| MXBP50G0235 | 447 |
| MXBP50G0236 | 447 |
| MXBP50G0237 | 447 |
| MXBP50G0239 | 447 |
| MXBP50G0240 | 447 |
| MXBP50G0241 | 447 |
| MXBP50G0242 | 447 |
| MXBP50G0243 | 447 |
| MXBP50G0244 | 447 |
| MXBP50G0245 | 447 |
| MXBP63G0220 | 447 |
| MXBP63G0232 | 447 |
| MXBP63G0233 | 447 |
| MXBP63G0234 | 447 |
| MXBP63G0235 | 447 |
| MXBP63G0236 | 447 |
| MXBP63G0237 | 447 |
| MXBP63G0239 | 447 |
| MXBP63G0240 | 447 |
| MXBP63G0241 | 447 |
| MXBP63G0242 | 447 |
| MXBP63G0243 | 447 |
| MXBP63G0244 | 447 |
| MXBP63G0245 | 447 |
| MXBP63G0246 | 447 |
| MXBP63G0247 | 447 |
| MXBP63G0248 | 447 |
| MXBR40G0135 | 446 |
| MXBR40G0136 | 446 |
| MXBR40G0137 | 446 |
| MXBR40G0139 | 446 |
| MXBR40G0140 | 446 |
| MXBR40G0142 | 446 |
| MXBR40G0143 | 446 |
| MXBR40G0144 | 446 |
| MXBR40G0145 | 446 |
| MXBR40G0147 | 446 |
| MXBR50G0234 | 446 |
| MXBR50G0235 | 446 |
| MXBR50G0236 | 446 |
| MXBR50G0237 | 446 |
| MXBR50G0239 | 446 |
| MXBR50G0240 | 446 |
| MXBR50G0241 | 446 |
| MXBR50G0242 | 446 |
| MXBR50G0243 | 446 |
| MXBR50G0244 | 446 |
| MXBR50G0245 | 446 |
| MXBR50G0247 | 446 |
| MXBR63G0220 | 446 |
| MXBR63G0232 | 446 |
| MXBR63G0233 | 446 |
| MXBR63G0234 | 446 |
| MXBR63G0235 | 446 |
| MXBR63G0236 | 446 |
| MXBR63G0237 | 446 |
| MXBR63G0239 | 446 |
| MXBR63G0240 | 446 |
| MXBR63G0241 | 446 |
| MXBR63G0242 | 446 |
| MXBR63G0243 | 446 |
| MXBR63G0244 | 446 |
| MXBR63G0245 | 446 |
| MXBR63G0246 | 446 |
| MXBR63G0247 | 446 |
| MXBR63G0248 | 446 |
| MXBR63G0250 | 446 |
| MXBS63G0220 | 448 |
| MXBS63G0232 | 448 |
| MXBS63G0233 | 448 |
| MXBS63G0234 | 448 |
| MXBS63G0235 | 448 |
| MXBS63G0236 | 448 |
| MXBS63G0237 | 448 |
| MXBS63G0239 | 448 |
| MXBS63G0240 | 448 |
| MXBS63G0241 | 448 |
| MXBS63G0242 | 448 |
| MXBS63G0243 | 448 |
| MXBS63G0244 | 448 |
| MXBS63G0245 | 448 |
| MXBS63G0246 | 448 |
| MXBS63G0247 | 448 |
| MXBS63G0248 | 448 |
| MXBS63G0250 | 448 |
| MXXP63G0220 | 450 |
| MXXP63G0232 | 450 |
| MXXP63G0233 | 450 |
| MXXP63G0234 | 450 |
| MXXP63G0235 | 450 |
| MXXP63G0236 | 450 |
| MXXP63G0237 | 450 |
| MXXP63G0239 | 450 |
| MXXP63G0240 | 450 |
| MXXP63G0241 | 450 |
| MXXP63G0242 | 450 |
| MXXP63G0243 | 450 |
| MXXP63G0244 | 450 |
| MXXP63G0245 | 450 |
| MXXR100G0220 | 450 |
| MXXR100G0432 | 450 |
| MXXR100G0433 | 450 |
| MXXR100G0434 | 450 |
| MXXR100G0435 | 450 |
| MXXR100G0436 | 450 |
| MXXR100G0437 | 450 |
| MXXR100G0439 | 450 |
| MXXR100G0440 | 450 |
| MXXR100G0441 | 450 |
| MXXR100G0442 | 450 |
| MXXR100G0443 | 450 |
| MXXR63G0220 | 450 |
| MXXR63G0232 | 450 |
| MXXR63G0233 | 450 |
| MXXR63G0234 | 450 |
| MXXR63G0235 | 450 |
| MXXR63G0236 | 450 |
| MXXR63G0237 | 450 |
| MXXR63G0239 | 450 |
| MXXR63G0240 | 450 |
| MXXR63G0241 | 450 |
| MXXR63G0242 | 450 |
| MXXR63G0243 | 450 |
| MXXR63G0244 | 450 |
| MXXR63G0245 | 450 |
| NE-10E-10 | 574 |
| NE-10E-10-316X | 574 |
| NE-10E-10-X | 574 |
| NE-10E-12 | 574 |
| NE-10E-6 | 574 |
| NE-10E-8 | 574 |
| NE-10E-X | 574 |
| NE-10H | 574 |
| NE-10H-1/2 | 574 |
| NE-10H-3/8 | 574 |
| NE-10H-316X | 574 |
| NE-10H-X | 574 |
| NE-10M | 573 |
| NE-10M-1/2 | 573 |
| NE-10M-1/2-X | 573 |
| NE-10M-3/8 | 573 |
| NE-10M-3/8-X | 573 |
| NE-10M-316X | 573 |
| NE-10M-X | 573 |
| NE-10PM-08 | 574 |
| NE-10PM-08-X | 574 |
| NE-10PM-10 | 574 |
| NE-20E | 577 |
| NE-20E-13 | 577 |
| NE-20H | 577 |
| NE-20H-1/2 | 577 |
| NE-20M | 577 |
| NE-20M-1/2 | 577 |
| NE-20M-1/4 | 577 |
| NE-30E | 581 |
| NE-30H | 581 |
| NE-30H-3/8 | 581 |
| NE-30M | 580 |
| NSCF-R01 | 336 |
| NSCF-R02 | 336 |
| NSCF-R03 | 336 |
| NSCF-R04 | 336 |
| OTRA04G01 | 70 |
| OTRA04G02 | 70 |
| OTRA04M5 | 70 |
| OTRA04M7 | 70 |
| OTRA06G01 | 70 |
| OTRA06G02 | 70 |
| OTRA06M5 | 70 |
| OTRA06M7 | 70 |
| OTRA08G01 | 70 |
| OTRA08G02 | 70 |
| OTRA08G03 | 70 |
| OTRA10G01 | 70 |
| OTRA10G02 | 70 |
| OTRA10G03 | 70 |
| OTRA12G02 | 70 |
| OTRA12G03 | 70 |
| OTRA12G04 | 70 |
| OTRC04G01 | 63 |
| OTRC04G02 | 63 |
| OTRC04M5 | 63 |
| OTRC04R01 | 63 |
| OTRC04R02 | 63 |

| | |
|---|---|
| OTRC06G01 | 63 |
| OTRC06G02 | 63 |
| OTRC06M5 | 63 |
| OTRC06R01 | 63 |
| OTRC06R02 | 63 |
| OTRC08G01 | 63 |
| OTRC08G02 | 63 |
| OTRC08G03 | 63 |
| OTRC08R01 | 63 |
| OTRC08R02 | 63 |
| OTRC08R03 | 63 |
| OTRC1-2N02 | 64 |
| OTRC1-2N03 | 64 |
| OTRC1-2N04 | 64 |
| OTRC1-4G01 | 63 |
| OTRC1-4M5 | 63 |
| OTRC1-4N01 | 64 |
| OTRC1-4N02 | 64 |
| OTRC10G02 | 63 |
| OTRC10G03 | 63 |
| OTRC10G04 | 63 |
| OTRC10R02 | 63 |
| OTRC10R03 | 63 |
| OTRC10R04 | 63 |
| OTRC12G02 | 63 |
| OTRC12G03 | 63 |
| OTRC12G04 | 63 |
| OTRC12R02 | 63 |
| OTRC12R03 | 63 |
| OTRC12R04 | 63 |
| OTRC38G03 | 63 |
| OTRC38N01 | 64 |
| OTRC38N02 | 64 |
| OTRC38N03 | 64 |
| OTRC38N04 | 64 |
| OTRC516N01 | 64 |
| OTRC516N02 | 64 |
| OTRC516N03 | 64 |
| OTRC532N01 | 64 |
| OTRC532N02 | 64 |
| OTRCF04G01 | 65 |
| OTRCF04G02 | 65 |
| OTRCF06G01 | 65 |
| OTRCF06G02 | 65 |
| OTRCF08G01 | 65 |
| OTRCF08G02 | 65 |
| OTRGJ0604 | 72 |
| OTRGJ0804 | 72 |
| OTRGJ0806 | 72 |
| OTRGJ1006 | 72 |
| OTRGJ1008 | 72 |
| OTRGJ1208 | 72 |
| OTRGJ1210 | 72 |
| OTRL04G01 | 66 |
| OTRL04G02 | 66 |
| OTRL04M5 | 66 |
| OTRL04R01 | 66 |
| OTRL04R02 | 66 |
| OTRL06G01 | 66 |
| OTRL06G02 | 66 |
| OTRL06M5 | 66 |
| OTRL06R01 | 66 |
| OTRL06R02 | 66 |
| OTRL08G01 | 66 |
| OTRL08G02 | 66 |
| OTRL08G03 | 66 |
| OTRL08R01 | 66 |
| OTRL08R02 | 66 |
| OTRL08R03 | 66 |
| OTRL1-2N02 | 67 |
| OTRL1-2N03 | 67 |
| OTRL1-2N04 | 67 |
| OTRL1-4G01 | 66 |
| OTRL1-4G02 | 66 |
| OTRL1-4N01 | 67 |
| OTRL1-4N02 | 67 |
| OTRL10G02 | 66 |
| OTRL10G03 | 66 |
| OTRL10G04 | 66 |
| OTRL10R02 | 66 |
| OTRL10R03 | 66 |
| OTRL10R04 | 66 |
| OTRL12G02 | 66 |
| OTRL12G03 | 66 |
| OTRL12G04 | 66 |
| OTRL12R02 | 66 |
| OTRL12R03 | 66 |
| OTRL12R04 | 66 |
| OTRL38G02 | 66 |
| OTRL38G03 | 66 |
| OTRL38N01 | 67 |
| OTRL38N02 | 67 |
| OTRL38N03 | 67 |
| OTRL38N04 | 67 |
| OTRL516N01 | 67 |
| OTRL516N02 | 67 |
| OTRL516N03 | 67 |
| OTRL532N01 | 67 |
| OTRL532N02 | 67 |
| OTRL532UF1032 | 67 |
| OTRLF04G01 | 67 |
| OTRLF06G01 | 67 |
| OTRLF06G02 | 67 |
| OTRLF08G01 | 67 |
| OTRLF08G02 | 67 |
| OTRME04R01 | 65 |
| OTRME06R01 | 65 |
| OTRME06R02 | 65 |
| OTRME08R01 | 65 |
| OTRME08R02 | 65 |
| OTRMM04-532 | 65 |
| OTRMM0600 | 65 |
| OTRMM08-516 | 65 |
| OTRMM1-4 | 65 |
| OTRMM1000 | 65 |
| OTRMM1200 | 65 |
| OTRMM38 | 65 |
| OTROC04M5 | 64 |
| OTROC04M6 | 64 |
| OTROC04M7 | 64 |
| OTROC06M5 | 64 |
| OTROC06M7C | 64 |
| OTROC1-4UF1032 | 64 |
| OTROC532UF1032 | 64 |
| OTRST04G01 | 69 |
| OTRST04G02 | 69 |
| OTRST04R01 | 69 |
| OTRST04R02 | 69 |
| OTRST06G01 | 69 |
| OTRST06G02 | 69 |
| OTRST06R01 | 69 |
| OTRST06R02 | 69 |
| OTRST08G01 | 69 |
| OTRST08G02 | 69 |
| OTRST08R01 | 69 |
| OTRST08R02 | 69 |
| OTRST10G02 | 69 |
| OTRST10G03 | 69 |
| OTRST10R02 | 69 |
| OTRST10R03 | 69 |
| OTRST12G03 | 69 |
| OTRST12G04 | 69 |
| OTRST12R03 | 69 |
| OTRST12R04 | 69 |
| OTRT04G01 | 68 |
| OTRT04G02 | 68 |
| OTRT04M5 | 68 |
| OTRT04R01 | 67 |
| OTRT04R02 | 67 |
| OTRT06G01 | 68 |
| OTRT06G02 | 68 |
| OTRT06M5 | 68 |
| OTRT06R01 | 67 |
| OTRT06R02 | 67 |
| OTRT08G01 | 68 |
| OTRT08G02 | 68 |
| OTRT08G03 | 68 |
| OTRT08R01 | 67 |
| OTRT08R02 | 67 |
| OTRT08R03 | 67 |
| OTRT1-2N02 | 68 |
| OTRT1-2N03 | 68 |
| OTRT1-4G01 | 68 |
| OTRT1-4G02 | 68 |
| OTRT1-4N01 | 68 |
| OTRT1-4N02 | 68 |
| OTRT10G02 | 68 |
| OTRT10G03 | 68 |
| OTRT10G04 | 68 |
| OTRT10R02 | 67 |
| OTRT10R03 | 67 |
| OTRT10R04 | 67 |
| OTRT12G02 | 68 |
| OTRT12G03 | 68 |
| OTRT12G04 | 68 |
| OTRT12R02 | 67 |
| OTRT12R03 | 67 |
| OTRT12R04 | 67 |
| OTRT38G02 | 68 |
| OTRT38G03 | 68 |
| OTRT38N02 | 68 |
| OTRT38N03 | 68 |
| OTRT516N01 | 68 |
| OTRT516N02 | 68 |
| OTRT532N01 | 68 |
| OTRT532N02 | 68 |
| OTRT532UF1032 | 68 |
| OTRUC04-532 | 70 |
| OTRUC0600 | 70 |
| OTRUC08-516 | 70 |
| OTRUC1-2 | 70 |
| OTRUC1-4 | 70 |
| OTRUC1000 | 70 |
| OTRUC1200 | 70 |
| OTRUC38 | 70 |
| OTRUL04-532 | 71 |
| OTRUL0600 | 71 |
| OTRUL08-516 | 71 |
| OTRUL1-2 | 71 |
| OTRUL1-4 | 71 |
| OTRUL1000 | 71 |
| OTRUL1200 | 71 |
| OTRUL38 | 71 |
| OTRUT04-532 | 71 |
| OTRUT0600 | 71 |
| OTRUT08-516 | 71 |
| OTRUT1-2 | 71 |
| OTRUT1-4 | 71 |

| | |
|---|---|
| OTRUT1000 | 71 |
| OTRUT1200 | 71 |
| OTRUT38 | 71 |
| OTRY04 | 72 |
| OTRY06 | 72 |
| OTRY08 | 72 |
| OTRY10 | 72 |
| OTRY12 | 72 |
| OTSC04G01 | 338 |
| OTSC04G01D | 338 |
| OTSC04G01DB | 339 |
| OTSC04G01DIN | 339 |
| OTSC04G01IN | 338 |
| OTSC04M5D | 338 |
| OTSC04M5DB | 339 |
| OTSC04M5DIN | 339 |
| OTSC06G01 | 338 |
| OTSC06G01D | 338 |
| OTSC06G01DB | 339 |
| OTSC06G01DIN | 339 |
| OTSC06G01IN | 338 |
| OTSC06G02 | 338 |
| OTSC06G02D | 338 |
| OTSC06G02DB | 339 |
| OTSC06G02DIN | 339 |
| OTSC06G02IN | 338 |
| OTSC06M5D | 338 |
| OTSC06M5DB | 339 |
| OTSC06M5DIN | 339 |
| OTSC08G01 | 338 |
| OTSC08G01D | 338 |
| OTSC08G01DB | 339 |
| OTSC08G01DIN | 339 |
| OTSC08G01IN | 338 |
| OTSC08G02 | 338 |
| OTSC08G02D | 338 |
| OTSC08G02DB | 339 |
| OTSC08G02DIN | 339 |
| OTSC08G02IN | 338 |
| OTSC08G03D | 338 |
| OTSC08G03DB | 339 |
| OTSC08G03DIN | 339 |
| OTSC10G02 | 338 |
| OTSC10G02D | 338 |
| OTSC10G02DB | 339 |
| OTSC10G02DIN | 339 |
| OTSC10G02IN | 338 |
| OTSC10G03D | 338 |
| OTSC10G03DIN | 339 |
| OTSC12G02 | 338 |
| OTSC12G02D | 338 |
| OTSC12G02DIN | 339 |
| OTSC12G02IN | 338 |
| OTSC12G03D | 338 |
| OTSC12G03DIN | 339 |
| OTSCG01DF | 339 |
| OTSCG01DFB | 340 |
| OTSCG01DFIN | 340 |
| OTSCG02DF | 339 |
| OTSCG02DFB | 340 |
| OTSCG02DFIN | 340 |
| OTSCG03DF | 339 |
| OTSCG03DFB | 340 |
| OTSCG03DFIN | 340 |
| OTSCG04DF | 339 |
| OTSCG04DFB | 340 |
| OTSCG04DFIN | 340 |
| OTSCM5DF | 339 |
| OTSCM5DFB | 340 |
| OTSCM5DFIN | 340 |
| P-MFAA-12RN | 315 |
| P-MFAA-16RN | 315 |
| P-MFAA-2RN | 315 |
| P-MFAA-4RN | 315 |
| P-MFAA-6RN | 315 |
| P-MFAA-8RN | 315 |
| P-SBT-12GR | 314 |
| P-SBT-16GR | 314 |
| P-SBT-2GR | 314 |
| P-SBT-4GR | 314 |
| P-SBT-6GR | 314 |
| P-SBT-8GR | 314 |
| P-SHN-12NR | 315 |
| P-SHN-16NR | 315 |
| P-SHN-2NR | 315 |
| P-SHN-4NR | 315 |
| P-SHN-6NR | 315 |
| P-SHN-8NR | 315 |
| P-SL-12G | 314 |
| P-SL-16G | 314 |
| P-SL-2G | 314 |
| P-SL-4G | 314 |
| P-SL-6G | 314 |
| P-SL-8G | 314 |
| P-SSL-12GR | 314 |
| P-SSL-16GR | 314 |
| P-SSL-2GR | 314 |
| P-SSL-4GR | 314 |
| P-SSL-6GR | 314 |
| P-SSL-8GR | 314 |
| P-ST-12G | 314 |
| P-ST-16G | 314 |
| P-ST-2G | 314 |
| P-ST-4G | 314 |
| P-ST-6G | 314 |
| P-ST-8G | 314 |
| PA12-0402-Z | 722 |
| PA12-0402BL-25BX | 723 |
| PA12-0402BL-Z | 722 |
| PA12-0402NE-25BX | 723 |
| PA12-0402NE-Z | 722 |
| PA12-0402NU-25BX | 723 |
| PA12-0402NU-Z | 722 |
| PA12-0402RO-25BX | 723 |
| PA12-0402RO-Z | 722 |
| PA12-0402VD-25BX | 723 |
| PA12-0402VD-Z | 722 |
| PA12-0425-Z | 722 |
| PA12-0425BL-25BX | 723 |
| PA12-0425BL-Z | 722 |
| PA12-0425NE-25BX | 723 |
| PA12-0425NE-Z | 722 |
| PA12-0425NU-25BX | 723 |
| PA12-0425NU-Z | 722 |
| PA12-0427-Z | 722 |
| PA12-0427BL-25BX | 723 |
| PA12-0427BL-Z | 722 |
| PA12-0427NE-25BX | 723 |
| PA12-0427NE-Z | 722 |
| PA12-0427NU-25BX | 723 |
| PA12-0427NU-Z | 722 |
| PA12-0427RO-25BX | 723 |
| PA12-0427RO-Z | 722 |
| PA12-0427VD-25BX | 723 |
| PA12-0427VD-Z | 722 |
| PA12-0604-Z | 722 |
| PA12-0604BL-25BX | 723 |
| PA12-0604BL-Z | 722 |
| PA12-0604NE-25BX | 723 |
| PA12-0604NE-Z | 722 |
| PA12-0604NU-25BX | 723 |
| PA12-0604NU-Z | 722 |
| PA12-0604RO-25BX | 723 |
| PA12-0604RO-Z | 722 |
| PA12-0604VD-25BX | 723 |
| PA12-0604VD-Z | 722 |
| PA12-0806-Z | 722 |
| PA12-0806BL-25BX | 723 |
| PA12-0806BL-Z | 722 |
| PA12-0806NE-25BX | 723 |
| PA12-0806NE-Z | 722 |
| PA12-0806NU-25BX | 723 |
| PA12-0806NU-Z | 722 |
| PA12-0806RO-25BX | 723 |
| PA12-0806RO-Z | 722 |
| PA12-0806VD-25BX | 723 |
| PA12-0806VD-Z | 722 |
| PA12-1/2-Z | 723 |
| PA12-1/2BL-Z | 724 |
| PA12-1/2GL-Z | 724 |
| PA12-1/2NE-Z | 724 |
| PA12-1/2RO-Z | 724 |
| PA12-1/4-Z | 723 |
| PA12-1/4BL-Z | 724 |
| PA12-1/4GL-Z | 724 |
| PA12-1/4NE-Z | 724 |
| PA12-1/4RO-Z | 724 |
| PA12-1007-Z | 722 |
| PA12-1007BL-25BX | 723 |
| PA12-1007BL-Z | 722 |
| PA12-1007NE-25BX | 723 |
| PA12-1007NE-Z | 722 |
| PA12-1007NU-25BX | 723 |
| PA12-1007NU-Z | 722 |
| PA12-1008-Z | 722 |
| PA12-1008BL-25BX | 723 |
| PA12-1008BL-Z | 722 |
| PA12-1008NE-25BX | 723 |
| PA12-1008NE-Z | 722 |
| PA12-1008NU-25BX | 723 |
| PA12-1008NU-Z | 722 |
| PA12-1008RO-25BX | 723 |
| PA12-1008RO-Z | 722 |
| PA12-1008VD-25BX | 723 |
| PA12-1008VD-Z | 722 |
| PA12-1208-Z | 722 |
| PA12-1208BL-Z | 722 |
| PA12-1208NE-Z | 722 |
| PA12-1208NU-Z | 722 |
| PA12-1209-Z | 722 |
| PA12-1209BL-Z | 722 |
| PA12-1209NE-Z | 722 |
| PA12-1209NU-Z | 722 |
| PA12-1210-Z | 722 |
| PA12-1210BL-Z | 722 |
| PA12-1210NE-Z | 722 |
| PA12-1210NU-Z | 722 |
| PA12-1210RO-Z | 722 |
| PA12-1210VD-Z | 722 |
| PA12-1412-Z | 722 |
| PA12-1412BL-Z | 722 |
| PA12-1412NE-Z | 722 |
| PA12-1412NU-Z | 722 |
| PA12-15125-Z | 722 |
| PA12-15125BL-Z | 722 |
| PA12-15125NE-Z | 722 |
| PA12-15125NU-Z | 722 |
| PA12-1614-Z | 722 |

| | |
|---|---|
| PA12-1614BL-Z | 722 |
| PA12-1614NE-Z | 722 |
| PA12-1614NU-Z | 722 |
| PA12-3/16-Z | 723 |
| PA12-3/16BL-Z | 724 |
| PA12-3/16GL-Z | 724 |
| PA12-3/16NE-Z | 724 |
| PA12-3/16RO-Z | 724 |
| PA12-3/8-Z | 723 |
| PA12-3/8BL-Z | 724 |
| PA12-3/8GL-Z | 724 |
| PA12-3/8NE-Z | 724 |
| PA12-3/8RO-Z | 724 |
| PA12-5/16-Z | 723 |
| PA12-5/16BL-Z | 724 |
| PA12-5/16GL-Z | 724 |
| PA12-5/16NE-Z | 724 |
| PA12-5/16RO-Z | 724 |
| PA12-5/32-Z | 723 |
| PA12-5/32BL-Z | 724 |
| PA12-5/32GL-Z | 724 |
| PA12-5/32NE-Z | 724 |
| PA12-5/32RO-Z | 724 |
| PC-C03M3 | 35 |
| PC-C03M5 | 35 |
| PC-C03M6 | 35 |
| PC-C04G01 | 35 |
| PC-C04M3 | 35 |
| PC-C04M5 | 35 |
| PC-C04M6 | 35 |
| PC-C04R01 | 35 |
| PC-C06G01 | 35 |
| PC-C06M5 | 35 |
| PC-C06M6 | 35 |
| PC-C06R01 | 35 |
| PCF-C03M3 | 36 |
| PCF-C03M5 | 36 |
| PCF-C03M6 | 36 |
| PCF-C04M3 | 36 |
| PCF-C04M5 | 36 |
| PCF-C04M6 | 36 |
| PCF-C06M5 | 36 |
| PCF-C06M6 | 36 |
| PCP04N | 531 |
| PCP06N | 531 |
| PCP08N | 531 |
| PCP10N | 531 |
| PCP12N | 531 |
| PCP16N | 531 |
| PE0425..-FF | 727 |
| PE0425BL-FF | 728 |
| PE0425BO-FF | 728 |
| PE0425GL-FF | 728 |
| PE0425NE-FF | 728 |
| PE0425NU-FF | 728 |
| PE0425RO-FF | 728 |
| PE0425VD-FF | 728 |
| PE0604..-FF | 727 |
| PE0604BL-FF | 728 |
| PE0604BO-FF | 728 |
| PE0604GL-FF | 728 |
| PE0604NE-FF | 728 |
| PE0604NU-FF | 728 |
| PE0604RO-FF | 728 |
| PE0604VD-FF | 728 |
| PE0806..-FF | 727 |
| PE0806BL-FF | 728 |
| PE0806BO-FF | 728 |
| PE0806GL-FF | 728 |
| PE0806NE-FF | 728 |
| PE0806NU-FF | 728 |
| PE0806RO-FF | 728 |
| PE0806VD-FF | 728 |
| PE1/2..-FF | 728 |
| PE1/2BL-FF | 728 |
| PE1/2BO-FF | 728 |
| PE1/2GL-FF | 728 |
| PE1/2NE-FF | 728 |
| PE1/2NU-FF | 728 |
| PE1/2RO-FF | 728 |
| PE1/2VD-FF | 728 |
| PE1/4..-FF | 728 |
| PE1/4BL-FF | 728 |
| PE1/4BO-FF | 728 |
| PE1/4GL-FF | 728 |
| PE1/4NE-FF | 728 |
| PE1/4NU-FF | 728 |
| PE1/4RO-FF | 728 |
| PE1/4VD-FF | 728 |
| PE1007..-FF | 727 |
| PE1007BL-FF | 728 |
| PE1007BO-FF | 728 |
| PE1007GL-FF | 728 |
| PE1007NE-FF | 728 |
| PE1007NU-FF | 728 |
| PE1007RO-FF | 728 |
| PE1007VD-FF | 728 |
| PE1209..-FF | 727 |
| PE1209BL-FF | 728 |
| PE1209BO-FF | 728 |
| PE1209GL-FF | 728 |
| PE1209NE-FF | 728 |
| PE1209NU-FF | 728 |
| PE1209RO-FF | 728 |
| PE1209VD-FF | 728 |
| PE3/16..-FF | 728 |
| PE3/16BL-FF | 728 |
| PE3/16BO-FF | 728 |
| PE3/16GL-FF | 728 |
| PE3/16NE-FF | 728 |
| PE3/16NU-FF | 728 |
| PE3/16RO-FF | 728 |
| PE3/16VD-FF | 728 |
| PE3/8..-FF | 728 |
| PE3/8BL-FF | 728 |
| PE3/8BO-FF | 728 |
| PE3/8GL-FF | 728 |
| PE3/8NE-FF | 728 |
| PE3/8NU-FF | 728 |
| PE3/8RO-FF | 728 |
| PE3/8VD-FF | 728 |
| PE5/16..-FF | 728 |
| PE5/16BL-FF | 728 |
| PE5/16BO-FF | 728 |
| PE5/16GL-FF | 728 |
| PE5/16NE-FF | 728 |
| PE5/16NU-FF | 728 |
| PE5/16RO-FF | 728 |
| PE5/16VD-FF | 728 |
| PG-C0403 | 40 |
| PG-C0603 | 40 |
| PG-C0604 | 40 |
| PGJ-C0403 | 41 |
| PGJ-C0603 | 41 |
| PGJ-C0604 | 41 |
| PL-C03M3 | 37 |
| PL-C03M5 | 37 |
| PL-C03M6 | 37 |
| PL-C04G01 | 37 |
| PL-C04M3 | 37 |
| PL-C04M5 | 37 |
| PL-C04M6 | 37 |
| PL-C04R01 | 37 |
| PL-C06G01 | 37 |
| PL-C06M5 | 37 |
| PL-C06M6 | 37 |
| PL-C06R01 | 37 |
| PLL-C03M3 | 38 |
| PLL-C03M5 | 38 |
| PLL-C03M6 | 38 |
| PLL-C04M3 | 38 |
| PLL-C04M5 | 38 |
| PLL-C04M6 | 38 |
| PLL-C04R01 | 37 |
| PLL-C06M5 | 38 |
| PLL-C06M6 | 38 |
| PLL-C06R01 | 37 |
| PMM-C03 | 36 |
| PMM-C04 | 36 |
| PMM-C06 | 36 |
| POC-C03M3 | 36 |
| POC-C03M5 | 36 |
| POC-C03M6 | 36 |
| POC-C04M3 | 36 |
| POC-C04M5 | 36 |
| POC-C04M6 | 36 |
| POC-C04R01 | 35 |
| POC-C06M5 | 36 |
| POC-C06M6 | 36 |
| POC-C06R01 | 35 |
| PSF1010 | 478 |
| PSF1010-4 | 478 |
| PST-C03M3 | 39 |
| PST-C03M5 | 39 |
| PST-C03M6 | 39 |
| PST-C04M3 | 39 |
| PST-C04M5 | 39 |
| PST-C04M6 | 39 |
| PST-C04R01 | 39 |
| PST-C06M5 | 39 |
| PST-C06M6 | 39 |
| PST-C06R01 | 39 |
| PT-C03M3 | 38 |
| PT-C03M5 | 38 |
| PT-C03M6 | 38 |
| PT-C04M3 | 38 |
| PT-C04M5 | 38 |
| PT-C04M6 | 38 |
| PT-C04R01 | 38 |
| PT-C06M5 | 38 |
| PT-C06M6 | 38 |
| PT-C06R01 | 38 |
| PTFE-C0402 | 732 |
| PTFE-C0402NU100 | 732 |
| PTFE-C0402NU100-25BX | 732 |
| PTFE-C0425 | 732 |
| PTFE-C0425BL100 | 732 |
| PTFE-C0425BL100-25BX | 732 |
| PTFE-C0425NU100 | 732 |
| PTFE-C0425NU100-25BX | 732 |
| PTFE-C0425RO100 | 732 |
| PTFE-C0425RO100-25BX | 732 |
| PTFE-C0604 | 732 |
| PTFE-C0604BL100 | 732 |
| PTFE-C0604BL100-25BX | 732 |
| PTFE-C0604NU100 | 732 |
| PTFE-C0604NU100-25BX | 732 |
| PTFE-C0604RO100 | 732 |

| | |
|---|---|
| PTFE-C0604RO100-25BX | 732 |
| PTFE-C0806 | 732 |
| PTFE-C0806BL100 | 732 |
| PTFE-C0806BL100-25BX | 732 |
| PTFE-C0806NU100 | 732 |
| PTFE-C0806NU100-25BX | 732 |
| PTFE-C0806RO100 | 732 |
| PTFE-C0806RO100-25BX | 732 |
| PTFE-C1008 | 732 |
| PTFE-C1008BL100 | 732 |
| PTFE-C1008BL100-25BX | 732 |
| PTFE-C1008NU100 | 732 |
| PTFE-C1008NU100-25BX | 732 |
| PTFE-C1008RO100 | 732 |
| PTFE-C1008RO100-25BX | 732 |
| PTFE-C1210 | 732 |
| PTFE-C1210BL100 | 732 |
| PTFE-C1210NU100 | 732 |
| PTFE-C1210RO100 | 732 |
| PTFE-C1412 | 732 |
| PTFE-C1412BL50 | 732 |
| PTFE-C1412NU50 | 732 |
| PTFE-C1412RO50 | 732 |
| PTFE-C1613 | 732 |
| PTFE-C1613BL50 | 732 |
| PTFE-C1613NU50 | 732 |
| PTFE-C1613RO50 | 732 |
| PU-PVC0610 | 751 |
| PU-PVC0610AZ | 752 |
| PU-PVC0812 | 751 |
| PU-PVC0812AZ | 752 |
| PU-PVC1015 | 751 |
| PU-PVC1015AZ | 752 |
| PU-PVC1016 | 751 |
| PU-PVC1016AZ | 752 |
| PU-PVC1319 | 751 |
| PU-PVC1319AZ | 752 |
| PUAS0425 | 705 |
| PUAS0425NE | 705 |
| PUAS0639 | 705 |
| PUAS0639NE | 705 |
| PUAS0857 | 705 |
| PUAS0857NE | 705 |
| PUAS1075 | 705 |
| PUAS1075NE | 705 |
| PUAS1209 | 705 |
| PUAS1209NE | 705 |
| PUC-C03 | 39 |
| PUC-C04 | 39 |
| PUC-C06 | 39 |
| PUES0302 | 691 |
| PUES0302AZ | 692 |
| PUES0302AZ-25BX | 692 |
| PUES0425 | 691 |
| PUES0425AZ | 692 |
| PUES0425AZ-25BX | 692 |
| PUES0425AZTR | 692 |
| PUES0425AZTR-25BX | 692 |
| PUES0425GL | 692 |
| PUES0425GL-25BX | 692 |
| PUES0425NE | 692 |
| PUES0425NE-25BX | 692 |
| PUES0425RO | 692 |
| PUES0425RO-25BX | 692 |
| PUES0425SL | 692 |
| PUES0425SL-25BX | 692 |
| PUES0425TR | 692 |
| PUES0425TR-25BX | 692 |
| PUES0425VD | 692 |
| PUES0425VD-25BX | 692 |
| PUES0604 | 691 |
| PUES0604AZ | 692 |
| PUES0604AZ-25BX | 692 |
| PUES0604AZTR | 692 |
| PUES0604AZTR-25BX | 692 |
| PUES0604GL | 692 |
| PUES0604GL-25BX | 692 |
| PUES0604NE | 692 |
| PUES0604NE-25BX | 692 |
| PUES0604RO | 692 |
| PUES0604RO-25BX | 692 |
| PUES0604SL | 692 |
| PUES0604SL-25BX | 692 |
| PUES0604TR | 692 |
| PUES0604TR-25BX | 692 |
| PUES0604VD | 692 |
| PUES0604VD-25BX | 692 |
| PUES0805 | 691 |
| PUES0805AZ | 692 |
| PUES0805AZ-25BX | 692 |
| PUES0805GL | 692 |
| PUES0805GL-25BX | 692 |
| PUES0855 | 691 |
| PUES0855AZ | 692 |
| PUES0855AZ-25BX | 692 |
| PUES0855AZTR | 692 |
| PUES0855AZTR-25BX | 692 |
| PUES0855GL | 692 |
| PUES0855GL-25BX | 692 |
| PUES0855NE | 692 |
| PUES0855NE-25BX | 692 |
| PUES0855RO | 692 |
| PUES0855RO-25BX | 692 |
| PUES0855SL | 692 |
| PUES0855SL-25BX | 692 |
| PUES0855TR | 692 |
| PUES0855TR-25BX | 692 |
| PUES0855VD | 692 |
| PUES0855VD-25BX | 692 |
| PUES1007 | 691 |
| PUES1007AZ | 692 |
| PUES1007AZ-25BX | 692 |
| PUES1007AZTR | 692 |
| PUES1007AZTR-25BX | 692 |
| PUES1007GL | 692 |
| PUES1007GL-25BX | 692 |
| PUES1007NE | 692 |
| PUES1007NE-25BX | 692 |
| PUES1007RO | 692 |
| PUES1007RO-25BX | 692 |
| PUES1007SL | 692 |
| PUES1007SL-25BX | 692 |
| PUES1007TR | 692 |
| PUES1007TR-25BX | 692 |
| PUES1007VD | 692 |
| PUES1007VD-25BX | 692 |
| PUES1065 | 691 |
| PUES1065AZ | 692 |
| PUES1065AZ-25BX | 692 |
| PUES1065GL | 692 |
| PUES1065GL-25BX | 692 |
| PUES1208 | 691 |
| PUES1208AZ | 692 |
| PUES1208AZ-25BX | 692 |
| PUES1208GL | 692 |
| PUES1208GL-25BX | 692 |
| PUES1208NE | 692 |
| PUES1208NE-25BX | 692 |
| PUES1208TR | 692 |
| PUES1208TR-25BX | 692 |
| PUES1209 | 691 |
| PUES1209AZ | 692 |
| PUES1209AZ-25BX | 692 |
| PUES1209AZTR | 692 |
| PUES1209AZTR-25BX | 692 |
| PUES1209GL | 692 |
| PUES1209GL-25BX | 692 |
| PUES1209NE | 692 |
| PUES1209NE-25BX | 692 |
| PUES1209RO | 692 |
| PUES1209RO-25BX | 692 |
| PUES1209SL | 692 |
| PUES1209SL-25BX | 692 |
| PUES1209TR | 692 |
| PUES1209TR-25BX | 692 |
| PUES1209VD | 692 |
| PUES1209VD-25BX | 692 |
| PUES1410 | 691 |
| PUES1410AZ | 692 |
| PUES1410TR | 692 |
| PUES1612 | 691 |
| PUES1612AZ | 692 |
| PUET0425 | 701 |
| PUET0425AZTR | 701 |
| PUET0425NETR | 701 |
| PUET0425ROTR | 701 |
| PUET0425TR | 701 |
| PUET0639 | 701 |
| PUET0639AZTR | 701 |
| PUET0639NETR | 701 |
| PUET0639ROTR | 701 |
| PUET0639TR | 701 |
| PUET0855 | 701 |
| PUET0855AZTR | 701 |
| PUET0855NETR | 701 |
| PUET0855ROTR | 701 |
| PUET0855TR | 701 |
| PUET1007 | 701 |
| PUET1007AZTR | 701 |
| PUET1007NETR | 701 |
| PUET1007ROTR | 701 |
| PUET1007TR | 701 |
| PUET1208 | 701 |
| PUET1208AZTR | 701 |
| PUET1208NETR | 701 |
| PUET1208ROTR | 701 |
| PUET1208TR | 701 |
| PUET1410 | 701 |
| PUET1410AZTR | 701 |
| PUET1410NETR | 701 |
| PUET1410ROTR | 701 |
| PUET1410TR | 701 |
| PUET1611 | 701 |
| PUET1611AZTR | 701 |
| PUET1611NETR | 701 |
| PUET1611ROTR | 701 |
| PUET1611TR | 701 |
| PUFA0402 | 709 |
| PUFA0402AZ | 709 |
| PUFA0402BO | 709 |
| PUFA0804 | 709 |
| PUFA0804AZ | 709 |
| PUFA0804BO | 709 |
| PUFA1006 | 709 |
| PUFA1006AZ | 709 |
| PUFA1006BO | 709 |
| PUFA1208 | 709 |
| PUFA1208AZ | 709 |

| | |
|---|---|
| PUFA1208BO | 709 |
| PUFA1410 | 709 |
| PUFA1410AZ | 709 |
| PUFA1410BO | 709 |
| PUFA1611 | 709 |
| PUFA1611AZ | 709 |
| PUFA1611BO | 709 |
| PUFH0402 | 713 |
| PUFH0804 | 713 |
| PUFH1006 | 713 |
| PUFH1208 | 713 |
| PUFH1410 | 713 |
| PUFH1611 | 713 |
| PUFW1006 | 711 |
| PUFW1006RO | 711 |
| PUFW1006VD | 711 |
| PUFW1208 | 711 |
| PUFW1208RO | 711 |
| PUFW1208VD | 711 |
| PUFW1410 | 711 |
| PUFW1410RO | 711 |
| PUFW1410VD | 711 |
| PUFW1611 | 711 |
| PUFW1611RO | 711 |
| PUFW1611VD | 711 |
| PUHQ0425 | 695 |
| PUHQ0425-25 | 696 |
| PUHQ0425BL | 695 |
| PUHQ0425BL-25 | 696 |
| PUHQ0425BLNE | 698 |
| PUHQ0425NE | 695 |
| PUHQ0425NE-25 | 696 |
| PUHQ0604 | 695 |
| PUHQ0604-25 | 696 |
| PUHQ0604BL | 695 |
| PUHQ0604BL-25 | 696 |
| PUHQ0604BLNE | 698 |
| PUHQ0604NE | 695 |
| PUHQ0604NE-25 | 696 |
| PUHQ0806BLNE | 698 |
| PUHQ0857 | 695 |
| PUHQ0857-25 | 696 |
| PUHQ0857BL | 695 |
| PUHQ0857BL-25 | 696 |
| PUHQ0857NE | 695 |
| PUHQ0857NE-25 | 696 |
| PUHQ1075 | 695 |
| PUHQ1075-25 | 696 |
| PUHQ1075BL | 695 |
| PUHQ1075BL-25 | 696 |
| PUHQ1075BLNE | 698 |
| PUHQ1075NE | 695 |
| PUHQ1075NE-25 | 696 |
| PUHQ1209 | 695 |
| PUHQ1209-25 | 696 |
| PUHQ1209BL | 695 |
| PUHQ1209BL-25 | 696 |
| PUHQ1209NE | 695 |
| PUHQ1209NE-25 | 696 |
| PUHQ1411 | 695 |
| PUHQ1411-25 | 696 |
| PUHQ1411BL | 695 |
| PUHQ1411BL-25 | 696 |
| PUHQ1411NE | 695 |
| PUHQ1411NE-25 | 696 |
| PUHQ1611-25 | 696 |
| PUHQ1611BL-25 | 696 |
| PUHQ1611NE-25 | 696 |
| PUKS0604 | 717 |
| PUKS0604AZ | 717 |
| PUKS0857 | 717 |
| PUKS0857AZ | 717 |
| PUKS1075 | 717 |
| PUKS1075AZ | 717 |
| PUKS1209 | 717 |
| PUKS1209AZ | 717 |
| PUKS1410 | 717 |
| PUKS1410AZ | 717 |
| PUKS1611 | 717 |
| PUKS1611AZ | 717 |
| PUL-C03 | 40 |
| PUL-C04 | 40 |
| PUL-C06 | 40 |
| PUT-C03 | 40 |
| PUT-C04 | 40 |
| PUT-C06 | 40 |
| PVC-AC0614 | 755 |
| PVC-AC0614NE100 | 756 |
| PVC-AC0817 | 755 |
| PVC-AC0817NE100 | 756 |
| PVC-AC1019 | 755 |
| PVC-AC1019NE100 | 756 |
| PVC-AC1323 | 755 |
| PVC-AC1323NE | 756 |
| PVC-AC1928 | 755 |
| PVC-AC1928NE | 756 |
| PVC-RT0612 | 747 |
| PVC-RT0814 | 747 |
| PVC-RT1016 | 747 |
| PVC-RT1218 | 747 |
| PVC-RT1420 | 747 |
| PVC-RT1622 | 747 |
| PVC-RT1926 | 747 |
| PVC-RT2533 | 747 |
| PVC0406 | 743 |
| PVC0407 | 743 |
| PVC0609 | 743 |
| PVC0710 | 743 |
| PVC0812 | 743 |
| PVC1014 | 743 |
| PVC1217 | 743 |
| PVC1419 | 743 |
| PVC1622 | 743 |
| PVC1824 | 743 |
| PVC2027 | 743 |
| PVC2533 | 743 |
| PVSC06G01 | 353 |
| PVSC06G02 | 353 |
| PVSC06R01 | 353 |
| PVSC06R02 | 353 |
| PVSC08G01 | 353 |
| PVSC08G02 | 353 |
| PVSC08G03 | 353 |
| PVSC08R01 | 353 |
| PVSC08R02 | 353 |
| PVSC08R03 | 353 |
| PVSC10G02 | 353 |
| PVSC10G03 | 353 |
| PVSC10G04 | 353 |
| PVSC10R02 | 353 |
| PVSC10R03 | 353 |
| PVSC10R04 | 353 |
| PVSC12G03 | 353 |
| PVSC12G04 | 353 |
| PVSC12R03 | 353 |
| PVSC12R04 | 353 |
| PVSF-G01 | 394 |
| PVSF-G02 | 394 |
| PVSF-G03 | 394 |
| PVSF-G04 | 394 |
| PVSF-R01 | 394 |
| PVSF-R02 | 394 |
| PVSF-R03 | 394 |
| PVSF-R04 | 394 |
| PW-C0403 | 41 |
| PW-C0603 | 41 |
| PW-C0604 | 41 |
| PY-C03 | 41 |
| PY-C04 | 41 |
| PY-C06 | 41 |
| PZ-G | 765 |
| PZ-P | 765 |
| R-PTFE12012 | 464 |
| R-PTFE190215-PROF | 464 |
| SB304TR130175-DP | 454 |
| SB304TR130175-STC-DP | 454 |
| SB304TR130175-STL-DP | 454 |
| SB304TR150350-DP | 454 |
| SB304TR150350-STC-DP | 454 |
| SB304TR150350-STL-DP | 454 |
| SB304TR170560-DP | 454 |
| SB304TR170560-STC-DP | 454 |
| SB304TR170560-STL-DP | 454 |
| SB304TR220540-DP | 454 |
| SB304TR220540-STC-DP | 454 |
| SB304TR220540-STL-DP | 454 |
| SCPW08 | 51 |
| SCPW10 | 51 |
| SH14AC110-N | 683 |
| SH14AC110/B-N | 683 |
| SH14AC220-N | 683 |
| SH14AC220/B-N | 683 |
| SH14AC24-N | 683 |
| SH14AC24/B-N | 683 |
| SH14AC240-N | 683 |
| SH14AC240/B-N | 683 |
| SH14DC12-N | 683 |
| SH14DC12/B-N | 683 |
| SH14DC12/HP-N | 683 |
| SH14DC24-N | 683 |
| SH14DC24/B-N | 683 |
| SH14DC24/HP-N | 683 |
| SI0305FQ | 739 |
| SI0306FQ | 739 |
| SI0406FQ | 739 |
| SI0407FQ | 739 |
| SI0508FQ | 739 |
| SI0609FQ | 739 |
| SI0610FQ | 739 |
| SI0811FQ | 739 |
| SI0812FQ | 739 |
| SI0912FQ | 739 |
| SI1013FQ | 739 |
| SI1014FQ | 739 |
| SI1215FQ | 739 |
| SI3506FQ | 739 |
| SMPC04M5W | 52 |
| SMPC04R01W | 52 |
| SMPC06M5W | 52 |
| SMPC06R01W | 52 |
| SMPC06R02W | 52 |
| SMPC06R03W | 52 |
| SMPC08R01W | 52 |
| SMPC08R02W | 52 |
| SMPC08R03W | 52 |
| SMPC08R04W | 52 |
| SMPC10R02W | 52 |
| SMPC10R03W | 52 |

| | |
|---|---|
| SMPC10R04W | 52 |
| SMPC12R02W | 52 |
| SMPC12R03W | 52 |
| SMPC12R04W | 52 |
| SMPL04M5W | 52 |
| SMPL04R01W | 52 |
| SMPL06M5W | 52 |
| SMPL06R01W | 52 |
| SMPL06R02W | 52 |
| SMPL06R03W | 52 |
| SMPL08R01W | 52 |
| SMPL08R02W | 52 |
| SMPL08R03W | 52 |
| SMPL08R04W | 52 |
| SMPL10R02W | 52 |
| SMPL10R03W | 52 |
| SMPL10R04W | 52 |
| SMPL12R02W | 52 |
| SMPL12R03W | 52 |
| SMPL12R04W | 52 |
| SPC04G01 | 370 |
| SPC04R01 | 370 |
| SPC06G01 | 370 |
| SPC06G02 | 370 |
| SPC06R01 | 370 |
| SPC06R02 | 370 |
| SPC08G02 | 370 |
| SPC08G03 | 370 |
| SPC08R02 | 370 |
| SPC08R03 | 370 |
| SPC10G02 | 370 |
| SPC10G03 | 370 |
| SPC10G04 | 370 |
| SPC10R02 | 370 |
| SPC10R03 | 370 |
| SPC10R04 | 370 |
| SPC12G02 | 370 |
| SPC12G03 | 370 |
| SPC12G04 | 370 |
| SPC12R02 | 370 |
| SPC12R03 | 370 |
| SPC12R04 | 370 |
| SPHA-12-12T | 778 |
| SPHA-16-16T | 778 |
| SPHA-4-4T | 778 |
| SPHA-6-6T | 778 |
| SPHA-8-8T | 778 |
| SPHM-12-12N | 777 |
| SPHM-12-12N-BS | 775 |
| SPHM-12-12R | 777 |
| SPHM-12-12R-BS | 775 |
| SPHM-16-16N | 777 |
| SPHM-16-16N-BS | 775 |
| SPHM-16-16R | 777 |
| SPHM-16-16R-BS | 775 |
| SPHM-4-4N | 777 |
| SPHM-4-4N-BS | 775 |
| SPHM-4-4R | 777 |
| SPHM-4-4R-BS | 775 |
| SPHM-6-4N | 777 |
| SPHM-6-4N-BS | 775 |
| SPHM-6-4R | 777 |
| SPHM-6-4R-BS | 775 |
| SPHM-6-6N | 777 |
| SPHM-6-6N-BS | 775 |
| SPHM-6-6R | 777 |
| SPHM-6-6R-BS | 775 |
| SPHM-8-8N | 777 |
| SPHM-8-8N-BS | 775 |
| SPHM-8-8R | 777 |
| SPHM-8-8R-BS | 775 |
| SPHU-12-12 | 778 |
| SPHU-12-12-BS | 775 |
| SPHU-16-16 | 778 |
| SPHU-16-16-BS | 775 |
| SPHU-4-4 | 778 |
| SPHU-4-4-BS | 775 |
| SPHU-6-6 | 778 |
| SPHU-6-6-BS | 775 |
| SPHU-8-8 | 778 |
| SPHU-8-8-BS | 775 |
| SPL04G01 | 371 |
| SPL04M5 | 371 |
| SPL04M6 | 371 |
| SPL04R01 | 371 |
| SPL06G01 | 371 |
| SPL06G02 | 371 |
| SPL06M5 | 371 |
| SPL06R01 | 371 |
| SPL06R02 | 371 |
| SPL08G02 | 371 |
| SPL08G03 | 371 |
| SPL08R01 | 371 |
| SPL08R02 | 371 |
| SPL08R03 | 371 |
| SPL10G02 | 371 |
| SPL10G03 | 371 |
| SPL10G04 | 371 |
| SPL10R02 | 371 |
| SPL10R03 | 371 |
| SPL10R04 | 371 |
| SPL12G03 | 371 |
| SPL12G04 | 371 |
| SPL12R03 | 371 |
| SPL12R04 | 371 |
| SPU04 | 371 |
| SPU06 | 371 |
| SPU08 | 371 |
| SPU10 | 371 |
| SPU12 | 371 |
| SPUM04 | 370 |
| SPUM06 | 370 |
| SPUM08 | 370 |
| SPUM10 | 370 |
| SPUM12 | 370 |
| STF04 | 766 |
| STF06 | 766 |
| STF08 | 766 |
| STF10 | 766 |
| STF12 | 766 |
| STF14 | 766 |
| STFT15 | 784 |
| STFT22 | 784 |
| SVP2CAL34CL10M1 | 679 |
| SVP2CAL34CL10M2 | 679 |
| SVP2CAL34CL10M5 | 679 |
| SVP2CAL34CL10M7 | 679 |
| SVP2CAL34CL10M9 | 679 |
| SVP2CAL34IR10M1 | 677 |
| SVP2CAL34IR10M2 | 677 |
| SVP2CAL34IR10M5 | 677 |
| SVP2CAL34IR10M7 | 677 |
| SVP2CAL34IR10M9 | 677 |
| SVP2CAL34IR3/8M1 | 677 |
| SVP2CAL34IR3/8M2 | 677 |
| SVP2CAL34IR3/8M5 | 677 |
| SVP2CAL34IR3/8M7 | 677 |
| SVP2CAL34IR3/8M9 | 677 |
| SVP2CIR10IR10M1 | 676 |
| SVP2CIR10IR10M2 | 676 |
| SVP2CIR10IR10M5 | 676 |
| SVP2CIR10IR10M7 | 676 |
| SVP2CIR10IR10M9 | 676 |
| SVP2CIR3/8IR3/8M1 | 676 |
| SVP2CIR3/8IR3/8M2 | 676 |
| SVP2CIR3/8IR3/8M5 | 676 |
| SVP2CIR3/8IR3/8M7 | 676 |
| SVP2CIR3/8IR3/8M9 | 676 |
| SVP2CM12M12M1 | 678 |
| SVP2CM12M12M2 | 678 |
| SVP2CM12M12M5 | 678 |
| SVP2CM12M12M7 | 678 |
| SVP2CM12M12M9 | 678 |
| SVP2CM34M34M1 | 678 |
| SVP2CM34M34M2 | 678 |
| SVP2CM34M34M5 | 678 |
| SVP2CM34M34M7 | 678 |
| SVP2CM34M34M9 | 678 |
| SVP2CM38M38M1 | 678 |
| SVP2CM38M38M2 | 678 |
| SVP2CM38M38M5 | 678 |
| SVP2CM38M38M7 | 678 |
| SVP2CM38M38M9 | 678 |
| SVX2C15G18 | 682 |
| SVX2C25G14 | 682 |
| SVX2C30G18 | 682 |
| SVX2C40G14 | 682 |
| SVX2C50G38 | 682 |
| SVX2C64G12 | 682 |
| SVX2C64G38 | 682 |
| SVX3C15G18 | 682 |
| SVX3C25G14 | 682 |
| SVX3C40G14 | 682 |
| SXSC01-DF | 348 |
| SXSC02-DF | 348 |
| SXSC03-DF | 348 |
| SXSC04-DF | 348 |
| SXSC06G01-D | 348 |
| SXSC06G02-D | 348 |
| SXSC08G01-D | 348 |
| SXSC08G02-D | 348 |
| SXSC10G02-D | 348 |
| TT16 | 765 |
| UCES060405 | 760 |
| UCES060405AZ | 760 |
| UCES060405G14 | 761 |
| UCES060405G14AZ | 761 |
| UCES060405G14GL | 761 |
| UCES060405GL | 760 |
| UCES060410 | 760 |
| UCES060410AZ | 760 |
| UCES060410G14 | 761 |
| UCES060410G14AZ | 761 |
| UCES060410G14GL | 761 |
| UCES060410GL | 760 |
| UCES060435 | 760 |
| UCES060435AZ | 760 |
| UCES060435G14 | 761 |
| UCES060435G14AZ | 761 |
| UCES060435G14GL | 761 |
| UCES060435GL | 760 |
| UCES060475 | 760 |
| UCES060475AZ | 760 |
| UCES060475G14 | 761 |
| UCES060475G14AZ | 761 |
| UCES060475G14GL | 761 |
| UCES060475GL | 760 |
| UCES080505 | 760 |

| | |
|---|---|
| UCES080505AZ | 760 |
| UCES080505G14 | 761 |
| UCES080505G14AZ | 761 |
| UCES080505G14GL | 761 |
| UCES080505GL | 760 |
| UCES080510 | 760 |
| UCES080510AZ | 760 |
| UCES080510G14 | 761 |
| UCES080510G14AZ | 761 |
| UCES080510G14GL | 761 |
| UCES080510GL | 760 |
| UCES080535 | 760 |
| UCES080535AZ | 760 |
| UCES080535G14 | 761 |
| UCES080535G14AZ | 761 |
| UCES080535G14GL | 761 |
| UCES080535GL | 760 |
| UCES080575 | 760 |
| UCES080575AZ | 760 |
| UCES080575G14 | 761 |
| UCES080575G14AZ | 761 |
| UCES080575G14GL | 761 |
| UCES080575GL | 760 |
| UCES106505 | 760 |
| UCES106505AZ | 760 |
| UCES106505G14 | 761 |
| UCES106505G14AZ | 761 |
| UCES106505G14GL | 761 |
| UCES106505GL | 760 |
| UCES106510 | 760 |
| UCES106510AZ | 760 |
| UCES106510G14 | 761 |
| UCES106510G14AZ | 761 |
| UCES106510G14GL | 761 |
| UCES106510GL | 760 |
| UCES106575 | 760 |
| UCES106575AZ | 760 |
| UCES106575G14 | 761 |
| UCES106575G14AZ | 761 |
| UCES106575G14GL | 761 |
| UCES106575GL | 760 |
| UCES120805 | 760 |
| UCES120805AZ | 760 |
| UCES120805G38 | 761 |
| UCES120805G38AZ | 761 |
| UCES120805G38GL | 761 |
| UCES120805GL | 760 |
| UCES120810 | 760 |
| UCES120810AZ | 760 |
| UCES120810G38 | 761 |
| UCES120810G38AZ | 761 |
| UCES120810G38GL | 761 |
| UCES120810GL | 760 |
| UCES120875 | 760 |
| UCES120875AZ | 760 |
| UCES120875G38 | 761 |
| UCES120875G38AZ | 761 |
| UCES120875G38GL | 761 |
| UCES120875GL | 760 |
| UGPT-7 | 482 |
| WTRC04G01 | 8 |
| WTRC04G02 | 8 |
| WTRC04M5 | 8 |
| WTRC04M6 | 8 |
| WTRC04M7 | 8 |
| WTRC04R01 | 7 |
| WTRC04R02 | 7 |
| WTRC06G01 | 8 |
| WTRC06G02 | 8 |
| WTRC06G03 | 8 |
| WTRC06G04 | 8 |
| WTRC06M5 | 8 |
| WTRC06M6 | 8 |
| WTRC06M7 | 8 |
| WTRC06R01 | 7 |
| WTRC06R02 | 7 |
| WTRC06R03 | 7 |
| WTRC06R04 | 7 |
| WTRC08G01 | 8 |
| WTRC08G02 | 8 |
| WTRC08G03 | 8 |
| WTRC08G04 | 8 |
| WTRC08R01 | 7 |
| WTRC08R02 | 7 |
| WTRC08R03 | 7 |
| WTRC08R04 | 7 |
| WTRC10G01 | 8 |
| WTRC10G02 | 8 |
| WTRC10G03 | 8 |
| WTRC10G04 | 8 |
| WTRC10R01 | 7 |
| WTRC10R02 | 7 |
| WTRC10R03 | 7 |
| WTRC10R04 | 7 |
| WTRC12G02 | 8 |
| WTRC12G03 | 8 |
| WTRC12G04 | 8 |
| WTRC12R02 | 7 |
| WTRC12R03 | 7 |
| WTRC12R04 | 7 |
| WTRC14G03 | 8 |
| WTRC14G04 | 8 |
| WTRC16G03 | 8 |
| WTRC16G04 | 8 |
| WTRC16R03 | 7 |
| WTRC16R04 | 7 |
| WTRCF04G01 | 10 |
| WTRCF04G02 | 10 |
| WTRCF06G01 | 10 |
| WTRCF06G02 | 10 |
| WTRCF06G03 | 10 |
| WTRCF08G01 | 10 |
| WTRCF08G02 | 10 |
| WTRCF08G03 | 10 |
| WTRCF08G04 | 10 |
| WTRCF10G01 | 10 |
| WTRCF10G02 | 10 |
| WTRCF10G03 | 10 |
| WTRCF10G04 | 10 |
| WTRCF12G02 | 10 |
| WTRCF12G03 | 10 |
| WTRCF12G04 | 10 |
| WTRCV04 | 29 |
| WTRCV04BL | 29 |
| WTRCV04BO | 29 |
| WTRCV04GL | 29 |
| WTRCV04RO | 29 |
| WTRCV04VD | 29 |
| WTRCV06 | 29 |
| WTRCV06BL | 29 |
| WTRCV06BO | 29 |
| WTRCV06GL | 29 |
| WTRCV06RO | 29 |
| WTRCV06VD | 29 |
| WTRFF0606 | 409 |
| WTRFF0808 | 409 |
| WTRFF1010 | 409 |
| WTRFF1212 | 409 |
| WTRFR04G01 | 325 |
| WTRFR04G01-IN | 325 |
| WTRFR04G02 | 325 |
| WTRFR04G02-IN | 325 |
| WTRFR04M5 | 325 |
| WTRFR04M5-IN | 325 |
| WTRFR04R01 | 324 |
| WTRFR04R01-IN | 324 |
| WTRFR04R02 | 324 |
| WTRFR04R02-IN | 324 |
| WTRFR06G01 | 325 |
| WTRFR06G01-IN | 325 |
| WTRFR06G02 | 325 |
| WTRFR06G02-IN | 325 |
| WTRFR06G03 | 325 |
| WTRFR06G03-IN | 325 |
| WTRFR06G04 | 325 |
| WTRFR06G04-IN | 325 |
| WTRFR06M5 | 325 |
| WTRFR06M5-IN | 325 |
| WTRFR06R01 | 324 |
| WTRFR06R01-IN | 324 |
| WTRFR06R02 | 324 |
| WTRFR06R02-IN | 324 |
| WTRFR06R03 | 324 |
| WTRFR06R03-IN | 324 |
| WTRFR06R04 | 324 |
| WTRFR06R04-IN | 324 |
| WTRFR08G01 | 325 |
| WTRFR08G01-IN | 325 |
| WTRFR08G02 | 325 |
| WTRFR08G02-IN | 325 |
| WTRFR08G03 | 325 |
| WTRFR08G03-IN | 325 |
| WTRFR08G04 | 325 |
| WTRFR08G04-IN | 325 |
| WTRFR08R01 | 324 |
| WTRFR08R01-IN | 324 |
| WTRFR08R02 | 324 |
| WTRFR08R02-IN | 324 |
| WTRFR08R03 | 324 |
| WTRFR08R03-IN | 324 |
| WTRFR08R04 | 324 |
| WTRFR08R04-IN | 324 |
| WTRFR10G01 | 325 |
| WTRFR10G01-IN | 325 |
| WTRFR10G02 | 325 |
| WTRFR10G02-IN | 325 |
| WTRFR10G03 | 325 |
| WTRFR10G03-IN | 325 |
| WTRFR10G04 | 325 |
| WTRFR10G04-IN | 325 |
| WTRFR10R01 | 324 |
| WTRFR10R01-IN | 324 |
| WTRFR10R02 | 324 |
| WTRFR10R02-IN | 324 |
| WTRFR10R03 | 324 |
| WTRFR10R03-IN | 324 |
| WTRFR10R04 | 324 |
| WTRFR10R04-IN | 324 |
| WTRFR12G02 | 325 |
| WTRFR12G02-IN | 325 |
| WTRFR12G03 | 325 |
| WTRFR12G03-IN | 325 |
| WTRFR12G04 | 325 |
| WTRFR12G04-IN | 325 |
| WTRFR12R02 | 324 |
| WTRFR12R02-IN | 324 |
| WTRFR12R03 | 324 |
| WTRFR12R03-IN | 324 |

| | |
|---|---|
| WTRFR12R04 | 324 |
| WTRFR12R04-IN | 324 |
| WTRFS06G01 | 406 |
| WTRFS06G02 | 406 |
| WTRFS06G03 | 406 |
| WTRFS06R01 | 406 |
| WTRFS06R02 | 406 |
| WTRFS06R03 | 406 |
| WTRFS08G01 | 406 |
| WTRFS08G02 | 406 |
| WTRFS08G03 | 406 |
| WTRFS08R01 | 406 |
| WTRFS08R02 | 406 |
| WTRFS08R03 | 406 |
| WTRFS10G02 | 406 |
| WTRFS10G03 | 406 |
| WTRFS10G04 | 406 |
| WTRFS10R02 | 406 |
| WTRFS10R03 | 406 |
| WTRFS10R04 | 406 |
| WTRFS12G02 | 406 |
| WTRFS12G03 | 406 |
| WTRFS12G04 | 406 |
| WTRFS12R02 | 406 |
| WTRFS12R03 | 406 |
| WTRFS12R04 | 406 |
| WTRG0604 | 23 |
| WTRG0804 | 23 |
| WTRG0805 | 23 |
| WTRG0806 | 23 |
| WTRG1007 | 23 |
| WTRG1008 | 23 |
| WTRG1207 | 23 |
| WTRG1208 | 23 |
| WTRG1210 | 23 |
| WTRG1410 | 23 |
| WTRG1412 | 23 |
| WTRG1610 | 23 |
| WTRG1612 | 23 |
| WTRG1614 | 23 |
| WTRGJ0604 | 25 |
| WTRGJ0804 | 25 |
| WTRGJ0806 | 25 |
| WTRGJ1006 | 25 |
| WTRGJ1008 | 25 |
| WTRGJ1206 | 25 |
| WTRGJ1208 | 25 |
| WTRGJ1210 | 25 |
| WTRGT0604 | 24 |
| WTRGT0804 | 24 |
| WTRGT0806 | 24 |
| WTRGT1008 | 24 |
| WTRGT1210 | 24 |
| WTRGT1612 | 24 |
| WTRH04G01 | 17 |
| WTRH04M5 | 17 |
| WTRH04M6 | 17 |
| WTRH04R01 | 17 |
| WTRH04R02 | 17 |
| WTRH06G01 | 17 |
| WTRH06G02 | 17 |
| WTRH06M5 | 17 |
| WTRH06M6 | 17 |
| WTRH06R01 | 17 |
| WTRH06R02 | 17 |
| WTRH06R03 | 17 |
| WTRH08G01 | 17 |
| WTRH08G02 | 17 |
| WTRH08G03 | 17 |
| WTRH08R01 | 17 |
| WTRH08R02 | 17 |
| WTRH08R03 | 17 |
| WTRH08R04 | 17 |
| WTRH10G02 | 17 |
| WTRH10G03 | 17 |
| WTRH10R02 | 17 |
| WTRH10R03 | 17 |
| WTRH10R04 | 17 |
| WTRH12G03 | 17 |
| WTRH12G04 | 17 |
| WTRH12R02 | 17 |
| WTRH12R03 | 17 |
| WTRH12R04 | 17 |
| WTRHF04G01 | 18 |
| WTRHF04M5 | 18 |
| WTRHF04M6 | 18 |
| WTRHF04R01 | 18 |
| WTRHF04R02 | 18 |
| WTRHF06G01 | 18 |
| WTRHF06G02 | 18 |
| WTRHF06M5 | 18 |
| WTRHF06M6 | 18 |
| WTRHF06R01 | 18 |
| WTRHF06R02 | 18 |
| WTRHF06R03 | 18 |
| WTRHF08G01 | 18 |
| WTRHF08G02 | 18 |
| WTRHF08G03 | 18 |
| WTRHF08R01 | 18 |
| WTRHF08R02 | 18 |
| WTRHF08R03 | 18 |
| WTRHF08R04 | 18 |
| WTRHF10G02 | 18 |
| WTRHF10G03 | 18 |
| WTRHF10R02 | 18 |
| WTRHF10R03 | 18 |
| WTRHF10R04 | 18 |
| WTRHF12G03 | 18 |
| WTRHF12G04 | 18 |
| WTRHF12R02 | 18 |
| WTRHF12R03 | 18 |
| WTRHF12R04 | 18 |
| WTRIG0604 | 28 |
| WTRIG0806 | 28 |
| WTRIG1008 | 28 |
| WTRIG1210 | 28 |
| WTRIG1612 | 28 |
| WTRLH04R01 | 15 |
| WTRLH04R02 | 15 |
| WTRLH06R01 | 15 |
| WTRLH06R02 | 15 |
| WTRLH06R03 | 15 |
| WTRLH06R04 | 15 |
| WTRLH08R01 | 15 |
| WTRLH08R02 | 15 |
| WTRLH08R03 | 15 |
| WTRLH08R04 | 15 |
| WTRLH10R01 | 15 |
| WTRLH10R02 | 15 |
| WTRLH10R03 | 15 |
| WTRLH10R04 | 15 |
| WTRLH12R02 | 15 |
| WTRLH12R03 | 15 |
| WTRLH12R04 | 15 |
| WTRIJ04 | 28 |
| WTRIJ06 | 28 |
| WTRIJ08 | 28 |
| WTRIJ10 | 28 |
| WTRIJ12 | 28 |
| WTRIJ16 | 28 |
| WTRK04 | 25 |
| WTRK06 | 25 |
| WTRK08 | 25 |
| WTRKD0604G01 | 22 |
| WTRKD0604R01 | 22 |
| WTRKD0804G02 | 22 |
| WTRKD0804R02 | 22 |
| WTRKD0806G02 | 22 |
| WTRKD0806R02 | 22 |
| WTRKD1008G03 | 22 |
| WTRKD1008R03 | 22 |
| WTRKG0604 | 25 |
| WTRKG0804 | 25 |
| WTRKG0806 | 25 |
| WTRKG1006 | 25 |
| WTRKG1008 | 25 |
| WTRKJ0604 | 27 |
| WTRKJ0804 | 27 |
| WTRKJ0806 | 27 |
| WTRKJ1006 | 27 |
| WTRKJ1008 | 27 |
| WTRL04G01 | 13 |
| WTRL04G02 | 13 |
| WTRL04M5 | 13 |
| WTRL04M6 | 13 |
| WTRL04R01 | 12 |
| WTRL04R02 | 12 |
| WTRL06G01 | 13 |
| WTRL06G02 | 13 |
| WTRL06G03 | 13 |
| WTRL06G04 | 13 |
| WTRL06M5 | 13 |
| WTRL06M6 | 13 |
| WTRL06R01 | 12 |
| WTRL06R02 | 12 |
| WTRL06R03 | 12 |
| WTRL06R04 | 12 |
| WTRL08G01 | 13 |
| WTRL08G02 | 13 |
| WTRL08G03 | 13 |
| WTRL08G04 | 13 |
| WTRL08R01 | 12 |
| WTRL08R02 | 12 |
| WTRL08R03 | 12 |
| WTRL08R04 | 12 |
| WTRL10G01 | 13 |
| WTRL10G02 | 13 |
| WTRL10G03 | 13 |
| WTRL10G04 | 13 |
| WTRL10R01 | 12 |
| WTRL10R02 | 12 |
| WTRL10R03 | 12 |
| WTRL10R04 | 12 |
| WTRL12G02 | 13 |
| WTRL12G03 | 13 |
| WTRL12G04 | 13 |
| WTRL12R02 | 12 |
| WTRL12R03 | 12 |
| WTRL12R04 | 12 |
| WTRL14G03 | 13 |
| WTRL14G04 | 13 |
| WTRL14R03 | 12 |
| WTRL14R04 | 12 |
| WTRL16G03 | 13 |
| WTRL16G04 | 13 |
| WTRL16R03 | 12 |
| WTRL16R04 | 12 |
| WTRLF04G01 | 16 |

| | |
|---|---|
| WTRLF04G02 | 16 |
| WTRLF04M5 | 16 |
| WTRLF04M6 | 16 |
| WTRLF06G01 | 16 |
| WTRLF06G02 | 16 |
| WTRLF06G03 | 16 |
| WTRLF06M5 | 16 |
| WTRLF06M6 | 16 |
| WTRLF08G01 | 16 |
| WTRLF08G02 | 16 |
| WTRLF08G03 | 16 |
| WTRLF08G04 | 16 |
| WTRLF10G01 | 16 |
| WTRLF10G02 | 16 |
| WTRLF10G03 | 16 |
| WTRLF10G04 | 16 |
| WTRLF12G02 | 16 |
| WTRLF12G03 | 16 |
| WTRLF12G04 | 16 |
| WTRLGJ0406 | 26 |
| WTRLGJ0604 | 26 |
| WTRLGJ0806 | 26 |
| WTRLGJ1008 | 26 |
| WTRLGJ1210 | 26 |
| WTRLH04G01 | 15 |
| WTRLH04G02 | 15 |
| WTRLH04M5 | 15 |
| WTRLH04M6 | 15 |
| WTRLH06G01 | 15 |
| WTRLH06G02 | 15 |
| WTRLH06G03 | 15 |
| WTRLH06G04 | 15 |
| WTRLH06M5 | 15 |
| WTRLH06M6 | 15 |
| WTRLH08G01 | 15 |
| WTRLH08G02 | 15 |
| WTRLH08G03 | 15 |
| WTRLH08G04 | 15 |
| WTRLH10G01 | 15 |
| WTRLH10G02 | 15 |
| WTRLH10G03 | 15 |
| WTRLH10G04 | 15 |
| WTRLH12G02 | 15 |
| WTRLH12G03 | 15 |
| WTRLH12G04 | 15 |
| WTRLJ0400 | 26 |
| WTRLJ0600 | 26 |
| WTRLJ0800 | 26 |
| WTRLJ1000 | 26 |
| WTRLJ1200 | 26 |
| WTRLL04G01 | 14 |
| WTRLL04G02 | 14 |
| WTRLL04M5 | 14 |
| WTRLL04M6 | 14 |
| WTRLL04R01 | 14 |
| WTRLL04R02 | 14 |
| WTRLL06G01 | 14 |
| WTRLL06G02 | 14 |
| WTRLL06G03 | 14 |
| WTRLL06G04 | 14 |
| WTRLL06M5 | 14 |
| WTRLL06M6 | 14 |
| WTRLL06R01 | 14 |
| WTRLL06R02 | 14 |
| WTRLL06R03 | 14 |
| WTRLL06R04 | 14 |
| WTRLL08G01 | 14 |
| WTRLL08G02 | 14 |
| WTRLL08G03 | 14 |
| WTRLL08G04 | 14 |
| WTRLL08R01 | 14 |
| WTRLL08R02 | 14 |
| WTRLL08R03 | 14 |
| WTRLL08R04 | 14 |
| WTRLL10G01 | 14 |
| WTRLL10G02 | 14 |
| WTRLL10G03 | 14 |
| WTRLL10G04 | 14 |
| WTRLL10R01 | 14 |
| WTRLL10R02 | 14 |
| WTRLL10R03 | 14 |
| WTRLL10R04 | 14 |
| WTRLL12G02 | 14 |
| WTRLL12G03 | 14 |
| WTRLL12G04 | 14 |
| WTRLL12R02 | 14 |
| WTRLL12R03 | 14 |
| WTRLL12R04 | 14 |
| WTRLM04 | 16 |
| WTRLM06 | 16 |
| WTRLM08 | 16 |
| WTRLM10 | 16 |
| WTRLM12 | 16 |
| WTRMF04G01 | 10 |
| WTRMF04G02 | 10 |
| WTRMF06G01 | 10 |
| WTRMF06G02 | 10 |
| WTRMF06G03 | 10 |
| WTRMF08G01 | 10 |
| WTRMF08G02 | 10 |
| WTRMF08G03 | 10 |
| WTRMF08G04 | 10 |
| WTRMF10G01 | 10 |
| WTRMF10G02 | 10 |
| WTRMF10G03 | 10 |
| WTRMF10G04 | 10 |
| WTRMF12G02 | 10 |
| WTRMF12G03 | 10 |
| WTRMF12G04 | 10 |
| WTRMM0400 | 11 |
| WTRMM0600 | 11 |
| WTRMM0800 | 11 |
| WTRMM1000 | 11 |
| WTRMM1200 | 11 |
| WTRNSF04 | 328 |
| WTRNSF06 | 328 |
| WTRNSF08 | 328 |
| WTRNSF10 | 328 |
| WTRNSF12 | 328 |
| WTROC04M5 | 9 |
| WTROC04M6 | 9 |
| WTROC04R01 | 9 |
| WTROC04R02 | 9 |
| WTROC06M5 | 9 |
| WTROC06M6 | 9 |
| WTROC06R01 | 9 |
| WTROC06R02 | 9 |
| WTROC06R03 | 9 |
| WTROC08R01 | 9 |
| WTROC08R02 | 9 |
| WTROC08R03 | 9 |
| WTROC08R04 | 9 |
| WTROC10R01 | 9 |
| WTROC10R02 | 9 |
| WTROC10R03 | 9 |
| WTROC10R04 | 9 |
| WTROC12R02 | 9 |
| WTROC12R03 | 9 |
| WTROC12R04 | 9 |
| WTRP04 | 28 |
| WTRP06 | 28 |
| WTRP07 | 28 |
| WTRP08 | 28 |
| WTRP10 | 28 |
| WTRP12 | 28 |
| WTRP14 | 28 |
| WTRP16 | 28 |
| WTRPF04 | 27 |
| WTRPF05 | 27 |
| WTRPF06 | 27 |
| WTRPF07 | 27 |
| WTRPF08 | 27 |
| WTRPF10 | 27 |
| WTRPF12 | 27 |
| WTRPF14 | 27 |
| WTRPF15 | 27 |
| WTRPF16 | 27 |
| WTRSF06G01 | 407 |
| WTRSF06G02 | 407 |
| WTRSF06G03 | 407 |
| WTRSF06R01 | 407 |
| WTRSF06R02 | 407 |
| WTRSF06R03 | 407 |
| WTRSF08G01 | 407 |
| WTRSF08G02 | 407 |
| WTRSF08G03 | 407 |
| WTRSF08R01 | 407 |
| WTRSF08R02 | 407 |
| WTRSF08R03 | 407 |
| WTRSF10G02 | 407 |
| WTRSF10G03 | 407 |
| WTRSF10G04 | 407 |
| WTRSF10R02 | 407 |
| WTRSF10R03 | 407 |
| WTRSF10R04 | 407 |
| WTRSF12G02 | 407 |
| WTRSF12G03 | 407 |
| WTRSF12G04 | 407 |
| WTRSF12R02 | 407 |
| WTRSF12R03 | 407 |
| WTRSF12R04 | 407 |
| WTRSL04G01 | 12 |
| WTRSL04G02 | 12 |
| WTRSL04M5 | 12 |
| WTRSL04M7 | 12 |
| WTRSL04R01 | 11 |
| WTRSL04R02 | 11 |
| WTRSL06G01 | 12 |
| WTRSL06G02 | 12 |
| WTRSL06G03 | 12 |
| WTRSL06G04 | 12 |
| WTRSL06M5 | 12 |
| WTRSL06M7 | 12 |
| WTRSL06R01 | 11 |
| WTRSL06R02 | 11 |
| WTRSL06R03 | 11 |
| WTRSL06R04 | 11 |
| WTRSL08G01 | 12 |
| WTRSL08G02 | 12 |
| WTRSL08G03 | 12 |
| WTRSL08G04 | 12 |
| WTRSL08R01 | 11 |
| WTRSL08R02 | 11 |
| WTRSL08R03 | 11 |
| WTRSL08R04 | 11 |
| WTRSL10G01 | 12 |
| WTRSL10G02 | 12 |
| WTRSL10G03 | 12 |

| | |
|---|---|
| WTRSL10G04 | 12 |
| WTRSL10R01 | 11 |
| WTRSL10R02 | 11 |
| WTRSL10R03 | 11 |
| WTRSL10R04 | 11 |
| WTRSL12G02 | 12 |
| WTRSL12G03 | 12 |
| WTRSL12G04 | 12 |
| WTRSL12R02 | 11 |
| WTRSL12R03 | 11 |
| WTRSL12R04 | 11 |
| WTRSS01G01 | 408 |
| WTRSS01R01 | 408 |
| WTRSS02G01 | 408 |
| WTRSS02G02 | 408 |
| WTRSS02R01 | 408 |
| WTRSS02R02 | 408 |
| WTRSS03G02 | 408 |
| WTRSS03G03 | 408 |
| WTRSS03R02 | 408 |
| WTRSS03R03 | 408 |
| WTRSS04G03 | 408 |
| WTRSS04G04 | 408 |
| WTRSS04R03 | 408 |
| WTRSS04R04 | 408 |
| WTRST04G01 | 20 |
| WTRST04G02 | 20 |
| WTRST04M5 | 20 |
| WTRST04M6 | 20 |
| WTRST04R01 | 20 |
| WTRST04R02 | 20 |
| WTRST06G01 | 20 |
| WTRST06G02 | 20 |
| WTRST06G03 | 20 |
| WTRST06G04 | 20 |
| WTRST06M5 | 20 |
| WTRST06M6 | 20 |
| WTRST06R01 | 20 |
| WTRST06R02 | 20 |
| WTRST06R03 | 20 |
| WTRST06R04 | 20 |
| WTRST08G01 | 20 |
| WTRST08G02 | 20 |
| WTRST08G03 | 20 |
| WTRST08G04 | 20 |
| WTRST08R01 | 20 |
| WTRST08R02 | 20 |
| WTRST08R03 | 20 |
| WTRST08R04 | 20 |
| WTRST10G01 | 20 |
| WTRST10G02 | 20 |
| WTRST10G03 | 20 |
| WTRST10G04 | 20 |
| WTRST10R01 | 20 |
| WTRST10R02 | 20 |
| WTRST10R03 | 20 |
| WTRST10R04 | 20 |
| WTRST12G02 | 20 |
| WTRST12G03 | 20 |
| WTRST12G04 | 20 |
| WTRST12R02 | 20 |
| WTRST12R03 | 20 |
| WTRST12R04 | 20 |
| WTRT04G01 | 19 |
| WTRT04G02 | 19 |
| WTRT04M5 | 19 |
| WTRT04M6 | 19 |
| WTRT04R01 | 19 |
| WTRT04R02 | 19 |
| WTRT06G01 | 19 |
| WTRT06G02 | 19 |
| WTRT06G03 | 19 |
| WTRT06G04 | 19 |
| WTRT06M5 | 19 |
| WTRT06M6 | 19 |
| WTRT06R01 | 19 |
| WTRT06R02 | 19 |
| WTRT06R03 | 19 |
| WTRT06R04 | 19 |
| WTRT08G01 | 19 |
| WTRT08G02 | 19 |
| WTRT08G03 | 19 |
| WTRT08G04 | 19 |
| WTRT08R01 | 19 |
| WTRT08R02 | 19 |
| WTRT08R03 | 19 |
| WTRT08R04 | 19 |
| WTRT10G01 | 19 |
| WTRT10G02 | 19 |
| WTRT10G03 | 19 |
| WTRT10G04 | 19 |
| WTRT10R01 | 19 |
| WTRT10R02 | 19 |
| WTRT10R03 | 19 |
| WTRT10R04 | 19 |
| WTRT12G02 | 19 |
| WTRT12G03 | 19 |
| WTRT12G04 | 19 |
| WTRT12R02 | 19 |
| WTRT12R03 | 19 |
| WTRT12R04 | 19 |
| WTRT14G03 | 19 |
| WTRT14G04 | 19 |
| WTRT16G03 | 19 |
| WTRT16G04 | 19 |
| WTRT16R03 | 19 |
| WTRT16R04 | 19 |
| WTRTGJ0604 | 26 |
| WTRTGJ0806 | 26 |
| WTRTGJ1008 | 26 |
| WTRTGJ1210 | 26 |
| WTRTJ04 | 26 |
| WTRTJ06 | 26 |
| WTRTJ08 | 26 |
| WTRTJ10 | 26 |
| WTRTJ12 | 26 |
| WTRUC-PRD04 | 28 |
| WTRUC-PRD06 | 28 |
| WTRUC-PRD08 | 28 |
| WTRUC-PRD10 | 28 |
| WTRUC0400 | 23 |
| WTRUC0500 | 23 |
| WTRUC0600 | 23 |
| WTRUC0700 | 23 |
| WTRUC0800 | 23 |
| WTRUC0900 | 23 |
| WTRUC1000 | 23 |
| WTRUC1100 | 23 |
| WTRUC1200 | 23 |
| WTRUC1400 | 23 |
| WTRUC1500 | 23 |
| WTRUC1600 | 23 |
| WTRUL0400 | 23 |
| WTRUL0600 | 23 |
| WTRUL0800 | 23 |
| WTRUL1000 | 23 |
| WTRUL1200 | 23 |
| WTRUL1400 | 23 |
| WTRUL1600 | 23 |
| WTRUT0400 | 24 |
| WTRUT0600 | 24 |
| WTRUT0800 | 24 |
| WTRUT1000 | 24 |
| WTRUT1200 | 24 |
| WTRUT1400 | 24 |
| WTRUT1600 | 24 |
| WTRW0604 | 24 |
| WTRW0806 | 24 |
| WTRW1008 | 24 |
| WTRW1210 | 24 |
| WTRWJ0604 | 27 |
| WTRWJ0806 | 27 |
| WTRWJ1008 | 27 |
| WTRWJ1210 | 27 |
| WTRWT04G01 | 21 |
| WTRWT04G02 | 21 |
| WTRWT04M5 | 21 |
| WTRWT04M6 | 21 |
| WTRWT04R01 | 21 |
| WTRWT04R02 | 21 |
| WTRWT06G01 | 21 |
| WTRWT06G02 | 21 |
| WTRWT06G03 | 21 |
| WTRWT06G04 | 21 |
| WTRWT06M5 | 21 |
| WTRWT06M6 | 21 |
| WTRWT06R01 | 21 |
| WTRWT06R02 | 21 |
| WTRWT06R03 | 21 |
| WTRWT06R04 | 21 |
| WTRWT08G01 | 21 |
| WTRWT08G02 | 21 |
| WTRWT08G03 | 21 |
| WTRWT08G04 | 21 |
| WTRWT08R01 | 21 |
| WTRWT08R02 | 21 |
| WTRWT08R03 | 21 |
| WTRWT08R04 | 21 |
| WTRWT10G01 | 21 |
| WTRWT10G02 | 21 |
| WTRWT10G03 | 21 |
| WTRWT10G04 | 21 |
| WTRWT10R01 | 21 |
| WTRWT10R02 | 21 |
| WTRWT10R03 | 21 |
| WTRWT10R04 | 21 |
| WTRWT12G02 | 21 |
| WTRWT12G03 | 21 |
| WTRWT12G04 | 21 |
| WTRWT12R02 | 21 |
| WTRWT12R03 | 21 |
| WTRWT12R04 | 21 |
| WTRY0400 | 24 |
| WTRY0600 | 24 |
| WTRY0800 | 24 |
| WTRY1000 | 24 |
| WTRY1200 | 24 |
| WTRY1600 | 24 |
| WTRYJ0400 | 27 |
| WTRYJ0600 | 27 |
| WTRYJ0800 | 27 |
| WTRYJ1000 | 27 |
| WTRYJ1200 | 27 |
| WTRZA0400 | 25 |
| WTRZA0600 | 25 |
| WTRZA0800 | 25 |
| WTRZA1000 | 25 |
| WTRZA1200 | 25 |

| | |
|---|---|
| XSFC-B-N02 | 350 |
| XSFC-B-N04 | 350 |
| XSFC-B01 | 350 |
| XSFC-B02 | 350 |
| XSFC-B03 | 350 |
| XSFC-B04 | 350 |
| XSFC-U-N02 | 350 |
| XSFC-U-N04 | 350 |
| XSFC-U01 | 350 |
| XSFC-U02 | 350 |
| XSFC-U03 | 350 |
| XSFC-U04 | 350 |
| XVRA04G01 | 106 |
| XVRA06G01 | 106 |
| XVRA06G02 | 106 |
| XVRA08G01 | 106 |
| XVRA08G02 | 106 |
| XVRA10G02 | 106 |
| XVRA12G03 | 106 |
| XVRC04G01 | 103 |
| XVRC04G02 | 103 |
| XVRC04M5 | 103 |
| XVRC04R01 | 103 |
| XVRC04R02 | 103 |
| XVRC06G01 | 103 |
| XVRC06G02 | 103 |
| XVRC06M5 | 103 |
| XVRC06R01 | 103 |
| XVRC06R02 | 103 |
| XVRC08G01 | 103 |
| XVRC08G02 | 103 |
| XVRC08G03 | 103 |
| XVRC08R01 | 103 |
| XVRC08R02 | 103 |
| XVRC08R03 | 103 |
| XVRC10G02 | 103 |
| XVRC10G03 | 103 |
| XVRC10R02 | 103 |
| XVRC10R03 | 103 |
| XVRC12G02 | 103 |
| XVRC12G03 | 103 |
| XVRC12G04 | 103 |
| XVRC12R02 | 103 |
| XVRC12R03 | 103 |
| XVRC12R04 | 103 |
| XVRCF04G01 | 104 |
| XVRCF06G01 | 104 |
| XVRCF08G02 | 104 |
| XVRG0604 | 106 |
| XVRG0806 | 106 |
| XVRG1008 | 106 |
| XVRG1210 | 106 |
| XVRGJ0604 | 108 |
| XVRGJ0806 | 108 |
| XVRGJ1006 | 108 |
| XVRGJ1008 | 108 |
| XVRL04G01 | 105 |
| XVRL04G02 | 105 |
| XVRL04M5 | 105 |
| XVRL04R01 | 104 |
| XVRL04R02 | 104 |
| XVRL06G01 | 105 |
| XVRL06G02 | 105 |
| XVRL06M5 | 105 |
| XVRL06R01 | 104 |
| XVRL06R02 | 104 |
| XVRL08G01 | 105 |
| XVRL08G02 | 105 |
| XVRL08G03 | 105 |
| XVRL08R01 | 104 |
| XVRL08R02 | 104 |
| XVRL08R03 | 104 |
| XVRL10G02 | 105 |
| XVRL10G03 | 105 |
| XVRL10R02 | 104 |
| XVRL10R03 | 104 |
| XVRL12G02 | 105 |
| XVRL12G03 | 105 |
| XVRL12G04 | 105 |
| XVRL12R02 | 104 |
| XVRL12R03 | 104 |
| XVRL12R04 | 104 |
| XVRMM04 | 104 |
| XVRMM06 | 104 |
| XVRMM08 | 104 |
| XVRMM10 | 104 |
| XVRMM12 | 104 |
| XVROC04M5 | 103 |
| XVROC04M7 | 103 |
| XVROC06G01 | 103 |
| XVROC06M7C | 103 |
| XVROC08G01 | 103 |
| XVRT04G01 | 105 |
| XVRT04M5 | 105 |
| XVRT04R01 | 105 |
| XVRT06G01 | 105 |
| XVRT06G02 | 105 |
| XVRT06M5 | 105 |
| XVRT06R01 | 105 |
| XVRT06R02 | 105 |
| XVRT08G01 | 105 |
| XVRT08G02 | 105 |
| XVRT08R01 | 105 |
| XVRT08R02 | 105 |
| XVRT10G02 | 105 |
| XVRT10G03 | 105 |
| XVRT12G03 | 105 |
| XVRT12G04 | 105 |
| XVRUC04 | 106 |
| XVRUC06 | 106 |
| XVRUC08 | 106 |
| XVRUC10 | 106 |
| XVRUC12 | 106 |
| XVRUL04 | 108 |
| XVRUL06 | 108 |
| XVRUL08 | 108 |
| XVRUL10 | 108 |
| XVRUL12 | 108 |
| XVRUT04 | 108 |
| XVRUT06 | 108 |
| XVRUT08 | 108 |
| XVRUT10 | 108 |
| XVRUT12 | 108 |

# NOTES

Tierre Group S.p.a.
via dell'Industria, 18 - 20032 Cormano (MI)
Tel. +39 02 663088.1 - Fax +39 02 66304172
www.tierregroup.com - info@tierregroup.com
C.F. e P.IVA 12437570158
Cap. Soc. Euro 120.000,00 i.v. - REA MI-1558390

General Catalogue Tierre Fittings - Ed. 8.2 - 03/24