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FIPA Tubings and cables



- > Piping of vacuum and compressed air systems
- > Control cables for ejectors and vacuum switches



Flexible vacuum pressure tubing made from polyurethane (PUR)

- > Very small bending radius
- > Standard blue transparent or intransparent

61.090 - 61.096

- > High chemical stability and mechanical resistance
- > Outer diameter toleranced tubing, making them suitable for quick fittings

61.056 - 61.062

- > Available in a wide range of colors
- > Outer diameter toleranced tubing, making them suitable for quick fittings

61.020 - 61.030

- > Suitable for use in trailing chains, corrugated external surface

61.005S - 61.011S

- > Self-extinguishing, flame-resistant according to DIN 4102 B1, corrugated external surface

> See page 704



Vacuum-pressure tubing made from transparent fluoro resin (PFA)

- > Excellent resistance to chemicals, temperature and weather conditions
- > Used predominantly in chemical, foodstuff and medical industries

> See page 706



Vacuum-pressure tubing made from highly flexible PVC, reinforced

- > Very abrasion-resistant
- > Suitable for use as transport tubing thanks to smooth interior walls

61.160 - 61.169

- > Smooth external surface

> See page 707



FIPA Tubings and cables



Highly flexible, soft PVC tubing for pressure applications

- > Suitable for frequently occurring pivoting motions and oscillations
- > Not suitable for vacuum

> See page 710



Spiral tubings made from black polyurethane (PUR) for vacuum and pressure applications

- > Space-saving tubings for mobile vacuum or pressure systems without straining the connections
- > Suitable for pneumatic tools

> See page 711



Accessories:

Tubing nipples with male M and G threads

> See page 713



Reinforcing sleeves, especially for soft tubings

> See page 715



Tubing cutter with measuring tape

> See page 715



Connection cable made from polyurethane (PUR)

- > Connection of vacuum switches, sensors or ejectors
- > Weather and oil resistant

> See page 717



Connectors | Tubing

Flexible vacuum and pressure tubing made from PUR blue transparent

Flexible vacuum and pressure tubing made from PUR blue transparent

SUITABLE FOR INSTALLATION IN DRAG CHAINS



Product Description

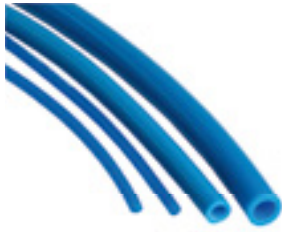
- > High flexibility enables small bending curve to build compact tubing systems
- > Suitable for air and tap water
- > Cut marks at 500 mm intervals facilitate installation
- > High chemical and mechanical resistance
- > Very high oil resistance

Notes

- > Rule of thumb for installation in drag chain: Bending radius = 10 x outer diameter of tubing

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Operating pressure at 20 °C [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.090	3	2	8	-1 - 8	29	-15 - 60	7	20
61.091	4	2.5	10	-1 - 8	29	-15 - 60	9	20
61.092	6	4	15	-1 - 8	29	-15 - 60	19	20
61.093	8	5	15	-1 - 8	29	-15 - 60	36	20
61.094	10	6.5	20	-1 - 8	29	-15 - 60	54	20
61.095	12	8	30	-1 - 8	29	-15 - 60	74	20
61.096	12	9	30	-1 - 8	29	-15 - 60	68	20



Flexible vacuum and pressure tubing made of blue PUR

SUITABLE FOR INSTALLATION IN DRAG CHAINS

Product Description

- > High flexibility enables small bending curve to build compact tubing systems
- > Suitable for air and tap water
- > Cut marks at 500 mm intervals facilitate installation

Notes

- > Rule of thumb for installation in drag chain: Bending radius = 10 x outer diameter of tubing

Ordering notes

- > Standard length 20 meters, colour blue
- > Available in various tubing lengths and a wide selection of colours (black, red, orange, ocher, yellow, green, blue, light blue, transparent, pure white)
- > 61.062 The standard colour is black
- > Length of 50 meters generally only available in black

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Operating pressure at 20 °C [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.056	3	2	8	-1 - 8	29	-15 - 60	7	20 / 50 / 100
61.057	4	2.5	10	-1 - 8	29	-15 - 60	9	20 / 50 / 100
61.058	6	4	15	-1 - 8	29	-15 - 60	19	20 / 50 / 100
61.059	8	5	15	-1 - 8	29	-15 - 60	36	20 / 50 / 100
61.060	10	6.5	20	-1 - 8	29	-15 - 60	54	20 / 50 / 100
61.061	12	8	30	-1 - 8	29	-15 - 60	74	20 / 50 / 100
61.062	16	11	60	-1 - 8	29	-15 - 60	128	20 / 50 / 100



Connectors | Tubing

Vacuum and pressure tubing made of transparent Fluororesin (PFA)

Vacuum and pressure tubing made of transparent Fluororesin (PFA)



FOR CHEMICAL, FOODSTUFF AND MEDICAL INDUSTRIES

Product Description

- > Excellent resistance to chemicals, temperature and weather conditions
- > Very smooth, transparent inner surface
- > Suitable for air, water and corrosive fluids

Notes

- > 61.069 to 61.073: Suitable for cleanroom applications

Ordering notes

- > Standard packaging unit: 5 meters

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range for air / gas [bar]	Pressure range for liquids [bar]	Operating pressure at 20 °C [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.063	4	2.5	20	-0.99 - 9	3	49	-65 - 260	18	5 / 20
61.064	6	4	30	-0.99 - 9	3	49	-65 - 260	36	5 / 20
61.065	8	6	48	-0.99 - 9	3	39	-65 - 260	50	5 / 20
61.066	10	7.5	60	-0.99 - 9	3	39	-65 - 260	78	5 / 20
61.067	12	9	72	-0.99 - 9	3	59	-65 - 260	112	5 / 20
61.068	16	13	78	-0.99 - 9	3	34	-65 - 260	154	5 / 20
61.069	4	2.5	20	-0.99 - 9	3	49	-65 - 260	55	5
61.070	6	4	30	-0.99 - 9	3	49	-65 - 260	95	5
61.071	8	6	30	-0.99 - 9	3	39	-65 - 260	125	5
61.072	10	7.5	60	-0.99 - 9	3	39	-65 - 260	190	5
61.073	12	9	72	-0.99 - 9	3	39	-65 - 260	270	5



Vacuum and pressure tubing made of highly flexible transparent PVC, reinforced with wire spiral

Vacuum and pressure tubing made of highly flexible transparent PVC, reinforced with wire spiral



Product Description

- > Vacuum applications up to 95 %
- > Very smooth inner surface for residue-free transport of materials such as granulate
- > Suitable for continuous movement
- > High abrasion-proof

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.160	13	8	32	-0.9 - 16	-5 - 65	140	1
61.161	16	10	20	-0.95 - 8	-5 - 65	155	1
61.162	18	12	25	-0.95 - 8	-5 - 65	180	1
61.163	20	14	30	-0.95 - 8	-5 - 65	200	1
61.164	22	16	35	-0.95 - 8	-5 - 65	225	1
61.165	24	18	40	-0.95 - 7	-5 - 65	280	1
61.166	27	20	50	-0.95 - 7	-5 - 65	340	1
61.167	33	25	60	-0.95 - 7	-5 - 65	510	1
61.168	42	32	75	-0.95 - 7	-5 - 65	730	1
61.169	53	40	100	-0.95 - 7	-5 - 65	1,220	1



Connectors | Tubing

Highly flexible vacuum and pressure tubing made of PUR, reinforced with PVC spiral

Highly flexible vacuum and pressure tubing made of PUR, reinforced with PVC spiral



SUITABLE FOR INSTALLATION IN DRAG CHAINS

Product Description

- > Vacuum applications up to 40 % vacuum
- > Very smooth inner surface for residue-free transport of materials such as granulate
- > Resistant to weather conditions and many chemicals
- > Outer surface slightly corrugated
- > Colour transparent

Notes

- > Rule of thumb for installation in drag chain: Bending radius = 10 x outer diameter of tubing

Ordering notes

- > Other sizes on request

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.020	25	20	20	-0.4 - 1	-10 - 70	100	20
61.021	30	25	25	-0.4 - 1	-10 - 70	150	20
61.022	36	30	30	-0.4 - 1	-10 - 70	190	20
61.023	38	32	32	-0.3 - 0.5	-10 - 70	200	20
61.024	41	35	35	-0.3 - 0.5	-10 - 70	230	20
61.025	44	38	38	-0.3 - 0.5	-10 - 70	230	20
61.026	46	40	40	-0.3 - 0	-10 - 70	250	20
61.027	51	45	45	-0.3 - 0	-10 - 70	280	20
61.028	57	50	50	-0.3 - 0	-10 - 70	310	20
61.029	62	55	55	-0.3 - 0	-10 - 70	350	20
61.030	67	60	60	-0.3 - 0	-10 - 70	390	20
61.031	70	63	63	-0.3 - 0	-10 - 70	410	20
61.033	78	70	70	-0.3 - 0	-10 - 70	500	20
61.034	84	76	76	-0.3 - 0	-10 - 70	555	20
61.035	89	80	80	-0.3 - 0	-10 - 70	610	20
61.036	99	90	90	-0.3 - 0	-10 - 70	715	20
61.037	112	102	102	-0.3 - 0	-10 - 70	835	20
61.038	120	110	110	-0.3 - 10	-10 - 70	890	20
61.039	131	120	120	-0.3 - 0	-10 - 70	950	20
61.040	138	127	127	-0.2 - 0	-10 - 70	1,015	20
61.043	164	152	152	-0.2 - 0	-10 - 70	1,380	20



PUR highly flexible vacuum pressure tubing, reinforced, self-extinguishing



SUITABLE FOR INSTALLATION IN DRAG CHAINS

Product Description

- > Highly flexible polyurethane for pressure and vacuum application tubing
- > Self-extinguishing, flame resistant according to DIN 4102 B 1
- > Alternative product in case of flying sparks, weld spatter or special fire safety obstructions
- > Reinforced with PVC-coated spring coil
- > Highly abrasion-proof
- > Smooth inner walls, corrugated external surface
- > Colour transparent

Notes

- > Tubing built acc. to TRBS 2153 (zone 1 and 21) suitable for non-combustible dusts / bulk goods and gases / liquids of low conductivity Spiral ends shall be earthed at both sides to ensure good dissipation
- > Rule of thumb for installation in drag chain: Bending radius = 10 x outer diameter of tubing

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.005S	18	13	13	-0.5 - 2	-40 - 90	82	10
61.006S	25	20	20	-0.45 - 1.8	-40 - 90	147	10
61.007S	30	25	25	-0.4 - 1.6	-40 - 90	183	10
61.008S	35	30	30	-0.35 - 1.5	-40 - 90	220	10
61.009S	45	40	40	-0.3 - 1.4	-40 - 90	380	10
61.010S	50	45	45	-0.28 - 1.5	-40 - 90	410	10
61.011S	56	50	50	-0.28 - 1.5	-40 - 90	460	10



Connectors | Tubing

Highly flexible tubing made of soft PVC for light pressure applications

Highly flexible tubing made of soft PVC for light pressure applications



SUITABLE FOR FOODSTUFFS

Product Description

- > Unpressurised and low-pressure applications with concurrent pivoting motions and oscillations
- > High flexibility enables small bending curves for compact tubing systems
- > FDA approval for aqueous foods
- > Extremely resistant to acids and bases
- > Colour transparent

Notes

- > Not suitable for vacuum

Technical data

Item no.	Outer diameter [mm]	Inner diameter [mm]	Minimum bending radius [mm]	Pressure range [bar]	Usage temperature [°C]	Weight [g/m]	Packing unit [m]
61.211	4	2	5	0 - 1	-5 - 60	9	20
61.212	6	4	14	0 - 1	-5 - 60	17	20
61.213	8	6	25	0 - 0.5	-5 - 60	23	20
61.214	10	7	25	0 - 0.5	-5 - 60	36	20
61.215	12	9	35	0 - 0.5	-5 - 60	52	10



Spiral tubing made of black PUR for vacuum and pressure applications



Product Description

- > Space-saving tubing for mobile vacuum or pressure systems without straining the connections
- > Suitable for pneumatic tools

Technical data

Item no.	Pressure range [bar]	Operating pressure at 20 °C [bar]	Usage temperature [°C]
61.100	-1 - 7	29	-15 - 60
61.101	-1 - 7	29	-15 - 60
61.102	-1 - 7	29	-15 - 60
61.103	-1 - 7	29	-15 - 60
61.104	-1 - 7	29	-15 - 60
61.105	-1 - 7	29	-15 - 60
61.106	-1 - 7	29	-15 - 60
61.107	-1 - 7	29	-15 - 60
61.108	-1 - 7	29	-15 - 60
61.109	-1 - 7	29	-15 - 60
61.110	-1 - 7	29	-15 - 60
61.135	-1 - 7	29	-15 - 60
61.111	-1 - 7	29	-15 - 60
61.112	-1 - 7	29	-15 - 60
61.113	-1 - 7	29	-15 - 60
61.114	-1 - 7	29	-15 - 60
61.115	-1 - 7	29	-15 - 60
61.116	-1 - 7	29	-15 - 60
61.117	-1 - 7	29	-15 - 60
61.118	-1 - 7	29	-15 - 60
61.119	-1 - 7	29	-15 - 60
61.120	-1 - 7	29	-15 - 60
61.121	-1 - 7	29	-15 - 60
61.122	-1 - 7	29	-15 - 60
61.123	-1 - 7	29	-15 - 60

Dimensions

A [mm]	ø d [mm]	ø D [mm]	L [mm]
70	3	16	210
150	3	16	450
230	3	16	700
390	3	16	1,200
120	4	24	360
180	4	24	540
350	4	24	1,100
480	4	24	1,500
700	4	24	2,100
1,040	4	24	3,200
1,450	4	24	4,400
90	6	30	270
160	6	30	500
230	6	30	700
430	6	30	1,300
620	6	30	1,900
910	6	30	2,800
1,300	6	30	3,900
1,850	6	30	5,600
250	8	42	750
390	8	42	1,200
540	8	42	1,700
770	8	42	2,400
1,045	8	42	3,200
1,550	8	42	4,700

Continued on the next page →



Connectors | Tubing

Spiral tubing made of black PUR for vacuum and pressure applications

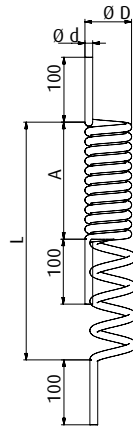
Technical data

Item no.	Pressure range [bar]	Operating pressure at 20 °C [bar]	Usage temperature [°C]
61.124	-1 - 7	29	-15 - 60
61.125	-1 - 7	29	-15 - 60
61.126	-1 - 7	29	-15 - 60
61.127	-1 - 7	29	-15 - 60
61.128	-1 - 7	29	-15 - 60
61.129	-1 - 7	29	-15 - 60
61.130	-1 - 7	29	-15 - 60
61.131	-1 - 7	29	-15 - 60
61.132	-1 - 7	29	-15 - 60
61.133	-1 - 7	29	-15 - 60

Dimensions

A [mm]	Ø d [mm]	Ø D [mm]	L [mm]
330	10	58	1,000
470	10	58	1,400
680	10	58	2,100
970	10	58	3,000
1,380	10	58	4,200
310	12	72	1,000
450	12	72	1,400
660	12	72	2,000
920	12	72	2,800
1,320	12	72	4,000

Dimensions





Tubing nipple with external thread



Ordering notes

> Select the tubing inner diameter about 1 - 2 mm smaller than the tubing nipple

Technical data

Item no.	For hose inner Ø [mm]	Material
62.019	9	Nickel-plated brass
62.020	6	Nickel-plated brass
62.021	8	Nickel-plated brass
62.022	10	Nickel-plated brass
62.023	6	Nickel-plated brass
62.024	8	Nickel-plated brass
62.025	10	Nickel-plated brass
62.026	12	Nickel-plated brass
62.027	16	Nickel-plated brass
62.028	19	Nickel-plated brass
62.029	25	Nickel-plated brass
62.030	10	Nickel-plated brass
62.031	12	Nickel-plated brass
62.033	16	Nickel-plated brass
62.034	18	Nickel-plated brass
62.035	25	Nickel-plated brass
62.036	32	Nickel-plated brass
62.037	38	Nickel-plated brass
62.038	32	Brass
62.040	50	Brass
62.041	50	Brass
62.042	63	Brass
62.045	6	Brass
62.046	9	Brass
62.047	12	Brass
62.048	16	Nickel-plated brass
62.060	14	Nickel-plated brass
62.061	32	Brass
62.062	4	Brass
62.063	6	Brass

Dimensions

G1	Ø D [mm]	SW
G1/8	9	12
G1/8	6	12
G1/8	8	12
G1/8	10	12
G1/4	6	14
G1/4	8	14
G1/4	10	14
G1/4	12	14
G3/4	16	17
G3/4	19	32
G3/4	25	32
G1/2	10	22
G1/2	12	22
G1/2	16	22
G1/2	18	22
G1	25	37
G1 1/4	32	50
G1 1/2	38	55
G1 1/2-male	32	48
G1 1/2-male	50	52
G2-male	50	70
G2 1/2-male	63	80
G3/8-male	6	19
G3/8-male	9	19
G3/8-male	12	19
R3/8-male	16	17
G1/2-male	14	24
G1-male	32	36
M5	4	7
M5	6	7



Tubing clamps

Material: Steel, galvanised



Product Description

> Corrosion-proof thanks to the use of galvanised steel

Technical data

Item no.	Adjustment range of diameter [mm]	Weight [g]
66.010	8 - 12	6
66.011	12 - 22	6
66.015	16 - 27	10
66.017	25 - 40	15
66.019	30 - 43	18
66.020	40 - 60	22



Reinforcing sleeves
Material: Stainless steel



Product Description

- > We recommend the use of reinforcing for all soft tubing
- > Reinforced sleeves also recommended for water transportation

Technical data

Item no.	Hose outer \varnothing [mm]	Hose inner \varnothing [mm]
WR 0425	4	2.5
WR 0640	6	4
WR 0850	8	5
WR 0860	8	6
WR 1065	10	6.5
WR 1075	10	7.5
WR 1280	12	8
WR 1290	12	9
WR 1613	16	13

Tubing cutter with measuring tape



Technical data

Item no.	Compatible hose diameter [mm]
61.083	3 - 16



Connector cable M8, M12, 2-5-pin, Material PUR



Product Description

> Electric connection e. g. of vacuum switches, sensors or ejectors

Technical data

Item no.	Contact	Plug Design	Cable length [mm]	Suitable for
20.550	Plug with plastic housing, 2-pin, open cable	Straight	1,500	Connection of base ejectors with blow-off boost EBA.08H.2-A
20.503	Plug M8, 3-pin, open cable	Straight	2,500	Connection of sensors and sensor grippers
20.504	Plug M8, 3-pin, jack M8, 3-pin	90° elbow	300	Connection of sensors and sensor grippers
20.507	Plug M8, 3-pin, jack M8, 3-pin	90° elbow	2,000	Connection of sensors and sensor grippers
20.570	Plug M8, 3-pin, jack M8, 3-pin	Straight	1,500	Connection of sensors and sensor grippers
20.501	M8, 4-pin, female, open cable	Straight	5,000	Connection of vacuum switches or compact ejectors
20.502	M8, 4-pin, female, open cable	90° elbow	5,000	Connection of vacuum switches or compact ejectors
20.518	M12, 4-pin, female, open cable	Straight	2,000	Connection of vacuum switches or compact ejectors
20.519	M12, 4-pin, female, open cable	90° elbow	2,000	Connection of vacuum switches or compact ejectors
20.508	Plug M12, 5-pin, open cable	90° elbow	2,000	Connection of compact ejectors
20.509	Plug M12, 5-pin, open cable	90° elbow	2,000	Connection of compact ejectors



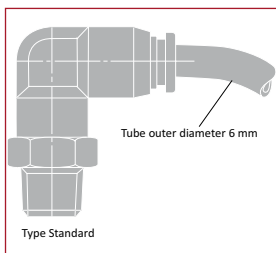
FIPA Push-in fittings



Vacuum manifolds

- > Construction of vacuum systems by means of simple installation of Push-in fittings or quick fittings
- > Inlets on one or both sides
- > Up to six inlets or outlets, male and female threads from M5 to G1 1/4
- > Design: Aluminium or brass

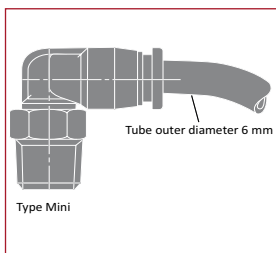
> See page 720



Push-in fittings and plug-in connectors - Standard

- > Suitable for vacuum and pressure applications (-1 to 10 bar)
- > M, G and R male and female threads, straight or 90° version
- > T and Y manifolds, 2-way and 3-way angle swivel screw connections
- > Stackable plug-in connector (QC-3-3M - QC 8-8)
- > Lock connection push-in connectors 30.761 - 20.765 (straight); 30.774 - 30.778 (90°): locking of compressed air or vacuum during hose disassembly, release after reconnection
- > Rotation screw connections for mounting in with fast-running machines

> See page 724



Push-in fittings and plug-in connectors - Mini

- > Suitable for vacuum and pressure applications (-1 to 10 bar)
- > 40 % smaller than standard version
- > M, R and G male and female threads, straight, 45° or 90° version
- > T-manifold
- > Easy assembly and disassembly thanks to elliptical mini-release-ring

> See page 744



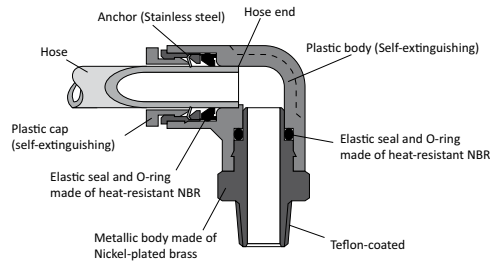
FIPA Push-in fittings



Push-in fittings and plug-in connectors - self-extinguishing

- > These quick-action Push-in fittings with spark protection are specifically designed for use with flying sparks and weld spatter
- > No chance of release ring malfunctions, for example due to the penetration of dirt or scale
- > The Push-in fittings are made from self-extinguishing plastic (UL94 V-0) and brass

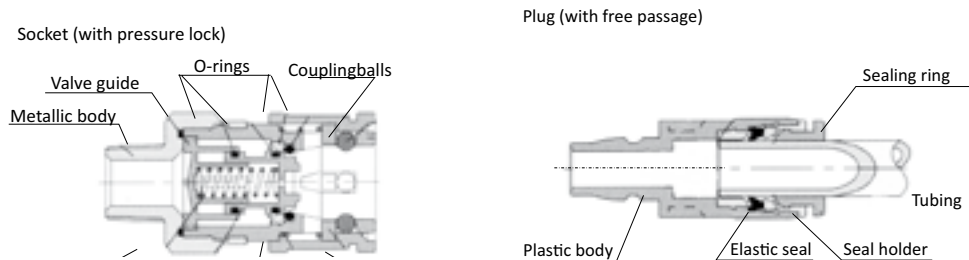
> See page 741



Quick-action couplings with pressure / vacuum lock

- > Locking of compressed air or vacuum during disassembly, release after reconnection
- > Coupling can be operated with one hand

> See page 748



Accessories

- > Double nipples
- > Thread adapters
- > Threaded sockets
- > Screw plugs
- > Sealing rings

> See page 750



Connectors | Vacuum manifolds

Manifolds for simple assembly of vacuum loads

Manifolds for simple assembly of vacuum loads

Outputs on one side, at the front



Product Description

- > Construction of vacuum systems by means of simple installation of push-in fittings or quick fittings
- > Material: Aluminium

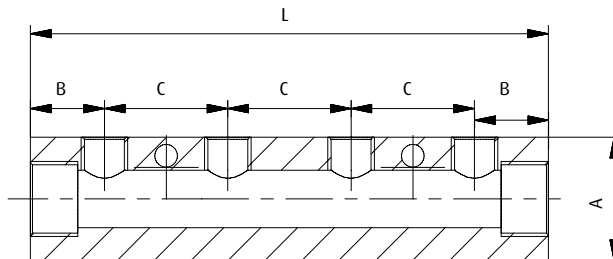
Technical data

Item no.	Input connection	Output connection	Suitable sealing plugs
79.000	2x 1/8	2x M5	77.000 (p.753), 77.009 (p.753)
79.001	2x 1/8	4x M5	77.000 (p.753), 77.009 (p.753)
79.002	2x 1/8	6x M5	77.000 (p.753), 77.009 (p.753)
79.003	2x 1/4	2x 1/8	77.008 (p.753), 77.009 (p.753)
79.004	2x 1/4	4x 1/8	77.008 (p.753), 77.009 (p.753)
79.005	2x 1/4	6x 1/8	77.008 (p.753), 77.009 (p.753)
79.006	2x 3/8	2x 1/4	77.008 (p.753), 77.010 (p.753)
79.007	2x 3/8	4x 1/4	77.008 (p.753), 77.010 (p.753)
79.008	2x 3/8	6x 1/4	77.008 (p.753), 77.010 (p.753)
79.009	2x 3/8	2x 1/8	77.009 (p.753), 77.010 (p.753)
79.010	2x 3/8	4x 1/8	77.009 (p.753), 77.010 (p.753)
79.011	2x 3/8	6x 1/8	77.009 (p.753), 77.010 (p.753)
79.012	2x 1/2	2x 1/4	77.007 (p.753), 77.008 (p.753)
79.013	2x 1/2	4x 1/4	77.007 (p.753), 77.008 (p.753)
79.014	2x 1/2	6x 1/4	77.008 (p.753), 77.007 (p.753)

Dimensions

A [mm]	B [mm]	C [mm]	L [mm]
20	15	15	45
20	15	15	75
20	15	15	105
30	15	30	60
30	15	30	120
30	15	30	180
40	18	36	72
30	18	36	144
30	18	36	216
40	18	30	66
30	18	30	126
30	18	30	186
40	22	36	80
40	22	36	152
40	22	36	224

Dimensions





Manifolds for simple assembly of vacuum loads

Outputs on both sides, at the front and rear



Product Description

- > Construction of vacuum systems by means of simple installation of push-in fittings or quick fittings
- > Material: Aluminium

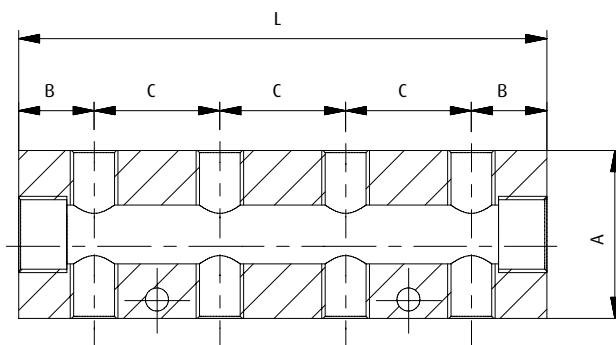
Technical data

Item no.	Input connection	Output connection	Suitable sealing plugs
79.015	2x 1/8	2+2 x M5	77.000 (p.753) 77.009 (p.753)
79.016	2x 1/8	4+4 x M5	77.000 (p.753) 77.009 (p.753)
79.017	2x 1/4	2+2 x 1/8	77.008 (p.753) 77.009 (p.753)
79.018	2x 1/4	4+4 x 1/8	77.008 (p.753) 77.009 (p.753)
79.019	2x 3/8	2+2 x 1/4	77.008 (p.753) 77.010 (p.753)
79.020	2x 3/8	4+4 x 1/4	77.008 (p.753) 77.010 (p.753)
79.023	2x 1/2	2+2 x 1/4	77.007 (p.753) 77.008 (p.753)
79.024	2x 1/2	4+4 x 1/4	77.007 (p.753) 77.008 (p.753)

Dimensions

A [mm]	B [mm]	C [mm]	L [mm]
20	15	15	45
20	15	15	75
30	15	30	60
30	15	30	120
40	18	36	72
40	18	36	144
40	22	36	80
40	22	36	152

Dimensions





Distributors

With two or three outputs



Product Description

- > Construction of vacuum systems by means of simple installation of push-in fittings or quick fittings
- > Suitable for vacuum and compressed air

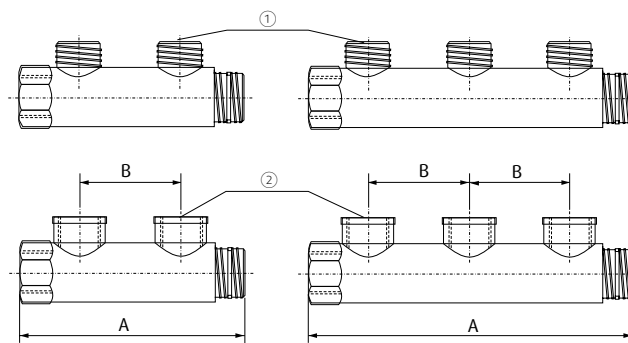
Technical data

Item no.	Input connection	Output connection	Material	Suitable sealing caps
79.025	2x 3/4	2x 1/2 male	Brass blank	79.040, 79.041
79.026	2x 3/4	2x 1/2 female	Brass blank	79.040, 79.041
79.027	2x 1	2x 1/2 male	Brass blank	79.040, 79.042
79.028	2x 1	2x 1/2 female	Brass blank	79.040, 79.042
79.029	2x 1 1/4	2x 1/2 male	Brass blank	79.040, 79.043
79.030	2x 1 1/4	2x 1/2 female	Brass blank	79.040, 79.043
79.031	2x 3/4	3x 1/2 male	Brass blank	79.040, 79.041
79.032	2x 3/4	3x 1/2 female	Brass blank	79.040, 79.041
79.033	2x 1	3x 1/2 male	Brass blank	79.040, 79.042
79.034	2x 1	3x 1/2 female	Brass blank	79.040, 79.042
79.035	2x 1 1/4	3x 1/2 male	Brass blank	79.040, 79.043
79.036	2x 1 1/4	3x 1/2 female	Brass blank	79.040, 79.043

Dimensions

A [mm]	B [mm]
114	50
114	50
114	50
114	50
137	60
137	60
164	50
164	50
164	50
164	50
197	60
197	60

Dimensions



① = Connection output (male thread) ② = Connection output (female thread)



Rotary feedthroughs for vacuum

Rotary feedthroughs for revolving machine parts



Product Description

- > Vacuum inlet for revolving machine parts
- > Suitable for fast moving machinery or gripping systems

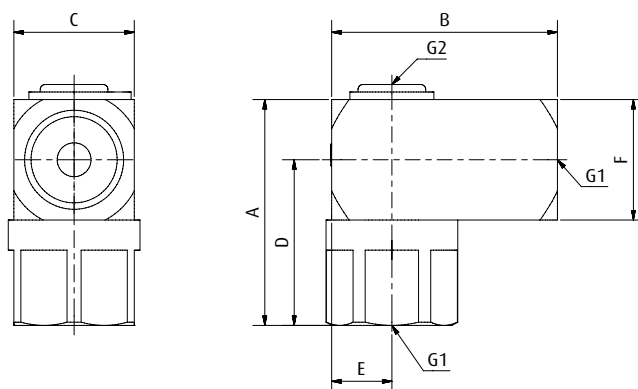
Notes

- > Only suitable for vacuum, not for compressed air
- > Construction: Housing of brass, nickel-plated, NBR seals, guide pins, flange screws and retaining ring: Steel galvanised

Technical data

Item no.	Nominal width [mm]	Flow rate solenoid valve [Nl/min]	U max. [1/min]	Operating temperature [°C]	Weight [g]
30.816	5	425	500	-10 - 85	69
30.817	5	465	550	-10 - 85	58
30.818	8	1,350	300	-10 - 85	150
30.819	11	3,200	200	-10 - 85	549

Dimensions



Item no.	G1	G2	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
30.816	G1/8	--	32	30	16	22	8	16
30.817	G1/4	--	32	30	16	22	8	16
30.818	G3/8	G1/8	39	40	25	26	12.5	20
30.819	G1/2	G3/8	55	65	40	35	20	30

Straight male stud connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.000	-0.95 - 15	0 - 60	4	M5
30.001	-0.95 - 15	0 - 60	4	M6
30.002	-0.95 - 15	0 - 60	4	R1/8
30.003	-0.95 - 15	0 - 60	4	R1/4
30.004	-0.95 - 15	0 - 60	6	M5
30.005	-0.95 - 15	0 - 60	6	M6
30.006	-0.95 - 15	0 - 60	6	R1/8
30.007	-0.95 - 15	0 - 60	6	R1/4
30.008	-0.95 - 15	0 - 60	6	R3/8
30.009	-0.95 - 15	0 - 60	8	R1/8
30.010	-0.95 - 15	0 - 60	8	R1/4
30.011	-0.95 - 15	0 - 60	8	R3/8
30.012	-0.95 - 15	0 - 60	10	R1/8
30.013	-0.95 - 15	0 - 60	10	R1/4
30.014	-0.95 - 15	0 - 60	10	R3/8
30.015	-0.95 - 15	0 - 60	10	R1/2
30.016	-0.95 - 15	0 - 60	12	R1/4
30.017	-0.95 - 15	0 - 60	12	R3/8
30.018	-0.95 - 15	0 - 60	12	R1/2
30.019	-0.95 - 15	0 - 60	16	R3/8
30.020	-0.95 - 15	0 - 60	16	R1/2
30.002-G	-0.95 - 15	-20 - 80	4	G1/8
30.003-G	-0.95 - 15	-20 - 80	4	G1/4
30.006-G	-0.95 - 15	-20 - 80	6	G1/8
30.007-G	-0.95 - 15	-20 - 80	6	G1/4
30.008-G	-0.95 - 15	-20 - 80	6	G3/8
30.011-G	-0.95 - 15	-20 - 80	8	G3/8
30.012-G	-0.95 - 15	-20 - 80	10	G1/8
30.014-G	-0.95 - 15	-20 - 80	10	G3/8
30.015-G	-0.95 - 15	-20 - 80	10	G1/2
30.016-G	-0.95 - 15	-20 - 80	12	G1/4
30.017-G	-0.95 - 15	-20 - 80	12	G3/8
30.018-G	-0.95 - 15	-20 - 80	12	G1/2
30.019-G	-0.95 - 15	-20 - 80	16	G3/8
30.020-G	-0.95 - 15	-20 - 80	16	G1/2
30.021-G	-0.95 - 15	-20 - 80	28	G1



Mini male stud connectors, round, hex key



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.200	-0.95 - 15	0 - 60	4	M5
30.201	-0.95 - 15	0 - 60	4	M6
30.202	-0.95 - 15	0 - 60	4	R1/8
30.203	-0.95 - 15	0 - 60	6	M5
30.204	-0.95 - 15	0 - 60	6	M6
30.205	-0.95 - 15	0 - 60	6	R1/8
30.206	-0.95 - 15	0 - 60	6	R1/4
30.207	-0.95 - 15	0 - 60	8	R1/8
30.208	-0.95 - 15	0 - 60	8	R1/4
30.209	-0.95 - 15	0 - 60	8	R3/8
30.210	-0.95 - 15	0 - 60	10	R1/4
30.211	-0.95 - 15	0 - 60	10	R3/8
30.212	-0.95 - 15	0 - 60	10	R1/2
30.213	-0.95 - 15	0 - 60	12	R3/8
30.214	-0.95 - 15	0 - 60	12	R1/2

Straight push-in fittings with cutoff valve

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data			Dimensions		
Item no.	Effective passage area [mm²]	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.761	1.6	-0.95 - 15	0 - 60	4	M5
30.762	2	-0.95 - 15	0 - 60	4	R1/8
30.763	2.3	-0.95 - 15	0 - 60	6	M5
30.764	7.3	-0.95 - 15	0 - 60	6	R1/8
30.765	7.3	-0.95 - 15	0 - 60	6	R1/4

Female stud connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.050	-0.95 - 15	0 - 60	4	R1/8
30.051	-0.95 - 15	0 - 60	4	R1/4
30.052	-0.95 - 15	0 - 60	6	R1/8
30.053	-0.95 - 15	0 - 60	6	R1/4
30.054	-0.95 - 15	0 - 60	8	R1/8
30.055	-0.95 - 15	0 - 60	8	R1/4
30.056	-0.95 - 15	0 - 60	8	R3/8
30.057	-0.95 - 15	0 - 60	10	R1/4
30.058	-0.95 - 15	0 - 60	10	R3/8
30.059	-0.95 - 15	0 - 60	12	R1/4
30.060	-0.95 - 15	0 - 60	12	R3/8
30.062	-0.95 - 15	0 - 60	10	G1/2
30.063	-0.95 - 15	0 - 60	12	G1/2
30.056-G	-0.95 - 15	-20 - 80	8	G3/8
30.057-G	-0.95 - 15	-20 - 80	10	G1/4
30.058-G	-0.95 - 15	-20 - 80	10	G3/8
30.059-G	-0.95 - 15	-20 - 80	12	G1/4
30.060-G	-0.95 - 15	-20 - 80	12	G3/8

Straight tube connector - equal



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	
30.223	-0.95 - 15	0 - 60	4	
30.224	-0.95 - 15	0 - 60	6	
30.225	-0.95 - 15	0 - 60	8	
30.226	-0.95 - 15	0 - 60	10	
30.227	-0.95 - 15	0 - 60	12	
30.228	-0.95 - 15	0 - 60	16	



Straight tube reducer



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.075	-0.95 - 15	0 - 60
30.076	-0.95 - 15	0 - 60
30.077	-0.95 - 15	0 - 60
30.078	-0.95 - 15	0 - 60
30.080	-0.95 - 15	0 - 60

Dimensions

Ø D1 [mm]	Ø D2 [mm]
6	4
8	6
10	8
12	10
16	12

Male stud connector with ball bearing

Ball bearing enables applications with fast rotation or pivoting



Technical data

Item no.	Max. revolutions [1/min.]	Pressure range [bar]	Operating temperature [°C]
30.800	500	-0.95 - 15	0 - 60
30.801	500	-0.95 - 15	0 - 60
30.802	500	-0.95 - 15	0 - 60
30.803	500	-0.95 - 15	0 - 60
30.804	500	-0.95 - 15	0 - 60
30.805	500	-0.95 - 15	0 - 60
30.806	400	-0.95 - 15	0 - 60
30.807	400	-0.95 - 15	0 - 60
30.808	400	-0.95 - 15	0 - 60
30.809	300	-0.95 - 15	0 - 60
30.810	300	-0.95 - 15	0 - 60
30.811	300	-0.95 - 15	0 - 60
30.812	300	-0.95 - 15	0 - 60
30.813	250	-0.95 - 15	0 - 60
30.814	250	-0.95 - 15	0 - 60
30.815	250	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	M5
4	M6
4	R1/8
6	M6
6	R1/8
6	R1/4
8	R1/8
8	R1/4
8	R3/8
10	R1/8
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2

Push-in stud connectors for high speed rotation

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data				Dimensions	
Item no.	Max. revolutions [1/min.]	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.846	1,500	-0.95 - 15	0 - 60	4	M5
30.847	1,500	-0.95 - 15	0 - 60	4	M6
30.848	1,500	-0.95 - 15	0 - 60	4	R1/8
30.849	1,200	-0.95 - 15	0 - 60	6	R1/8
30.850	1,200	-0.95 - 15	0 - 60	6	R1/4
30.851	1,200	-0.95 - 15	0 - 60	8	R1/8
30.852	1,200	-0.95 - 15	0 - 60	8	R1/4
30.853	900	-0.95 - 15	0 - 60	10	R3/8
30.854	900	-0.95 - 15	0 - 60	10	R1/2
30.855	900	-0.95 - 15	0 - 60	12	R3/8
30.856	900	-0.95 - 15	0 - 60	12	R1/2



90° elbow male connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	$\varnothing D$ [mm]	G
30.100	-0.95 - 15	0 - 60	4	M5
30.101	-0.95 - 15	0 - 60	4	M6
30.102	-0.95 - 15	0 - 60	4	R1/8
30.103	-0.95 - 15	0 - 60	4	R1/4
30.104	-0.95 - 15	0 - 60	6	M5
30.105	-0.95 - 15	0 - 60	6	M6
30.106	-0.95 - 15	0 - 60	6	R1/8
30.107	-0.95 - 15	0 - 60	6	R1/4
30.108	-0.95 - 15	0 - 60	6	R3/8
30.109	-0.95 - 15	0 - 60	8	R1/8
30.110	-0.95 - 15	0 - 60	8	R1/4
30.111	-0.95 - 15	0 - 60	8	R3/8
30.112	-0.95 - 15	0 - 60	10	R1/8
30.113	-0.95 - 15	0 - 60	10	R1/4
30.114	-0.95 - 15	0 - 60	10	R3/8
30.115	-0.95 - 15	0 - 60	10	R1/2
30.116	-0.95 - 15	0 - 60	12	R1/4
30.117	-0.95 - 15	0 - 60	12	R3/8
30.118	-0.95 - 15	0 - 60	12	R1/2
30.119	-0.95 - 15	0 - 60	16	R3/8
30.120	-0.95 - 15	0 - 60	16	R1/2
30.102-G	-0.95 - 15	-20 - 80	4	G1/8
30.103-G	-0.95 - 15	-20 - 80	4	G1/4
30.106-G	-0.95 - 15	-20 - 80	6	G1/8
30.107-G	-0.95 - 15	-20 - 80	6	G1/4
30.108-G	-0.95 - 15	-20 - 80	6	G3/8
30.109-G	-0.95 - 15	-20 - 80	8	G1/8
30.110-G	-0.95 - 15	-20 - 80	8	G1/8
30.111-G	-0.95 - 15	-20 - 80	8	G3/8
30.112-G	-0.95 - 15	-20 - 80	10	G1/8
30.113-G	-0.95 - 15	-20 - 80	10	G1/4
30.114-G	-0.95 - 15	-20 - 80	10	G3/8
30.115-G	-0.95 - 15	-20 - 80	10	G1/2
30.116-G	-0.95 - 15	-20 - 80	12	G1/4
30.117-G	-0.95 - 15	-20 - 80	12	G3/8
30.118-G	-0.95 - 15	-20 - 80	12	G1/2
30.119-G	-0.95 - 15	-20 - 80	16	G3/8
30.120-G	-0.95 - 15	-20 - 80	16	G1/2

90° extended elbow male connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.279	-0.95 - 15	0 - 60	4	M5
30.280	-0.95 - 15	0 - 60	4	R1/8
30.281	-0.95 - 15	0 - 60	6	R1/8
30.282	-0.95 - 15	0 - 60	6	R1/4
30.283	-0.95 - 15	0 - 60	6	R3/8
30.284	-0.95 - 15	0 - 60	8	R1/8
30.285	-0.95 - 15	0 - 60	8	R1/4
30.286	-0.95 - 15	0 - 60	8	R3/8
30.287	-0.95 - 15	0 - 60	10	R1/4
30.288	-0.95 - 15	0 - 60	10	R3/8
30.289	-0.95 - 15	0 - 60	10	R1/2
30.290	-0.95 - 15	0 - 60	12	R1/4
30.291	-0.95 - 15	0 - 60	12	R3/8
30.292	-0.95 - 15	0 - 60	12	R1/2



90° elbow female connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.170	-0.95 - 15	0 - 60	4	M5
30.171	-0.95 - 15	0 - 60	4	M6
30.172	-0.95 - 15	0 - 60	4	R1/8
30.173	-0.95 - 15	0 - 60	4	R1/4
30.174	-0.95 - 15	0 - 60	6	M5
30.175	-0.95 - 15	0 - 60	6	M6
30.176	-0.95 - 15	0 - 60	6	R1/8
30.177	-0.95 - 15	0 - 60	6	R1/4
30.178	-0.95 - 15	0 - 60	6	R3/8
30.179	-0.95 - 15	0 - 60	8	R1/8
30.180	-0.95 - 15	0 - 60	8	R1/4
30.181	-0.95 - 15	0 - 60	8	R3/8
30.182	-0.95 - 15	0 - 60	10	R1/4
30.183	-0.95 - 15	0 - 60	10	R3/8
30.184	-0.95 - 15	0 - 60	10	R1/2
30.172-G	-0.95 - 15	-20 - 80	4	G1/8
30.173-G	-0.95 - 15	-20 - 80	4	G1/4
30.176-G	-0.95 - 15	-20 - 80	6	G1/8
30.178-G	-0.95 - 15	-20 - 80	6	G3/8
30.179-G	-0.95 - 15	-20 - 80	8	G1/8
30.180-G	-0.95 - 15	-20 - 80	8	G1/4
30.181-G	-0.95 - 15	-20 - 80	8	G3/8
30.182-G	-0.95 - 15	-20 - 80	10	G1/4
30.183-G	-0.95 - 15	-20 - 80	10	G3/8

90° male elbow with cutoff valve

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.774	-0.95 - 15	0 - 60
30.775	-0.95 - 15	0 - 60
30.776	-0.95 - 15	0 - 60
30.777	-0.95 - 15	0 - 60
30.778	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	M5
4	G1/8
6	M5
6	G1/8
6	G1/4

90° elbow connectors - equal



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.270	-0.95 - 15	0 - 60
30.271	-0.95 - 15	0 - 60
30.272	-0.95 - 15	0 - 60
30.273	-0.95 - 15	0 - 60
30.274	-0.95 - 15	0 - 60
30.275	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]
4
6
8
10
12
16



90° male elbow with ball bearing

Ball bearing enables applications with fast rotation or pivoting



Technical data

Item no.	Max. revolutions [1/min.]	Pressure range [bar]	Operating temperature [°C]
30.823	500	-0.95 - 15	0 - 60
30.824	500	-0.95 - 15	0 - 60
30.825	500	-0.95 - 15	0 - 60
30.826	500	-0.95 - 15	0 - 60
30.827	500	-0.95 - 15	0 - 60
30.828	500	-0.95 - 15	0 - 60
30.829	400	-0.95 - 15	0 - 60
30.830	400	-0.95 - 15	0 - 60
30.831	400	-0.95 - 15	0 - 60
30.832	300	-0.95 - 15	0 - 60
30.833	300	-0.95 - 15	0 - 60
30.834	300	-0.95 - 15	0 - 60
30.835	300	-0.95 - 15	0 - 60
30.836	250	-0.95 - 15	0 - 60
30.837	250	-0.95 - 15	0 - 60
30.838	250	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	M5
4	M6
4	R1/8
6	M6
6	R1/8
6	R1/4
8	R1/8
8	R1/4
8	R3/8
10	R1/8
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2

90° Male elbow for high speed rotation



Technical data

Item no.	Max. revolutions [1/min.]	Pressure range [bar]	Operating temperature [°C]
30.863	1,500	-0.95 - 15	0 - 60
30.864	1,500	-0.95 - 15	0 - 60
30.865	1,500	-0.95 - 15	0 - 60
30.866	1,200	-0.95 - 15	0 - 60
30.867	1,200	-0.95 - 15	0 - 60
30.868	1,200	-0.95 - 15	0 - 60
30.869	1,200	-0.95 - 15	0 - 60
30.870	900	-0.95 - 15	0 - 60
30.871	900	-0.95 - 15	0 - 60
30.872	900	-0.95 - 15	0 - 60
30.873	900	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	M5
4	M6
4	R1/8
6	R1/8
6	R1/4
8	R1/8
8	R1/4
10	R3/8
10	R1/2
12	R3/8
12	R1/2

Male banjo connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.300	-0.95 - 15	0 - 60	4	M6
30.301	-0.95 - 15	0 - 60	4	R1/8
30.302	-0.95 - 15	0 - 60	6	M5
30.303	-0.95 - 15	0 - 60	6	M6
30.304	-0.95 - 15	0 - 60	6	R1/8
30.305	-0.95 - 15	0 - 60	6	R1/4
30.306	-0.95 - 15	0 - 60	8	R1/8
30.307	-0.95 - 15	0 - 60	8	R1/4
30.308	-0.95 - 15	0 - 60	8	R3/8
30.309	-0.95 - 15	0 - 60	10	R1/4
30.310	-0.95 - 15	0 - 60	10	R3/8
30.311	-0.95 - 15	0 - 60	12	R3/8
30.312	-0.95 - 15	0 - 60	12	R1/2
30.313	-0.95 - 15	0 - 60	16	R3/8



Male branch tee connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.332	-0.95 - 15	0 - 60	4	M5
30.333	-0.95 - 15	0 - 60	4	M6
30.334	-0.95 - 15	0 - 60	4	R1/8
30.335	-0.95 - 15	0 - 60	4	R1/4
30.336	-0.95 - 15	0 - 60	6	M5
30.337	-0.95 - 15	0 - 60	6	M6
30.338	-0.95 - 15	0 - 60	6	R1/8
30.339	-0.95 - 15	0 - 60	6	R1/4
30.340	-0.95 - 15	0 - 60	6	R3/8
30.341	-0.95 - 15	0 - 60	8	R1/8
30.342	-0.95 - 15	0 - 60	8	R1/4
30.343	-0.95 - 15	0 - 60	8	R3/8
30.344	-0.95 - 15	0 - 60	10	R1/4
30.345	-0.95 - 15	0 - 60	10	R3/8
30.346	-0.95 - 15	0 - 60	10	R1/2
30.347	-0.95 - 15	0 - 60	12	R1/4
30.348	-0.95 - 15	0 - 60	12	R3/8
30.349	-0.95 - 15	0 - 60	12	R1/2
30.350	-0.95 - 15	0 - 60	16	R3/8
30.351	-0.95 - 15	0 - 60	16	R1/2

Equal tube tee connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	
30.390	-0.95 - 15	0 - 60	4	
30.391	-0.95 - 15	0 - 60	6	
30.392	-0.95 - 15	0 - 60	8	
30.393	-0.95 - 15	0 - 60	10	
30.394	-0.95 - 15	0 - 60	12	
30.395	-0.95 - 15	0 - 60	16	

Unequal tube tee connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D1 [mm]	Ø D2 [mm]
30.399	-0.95 - 15	0 - 60	6	4
30.400	-0.95 - 15	0 - 60	8	6
30.401	-0.95 - 15	0 - 60	10	8
30.402	-0.95 - 15	0 - 60	12	10

Equal Y connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	
30.431	-0.95 - 15	0 - 60	4	
30.432	-0.95 - 15	0 - 60	6	
30.433	-0.95 - 15	0 - 60	8	
30.434	-0.95 - 15	0 - 60	10	
30.435	-0.95 - 15	0 - 60	12	
30.436	-0.95 - 15	0 - 60	16	

Unequal Y connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D1 [mm]	Ø D2 [mm]
30.440	-0.95 - 15	0 - 60	6	4
30.441	-0.95 - 15	0 - 60	8	6
30.442	-0.95 - 15	0 - 60	10	8
30.443	-0.95 - 15	0 - 60	12	10



Male Y connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.403	-0.95 - 15	0 - 60	4	M5
30.404	-0.95 - 15	0 - 60	4	R1/8
30.405	-0.95 - 15	0 - 60	4	R1/4
30.406	-0.95 - 15	0 - 60	6	M5
30.407	-0.95 - 15	0 - 60	6	M6
30.408	-0.95 - 15	0 - 60	6	R1/8
30.409	-0.95 - 15	0 - 60	6	R1/4
30.410	-0.95 - 15	0 - 60	6	R3/8
30.411	-0.95 - 15	0 - 60	8	R1/8
30.412	-0.95 - 15	0 - 60	8	R1/4
30.413	-0.95 - 15	0 - 60	8	R3/8
30.414	-0.95 - 15	0 - 60	10	R1/4
30.415	-0.95 - 15	0 - 60	10	R3/8
30.416	-0.95 - 15	0 - 60	10	R1/2
30.417	-0.95 - 15	0 - 60	12	R1/4
30.418	-0.95 - 15	0 - 60	12	R3/8
30.419	-0.95 - 15	0 - 60	12	R1/2
30.420	-0.95 - 15	0 - 60	16	R3/8
30.421	-0.95 - 15	0 - 60	16	R1/2

Elbow Y male connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.518	-0.95 - 15	0 - 60	4	M5
30.519	-0.95 - 15	0 - 60	4	M6
30.520	-0.95 - 15	0 - 60	4	R1/8
30.521	-0.95 - 15	0 - 60	4	R1/4
30.522	-0.95 - 15	0 - 60	6	M5
30.523	-0.95 - 15	0 - 60	6	M6
30.524	-0.95 - 15	0 - 60	6	R1/8
30.525	-0.95 - 15	0 - 60	6	R1/4
30.526	-0.95 - 15	0 - 60	6	R3/8
30.527	-0.95 - 15	0 - 60	8	R1/8
30.528	-0.95 - 15	0 - 60	8	R1/4
30.529	-0.95 - 15	0 - 60	8	R3/8
30.530	-0.95 - 15	0 - 60	10	R1/4
30.531	-0.95 - 15	0 - 60	10	R3/8
30.532	-0.95 - 15	0 - 60	10	R1/2
30.533	-0.95 - 15	0 - 60	12	R1/4
30.534	-0.95 - 15	0 - 60	12	R3/8
30.535	-0.95 - 15	0 - 60	12	R1/2

Push-in connectors QC

Available as an option: Connecting strap for parallel circuit = QB-H, for series circuit = QB-T



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D1 [mm]	Ø D2 [mm]
QC3-3M	-0.95 - 15	0 - 60	3	3
QC3-4M	-0.95 - 15	0 - 60	3	4
QC3-6M	-0.95 - 15	0 - 60	3	6
QC4-3M	-0.95 - 15	0 - 60	4	3
QC4-4M	-0.95 - 15	0 - 60	4	4
QC4-6M	-0.95 - 15	0 - 60	4	6
QC6-3M	-0.95 - 15	0 - 60	6	3
QC6-4M	-0.95 - 15	0 - 60	6	4
QC6-6M	-0.95 - 15	0 - 60	6	6
QC6-6	-0.95 - 15	0 - 60	6	6
QC6-8	-0.95 - 15	0 - 60	6	8
QC8-6	-0.95 - 15	0 - 60	8	6
QC8-8	-0.95 - 15	0 - 60	8	8



Two stack banjo



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.599	-0.95 - 15	0 - 60
30.600	-0.95 - 15	0 - 60
30.601	-0.95 - 15	0 - 60
30.602	-0.95 - 15	0 - 60
30.603	-0.95 - 15	0 - 60
30.604	-0.95 - 15	0 - 60
30.605	-0.95 - 15	0 - 60
30.606	-0.95 - 15	0 - 60
30.607	-0.95 - 15	0 - 60
30.608	-0.95 - 15	0 - 60
30.609	-0.95 - 15	0 - 60
30.610	-0.95 - 15	0 - 60
30.611	-0.95 - 15	0 - 60
30.612	-0.95 - 15	0 - 60
30.613	-0.95 - 15	0 - 60
30.614	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	R1/8
4	R1/4
4	R3/8
6	R1/8
6	R1/4
6	R3/8
8	R1/8
8	R1/4
8	R3/8
8	R1/2
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2

Two stack, twin banjo



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.649	-0.95 - 15	0 - 60
30.650	-0.95 - 15	0 - 60
30.651	-0.95 - 15	0 - 60
30.652	-0.95 - 15	0 - 60
30.653	-0.95 - 15	0 - 60
30.654	-0.95 - 15	0 - 60
30.655	-0.95 - 15	0 - 60
30.656	-0.95 - 15	0 - 60
30.657	-0.95 - 15	0 - 60
30.658	-0.95 - 15	0 - 60
30.659	-0.95 - 15	0 - 60
30.660	-0.95 - 15	0 - 60
30.661	-0.95 - 15	0 - 60
30.662	-0.95 - 15	0 - 60
30.663	-0.95 - 15	0 - 60
30.664	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	R1/8
4	R1/4
4	R3/8
6	R1/8
6	R1/4
6	R3/8
8	R1/8
8	R1/4
8	R3/8
8	R1/2
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2

3-way male elbow connector



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.490	-0.95 - 15	0 - 60
30.491	-0.95 - 15	0 - 60
30.492	-0.95 - 15	0 - 60
30.493	-0.95 - 15	0 - 60
30.494	-0.95 - 15	0 - 60
30.495	-0.95 - 15	0 - 60
30.496	-0.95 - 15	0 - 60
30.497	-0.95 - 15	0 - 60
30.498	-0.95 - 15	0 - 60
30.499	-0.95 - 15	0 - 60
30.500	-0.95 - 15	0 - 60
30.501	-0.95 - 15	0 - 60
30.502	-0.95 - 15	0 - 60
30.503	-0.95 - 15	0 - 60
30.504	-0.95 - 15	0 - 60
30.505	-0.95 - 15	0 - 60
30.506	-0.95 - 15	0 - 60
30.507	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	M5
4	M6
4	R1/8
4	R1/4
6	M5
6	M6
6	R1/8
6	R1/4
6	R3/8
8	R1/8
8	R1/4
8	R3/8
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2

Three stack, twin banjo



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
30.674	-0.95 - 15	0 - 60
30.675	-0.95 - 15	0 - 60
30.676	-0.95 - 15	0 - 60
30.677	-0.95 - 15	0 - 60
30.678	-0.95 - 15	0 - 60
30.679	-0.95 - 15	0 - 60
30.680	-0.95 - 15	0 - 60
30.681	-0.95 - 15	0 - 60
30.682	-0.95 - 15	0 - 60
30.683	-0.95 - 15	0 - 60
30.684	-0.95 - 15	0 - 60
30.685	-0.95 - 15	0 - 60
30.686	-0.95 - 15	0 - 60
30.687	-0.95 - 15	0 - 60
30.688	-0.95 - 15	0 - 60
30.689	-0.95 - 15	0 - 60

Dimensions

Ø D [mm]	G
4	R1/8
4	R1/4
4	R3/8
6	R1/8
6	R1/4
6	R3/8
8	R1/8
8	R1/4
8	R3/8
8	R1/2
10	R1/4
10	R3/8
10	R1/2
12	R1/4
12	R3/8
12	R1/2



Self-extinguishing male stud connector



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
32.000	-0.95 - 15	0 - 60	4	M5
32.001	-0.95 - 15	0 - 60	4	M6
32.002	-0.95 - 15	0 - 60	4	R1/8
32.003	-0.95 - 15	0 - 60	4	R1/4
32.004	-0.95 - 15	0 - 60	6	R1/8
32.005	-0.95 - 15	0 - 60	6	R1/4
32.006	-0.95 - 15	0 - 60	6	R3/8
32.007	-0.95 - 15	0 - 60	8	R1/8
32.008	-0.95 - 15	0 - 60	8	R1/4
32.009	-0.95 - 15	0 - 60	8	R3/8
32.010	-0.95 - 15	0 - 60	10	R1/8
32.011	-0.95 - 15	0 - 60	10	R1/4
32.012	-0.95 - 15	0 - 60	10	R3/8
32.013	-0.95 - 15	0 - 60	10	R1/2
32.014	-0.95 - 15	0 - 60	12	R1/4
32.015	-0.95 - 15	0 - 60	12	R3/8
32.016	-0.95 - 15	0 - 60	12	R1/2

Self-extinguishing equal tube connector



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	
32.055	-0.95 - 15	0 - 60	4	
32.056	-0.95 - 15	0 - 60	6	
32.057	-0.95 - 15	0 - 60	8	
32.058	-0.95 - 15	0 - 60	10	
32.059	-0.95 - 15	0 - 60	12	



90° male elbow connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
32.033	-0.95 - 15	0 - 60	4	M5
32.034	-0.95 - 15	0 - 60	4	M6
32.035	-0.95 - 15	0 - 60	4	R1/8
32.036	-0.95 - 15	0 - 60	4	R1/4
32.037	-0.95 - 15	0 - 60	6	R1/8
32.038	-0.95 - 15	0 - 60	6	R1/4
32.039	-0.95 - 15	0 - 60	6	R3/8
32.040	-0.95 - 15	0 - 60	8	R1/8
32.041	-0.95 - 15	0 - 60	8	R1/4
32.042	-0.95 - 15	0 - 60	8	R3/8
32.043	-0.95 - 15	0 - 60	10	R1/8
32.044	-0.95 - 15	0 - 60	10	R1/4
32.045	-0.95 - 15	0 - 60	10	R3/8
32.046	-0.95 - 15	0 - 60	10	R1/2
32.047	-0.95 - 15	0 - 60	12	R1/4
32.048	-0.95 - 15	0 - 60	12	R3/8
32.049	-0.95 - 15	0 - 60	12	R1/2

90° male elbow connectors - equal



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	
32.050	-0.95 - 15	0 - 60	4	
32.051	-0.95 - 15	0 - 60	6	
32.052	-0.95 - 15	0 - 60	8	
32.053	-0.95 - 15	0 - 60	10	
32.054	-0.95 - 15	0 - 60	12	



Male branch tee connectors, self-extinguishing



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
32.017	-0.95 - 15	0 - 60	4	M5
32.018	-0.95 - 15	0 - 60	4	M6
32.019	-0.95 - 15	0 - 60	4	R1/8
32.020	-0.95 - 15	0 - 60	4	R1/4
32.021	-0.95 - 15	0 - 60	6	R1/8
32.022	-0.95 - 15	0 - 60	6	R1/4
32.023	-0.95 - 15	0 - 60	6	R3/8
32.024	-0.95 - 15	0 - 60	8	R1/8
32.025	-0.95 - 15	0 - 60	8	R1/4
32.026	-0.95 - 15	0 - 60	8	R3/8
32.027	-0.95 - 15	0 - 60	10	R1/4
32.028	-0.95 - 15	0 - 60	10	R3/8
32.029	-0.95 - 15	0 - 60	10	R1/2
32.030	-0.95 - 15	0 - 60	12	R1/4
32.031	-0.95 - 15	0 - 60	12	R3/8
32.032	-0.95 - 15	0 - 60	12	R1/2

Equal tube tee connectors, self-extinguishing



Technical data			Dimensions
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]
32.060	-0.95 - 15	0 - 60	4
32.061	-0.95 - 15	0 - 60	6
32.062	-0.95 - 15	0 - 60	8
32.063	-0.95 - 15	0 - 60	10
32.064	-0.95 - 15	0 - 60	12



Mini male stud connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.900	-0.95 - 15	0 - 60	3	M3
30.901	-0.95 - 15	0 - 60	3	M5
30.902	-0.95 - 15	0 - 60	3	M6
30.903	-0.95 - 15	0 - 60	4	M3
30.904	-0.95 - 15	0 - 60	4	M5
30.905	-0.95 - 15	0 - 60	4	M6
30.906	-0.95 - 15	0 - 60	4	R1/8
30.907	-0.95 - 15	0 - 60	6	M5
30.908	-0.95 - 15	0 - 60	6	M6
30.906-G	-0.95 - 15	-20 - 80	4	G1/8
30.910-G	-0.95 - 15	-20 - 80	6	G1/8

Mini male stud connectors, round, hex key



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.920	-0.95 - 15	0 - 60	3	M3
30.921	-0.95 - 15	0 - 60	3	M5
30.922	-0.95 - 15	0 - 60	4	M3
30.923	-0.95 - 15	0 - 60	4	M5
30.924	-0.95 - 15	0 - 60	4	M6
30.925	-0.95 - 15	0 - 60	4	R1/8
30.926	-0.95 - 15	0 - 60	6	M5
30.927	-0.95 - 15	0 - 60	6	M6
30.928	-0.95 - 15	0 - 60	6	R1/8



Mini tube fitting, cartridge



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	$\varnothing D$ [mm]	G
30.932	-0.95 - 15	0 - 60	3	M6
30.933	-0.95 - 15	0 - 60	4	M6
30.934	-0.95 - 15	0 - 60	4	M8
30.935	-0.95 - 15	0 - 60	6	M8

Mini female stud connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	$\varnothing D$ [mm]	G
30.914	-0.95 - 15	0 - 60	3	M3
30.915	-0.95 - 15	0 - 60	3	M5
30.916	-0.95 - 15	0 - 60	4	M3
30.917	-0.95 - 15	0 - 60	4	M5

Mini 45° male elbow connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	$\varnothing D$ [mm]	G
30.977	-0.95 - 15	0 - 60	4	M5
30.978	-0.95 - 15	0 - 60	4	M6
30.979	-0.95 - 15	0 - 60	4	R1/8
30.980	-0.95 - 15	0 - 60	6	M5
30.981	-0.95 - 15	0 - 60	6	M6
30.982	-0.95 - 15	0 - 60	6	R1/8



Mini unequal tube tee connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D1 [mm]	Ø D2 [mm]
31.025	-0.95 - 15	0 - 60	4	3
31.026	-0.95 - 15	0 - 60	6	4

Mini extended male elbow connector



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.963	-0.95 - 15	0 - 60	3	M3
30.964	-0.95 - 15	0 - 60	4	M3
30.965	-0.95 - 15	0 - 60	4	M5
30.966	-0.95 - 15	0 - 60	4	M6
30.967	-0.95 - 15	0 - 60	4	R1/8
30.968	-0.95 - 15	0 - 60	6	M5
30.969	-0.95 - 15	0 - 60	6	M6
30.970	-0.95 - 15	0 - 60	6	R1/8



Mini male elbow connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.949	-0.95 - 15	0 - 60	3	M3
30.950	-0.95 - 15	0 - 60	3	M5
30.951	-0.95 - 15	0 - 60	3	M6
30.952	-0.95 - 15	0 - 60	4	M3
30.953	-0.95 - 15	0 - 60	4	M5
30.954	-0.95 - 15	0 - 60	4	M6
30.955	-0.95 - 15	0 - 60	4	R1/8
30.956	-0.95 - 15	0 - 60	6	M5
30.957	-0.95 - 15	0 - 60	6	M6
30.958	-0.95 - 15	0 - 60	6	R1/8

Mini male branch equal tee connectors



Technical data			Dimensions	
Item no.	Pressure range [bar]	Operating temperature [°C]	Ø D [mm]	G
30.993	-0.95 - 15	0 - 60	3	M3
30.994	-0.95 - 15	0 - 60	3	M5
30.995	-0.95 - 15	0 - 60	3	M6
30.996	-0.95 - 15	0 - 60	4	M3
30.997	-0.95 - 15	0 - 60	4	M5
30.998	-0.95 - 15	0 - 60	4	M6
30.999	-0.95 - 15	0 - 60	4	R1/8
31.000	-0.95 - 15	0 - 60	6	M5
31.001	-0.95 - 15	0 - 60	6	M6
31.002	-0.95 - 15	0 - 60	6	R1/8



Connectors | Quick couplings with vacuum / pressure lock

Sockets with threaded connection

Locking of compressed air or vacuum during disassembly, release after reconnection

Coupling: Socket (lock) and plug (open)



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
CPS20-02W	-0.95 - 13	0 - 60
CPS20-03W	-0.95 - 13	0 - 60
CPS20-04W	-0.95 - 13	0 - 60

Dimensions

G	Ø P [mm]
R1/4	12
R3/8	12
R1/2	12

Sockets with plug-in connection

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
CPS20-6W	-0.95 - 13	0 - 60
CPS20-8W	-0.95 - 13	0 - 60
CPS20-10W	-0.95 - 13	0 - 60
CPS20-12W	-0.95 - 13	0 - 60

Dimensions

Ø D [mm]	Ø P [mm]
6	12
8	12
10	12
12	12

Connectors

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data

Item no.	Pressure range [bar]	Operating temperature [°C]
CPP20-6W	-0.95 - 13	0 - 60
CPP20-8W	-0.95 - 13	0 - 60
CPP20-10W	-0.95 - 13	0 - 60
CPP20-12W	-0.95 - 13	0 - 60

Dimensions

Ø D [mm]	Ø P [mm]
6	16
8	16
10	20
12	20



Angle plugs

Locking of compressed air or vacuum during disassembly, release after reconnection



Technical data

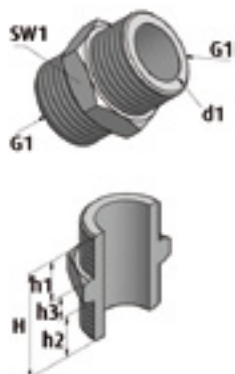
Item no.	Pressure range [bar]	Operating temperature [°C]
CPP20L-6W	-0.95 - 13	0 - 60
CPP20L-8W	-0.95 - 13	0 - 60
CPP20L-10W	-0.95 - 13	0 - 60
CPP20L-12W	-0.95 - 13	0 - 60

Dimensions

$\varnothing D$ [mm]	$\varnothing P$ [mm]
6	14.5
8	14.5
10	21
12	21



Double nipple, equal thread - SZ-GA-MM



Technical data		Dimensions						
Item no.	Material	G1 (male)	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	Ø d1 [mm]	SW1
270.420	Brass	M5	13	5	5	3	2.5	7
270.059	Brass	G1/8	18	7	7	4	5	14
270.120	Brass	G1/4	25.5	10.5	10.5	--	--	60
270.121	Nickel-plated brass	G3/8	23	9	9	5	11	19
270.122	Brass	G1/2	35	14	14	--	--	60
270.123	Brass	G3/4	33.5	13.5	13.5	--	--	60
270.124	Brass	G1	36	14.5	14.5	--	--	60
270.125	Brass	G1 1/4	37	15	15	--	--	60
270.126	Brass	G1 1/2	40	16.5	16.5	--	--	60
270.127	Brass	G2	40	16.5	16.5	--	--	60

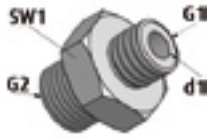
Reducing bushes with hex socket - SZ GA- MMI



Technical data		Dimensions						
Item no.	Material	G1 (male)	G2 (male)	H [mm]	h1 [mm]	h2 [mm]	Ø d1 [mm]	SW
270.561	Aluminium	G3/8	G1/4	25	15	10	6	6
270.562	Aluminium	G3/8	M10	27	15	12	4	5
270.563	Aluminium	G3/8	M14x1.5	27	15	12	6	6
270.564	Aluminium	G1/4	G1/4	22	--	--	4	5
270.565	Aluminium	G1/4	M10	24	12	12	4	5
270.566	Aluminium	G1/4	M14x1.5	24	13	11	4	5



Reducing nipples - SZ-GA-RMM



Technical data		Dimensions							
Item no.	Material	G1 (male)	G2 (male)	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	∅ d1 [mm]	SW1
270.280	Nickel-plated brass	G1/8	M5	15.5	4.8	6.5	4.2	2.4	14
270.279	Aluminium	G1/8	M6	21	7	9	5	3	14
270.131	Brass	G1/8	M8	18	6	7	5	4	14
270.107	Aluminium	G1/8	M12	21	7.5	8.5	5	5.5	17
270.227	Brass	G1/4	M5	19	5	9	5	2.5	17
270.320	Aluminium	G1/4	M10x1.25	25	10	10	5	5.5	17
270.108	Aluminium	G1/4	M12	21	8	8	5	5.5	17
270.181	Nickel-plated brass	G1/4	G1/8	22	8	9	5	4	17
270.297	Nickel-plated brass	G1/2	G1/4	25	9	10.5	5.5	8	24
270.323	Nickel-plated brass	G1/2	G3/8	25.5	9	10.5	6	11	24
270.148	Nickel-plated brass	G3/4	M14x1.5	30	12	12	6	20	36
270.138	Nickel-plated brass	G3/4	G1/2	30	12	12	6	15	32



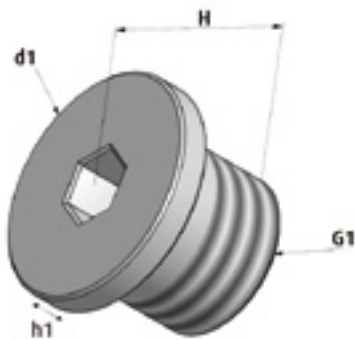
Reducing bushings male/female - SZ-GA-MF



Technical data		Dimensions						
Item no.	Material	G1 (male)	G2 (female)	H [mm]	h1 [mm]	h2 [mm]	Ø D [mm]	SW1
270.423	Nickel-plated brass	M5	M5	11	7	4	2	8
270.079	Brass	M5	G1/8	17	12	5	2.4	14
270.576	Steel galvanised	M12	G1/4	22	12	10	6.5	17
270.577	Steel galvanised	M16	G3/8	25	15	10	10	24
270.302	Nickel-plated brass	G1/8	M5	10	4	6	--	14
270.303	Nickel-plated brass	G1/8	M6	13	5	8	--	13
270.334	Nickel-plated brass	G1/8	G1/4	20	13.6	6.5	5.4	17
270.304	Aluminium	G1/4	M6	15	5	10	--	17
270.090	Brass	G1/4	M10x1.25	11.5	5.8	5.7	17	19
270.088	Aluminium	G1/4	M10	28	16	12	4	17
270.245	Brass	G1/4	G1/8	13	4.5	8.5	--	17
270.078	Brass	G1/4	G1/4	28	19	9	7.5	17
270.567	Aluminium	G1/4	G3/8	27	11	10	4	20
270.560	Aluminium	G3/8	G1/4	16	11	16	--	22
270.229	Brass	G1/2	G1/4	18	6	12	--	24
270.230	Brass	G1/2	G3/8	18	6	12	--	24
270.102	Brass	G3/4	G3/8	18	6	12	--	32
270.600	Brass	G1	G1/2	21	6	15	--	36
270.601	Brass	G1	G3/4	21	6	15	--	36
270.604	Brass	G1 1/2	G1	24	8	16	--	50
270.605	Brass	G1 1/4	G1	23	7	16	--	42

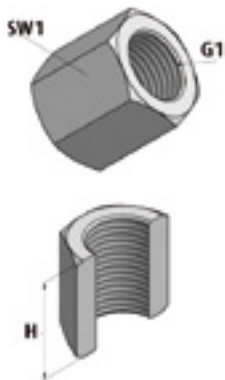


Blanking plugs with O-ring seal - SZ-SCV



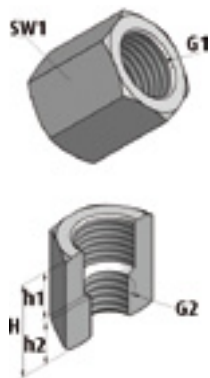
Technical data		Dimensions			
Item no.	Material	G1 (male)	H [mm]	h1 [mm]	Ø d1 [mm]
77.000	Nickel-plated brass	M5	6	2	8
77.009	Nickel-plated brass	G1/8	10	3	14
77.008	Nickel-plated brass	G1/4	11	3	17
77.010	Nickel-plated brass	G3/8	12.5	3.5	20
77.007	Nickel-plated brass	G1/2	14.5	4.5	26

Threaded bush - SZ-GA-FF



Technical data		Dimensions		
Item no.	Material	G1 (female)	H [mm]	SW1
270.343	Nickel-plated brass	G1/8	17	14
270.182.O	Aluminium	G1/4	20	19
270.130.O	Aluminium	G1/2	32	30
270.579	Aluminium	G3/8	23	22

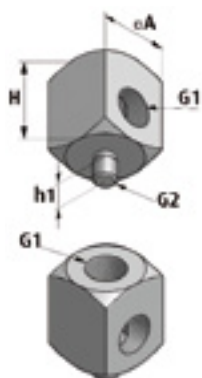
Reducing bush - SZ-GA-RFF



Technical data		Dimensions					
Item no.	Material	G1 (female)	G2 (female)	H [mm]	h1 [mm]	h2 [mm]	SW1
270.306	Aluminium	G1/8	M5	14	9.5	4.5	13
270.307	Aluminium	G1/8	M6	14	9.5	4.5	13
270.308	Aluminium	G1/4	M6	17.5	11	6.5	17
270.089	Aluminium	G1/4	M10	18	9	9	17
270.228	Nickel-plated brass	G3/8	G1/4	21.5	11.5	10	22

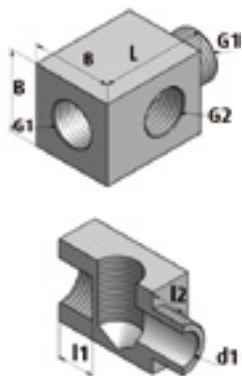


Elbow connectors AG - SZ-WAA



Technical data		Dimensions				
Item no.	Material	G1 (female)	G2 (male)	H [mm]	h1 [mm]	$\square A$ [mm]
GR07.010	Steel nickel-plated	G1/8	M5	20	6	16
GR07.011	Steel nickel-plated	G1/4	M6	33	10	25
GR07.012	Steel nickel-plated	G1/4	M8	33	10	25

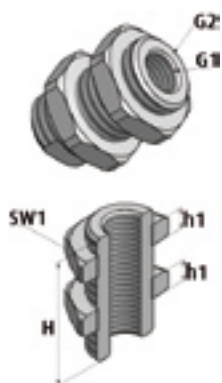
Elbow connectors IG - SZ-WAI



Technical data		Dimensions						
Item no.	Material	G1 (female+male)	G2 (female)	$\phi d1$ [mm]	L [mm]	B [mm]	l1 [mm]	l2 [mm]
270.395	Aluminium	G1/8	G1/8	6.6	21	16	6	7
270.396	Aluminium	G1/4	G1/8	8	26	18	10	10
270.397	Steel galvanised	G1/2	G3/8	10	35	24	12	10

Bulkhead connectors - SZ-SVS

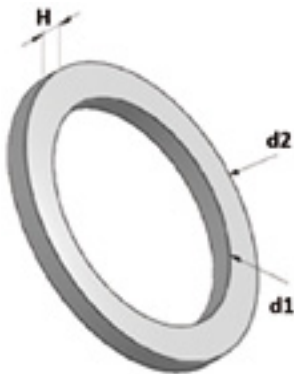
Allow for height adjustment during vacuum cup installation



Technical data			Dimensions				
Item no.	Material bushing	Material screw nut	G1 (female)	G2 (male)	H [mm]	h1 [mm]	SW1
270.518	Stainless steel	Steel galvanised	G1/8	M16x1	30	5	22
270.519	Stainless steel	Steel galvanised	G1/4	M20x1.5	30	5	24



Sealing rings - SZ-DR



Technical data			Dimensions		
Item no.	For outside thread	Material	H [mm]	∅ d1 [mm]	∅ d2 [mm]
78.052	M5	Rigid PVC white	1	5.4	7.9
78.053	G1/8	Rigid PVC white	2	10.3	13.5
78.054	G1/4	Rigid PVC white	2	13.3	17.9
78.051	G3/8	Rigid PVC white	2	17.2	21.2
78.055	G1/2	Rigid PVC white	2	21.2	27.9
78.056	G3/4	Rigid PVC white	2	26.7	32.5

Ordering notes:

1 packing unit = 100 pieces