

Product-Catalogue



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"**AVS** RÖMER, YOUR SPECIALIST FOR CUSTOMIZED SOLUTIONS!"



COMPONENT
Included

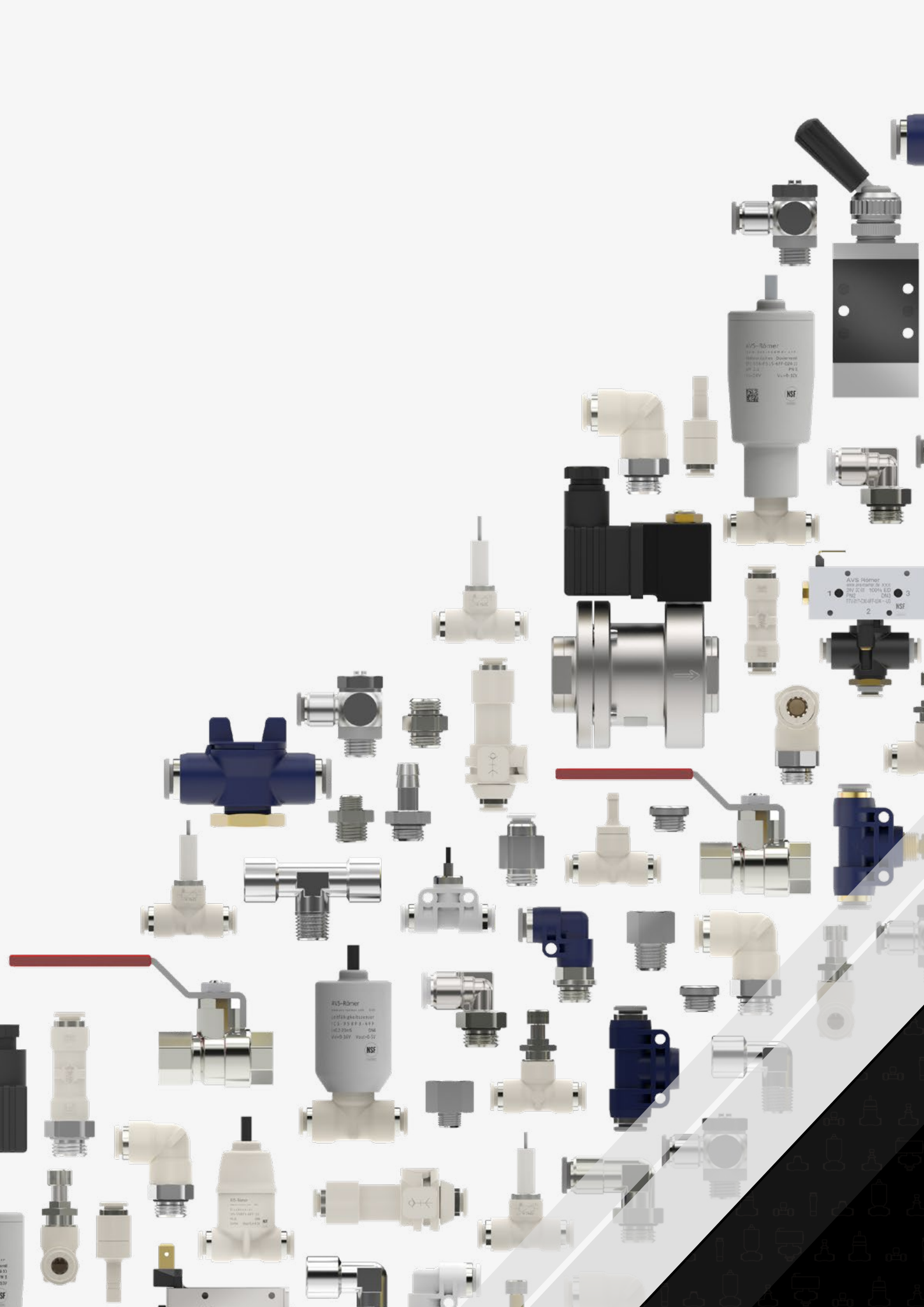


WE ARE MANUFACTURER OF FITTINGS, FUNCTION FITTINGS, SOLENOID VALVES, SENSORS (PUSH-IN / PUSH-ON) AND MUCH MORE...**MADE IN GERMANY!**

Thanks to our high level of vertical integration of production, we are the right partner for customised solutions, such as:

- ELSA screw-in fittings for tubes with inch dimensions
- FDA-compliant fittings, for pressures up to 20 bar and temperatures up to 140 °C
- Fittings with metric-thread connections
- Fittings, 100 % tightness tested for liquid media
- Distribution blocks with different ELSA or threaded connections
- Function fittings, eg with integrated filter or thermal sensors
- Flow and check valves with FDA-compliant design
- Valve clusters with various operations and switching types, with considerable advantages due to the structural integration of various valve types in multifunction blocks, with sensors as required.







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Filter by:

NSF

Brass

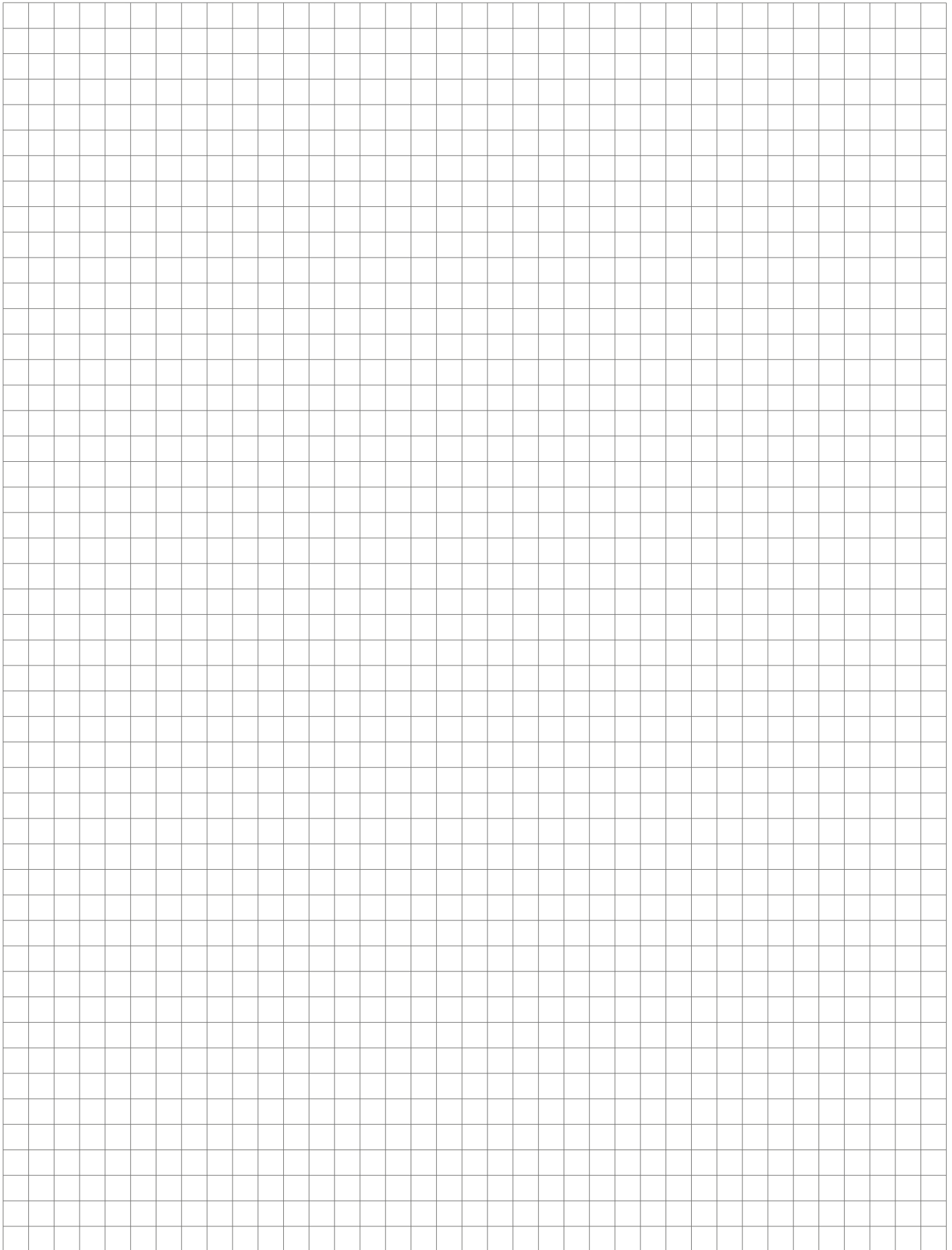
POM

PVDF

PPSU

Stainless steel

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ELSA Fittings Nickel-Plated Brass (Push-in)

ELSA the perfect push-in fitting from AVS-Römer



Nickel-plated brass version

Operating pressure: Technical vacuum up to maximum pressure as stated in the respective specification table under OP.

Temperature range: -20 °C to +80 °C
(for restrictions see specification table)

Application

ELSA push-in fittings can be used with the most varied of gaseous and liquid media. So long as the fitting materials are suitable, application with aggressive media is also possible. See also the information under characteristics.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Nickel-plated brass	CuZn39Pb3, galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring.
Other materials	see relevant products

TUBE

Outside diameter [mm]	4, 6 and 8	10, 12, 14 and 16	22
Permitted tolerance [mm]	±0.1	±0.15	±0.2
Permitted grades	Polyamide (PA), polyurethane (PU), fluoropolymer (FEP) (PFA)		

THREAD

External thread	"M" cylindrical thread: Metric ISO thread M5, M7
External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/4
External thread	"R" conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 to R 3/4 Designed for pairing with internal thread according to DIN ISO 228-1.
Internal thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/4

OPERATING PRESSURE / TEMPERATURE

Metal version	<table><tr><td>PN</td><td>T_{min} -20 °C</td><td rowspan="2">Means that the permitted operating pressure OP corresponds to the given nominal pressure PN within the specified temperature range "T".</td></tr><tr><td>16</td><td>T_{max} +80 °C</td></tr></table>	PN	T _{min} -20 °C	Means that the permitted operating pressure OP corresponds to the given nominal pressure PN within the specified temperature range "T".	16	T _{max} +80 °C
PN	T _{min} -20 °C	Means that the permitted operating pressure OP corresponds to the given nominal pressure PN within the specified temperature range "T".				
16	T _{max} +80 °C					
Permitted operating pressure and temperature of pipe/tube must be observed!						

THREAD SEAL

Cylindrical threaded nipple	Thread sealed by a NBR O-Ring in recess	applies to all cylindrical threaded nipples
Conical threaded nipple	Thread self-sealing with pre-coating "D"	Film with non-reactive mineral solid materials, non-adhesive. Resistant to air, water, engine oils etc. in temperature range of -20 °C - +80 °C

"POSITIONABLE" VERSION

90° elbow, T and Y adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings are 360°-positionable in order to facilitate alignment.
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SPECIAL VERSIONS (VERSIONS NOT INCLUDED IN THE CATALOGUE)

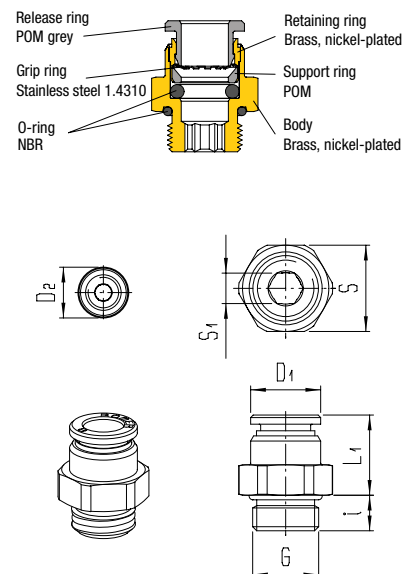
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials, e.g. EPDM, FKM
- for pipe/tube with imperial sizes

Straight Adaptor - Male

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Thread sealed by a NBR O-ring in recess	Nickel-plated brass					
for tube D	G	i	L1	D1	D2	S1	S	Weight in [g]	Type	Order number	Price
4	M 5	3.5	16.5	8	-	2.5	8	3.5	951M-4-M5	340004	o. r.
4	M 7	4.5	15	8	10	3	-	3.9	951M-4-M7-I	340237	o. r.
4	G 1/8	5	14	10	-	3	13	8.8	951M-4-1/8	340006	o. r.
4	G 1/4	7	11.8	10	-	3	17	17	951M-4-1/4	340007	o. r.
6	M 5	3.5	17.5	10	-	2.5	10	5.4	951M-6-M5	340010	o. r.
6	M 7	4.5	17	10	10	3	-	5.3	951M-6-M7-I	340238	o. r.
6	G 1/8	5	15	12	-	4	13	8.6	951M-6-1/8	340012	o. r.
6	G 1/4	7	14.5	12	-	4	17	17.1	951M-6-1/4	340013	o. r.
6	G 3/8	8	12	12	-	4	19	23.8	951M-6-3/8	340014	o. r.
8	G 1/8	5	20	14	-	5	14	12.7	951M-8-1/8	340016	o. r.
8	G 1/4	7	16	14	-	6	17	15.5	951M-8-1/4	340017	o. r.
8	G 3/8	8	16	14	-	6	19	24.8	951M-8-3/8	340018	o. r.
10	G 1/4	7	22.5	16.5	-	7	17	21	951M-10-1/4	340021	o. r.
10	G 3/8	8	17.5	16.5	-	8	19	23.2	951M-10-3/8	340022	o. r.
10	G 1/2	9	15.5	16.5	-	8	24*	38.2	951M-10-1/2	340023	o. r.
12	G 1/4	7	25	20	-	7	22	35.7	951M-12-1/4	340024	o. r.
12	G 3/8	8	19.5	20	-	10	22	29.1	951M-12-3/8	340025	o. r.
12	G 1/2	9	18.5	20	-	10	24*	39	951M-12-1/2	340026	o. r.
14	G 3/8	8	25.5	22	-	10	22	41	951M-14-3/8	340027	o. r.
14	G 1/2	9	19.5	22	-	12	24*	36.9	951M-14-1/2	340028	o. r.
16	G 3/8	8	26.5	24	-	10	24*	45.2	951M-16-3/8	340029	o. r.
16	G 1/2	9	19.5	24	-	12	24*	33.3	951M-16-1/2	340030	o. r.
22	G 1/2	9	32	32	-	-	32	91.7	951M-22-1/2	340032	o. r.
22	G 3/4	11	31	32	-	-	32	93.2	951M-22-3/4	340033	o. r.

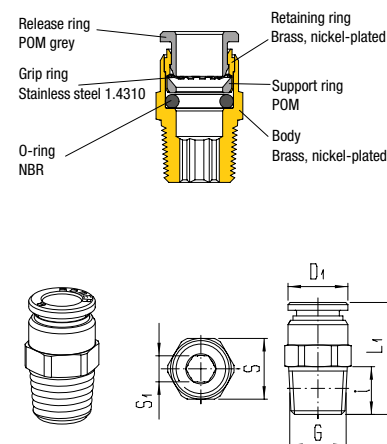
Illustration



Straight Adaptor - Male

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C		Conical thread	Thread self-sealing with pre-coating "D"		Nickel-plated brass		
for tube D	G	i	L1	D1	S1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	7.5	20.5	10	3	10	7.3	951M-4-D1/8K	340506	o. r.
6	R 1/8	7.5	21.5	12	4	12	8.4	951M-6-D1/8K	340512	o. r.
6	R 1/4	11	24.5	12	4	14	16.1	951M-6-D1/4K	340513	o. r.
6	R 3/8	11.5	22.5	12	4	17	25.4	951M-6-D3/8K	340514	o. r.
8	R 1/8	7.5	27	14	5	14	13.5	951M-8-D1/8K	340516	o. r.
8	R 1/4	11	26.5	14	6	14	15	951M-8-D1/4K	340517	o. r.
8	R 3/8	11.5	24.5	14	6	17	23.9	951M-8-D3/8K	340518	o. r.
10	R 1/8	7.5	29	16.5	5	17	18.5	951M-10-D1/8K	340520	o. r.
10	R 1/4	11	32.5	16.5	7	17	24.1	951M-10-D1/4K	340521	o. r.
10	R 3/8	11.5	28	16.5	8	17	23.7	951M-10-D3/8K	340522	o. r.
10	R 1/2	14	26.5	16.5	8	22	40.9	951M-10-D1/2K	340523	o. r.
12	R 1/4	11	35	20	7	22	36.3	951M-12-D1/4K	340524	o. r.
12	R 3/8	11.5	30	20	10	22	30.8	951M-12-D3/8K	340525	o. r.
12	R 1/2	14	31.5	20	10	22	44.7	951M-12-D1/2K	340526	o. r.
14	R 3/8	11.5	36	22	10	22	43.1	951M-14-D3/8K	340527	o. r.
14	R 1/2	14	32.5	22	12	22	40.5	951M-14-D1/2K	340528	o. r.
16	R 3/8	11.5	37	24	10	24*	47.4	951M-16-D3/8K	340529	o. r.
16	R 3/4	16	30.5	24	12	27	67.6	951M-16-D3/4K	340531	o. r.
16	R 1/2	14	32.5	24	12	24*	38.9	951M-16-D1/2K	340530	o. r.
22	R 3/4	16	47	31.5	-	32	64.8	951M-22-D3/4K	340533	o. r.

Illustration

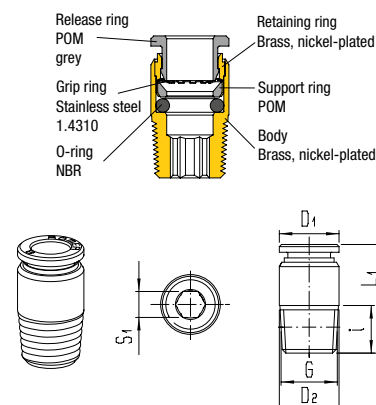


* S24 = octagon

Straight Adaptor - Male

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Conical thread	Thread self-sealing with pre-coating "D"					Nickel-plated brass	
for tube D	G	i	L1	D1	D2	Weight in [g]	S1	Type	Order number	Price	
4	R 1/8	7.5	20	10	10	6.5	3	951M-4-D1/8K-I	340306	o. r.	
4	R 1/4	11	20	10	13.5	11.6	3	951M-4-D1/4K-I	340307	o. r.	
6	R 1/8	7.5	21	12	12	7.2	4	951M-6-D1/8K-I	340312	o. r.	
6	R 1/4	11	21.5	12	13.5	11.3	4	951M-6-D1/4K-I	340313	o. r.	
8	R 1/8	7.5	26	14	14	12.6	5	951M-8-D1/8K-I	340316	o. r.	
8	R 1/4	11	25	14	14	12.4	6	951M-8-D1/4K-I	340317	o. r.	
10	R 1/4	11	30	16.5	16.5	18	7	951M-10-D1/4K-I	340321	o. r.	

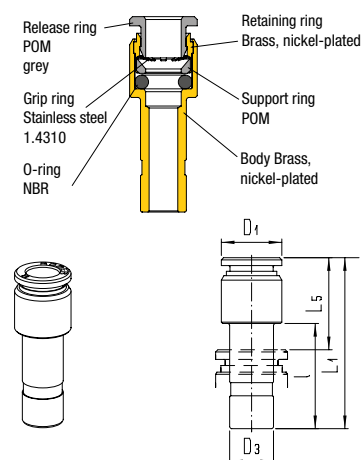
Illustration



Straight Stem Reducer

Product group		12	PN 20	T _{min} -20 °C T _{max} +80 °C			Nickel-plated brass		
for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price
4	6	18	31.5	17.5	10	6.4	947M-4-D6	339702	o. r.
6	8	20	34	18.5	12	9.5	947M-6-D8	339706	o. r.
6	10	24	38	20	12	16.1	947M-6-D10	339707	o. r.
8	10	24	39	21	14	13.4	947M-8-D10	339710	o. r.
8	12	26	41	21	14	21	947M-8-D12	339711	o. r.
8	14	26.5	40	19.5	14	29.3	947M-8-D14	339712	o. r.
10	12	26	42.5	22.5	16.5	18.3	947M-10-D12	339714	o. r.
10	14	26.5	43	22.5	16.5	28	947M-10-D14	339715	o. r.
12	14	26.5	50	29.5	20	36.9	947M-12-D14	339718	o. r.

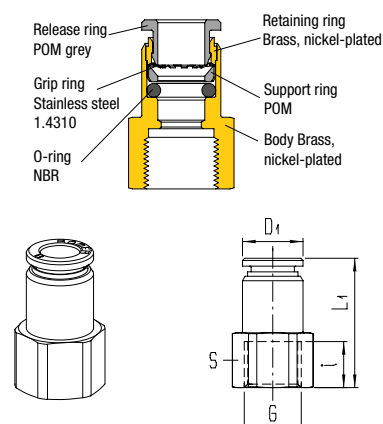
Illustration



Straight Adaptor - Female

Product group	12	PN 20	T _{min}	-20 °C	Cylindrical thread	Nickel-plated brass				
			T _{max}	+80 °C						
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price	
4	G 1/8	8	24	10	13	10.9	946M-4-1/8	340806	o. r.	
4	G 1/4	10.5	27	10	17	18.5	946M-4-1/4	340807	o. r.	
6	G 1/8	8	25	12	13	12.4	946M-6-1/8	340812	o. r.	
6	G 1/4	10.5	27.5	12	17	19.7	946M-6-1/4	340813	o. r.	
8	G 1/8	8	27	14	14	17.1	946M-8-1/8	340816	o. r.	
8	G 1/4	10.5	29.5	14	17	22	946M-8-1/4	340817	o. r.	
8	G 3/8	11.5	30.5	14	19	22.9	946M-8-3/8	340818	o. r.	
10	G 1/4	10.5	32	16.5	17	26.1	946M-10-1/4	340821	o. r.	
10	G 3/8	11.5	33	16.5	19	26.7	946M-10-3/8	340822	o. r.	
10	G 1/2	15	36.5	16.5	24*	39.7	946M-10-1/2	340823	o. r.	

Illustration

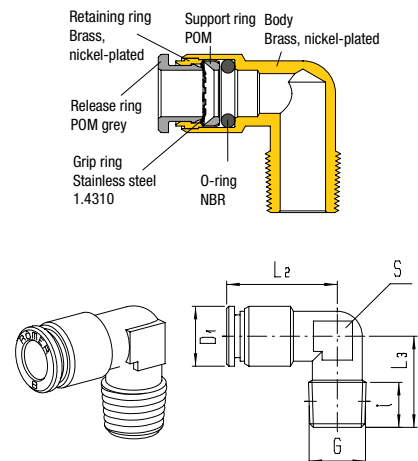


* S24 = octagon

90° Elbow Adaptor - Male

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Conical thread	Thread self-sealing with pre-coating "D"	Nickel-plated brass				
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	7	20.5	15	10	9	10.6	950M- 4-D1/8K	341006	o. r.
6	R 1/8	7	22	15	12	9	11.2	950M- 6-D1/8K	341012	o. r.
6	R 1/4	10	22	18.5	12	9	15.7	950M- 6-D1/4K	341013	o. r.
8	R 1/8	7.5	25.5	17.5	14	12	21.2	950M- 8-D1/8K	341016	o. r.
8	R 1/4	10.5	25.5	21	14	12	25.3	950M- 8-D1/4K	341017	o. r.
8	R 3/8	11	25.5	22.5	14	12	27.8	950M- 8-D3/8K	341018	o. r.
10	R 1/4	10.5	29.5	23	16.5	13	31.4	950M-10-D1/4K	341021	o. r.
10	R 3/8	11	29.5	24.5	16.5	13	33.7	950M-10-D3/8K	341022	o. r.
10	R 1/2	14	29.5	29	16.5	17	52	950M-10-D1/2K	341023	o. r.
12	R 3/8	11	32	24.5	20	17	48.4	950M-12-D3/8K	341025	o. r.
12	R 1/2	14	32	29	20	17	56.4	950M-12-D1/2K	341026	o. r.

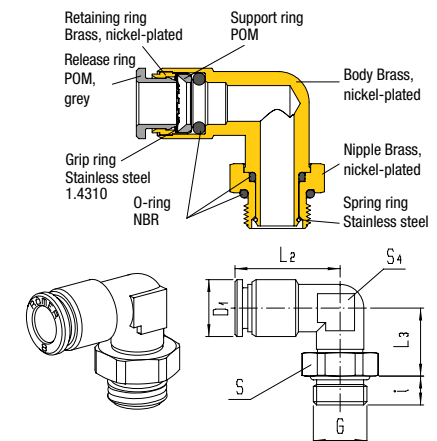
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	12	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Thread sealed by a NBR O-ring in recess			not suitable for rotating or oscill. movement		Nickel-plated brass	
for tube D	G	i	L2	L3	D1	S4	S	Weight in [g]	Type	Order number	Price
4	G 1/8	5	20.5	13.5	10	9	13	16.8	930M-4-1/8	341206	o. r.
4	G 1/4	7	22	15.5	10	10	17	24.5	930M-4-1/4	341207	o. r.
6	G 1/8	5	22	13.5	12	9	13	17.6	930M-6-1/8	341212	o. r.
6	G 1/4	7	24	15.5	12	10	17	25.5	930M-6-1/4	341213	o. r.
8	G 1/8	5	25.5	16	14	12	13	26.4	930M-8-1/8	341216	o. r.
8	G 1/4	7	27.5	17.5	14	13	17	37.1	930M-8-1/4	341217	o. r.
8	G 3/8	8	27.5	19.5	14	13	19	42.2	930M-8-3/8	341218	o. r.
10	G 1/4	7	29.5	17.5	16.5	13	17	37.3	930M-10-1/4	341221	o. r.
10	G 3/8	8	29.5	19.5	16.5	13	19	42.5	930M-10-3/8	341222	o. r.
12	G 1/4	7	32	18.5	20	17	17	58.6	930M-12-1/4	341224	o. r.
12	G 3/8	8	32	19.5	20	17	19	62.6	930M-12-3/8	341225	o. r.
12	G 1/2	9	32	20.5	20	17	24*	69.8	930M-12-1/2	341226	o. r.

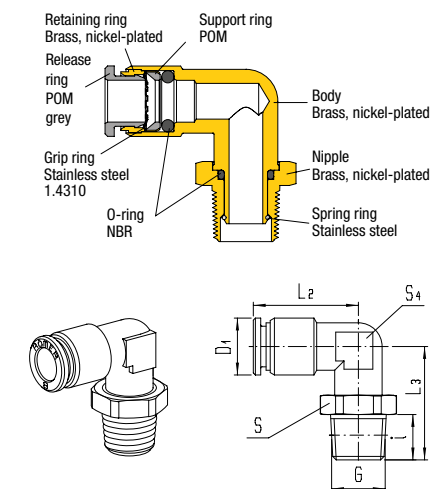
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	12	PN 16	T _{min} -20 °C T _{max} +80 °C		Conical thread	Thread self-sealing with pre-coating "D"			not suitable for rotating or oscill. movement		Nickel-plated brass	
for tube D	G	i	L2	L3	D1	S4	S	Weight in [g]	Type	Order number	Price	
4	R 1/8	7.5	20.5	20	10	9	13	17.3	930M-4-D1/8K	341606	o. r.	
4	R 1/4	11	22	25.5	10	10	17	25.1	930M-4-D1/4K	341607	o. r.	
6	R 1/8	7.5	22	20	12	9	13	17.9	930M-6-D1/8K	341612	o. r.	
6	R 1/4	11	24	25.5	12	10	17	26.1	930M-6-D1/4K	341613	o. r.	
8	R 1/8	7.5	25.5	22.5	14	12	13	27	930M-8-D1/8K	341616	o. r.	
8	R 1/4	11	27.5	27.5	14	13	17	36.9	930M-8-D1/4K	341617	o. r.	
8	R 3/8	11.5	27.5	30	14	13	19	43.2	930M-8-D3/8K	341618	o. r.	
10	R 1/4	11	29.5	27.5	16.5	13	17	38.9	930M-10-D1/4K	341621	o. r.	
10	R 3/8	11.5	29.5	30	16.5	13	19	44.2	930M-10-D3/8K	341622	o. r.	
12	R 3/8	11.5	32	30	20	17	19	66	930M-12-D3/8K	341625	o. r.	

Illustration

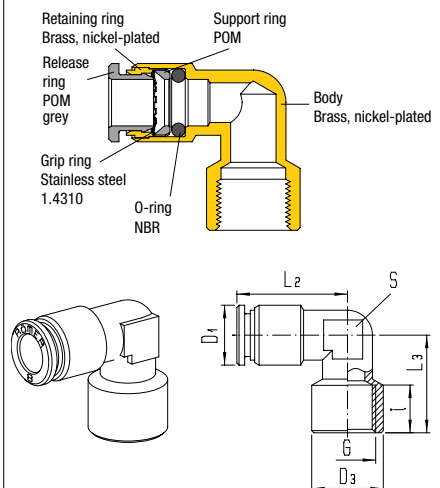


* S24 = octagon

90° Elbow Adaptor - Female

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread								Nickel-plated brass	
for tube D	G	i	L2	L3	D1	D3	S	Weight in [g]	Type	Order number	Price		
6	G 1/4	10.5	24	22.5	12	17	12	27	949M-6-1/4	342813	o. r.		
8	G 1/4	10.5	25.5	22.5	14	17	12	26	949M-8-1/4	342817	o. r.		

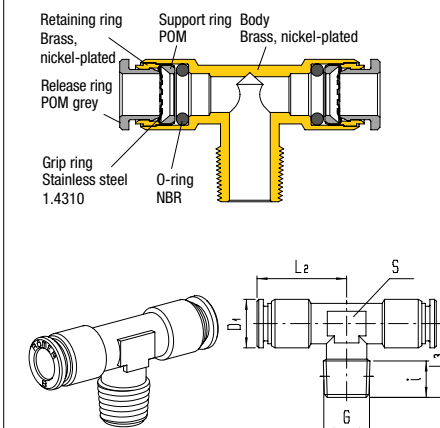
Illustration



T-Adaptor - Male

Product group	12	PN 20	T _{min} -20 °C T _{max} +80 °C		Conical thread	Thread self-sealing with pre-coating “D”		Nickel-plated brass		
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	7	20.5	15	10	9	16.2	941M-4-D1/8K	343406	o. r.
6	R 1/8	7	22	15	12	9	17.5	941M-6-D1/8K	343412	o. r.
6	R 1/4	10	22	18.5	12	9	22.3	941M-6-D1/4K	343413	o. r.
8	R 1/8	7.5	25.5	17.5	14	12	30.1	941M-8-D1/8K	343416	o. r.
8	R 1/4	10.5	25.5	21	14	12	34.7	941M-8-D1/4K	343417	o. r.
8	R 3/8	11	25.5	22.5	14	12	37.2	941M-8-D3/8K	343418	o. r.
10	R 1/4	10.5	29.5	23	16.5	13	42.1	941M-10-D1/4K	343421	o. r.
10	R 3/8	11	29.5	24.5	16.5	13	48.5	941M-10-D3/8K	343422	o. r.
10	R 1/2	14	29.5	29	16.5	17	70.4	941M-10-D1/2K	343423	o. r.
12	R 3/8	11	32	24.5	20	17	68.4	941M-12-D3/8K	343425	o. r.
12	R 1/2	14	32	29	20	17	76.2	941M-12-D1/2K	343426	o. r.

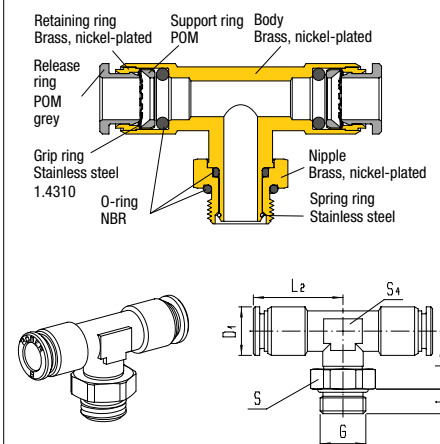
Illustration



T-Adaptor - Male - Positionable

Product group	12	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Thread sealed by a NBR O-ring in recess			not suitable for rotating or oscill. movement		Nickel-plated brass	
for tube D	G	i	L2	L3	D1	S4	S	Weight in [g]	Type	Order number	Price
4	G 1/8	5	20.5	13.5	10	9	13	22	921M-4-1/8	343606	o. r.
4	G 1/4	7	22	15.5	10	10	17	31.9	921M-4-1/4	343607	o. r.
6	G 1/8	5	22	13.5	12	9	13	22.8	921M-6-1/8	343612	o. r.
6	G 1/4	7	24	15.5	12	10	17	33.1	921M-6-1/4	343613	o. r.
8	G 1/8	5	25.5	16	14	12	13	34.9	921M-8-1/8	343616	o. r.
8	G 1/4	7	27.5	17.5	14	13	17	47.8	921M-8-1/4	343617	o. r.
8	G 3/8	8	27.5	19.5	14	13	19	52.7	921M-8-3/8	343618	o. r.
10	G 1/4	7	29.5	17.5	16.5	13	17	49.9	921M-10-1/4	343621	o. r.
10	G 3/8	8	29.5	19.5	16.5	13	19	53.1	921M-10-3/8	343622	o. r.
12	G 3/8	8	32	19.5	20	17	19	81.5	921M-12-3/8	343625	o. r.

Illustration



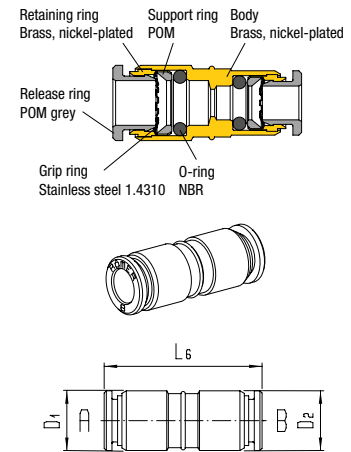
Straight Connector

Product group **12** PN 20 T_{min} -20 °C T_{max} +80 °C

Nickel-plated brass

for tube AD	for tube BD	L6	D1	D2	Weight in [g]	Type	Order number	Price
4	4	31	10	10	8.1	958M-4	347004	o. r.
6	4	32.5	12	10	10.1	958M-6-4	347008	o. r.
6	6	34	12	12	11.3	958M-6	347010	o. r.
8	6	35	14	12	13.9	958M-8-6	347011	o. r.
8	8	36.5	14	14	15.6	958M-8	347012	o. r.
10	8	39.5	16.5	14	19.2	958M-10-8	347014	o. r.
10	10	41.5	16.5	16.5	22.2	958M-10	347015	o. r.

Illustration



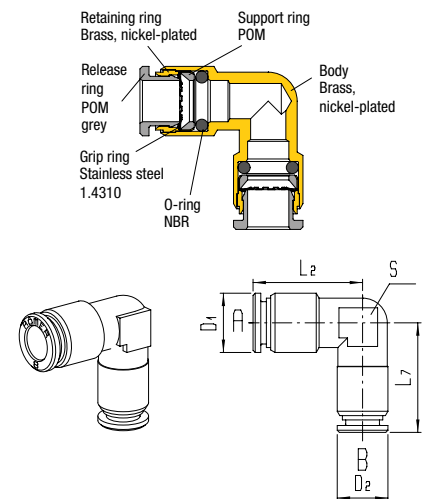
90° Elbow Connector

Product group **12** PN 20 T_{min} -20 °C T_{max} +80 °C

Nickel-plated brass

for tube AD	for tube BD	L2	L7	D1	D2	S	Weight in [g]	Type	Order number	Price
4	4	18.5	18.5	10	10	9	18	955M-4	347204	o. r.
6	4	19.5	18.5	12.5	12.5	9	15.6	955M-6-4	347208	o. r.
6	6	19.5	19.5	12.5	12.5	9	13.6	955M-6	347210	o. r.
8	6	25.5	24	14	12	12	23.1	955M-8-6	347211	o. r.
8	8	25.5	25.5	14	14	12	24.3	955M-8	347212	o. r.
10	10	29.5	29.5	16.5	16.5	13	32	955M-10	347215	o. r.
12	12	32	32	20	20	17	52.9	955M-12	347217	o. r.

Illustration



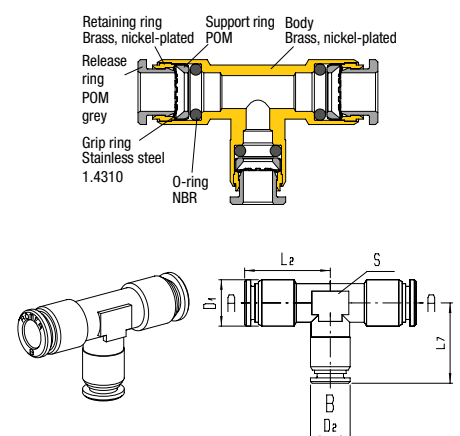
T-Connector

Product group **12** PN 20 T_{min} -20 °C T_{max} +80 °C

Nickel-plated brass

for tube AD	for tube BD	L2	L7	D1	D2	S	Weight in [g]	Type	Order number	Price
4	4	18.5	18.5	12.5	12.5	9	23.5	954M-4	347404	o. r.
6	4	19.5	18.5	12.5	12.5	9	21.4	954M-6-4	347408	o. r.
6	6	19.5	19.5	12.5	12.5	9	19.6	954M-6	347410	o. r.
8	6	25.5	24	14	12	12	31.6	954M-8-6	347411	o. r.
8	8	25.5	25.5	14	14	12	32.5	954M-8	347412	o. r.
10	8	29.5	27.5	16.5	14	13	40.4	954M-10-8	347414	o. r.
10	10	29.5	29.5	16.5	16.5	13	43.9	954M-10	347415	o. r.

Illustration

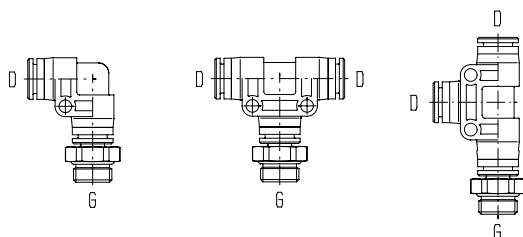


Straight Stem Adaptor

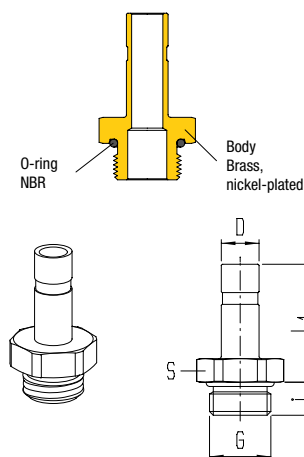
Product group	12	PN	20	Cylindrical thread	T _{min} -20 °C T _{max} +80 °C	Thread sealed by a NBR O-ring in recess	Nickel-plated brass
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for stem D	G	i	L1	S	Weight in [g]	Type	Order number	Price
4	G 1/8	5	21.5	13	7.1	908M-4-1/8	337506	o. r.
4	G 1/4	7	22	17	14.3	908M-4-1/4	337507	o. r.
6	G 1/8	5	22.5	13	8	908M-6-1/8	337512	o. r.
6	G 1/4	7	23	17	14.6	908M-6-1/4	337513	o. r.
8	G 1/8	5	24.5	13	9.3	908M-8-1/8	337516	o. r.
8	G 1/4	7	25	17	15	908M-8-1/4	337517	o. r.
10	G 1/4	7	29	17	16.5	908M-10-1/4	337521	o. r.
10	G 3/8	8	29	19	19.5	908M-10-3/8	337522	o. r.
12	G 1/4	7	31	17	25.8	908M-12-1/4	337524	o. r.
12	G 3/8	8	31	19	23.7	908M-12-3/8	337525	o. r.
12	G 1/2	9	31.5	24*	36	908M-12-1/2	337526	o. r.
14	G 3/8	8	31.5	19	28.9	908M-14-3/8	337527	o. r.
14	G 1/2	9	32	24*	37.9	908M-14-1/2	337528	o. r.
16	G 1/2	9	32.5	24*	39.6	908M-16-1/2	337530	o. r.

Examples of possible combinations with ELSA push-in connectors to get rotatable connections



Illustration

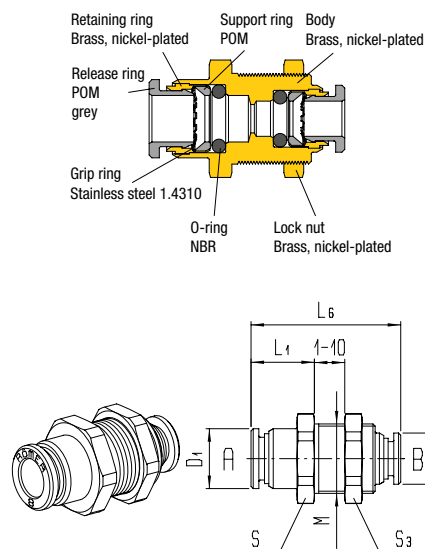


Straight Bulkhead Connector

Product group	12	PN	20	T _{min} -20 °C T _{max} +80 °C	Nickel-plated brass
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for tube AD	for tube BD	M	L1	L6	D1	D2	S	S3	Weight in [g]	Type	Order number	Price
4	4	M12x1	12.5	31	10	10	14	17	18.2	959M-4	348704	o. r.
6	4	M14x1	12.5	31.5	12	10	17	17	23.7	959M-6-4	348708	o. r.
6	6	M14x1	13.5	32.5	12	12	17	17	22.9	959M-6	348710	o. r.
8	6	M16x1	14.5	34.5	14	12	19	19	30.8	959M-8-6	348711	o. r.
8	8	M16x1	16.5	36.5	14	14	19	19	30.7	959M-8	348712	o. r.
10	8	M20x1	19	39	16.5	14	22	24*	53	959M-10-8	348714	o. r.
10	10	M20x1	21	42	16.5	16.5	22	24*	52.3	959M-10	348715	o. r.
12	12	M22x1.5	22.5	45.5	20	20	24*	27	72.8	959M-12	348717	o. r.
14	14	M24x1.5	23.5	46.5	22	22	27	27	84	959M-14	348719	o. r.

Illustration

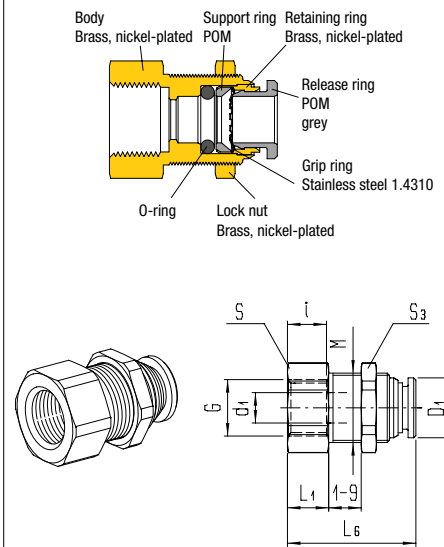


* S24 = octagon

Straight Bulkhead Connector

Product group		PN	T _{min}	T _{max}	Cylindrical thread		Nickel-plated brass							
12		20	-20 °C	+80 °C										
for tube D	G	M	L1	i	L6	d1	D1	S4	S3	Weight in [g]	Type	Order number	Price	
4	G 1/8	M12x1	6.5	8	25.5	3	10	14	17	17.5	945M-4-1/8	348806	o. r.	
6	G 1/8	M14x1	6.5	8	25.5	5	12	17	17	22.4	945M-6-1/8	348812	o. r.	
6	G 1/4	M14x1	12	10.5	31	5	12	17	17	27.3	945M-6-1/4	348813	o. r.	
8	G 1/8	M16x1	7	8	27	7	14	19	19	31.8	945M-8-1/8	348816	o. r.	
8	G 1/4	M16x1	9.5	10.5	29.5	7	14	19	19	32	945M-8-1/4	348817	o. r.	
10	G 1/4	M20x1	11	10.5	32	9	16.5	22	24*	56.2	945M-10-1/4	348821	o. r.	
10	G 3/8	M20x1	12	11.5	33	9	16.5	22	24*	50.4	945M-10-3/8	348822	o. r.	
22	G 3/4	M33x1.5	18	18	48	20	32.5	36	41	200	945M-22-3/4	348833	o. r.	

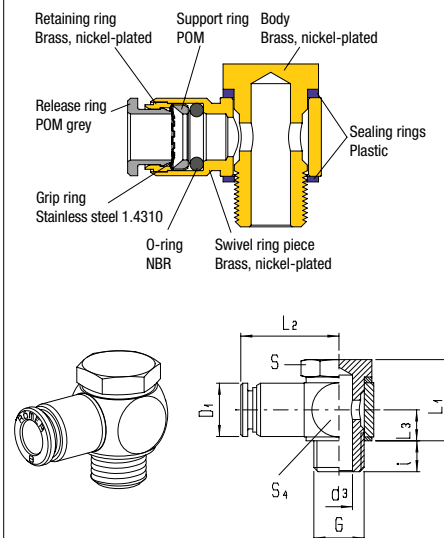
Illustration



Banjo Fitting

Product group		PN	T _{min}	T _{max}	Cylindrical thread		Nickel-plated brass							
12		20	-20 °C	+80 °C										
for tube D	G	i**	L1**	L2	L3**	d3	D1	S4	S	Weight in [g]	Type	Order number	Price	
4	M 5	4.5	13.5	17	5	2	8	9	8	9	952M-4-M5	370004	o. r.	
4	G 1/8	6	20.5	21	8	5	10	14	14	28.5	952M-4-1/8	370006	o. r.	
6	M 5	4.5	14.5	18.5	5.5	2	10	10	8	12.3	952M-6-M5	370010	o. r.	
6	G 1/8	6	20.5	21.5	8	5	12	14	14	29.7	952M-6-1/8	370012	o. r.	
6	G 1/4	8	21	23.5	8	7	12	18	17	46.4	952M-6-1/4	370013	o. r.	
8	G 1/8	6	20.5	23.5	8	5	14	14	14	31.5	952M-8-1/8	370016	o. r.	
8	G 1/4	8	21	25.5	8	7	14	18	17	48.6	952M-8-1/4	370017	o. r.	

Illustration



* S24 = octagon i**, L1**, und L3** = Approximate dimensions when tightened

ELSA Fittings POM (Push-in)

ELSA the perfect push-in fitting from AVS-Römer



POM version

Operating pressure: Technical vacuum up to maximum pressure as stated in the respective specification table under OP.

Temperature range: -20 °C to + 80 °C
(for restrictions see specification table)

Application

ELSA push-in fittings can be used with the most varied of gaseous and liquid media. So long as the fitting materials are suitable. application with aggressive media is also possible. See also the information under characteristics.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Plastic POM	Polyoxymethylene. UV-resistant. Suitable for neutral gaseous and liquid media. especially compressed air. water etc.
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Other materials	see relevant products
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TUBE

Outside diameter [mm]	4. 6 and 8	10. 12. 14 and 16	20, 22
Permitted tolerance [mm]	±0.1	±0.15	±0.2
Permitted grades	Polyamide (PA). polyurethane (PU). fluoropolymer (FEP) (PFA)		

THREAD

External thread	"M" cylindrical thread: Metric ISO thread M5
External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/4
Internal thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/8

OPERATING PRESSURE / TEMPERATURE

Plastic version	permitted Operating pressure OP at the stated ambient temp. and medium temp. according to Table	Means that the permitted operating pressure OP within the permitted ambient temperature also depends on the medium temperature according to the table.
Permitted operating pressure and temperature of pipe/tube must be observed!		

THREAD SEAL

Cylindrical threaded nipple	Thread sealed by a NBR O-ring in recess	applies to all cylindrical threaded nipples
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"POSITIONABLE" VERSION

90° elbow, T and Y adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings are 360°-positionable in order to facilitate alignment.
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SPECIAL VERSIONS (VERSIONS NOT INCLUDED IN THE CATALOGUE)

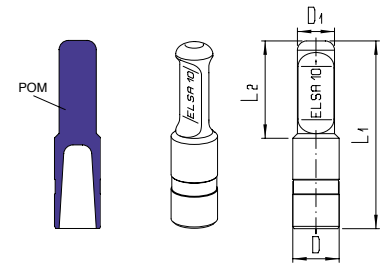
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials. e.g. FKM, EPDM
- for pipes/tubes with imperial measures

Push-in Plug

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C							Plastic POM	
for push-in connector	permitted OP [bar] at medium temp.			L1	L2	D1	Weight in [g]	Type	Order number	Price
	D	20 °C	60 °C							
4	16	16	12	31.5	17	6	0.6	971P-4	237404	o. r.
6	16	16	12	34.5	19	8	0.9	971P-6	237410	o. r.
8	16	16	12	37.5	20	8	1.4	971P-8	237412	o. r.
10	16	16	12	40.5	20.5	8	1.8	971P-10	237415	o. r.
12	16	12	10	44	22	8	2.5	971P-12	237417	o. r.
14	12	10	8	44.5	22	8	3.1	971P-14	237419	o. r.
16	12	8	6	45	22	8	3.6	971P-16	237422	o. r.

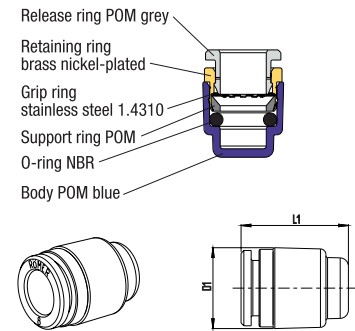
Illustration



Tube Cap

Product group	12	permitted OP at ambient temp. $T_{min} -20\text{ °C}$, $T_{max} +60\text{ °C}$			Plastic POM				
for tube D	permitted OP [bar] at medium temp.			L1	D1	Weight in [g]	Type	Order number	Price
	20 °C	60 °C	80 °C						
6	16	12	10	19,5	12,5	3,5	972P-6	337427	o. r.
8	16	12	10	19,0	14,5	4,1	972P-8	337429	o. r.
10	16	12	10	21,5	17	6	972P-10	337430	o. r.
12	16	12	10	24	21	10,4	972P-12	337431	o. r.
16	12	10	8	25	25	13,2	972P-16	337433	o. r.

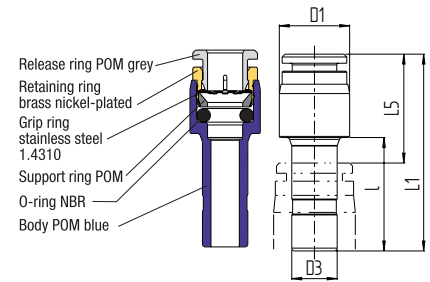
Illustration



Straight Stem Connector

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C									Plastic POM	
for tube D	D3	permitted OP [bar] at medium temp.			I	L1	L5	D1	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C								
4	6	16	12	12	18	31,5	17,5	10,5	6	947P-4-D6	339802	o. r.
6	8	16	12	10	20	34,5	19	12,5	3,6	947P-6-D8	339806	o. r.
6	10	16	12	10	24	40,5	22,5	14,5	5,0	947P-6-D10	339807	o. r.
8	10	16	12	10	24	40,5	22,5	14,5	5,3	947P-8-D10	339810	o. r.
8	12	16	12	10	26	43,5	23,5	17	7,1	947P-8-D12	339811	o. r.
10	12	16	12	10	26	44	24	17	7,8	947P-10-D12	339814	o. r.

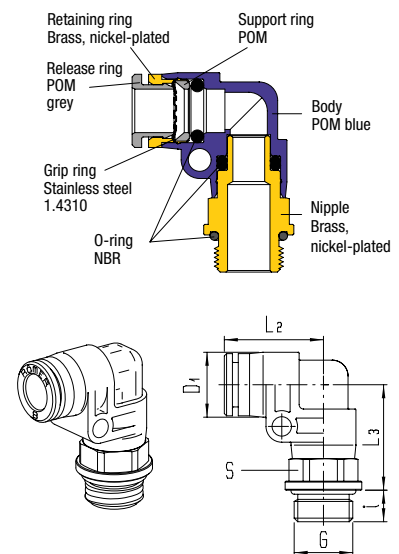
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C			Cylindrical thread			Thread sealed by a NBR O-Ring in recess			not suitable for rotating or oscill. movement		Plastic POM	
for tube D	G	permitted OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price	
		20 °C	60 °C	80 °C										
4	M 5	16	16	12	3.5	14.5	11	10	8	3.8	930P-4-M5	342004	o. r.	
4	G 1/8	16	16	12	5	18.5	20.5	12.5	12	12.9	930P-4-1/8	342006	o. r.	
4	G 1/4	16	12	10	7	18.5	20.5	12.5	12	15.6	930P-4-1/4	342007	o. r.	
6	M 5	16	16	12	3.5	16.5	11	12	8	4.5	930P-6-M5	342010	o. r.	
6	G 1/8	16	12	10	5	19	20.5	12.5	12	14.1	930P-6-1/8	342012	o. r.	
6	G 1/4	16	12	10	7	19	20.5	12.5	12	16	930P-6-1/4	342013	o. r.	
8	G 1/8	16	12	10	5	22	22	14.5	14	19	930P-8-1/8	342016	o. r.	
8	G 1/4	16	12	10	7	22	23.5	14.5	14	22.4	930P-8-1/4	342017	o. r.	
8	G 3/8	16	12	10	8	22	24	14.5	14	22.8	930P-8-3/8	342018	o. r.	
10	G 1/8	16	12	10	5	26	25	17	23.6	25	930P-10-1/8	342020	o. r.	
10	G 1/4	16	12	10	7	26	25.5	17	17	31.5	930P-10-1/4	342021	o. r.	
10	G 3/8	16	12	10	8	26	27	17	17	31.5	930P-10-3/8	342022	o. r.	
12	G 3/8	16	12	10	8	31	30.5	23	22	51.5	930P-12-3/8	342025	o. r.	
12	G 1/2	16	12	10	9	31	31	23	24*	57.4	930P-12-1/2	342026	o. r.	
14	G 3/8	12	10	8	8	31	30.5	23	22	52.8	930P-14-3/8	342027	o. r.	
14	G 1/2	12	10	8	9	31	31	23	24*	62.4	930P-14-1/2	342028	o. r.	
16	G 3/8	12	8	6	8	32	32	25	24*	68.5	930P-16-3/8	342029	o. r.	
16	G 1/2	12	8	6	9	32	32	25	24*	66	930P-16-1/2	342030	o. r.	
22	G 1/2	12	8	6	9	40	41	34	32	128	930P-22-1/2	342032	o. r.	
22	G 3/4	12	8	6	11	40	40	34	32	130	930P-22-3/4	342033	o. r.	

Illustration

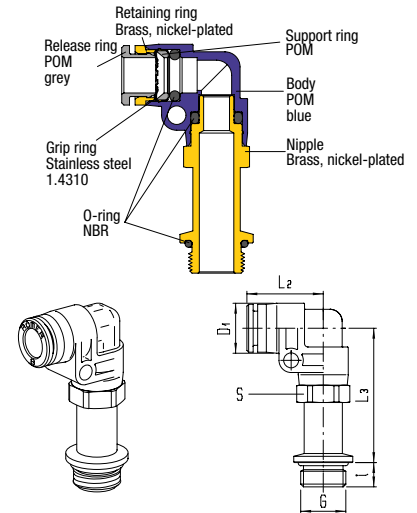


* S24 = octagon

90° Elbow Adaptor - Male - Positionable

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C				Cylindrical thread		Thread sealed by a NBR O-Ring in recess			not suitable for rotating or oscill. movement		Plastic POM	
		for tube D	G	permitted OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number
		20 °C	60 °C	80 °C										
4	G 1/8	16	16	12	5	18.5	34	12.5	12	20.3	980P-4-1/8	342206	o. r.	
4	G 1/4	16	12	10	7	18.5	34.5	12.5	12	22	980P-4-1/4	342207	o. r.	
6	G 1/8	16	12	10	5	19	34	12.5	12	20.9	980P-6-1/8	342212	o. r.	
6	G 1/4	16	12	10	7	19	34.5	12.5	12	24.5	980P-6-1/4	342213	o. r.	
8	G 1/8	16	12	10	5	22	37.5	14.5	14	27.9	980P-8-1/8	342216	o. r.	
8	G 1/4	16	12	10	7	22	39	14.5	14	28.2	980P-8-1/4	342217	o. r.	
8	G 3/8	16	12	10	8	22	39.5	14.5	14	37.9	980P-8-3/8	342218	o. r.	
10	G 1/4	16	12	10	7	26	42.5	17	17	38.8	980P-10-1/4	342221	o. r.	
10	G 3/8	16	12	10	8	26	45.5	17	17	51	980P-10-3/8	342222	o. r.	

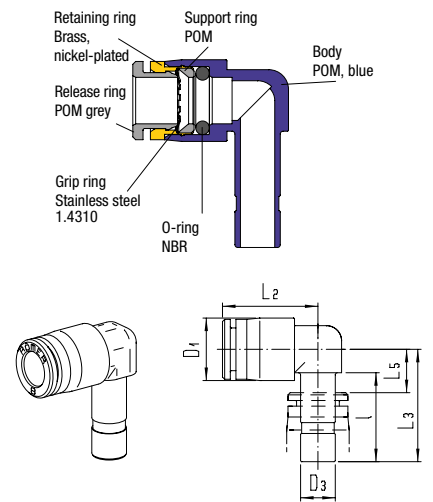
Illustration



90° Elbow Stem Connector

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C										Plastic POM			
		for tube D	Stem D3	permitted OP [bar] at medium temp.			I	L2	L3	D1	L5	Weight in [g]	Type	Order number	Price
				20 °C	60 °C	80 °C									
	4	4	16	16	12	17	18.5	21.5	12.5	6.6	3.6	911P-4-D4	348454	o. r.	
	4	6	16	16	12	18	18.5	22.5	12.5	6.7	3.7	911P-4-D6	348458	o. r.	
	6	4	16	12	10	17	19	21.5	12.5	6.6	3.8	911P-6-D4	348459	o. r.	
	6	6	16	12	10	18	19	22.5	12.5	6.7	3.8	911P-6-D6	348460	o. r.	
	6	8	16	12	10	20.5	22	26	14.5	8.3	5.5	911P-6-D8	348461	o. r.	
	8	8	16	12	10	20.5	22	26	14.5	8.3	5.6	911P-8-D8	348462	o. r.	
	8	10	16	12	10	24	25.5	32	17	12	8.4	911P-8-D10	348464	o. r.	
	10	10	16	12	10	24	26	32	17	12	10	911P-10-D10	348465	o. r.	

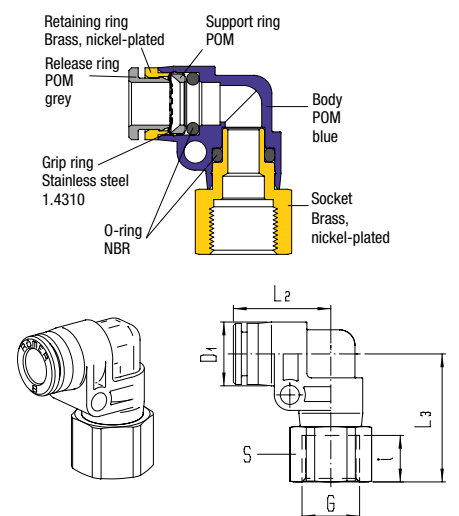
Illustration



90° Elbow Adaptor - Female - Positionable

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C				Cylindrical thread		not suitable for rotating or oscill. movement				Plastic POM			
		for tube D	G	permitted OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
			20 °C	60 °C	80 °C										
4	G 1/8	16	16	12	8	18.5	24	12.5	13	15	979P-4-1/8	343206	o. r.		
4	G 1/4	16	12	10	10.5	18.5	26.5	12.5	17	22.1	979P-4-1/4	343207	o. r.		
4	G 3/8	16	12	10	10	18.5	27.5	12.5	19	24.9	979P-4-3/8	343208	o. r.		
6	G 1/8	16	12	10	8	19	24	12.5	13	15	979P-6-1/8	343212	o. r.		
6	G 1/4	16	12	10	10.5	19	26.5	12.5	17	22	979P-6-1/4	343213	o. r.		
6	G3/8	16	12	10	10	19	27.5	12.5	19	25	979P-6-3/8	343214	o. r.		
8	G 1/8	16	12	10	8	22	26.5	14.5	14	20.4	979P-8-1/8	343216	o. r.		
8	G 1/4	16	12	10	10.5	22	29	14.5	17	27.5	979P-8-1/4	343217	o. r.		
10	G3/8	16	12	10	10	26	33	17	19	30.8	979P-10-3/8	343222	o. r.		

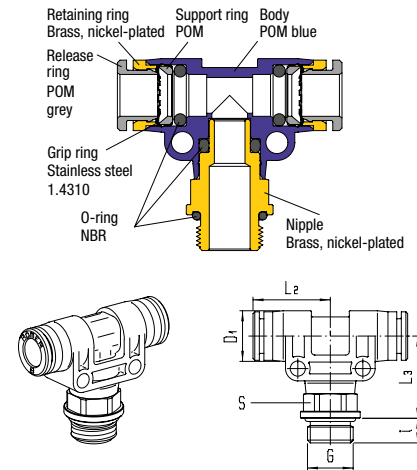
Illustration



T-Adaptor - Male - Positionable

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C			Cylindrical thread	Thread sealed by a NBR O-Ring in recess			not suitable for rotating or oscill. movement		Plastic POM				
		permitted OP [bar] at medium temp.				i	L2	L3	D1	S		Weight in [g]	Type	Order number	Price
for tube D	G	20 °C	60 °C	80 °C											
4	G 1/8	16	12	10	5	18.5	20.5	12.5	12	16	921P-4-1/8	344006	o. r.		
4	G 1/4	16	12	10	7	18.5	20.5	12.5	12	19.4	921P-4-1/4	344007	o. r.		
6	G 1/8	16	12	10	5	19	20.5	12.5	12	20	921P-6-1/8	344012	o. r.		
6	G 1/4	16	12	10	7	19	20.5	12.5	12	19.3	921P-6-1/4	344013	o. r.		
8	G 1/8	16	12	10	5	22	22	14.5	14	23.4	921P-8-1/8	344016	o. r.		
8	G 1/4	16	12	10	7	22	23.5	14.5	14	26.6	921P-8-1/4	344017	o. r.		
8	G 3/8	16	12	10	8	22	24	14.5	14	28	921P-8-3/8	344018	o. r.		
10	G 1/4	16	12	10	7	26	25.5	17	17	38.8	921P-10-1/4	344021	o. r.		
10	G 3/8	16	12	10	8	26	27	17	17	38.1	921P-10-3/8	344022	o. r.		
12	G 3/8	16	12	10	8	31	30.5	23	22	62.3	921P-12-3/8	344025	o. r.		
12	G 1/2	16	12	10	9	31	31	23	24*	74.1	921P-12-1/2	344026	o. r.		
14	G 3/8	12	10	8	8	31	30,5	23	22	64,8	921P-14-3/8	344027	o. r.		
14	G 1/2	12	10	8	9	31	31	23	24*	76.1	921P-14-1/2	344028	o. r.		
16	G 3/8	12	8	6	8	32	32	25	24*	83	921P-16-3/8	344029	o. r.		
16	G 1/2	12	8	6	9	32	32	25	24*	80.2	921P-16-1/2	344030	o. r.		
22	G 1/2	12	8	6	9	40	41	34	32	157	921P-22-1/2	344032	o. r.		
22	G 3/4	12	8	6	11	40	40	34	32	159	921P-22-3/4	344033	o. r.		

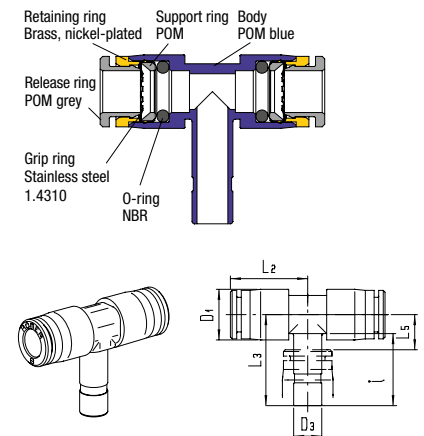
Illustration



T-Stem Connector

Product group	12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C										Plastic POM		
		for tube D	Stem D3	permitted OP [bar] at medium temp.			I	L2	L3	D1	L5	Weight in [g]	Type	Order number
20 °C	60 °C			80 °C										
	4	4	16	16	12	17	18.5	21.5	12.5	8.5	6	912P-4-D4	348504	o. r.
	4	6	16	16	12	18	18.5	22.5	12.5	8.5	6	912P-4-D6	348508	o. r.
	6	4	16	12	10	17	19	21.5	12.5	8.5	on req.	912P-6-D4	348509	o. r.
	6	6	16	12	10	18	19	22.5	12.5	8.5	6.4	912P-6-D6	348510	o. r.
	6	8	16	12	10	20.5	22	26	14.5	10.5	8	912P-6-D8	348511	o. r.
	8	8	16	12	10	20.5	21.5	26	14.5	10.5	8	912P-8-D8	348512	o. r.
	8	10	16	12	10	24	25.5	32	17	14	on req.	912P-8-D10	348514	o. r.
	10	10	16	12	10	24	26	32	17	14	on req.	912P-10-D10	348515	o. r.

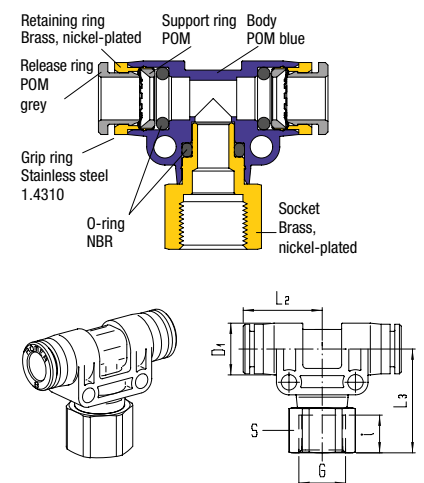
Illustration



T-Adaptor - Female - Positionable

Product group		12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C			Cylindrical thread		not suitable for rotating or oscill. movement				Plastic POM	
for tube D	G		permitted OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number
		20 °C	60 °C	80 °C									
4	G 1/8	16	12	10	8	18.5	24	12.5	13	18	970P-4-1/8	345306	o. r.
4	G 1/4	16	12	10	10.5	18.5	26.5	12.5	17	on req.	970P-4-1/4	345307	o. r.
6	G 1/8	16	12	10	8	19	24	12.5	13	18.4	970P-6-1/8	345312	o. r.
6	G 1/4	16	12	10	10.5	19	26.5	12.5	17	26	970P-6-1/4	345313	o. r.
8	G 1/8	16	12	10	8	22	26.5	14.5	14	24	970P-8-1/8	345316	o. r.
8	G 1/4	16	12	10	10.5	22	29	14.5	17	on req.	970P-8-1/4	345317	o. r.

Illustration

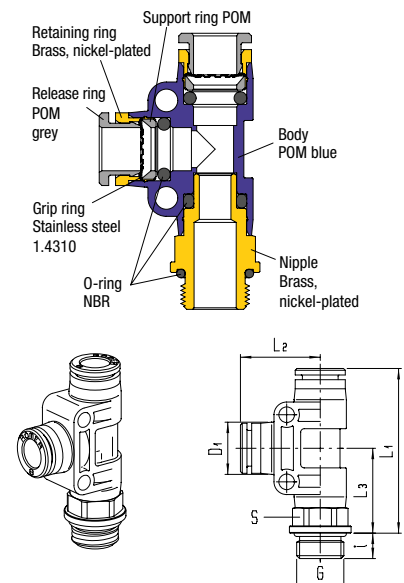


* S24 = octagon

Side T-Adaptor - Male - Positionable

Product group		12		permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C				Cylindrical thread		Thread sealed by a NBR O-Ring in recess				not suitable for rotating or oscill. movement		Plastic POM	
for tube D	G	permitted OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price			
		20 °C	60 °C	80 °C													
4	G 1/8	16	12	10	5	39	18.5	20.5	12.5	12	15.9	922P-4-1/8	345006	o. r.			
4	G 1/4	16	12	10	7	39	18.5	20.5	12.5	12	19.4	922P-4-1/4	345007	o. r.			
6	G 1/8	16	12	10	5	39.5	19	20.5	12.5	12	17.3	922P-6-1/8	345012	o. r.			
6	G 1/4	16	12	10	7	39.5	19	20.5	12.5	12	19.1	922P-6-1/4	345013	o. r.			
8	G 1/8	16	12	10	5	44	22	22	14.5	14	23.2	922P-8-1/8	345016	o. r.			
8	G 1/4	16	12	10	7	45.5	22	23.5	14.5	14	26.7	922P-8-1/4	345017	o. r.			
8	G 3/8	16	12	10	8	46	22	24	14.5	14	26.9	922P-8-3/8	345018	o. r.			
10	G 1/4	16	12	10	7	52	26	25.5	17	17	38.3	922P-10-1/4	345021	o. r.			
10	G 3/8	16	12	10	8	53.5	26	27	17	17	46.8	922P-10-3/8	345022	o. r.			
12	G 3/8	16	12	10	8	61.5	31	30.5	23	22	65	922P-12-3/8	345025	o. r.			
12	G 1/2	16	12	10	9	62	31	31	23	24*	74	922P-12-1/2	345026	o. r.			
14	G 1/2	12	10	8	9	62	31	31	23	24*	73.2	922P-14-1/2	345028	o. r.			
16	G 3/8	12	8	6	8	64	32	32	25	24*	83.1	922P-16-3/8	345029	o. r.			
16	G 1/2	12	8	6	9	64	32	32	25	24*	80.3	922P-16-1/2	345030	o. r.			
22	G 1/2	12	8	6	9	81	40	41	34	32	157	922P-22-1/2	345032	o. r.			
22	G 3/4	12	8	6	11	80	40	40	34	32	158	922P-22-3/4	345033	o. r.			

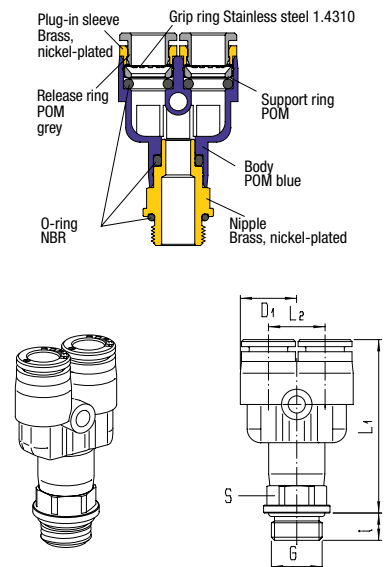
Illustration



Y-Adaptor - Male - Positionable

Product group		12			permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C			Cylindrical thread		Thread sealed by a NBR O-Ring in recess			not suitable for rotating or oscill. movement		Plastic POM	
for tube D	G	permitted OP [bar] at medium temp.			i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price			
		20 °C	60 °C	80 °C												
4	G 1/8	16	12	10	5	39	12.5	12.5	12	17.2	992P-4-1/8	345406	o. r.			
4	G 1/4	16	12	10	7	39	12.5	12.5	12	18.7	992P-4-1/4	345407	o. r.			
6	G 1/8	16	12	10	5	39.5	12.5	12.5	12	17.1	992P-6-1/8	345412	o. r.			
6	G 1/4	16	12	10	7	39.5	12.5	12.5	12	19.8	992P-6-1/4	345413	o. r.			
8	G 1/8	16	12	10	5	43	14.5	14.5	14	23.8	992P-8-1/8	345416	o. r.			
8	G 1/4	16	12	10	7	44.5	14.5	14.5	14	29.8	992P-8-1/4	345417	o. r.			
8	G 3/8	16	12	10	8	45	14.5	14.5	14	28.1	992P-8-3/8	345418	o. r.			
10	G 1/4	16	12	10	7	49	17	17	17	39.4	992P-10-1/4	345421	o. r.			
10	G 3/8	16	12	10	8	50.5	17	17	17	37.5	992P-10-3/8	345422	o. r.			
12	G 3/8	16	12	10	8	55	20.5	21	22	59.8	992P-12-3/8	345425	o. r.			
12	G 1/2	16	12	10	9	55.5	20.5	21	24*	65.6	992P-12-1/2	345426	o. r.			

Illustration



* S24 = octagon

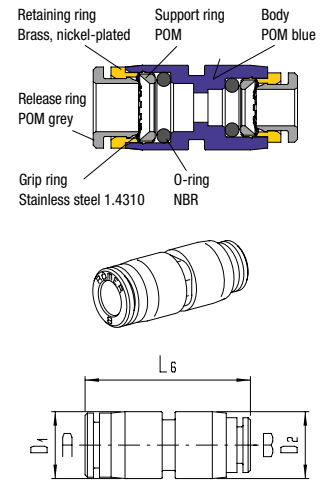
Straight Connector

Product group **12** permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

Plastic
POM

for tube AD	for tube BD	permitted OP [bar] at medium temp.			L6	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C							
4	4	16	16	12	30	10,5	10,5	5,4	958P-4	347104	o. r.
6	4	16	12	10	32	12,5	12,5	6,1	958P-6-4	347108	o. r.
6	6	16	12	10	32,5	12,5	12,5	5,8	958P-6	347110	o. r.
8	4	16	12	10	35,5	14,5	14,5	7,8	958P-8-4	347101	o. r.
8	6	16	12	10	36	14,5	14,5	7,8	958P-8-6	347111	o. r.
8	8	16	12	10	36	14,5	14,5	8	958P-8	347112	o. r.
10	6	16	12	10	40	17	17	11,3	958P-10-6	347113	o. r.
10	8	16	12	10	40,5	17	17	11,5	958P-10-8	347114	o. r.
10	10	16	12	10	41	17	17	12,3	958P-10	347115	o. r.
12	10	16	12	10	45	21	21	23	958P-12-10	347116	o. r.
12	12	16	12	10	45	21	21	23,3	958P-12	347117	o. r.
14	12	12	10	8	46	23	23	26,1	958P-14-12	347118	o. r.
14	14	12	10	8	46	23	23	26,1	958P-14	347119	o. r.
16	12	12	8	6	47	25	25	26	958P-16-12	347120	o. r.
16	14	12	8	6	47	25	25	26,2	958P-16-14	347121	o. r.
16	16	12	8	6	47	25	25	29	958P-16	347122	o. r.
20	20	12	8	6	54,5	32	32	53,6	958P-20	347123	o. r.
22	22	12	8	6	57	34	34	59,1	958P-22	347124	o. r.

Illustration



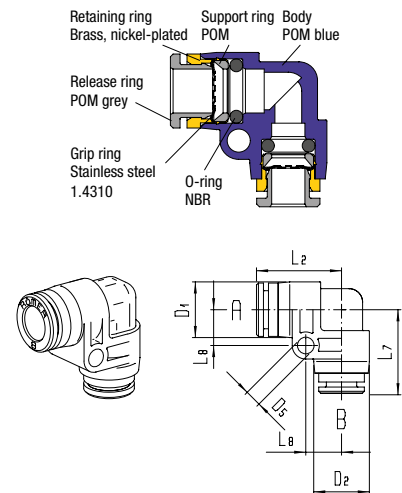
90° Elbow Connector

Product group **12** permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

Plastic
POM

for tube AD	for tube BD	permitted OP [bar] at medium temp.			L2	L7	L8	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C										
4	4	16	16	12	18,5	18,5	8,3	12,5	12,5	4,3	7,1	955P-4	347304	o. r.
6	4	16	12	10	19	18,5	8,3	12,5	12,5	4,3	6,6	955P-6-4	347308	o. r.
6	6	16	12	10	19	19	8,3	12,5	12,5	4,3	6,8	955P-6	347310	o. r.
8	6	16	12	10	22	21,5	9,3	14,5	14,5	4,3	9,2	955P-8-6	347311	o. r.
8	8	16	12	10	22	22	9,3	14,5	14,5	4,3	9,4	955P-8	347312	o. r.
10	6	16	12	10	26	25	12	17	17	4,3	14,8	955P-10-6	347313	o. r.
10	8	16	12	10	26	25,5	12	17	17	4,3	15,4	955P-10-8	347314	o. r.
10	10	16	12	10	26	26	12	17	17	4,3	15,2	955P-10	347315	o. r.
12	12	16	12	10	31	31	12	23	23	4,3	30,8	955P-12	347317	o. r.
14	14	12	10	8	31	31	12	23	23	4,3	30,8	955P-14	347319	o. r.
14	10	12	10	8	31	31	12	23	23	4,3	27,4	955P-14-10	347309	o. r.
16	16	12	8	6	32	32	12	25	25	4,3	34,3	955P-16	347322	o. r.
22	22	12	8	6	40	40	16	34	34	5,4	73,3	955P-22	347324	o. r.

Illustration



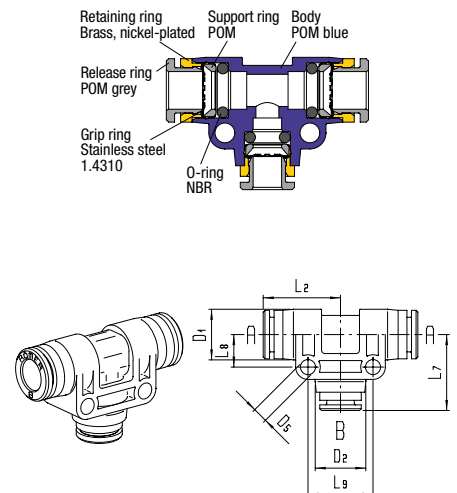
T-Connector

Product group **12** permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

Plastic
POM

for tube AD	for tube BD	permitted OP [bar] at medium temp.			L2	L7	L8	L9	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C											
4	4	16	16	12	18,5	18,5	8,3	16,5	12,5	12,5	4,3	9,6	954P-4	347504	o. r.
4	6	16	12	10	18,5	19	8,3	16,5	12,5	12,5	4,3	9,6	954P-4-6	347358	o. r.
6	4	16	12	10	19	18,5	8,3	16,5	12,5	12,5	4,3	9,6	954P-6-4	347508	o. r.
6	6	16	12	10	19	19	8,3	16,5	12,5	12,5	4,3	10,2	954P-6	347510	o. r.
6	8	16	12	10	21,5	22	9,3	18,5	14,5	14,5	4,3	13,2	954P-6-8	347361	o. r.
8	6	16	12	10	22	21,5	9,3	18,5	14,5	14,5	4,3	14,4	954P-8-6	347511	o. r.
8	8	16	12	10	22	22	9,3	18,5	14,5	14,5	4,3	13,8	954P-8	347512	o. r.
8	10	16	12	10	25,5	26	12	24	17	17	4,3	21	954P-8-10	347364	o. r.
10	6	16	12	10	26	25	12	24	17	17	4,3	21,5	954P-10-6	347513	o. r.
10	8	16	12	10	26	25,5	12	24	17	17	4,3	24,6	954P-10-8	347514	o. r.
10	10	16	12	10	26	26	12	24	17	17	4,3	22,4	954P-10	347515	o. r.
10	12	16	12	10	31	31	12	24	23	23	4,3	37,6	954P-10-12	347366	o. r.
12	10	16	12	10	31	31	12	24	23	23	4,3	38,7	954P-12-10	347516	o. r.
12	12	16	12	10	31	31	12	24	23	23	4,3	45,3	954P-12	347517	o. r.
14	14	12	10	8	31	31	12	24	23	23	4,3	44,5	954P-14	347519	o. r.
14	10	12	10	8	31	31	12	24	23	23	4,3	39	954P-14-10	347509	o. r.
16	16	12	8	6	32	32	12	24	25	25	4,3	44	954P-16	347522	o. r.
16	12	12	8	6	32	32	12	24	25	25	4,3	44	954P-16-12	347520	o. r.
22	16	12	8	6	40	39,5	16	32	34	34	5,4	101	954P-22-16	347523	o. r.
22	22	12	8	6	40	40	16	32	34	34	5,4	103	954P-22	347524	o. r.

Illustration



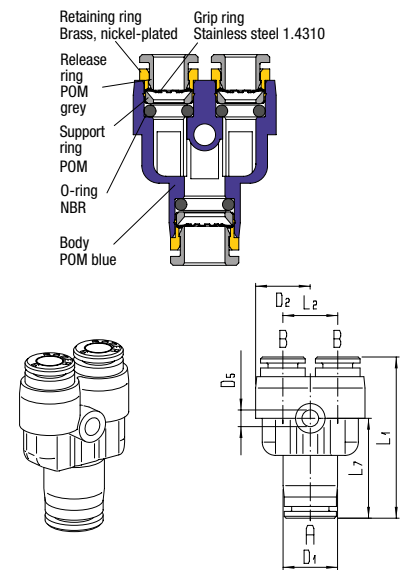
Y-Connector

Product group **12** permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

Plastic
POM

for tube AD	for tube BD	permitted OP [bar] at medium temp.			L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C										
4	4	16	16	12	37	12.5	22.5	12.5	12.5	3.3	9.5	982P-4	347604	o. r.
6	4	16	12	10	37.5	12.5	23	12.5	12.5	3.3	9.7	982P-6-4	347608	o. r.
6	6	16	12	10	38	12.5	23	12.5	12.5	3.3	10	982P-6	347610	o. r.
8	4	16	12	10	42.5	14.5	26.5	14.5	14.5	3.3	13.8	982P-8-4	347626	o. r.
8	6	16	12	10	43	14.5	26.5	14.5	14.5	4.3	13.8	982P-8-6	347611	o. r.
8	8	16	12	10	43	14.5	26.5	14.5	14.5	4.3	14.2	982P-8	347612	o. r.
10	8	16	12	10	48.5	17	31	17	17	4.3	19.8	982P-10-8	347614	o. r.
10	10	16	12	10	49	17	31	17	17	4.3	24	982P-10	347615	o. r.
12	8	16	12	10	54.5	20.5	35.5	21	21	4.3	33	982P-12-8	347627	o. r.
12	10	16	12	10	55.5	20.5	35.5	21	21	4.3	34.8	982P-12-10	347616	o. r.
12	12	16	12	10	55.5	20.5	35.5	21	21	4.3	39.5	982P-12	347617	o. r.
14	12	12	10	8	56.5	22	36.5	23	23	4.3	44.9	982P-14-12	347618	o. r.
14	14	12	10	8	56.5	22	36.5	23	23	4.3	40.8	982P-14	347619	o. r.

Illustration



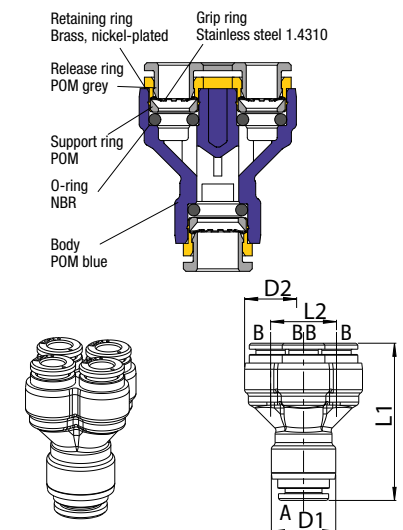
Double Y-Connector

Product group **12** permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

Plastic
POM

for tube AD	for tube BD	permitted OP [bar] at medium temp.			L1	L2	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C								
6	6	16	12	10	41	17,5	17	14	19,2	984P-6	347660	o. r.
8	6	16	12	6	41	17,5	17	14	20,1	984P-8-6	347661	o. r.

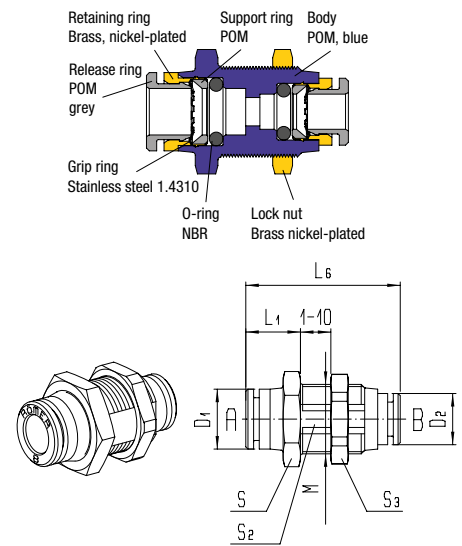
Illustration



Straight Bulkhead Connector

Product group		12 permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C												Plastic POM		
for tube AD	for tube BD	permitted OP [bar] at medium temp.			M	L1	L6	D1	D2	S	S2	S3	Weight in [g]	Type	Order number	Price
		20 °C	60 °C	80 °C												
4	4	16	16	12	M14x1	10.5	31.5	9.5	9.5	17	12.5	17	9	959P-4	348604	o. r.
6	4	16	12	10	M14x1	11	32	11.5	9.5	17	12.5	17	9.2	959P-6-4	348608	o. r.
6	6	16	12	10	M14x1	11	32.5	11.5	11.5	17	12.5	17	9.5	959P-6	348610	o. r.
8	6	16	12	10	M16x1	12.5	36	14	11.5	19	14.5	19	12.4	959P-8-6	348611	o. r.
8	8	16	12	10	M16x1	12.5	36	14	14	19	14.5	19	12.6	959P-8	348612	o. r.
10	8	16	12	10	M20x1	14	40.5	16.5	14	22	18	24*	20.3	959P-10-8	348614	o. r.
10	10	16	12	10	M20x1	14	41	16.5	16.5	22	18	24*	21.3	959P-10	348615	o. r.

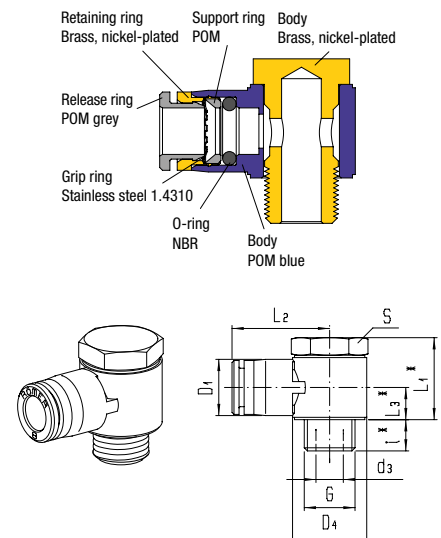
Illustration



Banjo Fitting

Product group		12	permitted OP at ambient temp. T _{min} -20 °C. T _{max} +60 °C					Cylindrical thread					Plastic POM				
for tube D	G	permitted OP [bar] at medium temp.			i**	L1**	L2	L3**	d3	D1	D4	S	Weight in [g]	Type	Order number	Price	
		20 °C	60 °C	80 °C													
4	M 5	16	12	10	4	14	17	5.5	2	8	9	8	5.4	952P-4-M5	370404	o. r.	
4	G 1/8	16	12	10	6.5	20	22	8	5	14.5	15	14	18.1	952P-4-1/8	370406	o. r.	
6	M 5	16	12	10	4	14	18.5	5.5	2	10	9	8	5.7	952P-6-M5	370410	o. r.	
6	G 1/8	16	12	10	6.5	20	22.5	8	5	14.5	15	14	18.3	952P-6-1/8	370412	o. r.	
6	G 1/4	16	12	10	8.5	20.5	24.5	8	7	14.5	19	17	30.1	952P-6-1/4	370413	o. r.	
8	G 1/8	16	12	10	6.5	20	23	8	5	14.5	15	14	18.5	952P-8-1/8	370416	o. r.	
8	G 1/4	16	12	10	8.5	20.5	25	8	7	14.5	19	17	31	952P-8-1/4	370417	o. r.	
8	G 3/8	16	12	10	8.5	26	28.5	10.5	9.5	17	22.5	19	50	952P-8-3/8	370418	o. r.	
10	G 1/4	16	12	10	8	24.5	27.5	10	7	17	19	17	35.7	952P-10-1/4	370421	o. r.	
10	G 3/8	16	12	10	8.5	26	29	10.5	9.5	17	22.5	19	50.8	952P-10-3/8	370422	o. r.	
10	G 1/2	16	12	10	8.5	27	33	11	12	21	27	27	87	952P-10-1/2	370423	o. r.	
12	G 3/8	16	12	10	7.5	27	31	11	9.5	21	22.5	19	56	952P-12-3/8	370425	o. r.	
12	G 1/2	16	12	10	8.5	27	33.5	11	12	21	27	27	89.5	952P-12-1/2	370426	o. r.	
14	G 1/2	12	10	8	9.5	31	34	13	12	25	27	27	103	952P-14-1/2	370428	o. r.	
16	G 1/2	12	8	6	9.5	31	34	13	12	25	27	27	103	952P-16-1/2	370430	o. r.	

Illustration



* S24 = octagon i**, L1**, and L3** Approximate dimensions with ring piece (s) in tightened condition

ELSA Fittings PVDF (Push-in)

ELSA the Established push-in connector from AVS-Römer



PVDF version

Operating pressure Technical vacuum up to maximum pressure as stated in the respective specification table under OP. Temperature range 0 °C to +120 °C (for restrictions see specification table)

Application

ELSA push-in fittings made of PVDF, due to their very high chemical resistance even at high temperatures, are mainly used in the chemical industries. These push-in fittings are equipped with FDA-compliant FKM sealing rings as standard, on request they are available with FDA-compliant and KTW-approved EPDM sealing rings.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Plastic PVDF	Polyvinylidene fluoride. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.	
Other materials	see relevant products	
Approval	NSF/ANSI 169	
TUBE		
Outside diameter [mm]	4, 6 and 8	10, 12
Permitted tolerance [mm]	±0.1	±0.15
Permitted grades	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)	
THREAD		
External thread	“M” cylindrical thread: Metric ISO thread M5	
External thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8	
Internal thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/4	

OPERATING PRESSURE / TEMPERATURE

Plastic version	Max. Operating pressure OP at the stated ambient temp. and medium temp. according to table	Means that the allowable operating pressure OP within the allowable ambient temperature also depends on the medium temperature in accordance with the specification table.
Allowable operating pressure and operating temperature of pipe/tube must be observed!		

THREAD SEAL

Cylindrical threaded nipple	Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples
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"ROTATABLE" VERSION

90° elbow-, T- and Y-adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.
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SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOGUE)

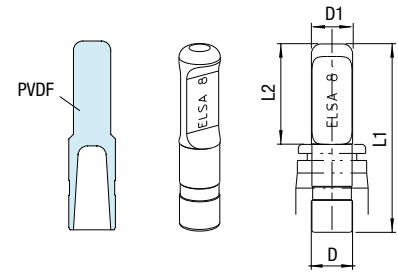
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials such as EPDM, FDA-compliant
- for pipes/tubes with inch dimensions
- "R" conical threaded fitting

Push-in Plug

Product group	12	Max. allow. OP at ambient temp. $T_{min} -20\text{ °C}$, $T_{max} +60\text{ °C}$			NSF			Plastic PVDF			
for push-in connector D	Max. allow. OP [bar] at medium temp.			L1	L2	D1	Weight in [g]	Type	Order number	Price	
	20 °C	100 °C	120 °C								
4	16	16	10	31.5	17	6	0.7	971V-4	237454	o. r.	
6	16	16	10	34.5	19	8	1.2	971V-6	237460	o. r.	
8	16	12	10	37.5	20	8	1.7	971V-8	237462	o. r.	
10	16	12	10	40.5	20.5	8	2.3	971V-10	237465	o. r.	

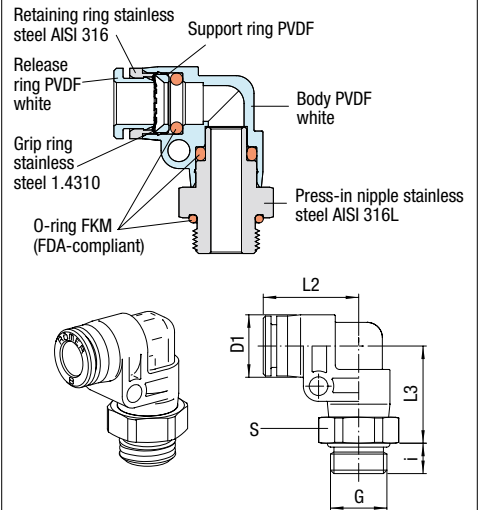
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C				Thread cylindrical		Thread sealed by a FKM O-Ring in recess			not suitable for rotating or oscill. movement				Plastic PVDF	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price			
		20 °C	100 °C	120 °C												
4	M 5	16	10	3	3.5	14.5	11	10	8	3.4	930V-4FF-M5	367334	o. r.			
4	G 1/8	16	10	3	5	18.5	19.5	12.5	13	18.3	930V-4FF-1/8	367335	o. r.			
4	G 1/4	16	10	3	7	18.5	20	12.5	17	24.6	930V-4FF-1/4	367348	o. r.			
6	M 5	16	10	3	3.5	16.5	11	12	8	3.8	930V-6FF-M5	367336	o. r.			
6	G 1/8	16	10	3	5	19	19.5	12.5	13	15.9	930V-6FF-1/8	367337	o. r.			
6	G 1/4	16	10	3	7	19	20	12.5	17	28.5	930V-6FF-1/4	367338	o. r.			
8	G 1/8	16	8	3	5	22	22	14.5	14	19	930V-8FF-1/8	367339	o. r.			
8	G 1/4	16	8	3	7	22	22.5	14.5	17	26.4	930V-8FF-1/4	367340	o. r.			
8	G 3/8	16	8	3	8	22	22.5	14.5	19	35.2	930V-8FF-3/8	367341	o. r.			
10	G 1/4	12	6	3	7	26	25.5	17	17	32.2	930V-10FF-1/4	367342	o. r.			
10	G 3/8	12	6	3	8	26	25.5	17	19	40.7	930V-10FF-3/8	367343	o. r.			
12	G 1/4	12	6	3	7	31	30.5	23	22	57.6	930V-12FF-1/4	367349	o. r.			
12	G 3/8	12	6	3	8	31	30.5	23	22	58	930V-12FF-3/8	367350	o. r.			

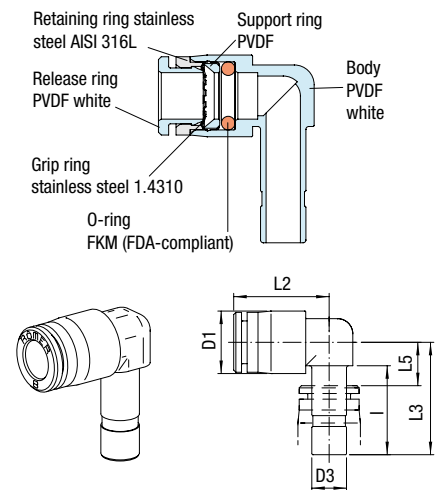
Illustration



90° Elbow Connector with Stem

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C										Plastic PVDF	
for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C									
4	4	16	10	3	17	18.5	21.5	12.5	6.6	3.7	911V-4FF-D4	367028	o. r.
4	6	16	10	3	18	18.5	22.5	12.5	6.7	3.8	911V-4FF-D6	367029	o. r.
6	4	16	10	3	17	19	21.5	12.5	6.6	3.8	911V-6FF-D4	367030	o. r.
6	6	16	10	3	18	19	22.5	12.5	6.7	3.8	911V-6FF-D6	367031	o. r.
6	8	16	10	3	20.5	22	26	14.5	8.3	5.6	911V-6FF-D8	367032	o. r.
8	8	16	8	3	20.5	22	26	14.5	8.3	5.7	911V-8FF-D8	367033	o. r.
8	10	16	8	3	24	25.5	32	17	12	8.5	911V-8FF-D10	367034	o. r.
10	10	12	6	3	24	26	32	17	12	10.1	911V-10FF-D10	367035	o. r.

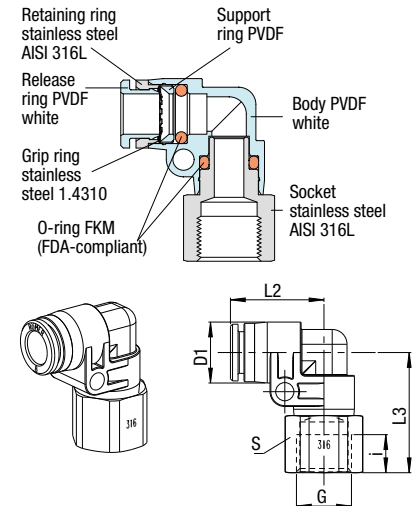
Illustration



90° Elbow Adaptor - Female - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical	not suitable for rotating or oscill. movement			Plastic PVDF				
		Max. allow. OP [bar] at medium temp.											
for tube D	G	20 °C	100 °C	120 °C	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	G 1/8	16	10	3	6.5	18.5	24.5	12.5	13	16.3	979V-4FF-1/8	367880	o. r.
4	G 1/4	16	10	3	9	18.5	27.5	12.5	17	24.7	979V-4FF-1/4	367881	o. r.
6	G 1/8	16	10	3	6.5	19	24.5	12.5	13	16.3	979V-6FF-1/8	367882	o. r.
6	G 1/4	16	10	3	9	19	27.5	12.5	17	24.7	979V-6FF-1/4	367883	o. r.
8	G 1/8	16	8	3	6.5	22	25	14.5	17	24.9	979V-8FF-1/8	367884	o. r.
8	G 1/4	16	8	3	9	22	30	14.5	17	27	979V-8FF-1/4	367885	o. r.

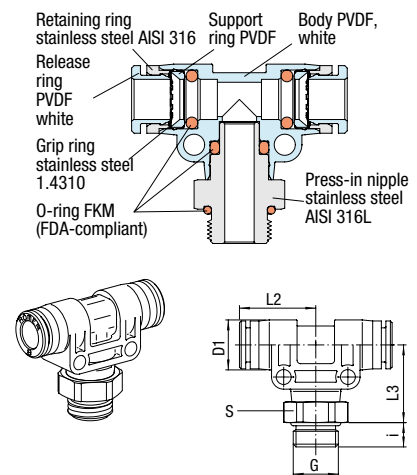
Illustration



T-Adaptor - Male - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C				Thread cylindrical		Thread sealed by a FKM O-Ring in recess			not suitable for rotating or oscill. movement			Plastic PVDF	
		Max. allow. OP [bar] at medium temp.				i	L2	L3	D1	S	Weight in [g]	Type			Order number
for tube D	G														
		20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	5	18.5	19.5	12.5	13	19.4	921V-4FF-1/8	367356		o. r.	
4	G 1/4	16	10	3	7	18.5	20	12.5	17	28.5	921V-4FF-1/4	367357		o. r.	
6	G 1/8	16	10	3	5	19	19.5	12.5	13	19.7	921V-6FF-1/8	367362		o. r.	
6	G 1/4	16	10	3	7	19	20	12.5	17	28.7	921V-6FF-1/4	367363		o. r.	
8	G 1/8	16	8	3	5	22	22	14.5	14	24.1	921V-8FF-1/8	367366		o. r.	
8	G 1/4	16	8	3	7	22	22.5	14.5	17	31.4	921V-8FF-1/4	367367		o. r.	
8	G 3/8	16	8	3	8	22	22.5	14.5	19	40.2	921V-8FF-3/8	367368		o. r.	
10	G 1/4	12	6	3	7	26	25.5	17	17	40.3	921V-10FF-1/4	367371		o. r.	
10	G 3/8	12	6	3	8	26	25.5	17	19	48.3	921V-10FF-3/8	367372		o. r.	
12	G 1/4	12	6	3	7	31	30.5	23	22	66.1	921V-12FF-1/4	367374		o. r.	
12	G 3/8	12	6	3	8	31	30.5	23	22	74.1	921V-12FF-3/8	367375		o. r.	

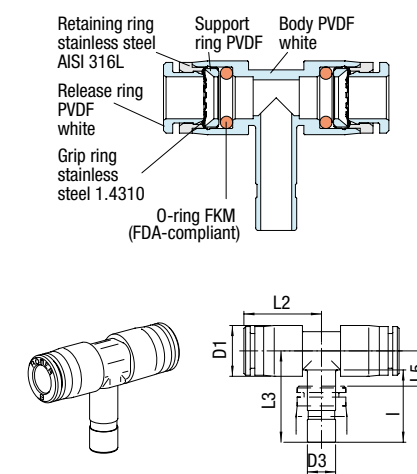
Illustration



T-Stem Connector

Product group	12	Max. allow. OP at ambient temp. $T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$			I	L2	L3	D1	L5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C									
for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5	Weight in [g]	Type	Order number	Price
4	4	16	10	3	17	18.5	21.5	12.5	8.5	7.1	912V-4FF-D4	367036	o. r.
4	6	16	10	3	18	18.5	22.5	12.5	8.5	7.3	912V-4FF-D6	367037	o. r.
6	4	16	10	3	17	19	21.5	12.5	8.5	7.1	912V-6FF-D4	367038	o. r.
6	6	16	10	3	18	19	22.5	12.5	8.5	7.3	912V-6FF-D6	367039	o. r.
6	8	16	10	3	20.5	21.5	26	14.5	10.5	10.5	912V-6FF-D8	367040	o. r.
8	8	16	8	3	20.5	21.5	26	14.5	10.5	10.7	912V-8FF-D8	367041	o. r.
8	10	16	8	3	24	25.5	32	17	14	16.2	912V-8FF-D10	367042	o. r.
10	10	12	6	3	24	26	32	17	14	16.8	912V-10FF-D10	367043	o. r.

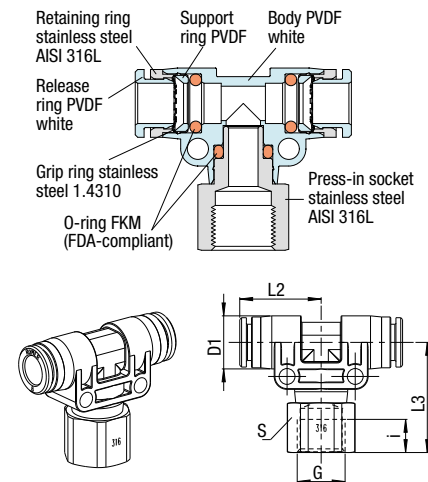
Illustration



T-Adaptor - Female - Positionable

Product group 12		Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		not suitable for rotating or oscill. movement			 NSF International		Plastic PVDF	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C									
4	G 1/8	16	10	3	6.5	18.5	24.5	12.5	13	19.9	970V-4FF-1/8	367888	o. r.
4	G 1/4	16	10	3	9	18.5	27.5	12.5	17	28.3	970V-4FF-1/4	367889	o. r.
6	G 1/8	16	10	3	6.5	19	24.5	12.5	13	19.9	970V-6FF-1/8	367890	o. r.
6	G 1/4	16	10	3	9	19	27.5	12.5	17	28.3	970V-6FF-1/4	367891	o. r.
8	G 1/8	16	8	3	6.5	22	25	14.5	17	29.9	970V-8FF-1/8	367892	o. r.
8	G 1/4	16	8	3	9	22	30	14.5	17	32	970V-8FF-1/4	367893	o. r.

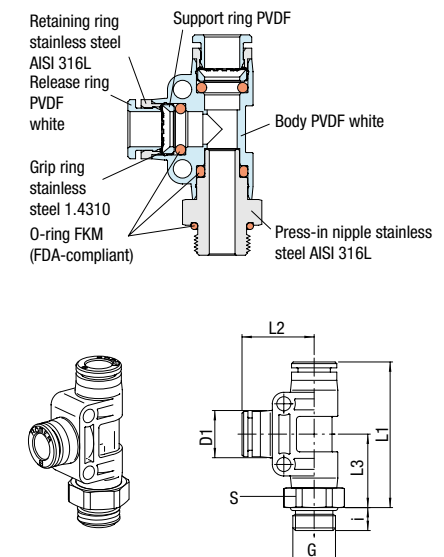
Illustration



Side T-Adaptor - Male - Positionable

Product group 12		Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		Thread sealed by a FKM O-Ring in recess		not suitable for rotating or oscill. movement		NSF		Plastic PVDF	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C										
4	G 1/8	16	10	3	5	38	18.5	19.5	12.5	13	19.2	922V-4FF-1/8	367406	o. r.
4	G 1/4	16	10	3	7	38.5	18.5	20	12.5	17	28.3	922V-4FF-1/4	367407	o. r.
6	G 1/8	16	10	3	5	38.5	19	19.5	12.5	13	19.7	922V-6FF-1/8	367412	o. r.
6	G 1/4	16	10	3	7	39	19	20	12.5	17	28.4	922V-6FF-1/4	367413	o. r.
8	G 1/8	16	8	3	5	44	22	22	14.5	14	23.8	922V-8FF-1/8	367416	o. r.
8	G 1/4	16	8	3	7	44.5	22	22.5	14.5	17	31.4	922V-8FF-1/4	367417	o. r.
8	G 3/8	16	8	3	8	44.5	22	22.5	14.5	19	39.8	922V-8FF-3/8	367418	o. r.
10	G 1/4	12	6	3	7	51.5	26	25.5	17	17	39.8	922V-10FF-1/4	367421	o. r.
10	G 3/8	12	6	3	8	51.5	26	25.5	17	19	48.2	922V-10FF-3/8	367422	o. r.
12	G 1/4	12	6	3	7	61.5	31	30.5	23	22	66.1	922V-12FF-1/4	367424	o. r.
12	G 3/8	12	6	3	8	61.5	31	30.5	23	22	74.1	922V-12FF-3/8	367425	o. r.

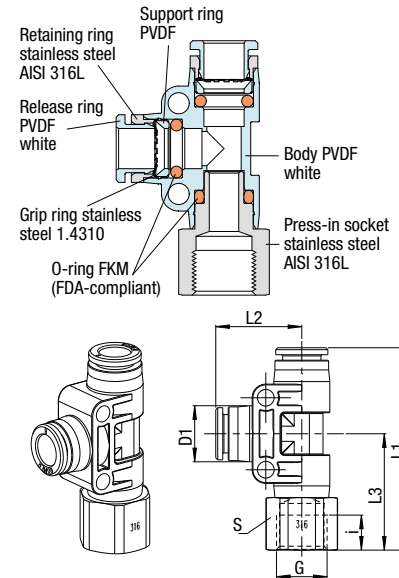
Illustration



Side T-Adaptor - Female - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C				Thread cylindrical		not suitable for rotating or oscill. movement				 NSF		Plastic PVDF	
		Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price	
for tube D	G	20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	6.5	43	18.5	24.5	12.5	13	19.9	923V-4FF-1/8	367810	o. r.	
4	G 1/4	16	10	3	9	46	18.5	27.5	12.5	17	28.3	923V-4FF-1/4	367811	o. r.	
6	G 1/8	16	10	3	6.5	43.5	19	24.5	12.5	13	19.9	923V-6FF-1/8	367812	o. r.	
6	G 1/4	16	10	3	9	46.5	19	27.5	12.5	17	28.3	923V-6FF-1/4	367813	o. r.	
8	G 1/8	16	8	3	6.5	47	22	25	14.5	14	29.9	923V-8FF-1/8	367814	o. r.	
8	G 1/4	16	8	3	9	52.5	22	30.5	14.5	17	32	923V-8FF-1/4	367815	o. r.	

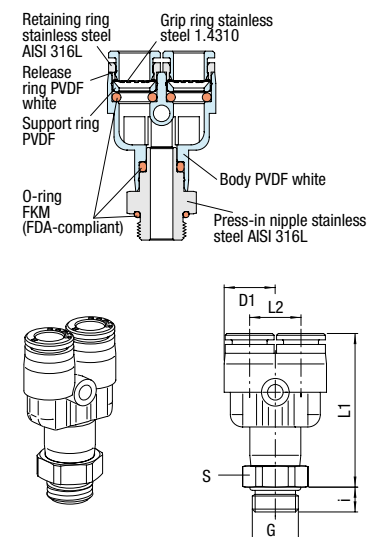
Illustration



Y-Adaptor - Male - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical	Thread sealed by a FKM O-Ring in recess			not suitable for rotating or oscill. movement			Plastic PVDF				
		for tube D	G	Max. allow. OP [bar] at medium temp.		i	L1	L2	D1	S			Weight in [g]	Type	Order number	Price
			20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	5	38	12.5	12.5	13	19.2	992V-4FF-1/8	367456	o. r.			
4	G 1/4	16	10	3	7	38.5	12.5	12.5	17	28	992V-4FF-1/4	367457	o. r.			
6	G 1/8	16	10	3	5	38.5	12.5	12.5	13	19.6	992V-6FF-1/8	367462	o. r.			
6	G 1/4	16	10	3	7	39	12.5	12.5	17	28.3	992V-6FF-1/4	367463	o. r.			
8	G 1/8	16	8	3	5	43	14.5	14.5	14	24.1	992V-8FF-1/8	367466	o. r.			
8	G 1/4	16	8	3	7	43.5	14.5	14.5	17	31.8	992V-8FF-1/4	367467	o. r.			
8	G 3/8	16	8	3	8	43.5	14.5	14.5	19	40.2	992V-8FF-3/8	367468	o. r.			
10	G 1/4	12	6	3	7	49	17	17	17	38.6	992V-10FF-1/4	367471	o. r.			
10	G 3/8	12	6	3	8	49	17	17	19	47.1	992V-10FF-3/8	367472	o. r.			
12	G 1/4	12	6	3	7	55	20.5	21	22	65.1	992V-12FF-1/4	367474	o. r.			
12	G 3/8	12	6	3	8	55	20.5	21	22	74.1	992V-12FF-3/8	367475	o. r.			

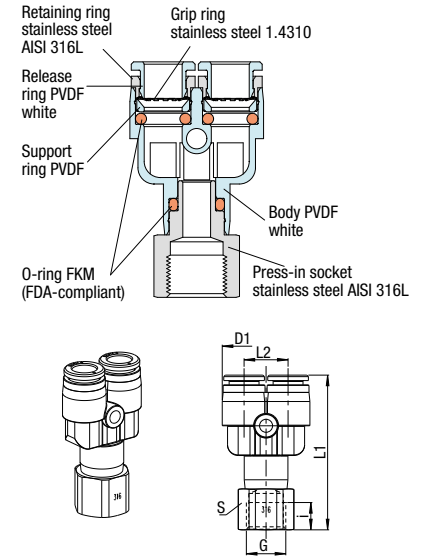
Illustration



Y-Adaptor - Female - Positionable

Product group	12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		not suitable for rotating or oscill. movement					Plastic PVDF			
		for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	6.5	43	12.5	12.5	13	19.9	993V-4FF-1/8	367820	o. r.		
4	G 1/4	16	10	3	9	46	12.5	12.5	17	28.4	993V-4FF-1/4	367821	o. r.		
6	G 1/8	16	10	3	6.5	43.5	12.5	12.5	13	19.7	993V-6FF-1/8	367822	o. r.		
6	G 1/4	16	10	3	9	46.5	12.5	12.5	17	28.1	993V-6FF-1/4	367823	o. r.		
8	G 1/8	16	8	3	6.5	46.5	14.5	14.5	14	30	993V-8FF-1/8	367824	o. r.		
8	G 1/4	16	8	3	9	51.5	14.5	14.5	17	32.1	993V-8FF-1/4	367825	o. r.		

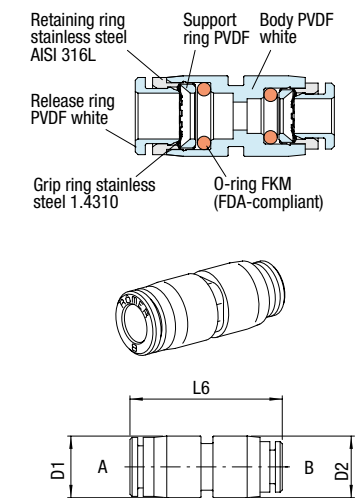
Illustration



Straight Adaptor

Product group		12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			NSF		Plastic PVDF			
for tube D	for tube BD	Max. allow. OP [bar] at medium temp.			L6	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C							
4	4	16	10	3	30	10.5	10.5	6.2	958V-4FF	367504	o. r.
6	4	16	10	3	32	12.5	12.5	6.4	958V-6-4FF	367508	o. r.
6	6	16	10	3	32.5	12.5	12.5	6.6	958V-6FF	367510	o. r.
8	6	16	8	3	36	14.5	14.5	8.6	958V-8-6FF	367511	o. r.
8	8	16	8	3	36	14.5	14.5	8.8	958V-8FF	367512	o. r.
10	8	12	6	3	40.5	17	17	13	958V-10-8FF	367514	o. r.
10	10	12	6	3	41	17	17	13.5	958V-10FF	367515	o. r.
12	10	12	6	3	45	21	21	24.4	958V-12-10FF	367516	o. r.
12	12	12	6	3	45	21	21	26.8	958V-12FF	367517	o. r.

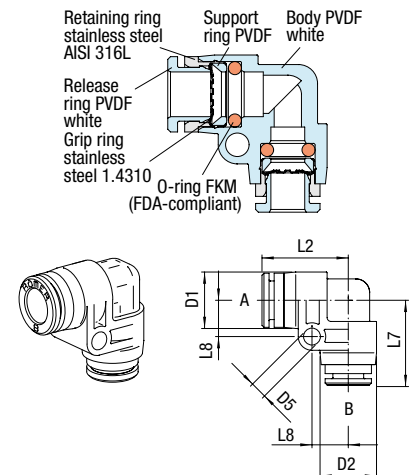
Illustration



90° Elbow Connector

Product group 12		Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C											Plastic PVDF	
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L2	L7	L8	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C										
4	4	16	10	3	18.5	18.5	8.3	12.5	12.5	4.3	7.3	955V-4FF	367554	o. r.
6	4	16	10	3	19	18.5	8.3	12.5	12.5	4.3	7.4	955V-6-4FF	367558	o. r.
6	6	16	10	3	19	19	8.3	12.5	12.5	4.3	7.5	955V-6FF	367560	o. r.
8	6	16	8	3	22	21.5	9.3	14.5	14.5	4.3	10.2	955V-8-6FF	367561	o. r.
8	8	16	8	3	22	22	9.3	14.5	14.5	4.3	10	955V-8FF	367562	o. r.
10	6	12	6	3	26	25	12	17	17	4.3	16	955V-10-6FF	367563	o. r.
10	8	12	6	3	26	25.5	12	17	17	4.3	19	955V-10-8FF	367564	o. r.
10	10	12	6	3	26	26	12	17	17	4.3	16	955V-10FF	367565	o. r.
12	12	12	6	3	31	31	12	23	23	4.3	32	955V-12FF	367567	o. r.

Illustration



T-Connector

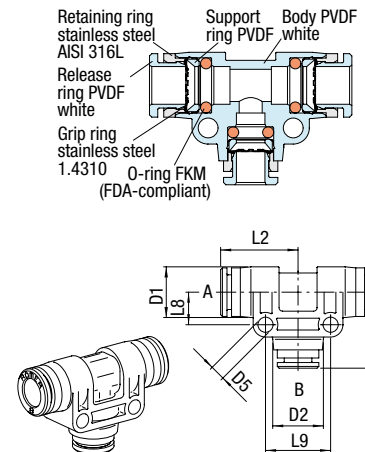
Product group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PVDF

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L2	L7	L8	L9	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C											
4	4	16	10	3	18.5	18.5	8.3	16.5	12.5	12.5	4.3	10.7	954V-4FF	367604	o. r.
6	4	16	10	3	19	18.5	8.3	16.5	12.5	12.5	4.3	11.1	954V-6-4FF	367608	o. r.
6	6	16	10	3	19	19	8.3	16.5	12.5	12.5	4.3	11.2	954V-6FF	367610	o. r.
6	8	16	8	3	21.5	22	9.3	18.5	14.5	14.5	4.3	15.4	954V-6-8FF	367639	o. r.
8	6	16	8	3	22	21.5	9.3	18.5	14.5	14.5	4.3	15.4	954V-8-6FF	367611	o. r.
8	8	16	8	3	22	22	9.3	18.5	14.5	14.5	4.3	15.4	954V-8FF	367612	o. r.
10	6	12	6	3	26	25	12	24	17	17	4.3	24.7	954V-10-6FF	367613	o. r.
10	8	12	6	3	26	25.5	12	24	17	17	4.3	24.7	954V-10-8FF	367614	o. r.
10	10	12	6	3	26	26	12	24	17	17	4.3	25.1	954V-10FF	367615	o. r.
12	12	12	6	3	31	31	12	24	23	23	4.3	o. r.	954V-12FF	367617	o. r.

Illustration



Y-Connector

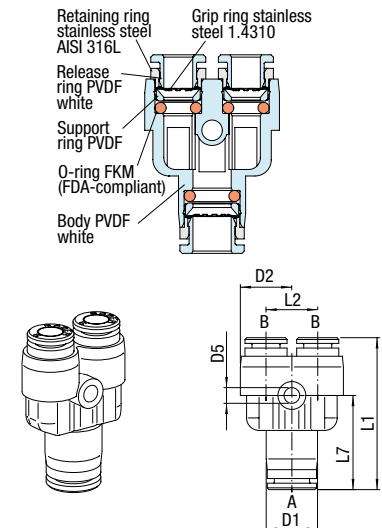
Product group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PVDF

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C										
4	4	16	10	3	37	12.5	22.5	12.5	12.5	3.3	10.8	982V-4FF	367654	o. r.
6	4	16	10	3	37.5	12.5	23	12.5	12.5	3.3	11	982V-6-4FF	367658	o. r.
6	6	16	10	3	38	12.5	23	12.5	12.5	3.3	11.2	982V-6FF	367660	o. r.
8	6	16	8	3	43	14.5	26.5	14.5	14.5	4.3	16	982V-8-6FF	367661	o. r.
8	8	16	8	3	43	14.5	26.5	14.5	14.5	4.3	16.9	982V-8FF	367662	o. r.
10	8	12	6	3	48.5	17	31	17	17	4.3	23.1	982V-10-8FF	367664	o. r.
10	10	12	6	3	49	17	31	17	17	4.3	24.4	982V-10FF	367665	o. r.
12	12	12	6	3	55.5	20.5	35.5	21	21	4.3	38	982V-12FF	367667	o. r.

Illustration



Straight Bulkhead Connector

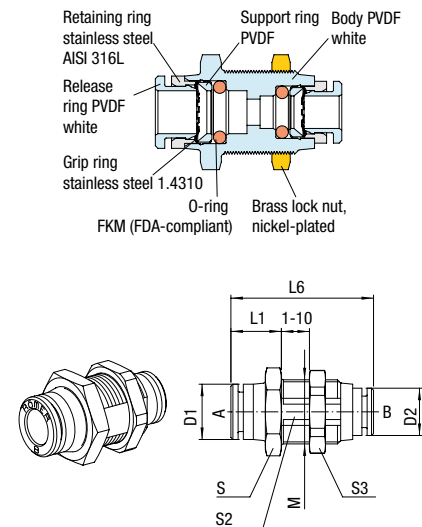
Product group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



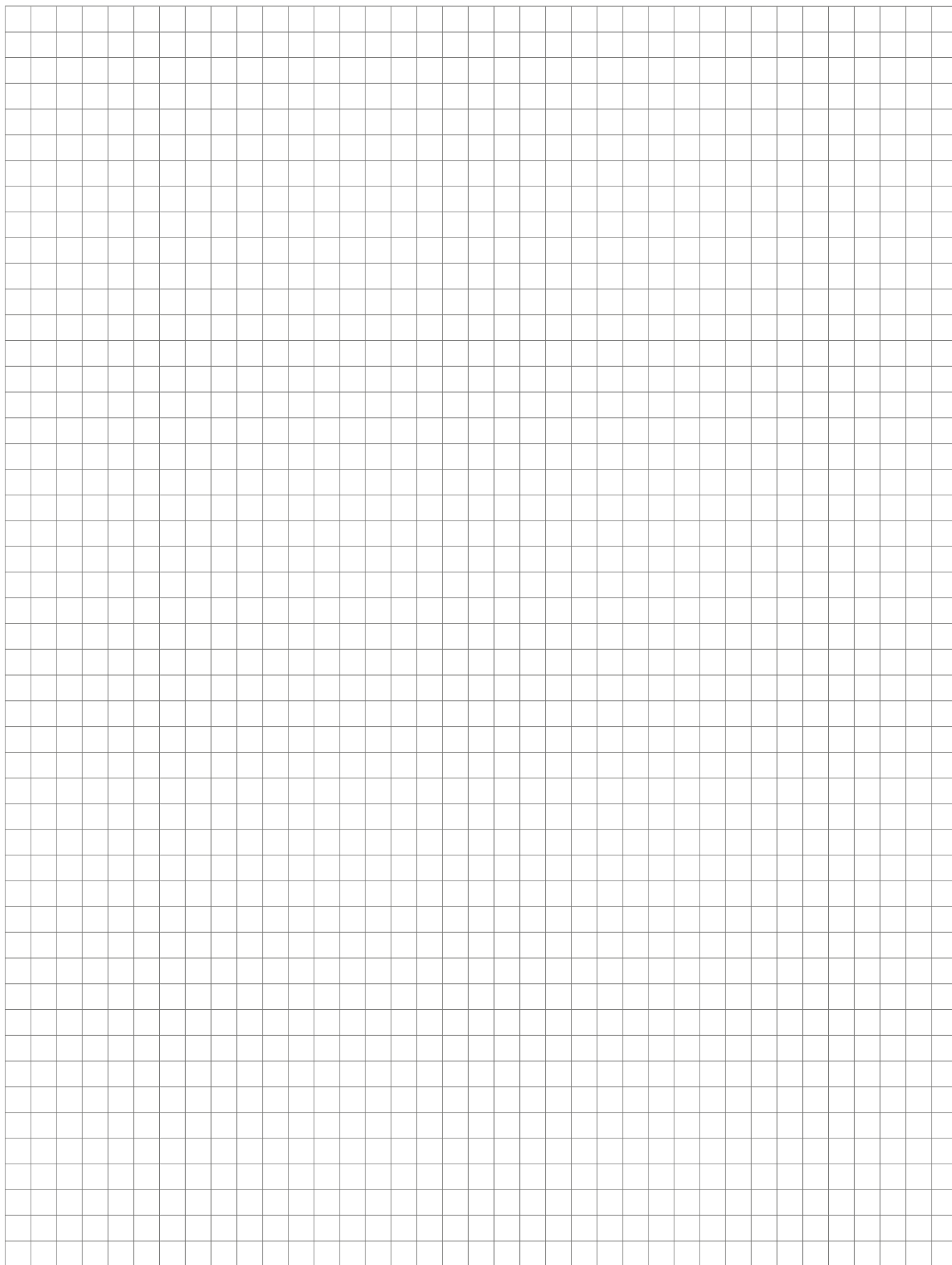
Plastic
PVDF

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			M	L1	L6	D1	D2	S	S2	S3	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C												
4	4	16	10	3	M14x1	10.5	31.5	9.5	9.5	17	12.5	17	10	959V-4FF	367704	o. r.
6	4	16	10	3	M14x1	11	32	11.5	9.5	17	12.5	17	10	959V-6-4FF	367708	o. r.
6	6	16	10	3	M14x1	11	32.5	11.5	11.5	17	12.5	17	10.4	959V-6FF	367710	o. r.
8	6	16	8	3	M16x1	12.5	36	14	11.5	19	14.5	19	13.6	959V-8-6FF	367711	o. r.
8	8	16	8	3	M16x1	12.5	36	14	14	19	14.5	19	13.6	959V-8FF	367712	o. r.
10	8	12	6	3	M20x1	14	40.5	16.5	14	22	18	24*	22.6	959V-10-8FF	367714	o. r.
10	10	12	6	3	M20x1	14	41	16.5	16.5	22	18	24*	23	959V-10FF	367715	o. r.

Illustration



* S24 = Octagon



ELSA Fittings PPSU (Push-in)

ELSA the Established push-in connector from AVS-Römer



PPSU version

Operating pressure Technical vacuum up to maximum pressure as stated in the respective specification table under OP.

Temperature range 0 °C to +140 °C (for restrictions see specification table)

Application

ELSA push-in connectors made from PPSU are used mainly in the food industries for liquids with temperatures up to 140 °C. (hot water, coffee, steam,...). These push-in connectors are equipped with FDA-compliant FKM sealing rings as standard, on request they are available with FDA-compliant and KTW-approved EPDM sealing rings. These high-tech plastic fittings are a low-cost alternative to stainless steel fittings in many areas of application.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Plastic PPSU	Polyphenylsulfone. Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries. Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!
Other materials	see relevant products
Approval	NSF/ANSI 169

TUBE

Outside diameter [mm]	4, 6 and 8
Permitted tolerance [mm]	±0.1
Permitted grades	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)

THREAD

External thread	"M" cylindrical thread: Metric ISO thread M5
External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8
Internal thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/4

OPERATING PRESSURE / TEMPERATURE

Plastic version	Max. Operating pressure OP at the stated ambient temp. and medium temp. according to table	Means that the allowable operating pressure OP within the allowable ambient temperature also depends on the medium temperature in accordance with the specification table.
Allowable operating pressure and operating temperature of pipe/tube must be observed!		

THREAD SEAL

Cylindrical threaded nipple	Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples
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"ROTATABLE" VERSION

90° elbow-, T- and Y-adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.
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SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOGUE)

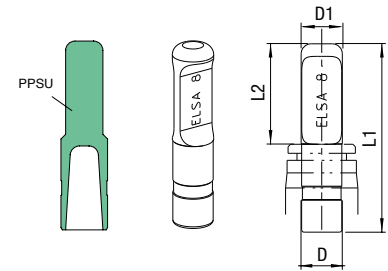
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials such as EPDM, FDA-compliant
- for pipe/tube with inch dimensions
- "R" conical threaded fitting

Push-in Plug

Product group	15	Max. allow. OP at ambient temp. $T_{\min} -20\text{ }^{\circ}\text{C}$, $T_{\max} +60\text{ }^{\circ}\text{C}$							Plastic PPSU	
for push-in connector D	Max. allow. OP [bar] at medium temp.			L1	L2	D1	Weight in [g]	Type	Order number	Price
	20 °C	100 °C	140 °C							
4	20	16	10	31.5	17	6	0.7	971P3-4	237495	o. r.
6	20	16	10	34.5	19	8	1.2	971P3-6	237496	o. r.
8	16	12	10	37.5	20	8	1.7	971P3-8	237497	o. r.

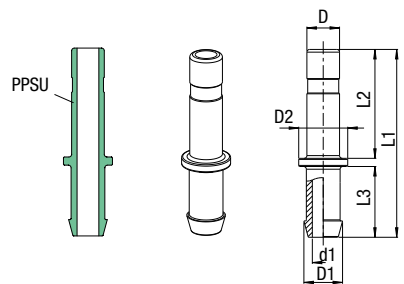
Illustration



Straight Stem Connector with Hose Tail

Product group	15	Max. allow. OP at ambient temp. T _{min} -20 °C, T _{max} +60 °C											Plastic PPSU	
for push-in connetion	for tube LW	Max. allow. OP [bar] at medium temp.			d1	L1	L2	L3	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C										
4	2.7-3	20	16	10	1.8	27	17	8.5	3.6	5.5	0.1	907P3-D4-3	281181	o. r.
4	3.5-4	20	16	10	2.5	28.5	17	10	5.1	6	0.1	907P3-D4-4	281182	o. r.
6	2.7-3	20	16	10	1.8	28.5	20	8.5	3.6	6	0.1	907P3-D6-3	281183	o. r.
6	3.5-4	20	16	10	2.8	30	20	10	5.1	6	0.1	907P3-D6-4	281184	o. r.
6	5-6	20	16	10	4	34.5	20	13	7.1	9	0.1	907P3-D6-7	281185	o. r.

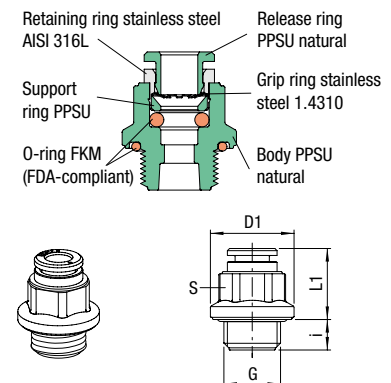
Illustration



Straight Adaptor - Male

Product group	15	Max. allow. OP at ambient temp. T_{min} 0 °C, T_{max} +60 °C			Thread cylindrical		Thread sealed by a FKM O-Ring in recess			Tightening torque 3-3.5 Nm		 NSF H1	Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	D1	S	Weight in [g]	Type	Order number	Price		
		20 °C	100 °C	140 °C										
4	G 1/8	20	16	10	6	17	16	14	4.3	951P3-4FF-1/8	367051	o. r.		
4	G 1/4	20	16	10	7	16	19	14	5.1	951P3-4FF-1/4	367052	o. r.		
6	G 1/8	20	16	10	6	17.5	16	14	4.6	951P3-6FF-1/8	367053	o. r.		
6	G 1/4	20	16	10	7	16.5	19	14	5.4	951P3-6FF-1/4	367054	o. r.		

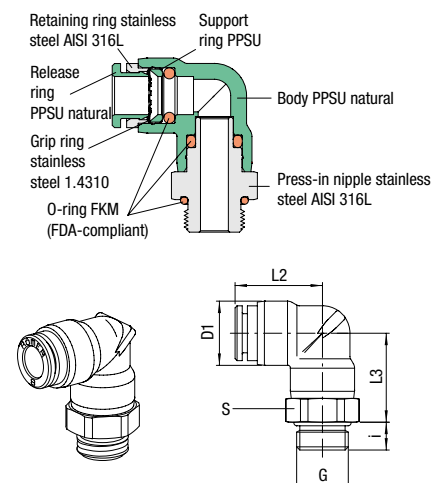
Illustration



90° Elbow Adaptor - Male - Positionable

Product group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		Thread sealed by a FKM O-Ring in recess			not suitable for rotating or oscill. movement			Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price		
		20 °C	100 °C	140 °C											
4	M 5	20	16	10	3.5	15	11	10	8	3.7	930P3-4FF-M5	367057	o. r.		
4	G 1/8	20	16	10	5	17.5	18.5	12	13	14.4	930P3-4FF-1/8	367058	o. r.		
4	G 1/4	20	16	10	7	19	20	12	17	24	930P3-4FF-1/4	367059	o. r.		
6	M 5	20	16	10	3.5	17	11	12	8	4.3	930P3-6FF-M5	367060	o. r.		
6	G 1/8	20	16	10	5	19.5	19.5	14	13	15.6	930P3-6FF-1/8	367061	o. r.		
6	G 1/4	20	16	10	7	19.5	20	14	17	24.2	930P3-6FF-1/4	367062	o. r.		
8	G 1/8	16	12	6	5	22.5	22.5	17	17	25	930P3-8FF-1/8	366805	o. r.		
8	G 1/4	16	12	6	7	22.5	22.5	17	17	40.0	930P3-8FF-1/4	366806	o. r.		
8	G 3/8	16	12	6	8	22.5	22.5	17	19	38.4	930P3-8FF-3/8	366807	o. r.		

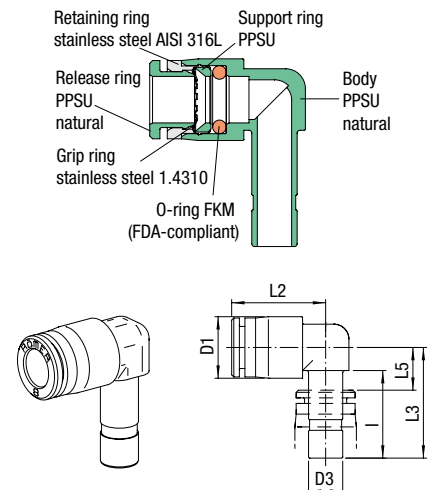
Illustration



90° Elbow Connector with Stem

Product group	15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C										 NSF International	Plastic PPSU				
		for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5			Weight in [g]	Type	Order number	Price
				20 °C	100 °C	140 °C											
	4	4	20	16	10	17.5	19	22	12.5	7	o. r.	911P3-4FF-D4	367001	o. r.			
	4	6	20	16	10	18.5	19	23	12.5	7.2	o. r.	911P3-4FF-D6	367002	o. r.			
	6	4	20	16	10	17.5	19.5	22	14	7	o. r.	911P3-6FF-D4	367003	o. r.			
	6	6	20	16	10	18.5	19.5	23	14	7.2	o. r.	911P3-6FF-D6	367004	o. r.			

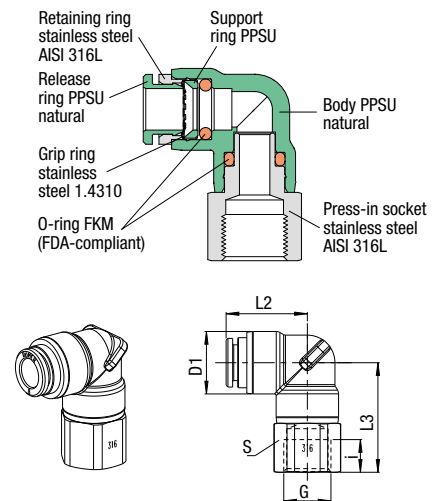
Illustration



90° Elbow Adaptor - Female - Positionable

Product group	15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		not suitable for rotating or oscill. movement				 Certified		Plastic PPSU		
		for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C											
4	G 1/8	20	16	10	6.5	19	24.5	12	13	15.9	979P3-4FF-1/8	366762	o. r.		
4	G 1/4	20	16	10	9	19	27.5	12	17	24.3	979P3-4FF-1/4	366763	o. r.		
6	G 1/8	20	16	10	6.5	19.5	24.5	14	13	16.4	979P3-6FF-1/8	366764	o. r.		
6	G 1/4	20	16	10	9	19.5	27.5	14	17	24.8	979P3-6FF-1/4	366765	o. r.		
8	G 1/8	16	12	6	6.5	22.5	25.5	17	17	26.4	979P3-8FF-1/8	366766	o. r.		
8	G 1/4	16	12	6	9	22.5	30.5	17	17	30.3	979P3-8FF-1/4	366767	o. r.		

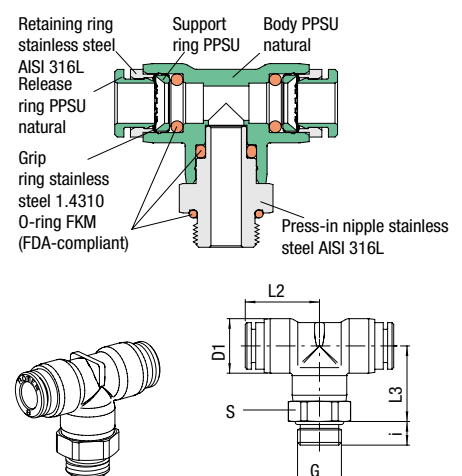
Illustration



T-Adaptor - Male - Positionable

Product group	15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			Thread cylindrical		Thread sealed by a FKM O-Ring in recess			not suitable for rotating or oscill. movement			Plastic PPSU
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C									
4	G 1/8	20	16	10	5	19	19.5	14	13	18.7	921P3-4FF-1/8	367065	o. r.
4	G 1/4	20	16	10	7	19	20	14	17	27.3	921P3-4FF-1/4	367066	o. r.
6	G 1/8	20	16	10	5	19.5	19.5	14	13	18.9	921P3-6FF-1/8	367067	o. r.
6	G 1/4	20	16	10	7	19.5	20	14	17	27.6	921P3-6FF-1/4	367068	o. r.
8	G 1/8	16	12	6	5	22.5	22.5	17	17	28.8	921P3-8FF-1/8	366810	o. r.
8	G 1/4	16	12	6	7	22.5	22.5	17	17	33.3	921P3-8FF-1/4	366811	o. r.
8	G 3/8	16	12	6	8	22.5	22.5	17	19	42.2	921P3-8FF-3/8	366812	o. r.

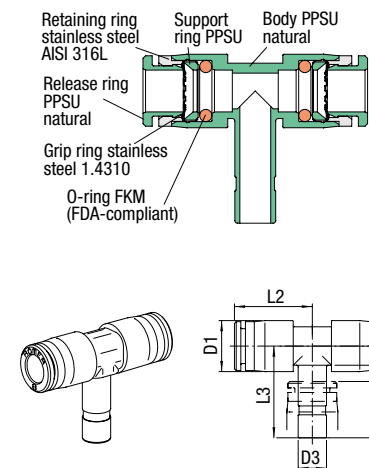
Illustration



T-Stem Connector

Product group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C						Plastic PPSU				
for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C									
4	4	20	16	10	17.5	19	22	12.5	9	o. r.	912P3-4FF-D4	367007	o. r.
4	6	20	16	10	18.5	19	23	12.5	9	o. r.	912P3-4FF-D6	367008	o. r.
6	4	20	16	10	17.5	19.5	22	14	9	o. r.	912P3-6FF-D4	367009	o. r.
6	6	20	16	10	18.5	19.5	23	14	9	o. r.	912P3-6FF-D6	367010	o. r.

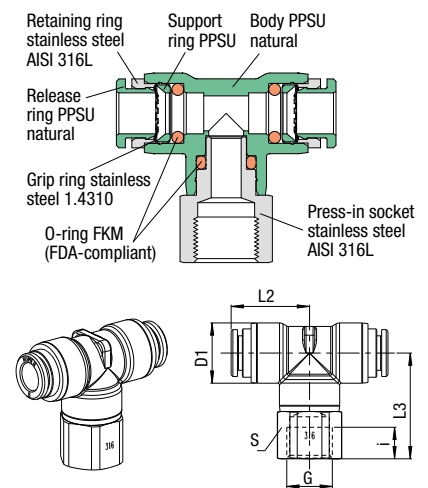
Illustration



T-Adaptor - Female - Positionable

Product group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C				Thread cylindrical		not suitable for rotating or oscill. movement					Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price		
		20 °C	100 °C	140 °C											
4	G 1/8	20	16	10	6.5	19	24.5	12	13	18.7	970P3-4FF-1/8	366770	o. r.		
4	G 1/4	20	16	10	9	19	27.5	12	17	27.1	970P3-4FF-1/4	366771	o. r.		
6	G 1/8	20	16	10	6.5	19.5	24.5	14	13	19	970P3-6FF-1/8	366772	o. r.		
6	G 1/4	20	16	10	9	19.5	27.5	14	17	27.4	970P3-6FF-1/4	366773	o. r.		
8	G 1/8	16	12	6	6.5	22.5	25.5	17	17	30.4	970P3-8FF-1/8	366774	o. r.		
8	G 1/4	16	12	6	9	22.5	30.5	17	17	34.3	970P3-8FF-1/4	366775	o. r.		

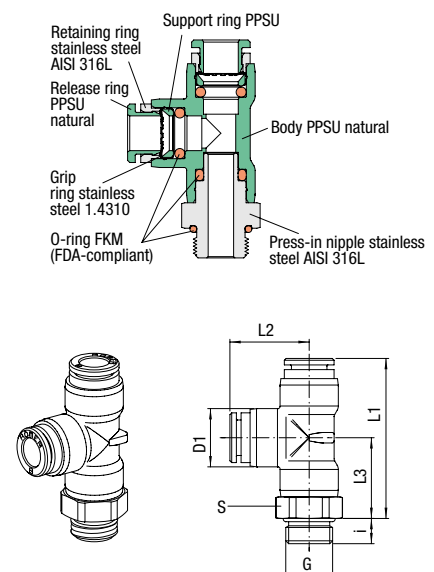
Illustration



Side T-Adaptor - Male - Positionable

Product group 15		Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C				Thread cylindrical		Thread sealed by a FKM O-Ring in recess				not suitable for rotating or oscill. movement			Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price		
		20 °C	100 °C	140 °C												
4	G 1/8	20	16	10	5	38.5	19	19.5	14	13	18.7	922P3-4FF-1/8	367071	o. r.		
4	G 1/4	20	16	10	7	39	19	20	14	17	27.3	922P3-4FF-1/4	367072	o. r.		
6	G 1/8	20	16	10	5	39	19.5	19.5	14	13	18.9	922P3-6FF-1/8	367073	o. r.		
6	G 1/4	20	16	10	7	39.5	19.5	20	14	17	27.6	922P3-6FF-1/4	367074	o. r.		
8	G 1/8	16	12	6	5	44	22.5	22.5	17	17	28.8	922P3-8FF-1/8	366815	o. r.		
8	G 1/4	16	12	6	7	45	22.5	22.5	17	17	33.3	922P3-8FF-1/4	366816	o. r.		
8	G 3/8	16	12	6	8	45	22.5	22.5	17	19	42.2	922P3-8FF-3/8	366817	o. r.		

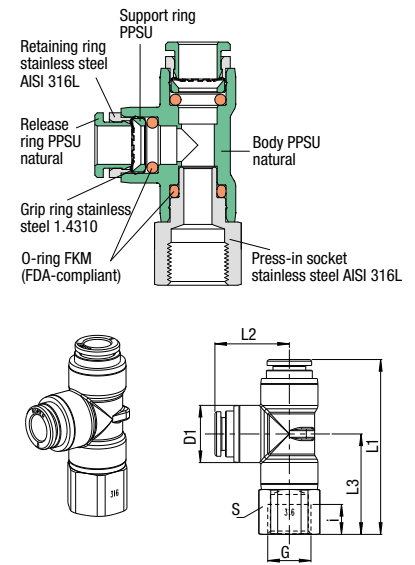
Illustration



Side T-Adaptor - Female - Positionable

Product group		15	Max. allow. OP at ambient temp. T_{min} 0 °C, T_{max} +60 °C			Thread cylindrical		not suitable for rotating or oscill. movement				 NSF		Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price	
		20 °C	100 °C	140 °C											
4	G 1/8	20	16	10	6.5	43.5	19	24.5	12	13	18.7	923P3-4FF-1/8	366778	o. r.	
4	G 1/4	20	16	10	9	46.5	19	27.5	12	17	27.1	923P3-4FF-1/4	366779	o. r.	
6	G 1/8	20	16	10	6.5	44	19.5	24.5	14	13	19	923P3-6FF-1/8	366780	o. r.	
6	G 1/4	20	16	10	9	47	19.5	27.5	14	17	27.4	923P3-6FF-1/4	366781	o. r.	
8	G 1/8	16	12	6	6.5	48	22.5	25.5	17	17	30.4	923P3-8FF-1/8	366782	o. r.	
8	G 1/4	16	12	6	9	53	22.5	30.5	17	17	34.3	923P3-8FF-1/4	366783	o. r.	

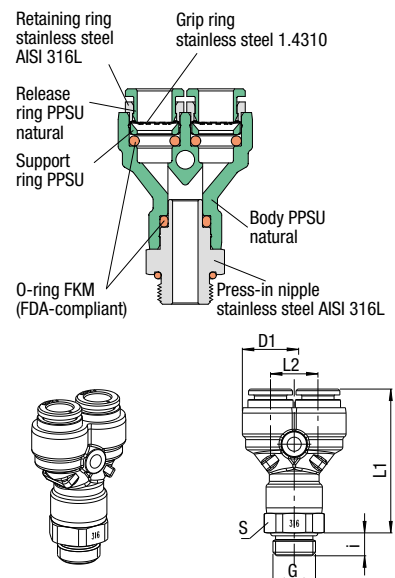
Illustration



Y-Adaptor - Male - Positionable

Product group 15		Max. allow. OP at ambient temp. T_{min} 0 °C, T_{max} +60 °C			Thread cylindrical		Thread sealed by a FKM O-Ring in recess		not suitable for rotating or oscill. movement		NSF		Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price	
		20 °C	100 °C	140 °C										
4	G 1/8	20	16	10	5	38.5	12.5	12.5	13	19.7	992P3-4FF-1/8	367077	o. r.	
4	G 1/4	20	16	10	7	39	12.5	14	17	20.2	992P3-4FF-1/4	367078	o. r.	
6	G 1/8	20	16	10	5	39	12.5	14	13	20.2	992P3-6FF-1/8	367079	o. r.	
6	G 1/4	20	16	10	7	39.5	12.5	14	17	28.9	992P3-6FF-1/4	367080	o. r.	
8	G 1/8	16	12	6	5	43.5	14.5	17	17	29.2	992P3-8FF-1/8	366820	o. r.	
8	G 1/4	16	12	6	7	43.5	14.5	17	17	33.7	992P3-8FF-1/4	366821	o. r.	
8	G 3/8	16	12	6	8	43.5	14.5	17	19	42.6	992P3-8FF-3/8	366822	o. r.	

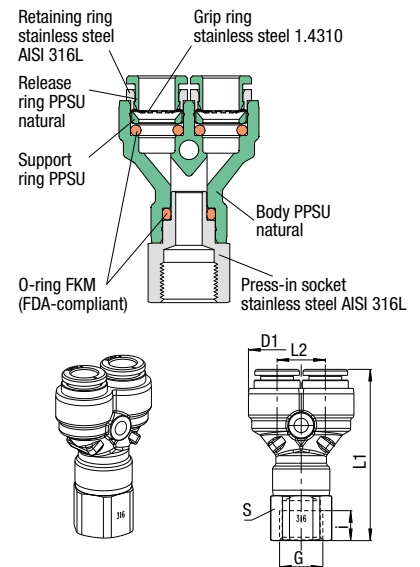
Illustration



Y-Adaptor - Female - Positionable

Product group		Max. allow. OP at ambient temp. $T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$				Thread cylindrical		not suitable for rotating or oscill. movement		NSF		Plastic PPSU	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C									
4	G 1/8	20	16	10	6.5	43.5	12.5	12.5	13	19.4	993P3-4FF-1/8	366786	o. r.
4	G 1/4	20	16	10	9	46.5	12.5	14	17	27.9	993P3-4FF-1/4	366787	o. r.
6	G 1/8	20	16	10	6.5	44	12.5	14	13	19.7	993P3-6FF-1/8	366788	o. r.
6	G 1/4	20	16	10	9	47	12.5	14	17	28.1	993P3-6FF-1/4	366789	o. r.
8	G 1/8	16	12	6	6.5	46.5	14.5	17	17	31.3	993P3-8FF-1/8	366790	o. r.
8	G 1/4	16	12	6	9	51.5	14.5	17	17	33.7	993P3-8FF-1/4	366791	o. r.

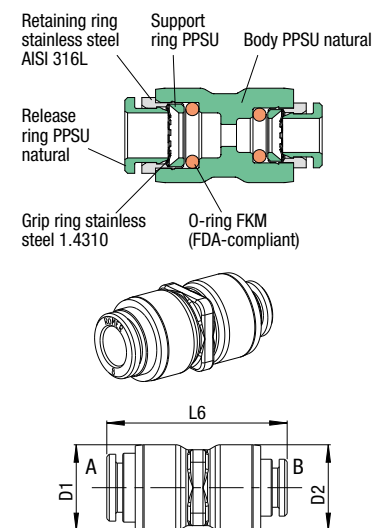
Illustration



Straight Connector

Product group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C			NSF		Plastic PPSU				
for tube AD	for tube BD		Max. allow. OP [bar] at medium temp.			L6	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C								
4	4	20	16	10	32	12.5	12.5	6	958P3-4FF	367083	o. r.	
6	4	20	16	10	32.5	14	14	6.7	958P3-6-4FF	367084	o. r.	
6	6	20	16	10	33	14	14	7	958P3-6FF	367085	o. r.	
8	6	16	12	6	36	17	17	10.4	958P3-8-6FF	367086	o. r.	
8	8	16	12	6	36.5	17	17	11.1	958P3-8FF	367087	o. r.	

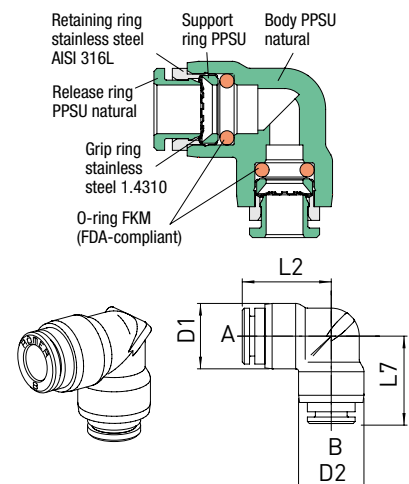
Illustration



90° Elbow Connector

Product group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C							Plastic PPSU		
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C								
4	4	20	16	10	17.5	17.5	12	12	6.5	955P3-4FF	367088	o. r.
6	4	20	16	10	19.5	19	14	14	7.2	955P3-6-4FF	367089	o. r.
6	6	20	16	10	19.5	19.5	14	14	7.5	955P3-6FF	367090	o. r.
8	6	16	12	6	22.5	22	17	17	12.5	955P3-8-6FF	367091	o. r.
8	8	16	12	6	22.5	22.5	17	17	13	955P3-8FF	367092	o. r.

Illustration



T-Connector

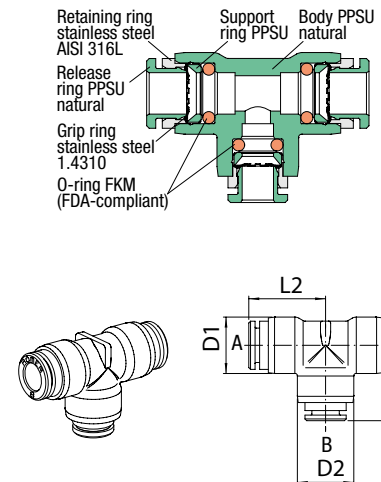
Product group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PPSU

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C								
4	4	20	16	10	17.5	17.5	12	12	9.4	954P3-4FF	367093	o. r.
6	4	20	16	10	19.5	19	14	14	10.6	954P3-6-4FF	367094	o. r.
6	6	20	16	10	19.5	19.5	14	14	11	954P3-6FF	367095	o. r.
6	8	16	12	6	22.5	22.5	17	17	15.5	954P3-6-8FF	367082	o. r.
8	6	16	12	6	22.5	22	17	17	17.8	954P3-8-6FF	367096	o. r.
8	8	16	12	6	22.5	22.5	17	17	18.3	954P3-8FF	367097	o. r.

Illustration



Y-Connector

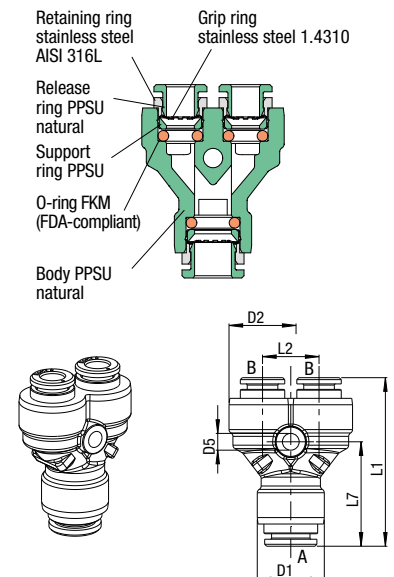
Product group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PPSU

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C										
4	4	20	16	10	38	12.5	23	12.5	12.5	3.3	10.3	982P3-4FF	367098	o. r.
6	4	20	16	10	38.5	12.5	23.5	14	14	3.3	11.4	982P3-6-4FF	367099	o. r.
6	6	20	16	10	39	12.5	23.5	14	14	3.3	12	982P3-6FF	367100	o. r.
8	6	16	12	6	43.5	14.5	27	17	17	4.3	16	982P3-8-6FF	366801	o. r.
8	8	16	12	6	43.5	14.5	27	17	17	4.3	18	982P3-8FF	366802	o. r.

Illustration



Double Y-Connector

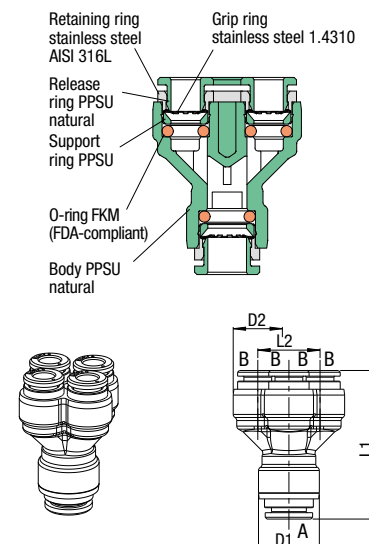
Product group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PPSU

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L1	L2	D1	D2	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C								
6	6	20	16	10	41.5	17.5	17	14	12	984P3-6FF	366803	o. r.
8	6	16	12	6	42	17.5	17	14	12	984P3-8-6FF	366804	o. r.

Illustration



Straight Bulkhead Connector

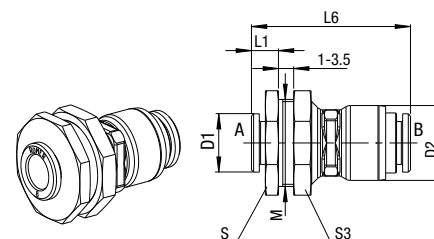
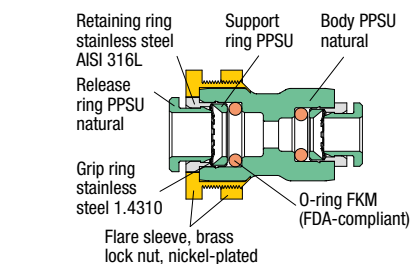
Product group **15**

Max. allow. OP at ambient temp.
 T_{min} 0 °C, T_{max} +60 °C

Plastic
PPSU

for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			M	L1	L6	D1	D2	S	S3	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C											
4	4	20	16	10	M16x1	6.3	31.5	9.5	12.7	19	19	18.2	959P3-4FF	366794	o. r.
6	6	20	16	10	M16x1	6.5	32.9	11.5	13.9	19	19	17.1	959P3-6FF	366795	o. r.
8	8	16	12	6	M20x1	7.8	36.5	13.4	17.2	24	24	28.1	959P3-8FF	366796	o. r.

Illustration



Home



ELSA Fittings Stainless Steel AISI 316L (1.4404) (Push-in)

ELSA the Established push-in connector from AVS-Römer



Stainless steel version

Operating pressure Technical vacuum up to maximum pressure as stated in the respective specification table under PN.
Temperature range 0 °C to +120 °C (for restrictions see specification table)

Application

ELSA push-in fittings made of stainless steel 1.4404 are used in particular for aggressive gases and liquid media under harsh operating conditions. These push-in fittings are equipped with FDA-compliant FKM sealing rings as standard, on request they are available with FDA-compliant and KTW-approved EPDM sealing rings.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Stainless steel AISI 316L	Corresponds to 1.4404 stainless steel . Suitable for many aggressive media, in particular at higher pressures. The FKM seal is FDA-compliant and can be used in the food and pharmaceutical industries.	
Other materials	see relevant products	
Approval	NSF/ANSI 169	
TUBE		
Outside diameter [mm]	4, 6 and 8	10, 12
Permitted tolerance [mm]	±0.1	±0.15
Permitted grades	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)	
THREAD		
External thread	“M” cylindrical thread: Metric ISO thread M5	
External thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8	
External thread	“R” conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 up to R 1/2. Designed for pairing with internal thread according to DIN ISO 228-1.	
Internal thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/2	

OPERATING PRESSURE / TEMPERATURE

Metal version	PN 16	T _{min} 0 °C T _{max} +120 °C	Means that the allowable operating pressure OP corresponds to the given nominal pressure PN in the specified temperature range "T".
Allowable operating pressure and operating temperature of pipe/tube must be observed!			

THREAD SEAL

Cylindrical threaded nipple	Thread seal FKM O-ring	applies to all cylindrical threaded nipples
Conical threaded nipple	Seal with Teflon tape winding (FDA-compliant) on request	

"ROTATABLE" VERSION

90° elbow- and T- adaptor, male	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.
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SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOGUE)

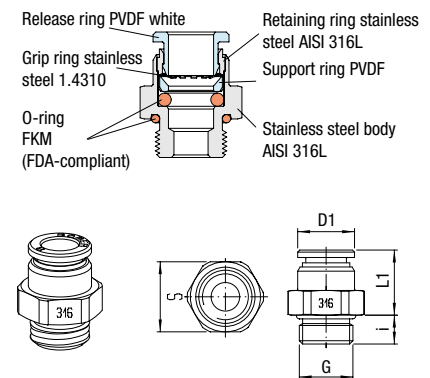
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials such as EPDM, FDA-compliant
- for pipe/tube with inch dimensions
- threaded connection, metric

Straight Adaptor - Male

Product group	13	PN 20	T _{min} 0 °C T _{max} +120 °C	Thread cylindrical	Thread sealed by a FKM O-Ring in recess	NSF	Stainless steel AISI 316L			
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price	
4	M 5	3.5	16.5	8	8	3.4	951X4-4FF-M5	380054	o. r.	
4	G 1/8	5	14	10	13	8.6	951X4-4FF-1/8	380056	o. r.	
6	M 5	3.5	17.5	10	10	4.4	951X4-6FF-M5	380060	o. r.	
6	G 1/8	5	15	12	13	7.9	951X4-6FF-1/8	380062	o. r.	
6	G 1/4	7	14.5	12	17	15.9	951X4-6FF-1/4	380063	o. r.	
8	G 1/8	5	20	14	14	11.3	951X4-8FF-1/8	380066	o. r.	
8	G 1/4	7	16	14	17	14.4	951X4-8FF-1/4	380067	o. r.	
8	G 3/8	8	16	14	19	22.8	951X4-8FF-3/8	380068	o. r.	
10	G 1/4	7	22.5	16.5	17	19.6	951X4-10FF-1/4	380071	o. r.	
10	G 3/8	8	17.5	16.5	19	21.3	951X4-10FF-3/8	380072	o. r.	
10	G 1/2	9	15.5	16.5	24	36.6	951X4-10FF-1/2	380073	o. r.	
12	G 1/4	7	25	20	22	34.3	951X4-12FF-1/4	380074	o. r.	
12	G 3/8	8	19.5	20	22	7.4	951X4-12FF-3/8	380075	o. r.	

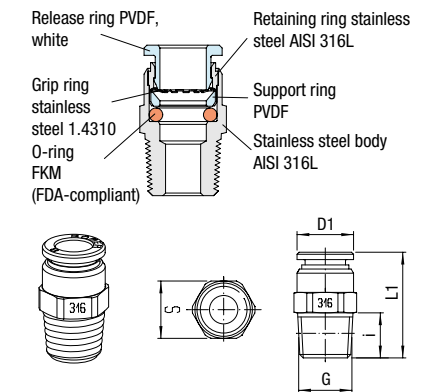
Illustration



Straight Adaptor - Male

Product group	13	PN 20	T _{min} 0 °C T _{max} +120 °C	Thread conical	NSF	Stainless steel AISI 316L				
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price	
4	R 1/8	7.5	20.5	10	10	6.6	951X4-4FF-1/8 K	380456	o. r.	
6	R 1/8	7.5	21.5	12	12	7.5	951X4-6FF-1/8K	380462	o. r.	
6	R 1/4	11	24.5	12	14	14.5	951X4-6FF-1/4K	380463	o. r.	
8	R 1/8	7.5	27	14	14	12.3	951X4-8FF-1/8K	380466	o. r.	
8	R 1/4	11	26.5	14	14	13.3	951X4-8FF-1/4 K	380467	o. r.	
8	R 3/8	11.5	24.5	14	17	21.7	951X4-8FF-3/8K	380468	o. r.	
10	R 1/4	11	32.5	16.5	17	22.3	951X4-10FF-1/4K	380471	o. r.	
10	R 3/8	11.5	28	16.5	17	21.6	951X4-10FF-3/8K	380472	o. r.	
10	R 1/2	14	26.5	16.5	22	38.7	951X4-10FF-1/2K	380473	o. r.	
12	R 1/2	14	31.5	20	22	40.4	951X4-12FF-1/2K	380476	o. r.	

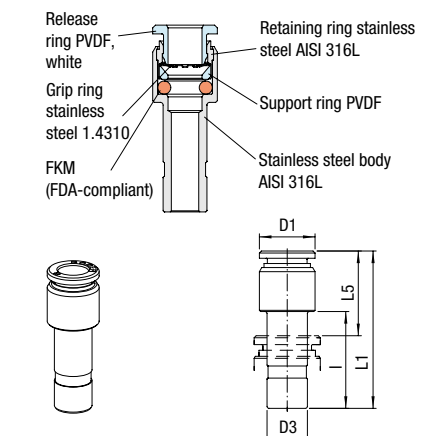
Illustration



Straight Stem Reducer

Product group	13	PN 20	T _{min} 0 °C T _{max} +120 °C	NSF	Stainless steel AISI 316L					
for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price	
4	6	18	31.5	17.5	10	6.3	947X4-4FF-D6	383652	o. r.	
6	8	20	34	18.5	12	9.3	947X4-6FF-D8	383653	o. r.	

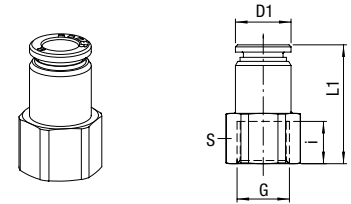
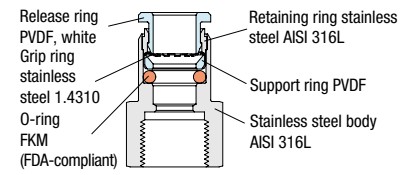
Illustration



Straight Adaptor - Female

Product group	13	PN 20	T _{min} 0 °C T _{max} +120 °C	Thread cylindrical	NSF	Stainless steel AISI 316L				
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price	
4	G 1/8	8	24	10	13	10.8	946X4-4FF-1/8	380706	o. r.	
6	G 1/8	8	25	12	13	12.5	946X4-6FF-1/8	380712	o. r.	
6	G 1/4	10.5	27.5	12	17	20.5	946X4-6FF-1/4	380713	o. r.	
8	G 1/8	8	27	14	14	16.2	946X4-8FF-1/8	380716	o. r.	
8	G 1/4	10.5	29.5	14	17	22.3	946X4-8FF-1/4	380717	o. r.	
8	G 3/8	11.5	30.5	14	19	23.3	946X4-8FF-3/8	380718	o. r.	
10	G1/2	15	36.5	16.5	24	45.7	946X4-10FF-1/2	380719	o. r.	

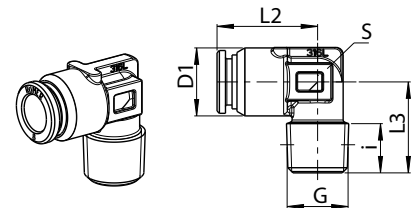
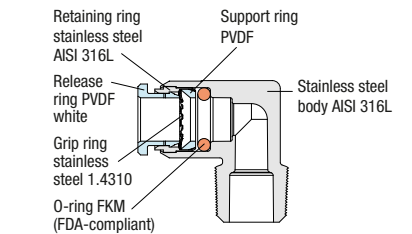
Illustration



90° Elbow Adaptor - Male

Product group	13	PN 20	T _{min} 0 °C T _{max} +120 °C	Thread conical	NSF	Stainless steel AISI 316L				
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	7.5	17	14.5	10.5	8	9.4	950X4M-4FF-1/8K	384003	a. A.
4	R 1/4	10.5	17	17.5	10.5	8	13.8	950X4M-4FF-1/4K	384004	a. A.
6	R 1/8	7.5	18.5	15.5	12.5	8	11.9	950X4M-6FF-1/8K	384005	a. A.
6	R 1/4	10.5	18.5	18.5	12.5	9	16.8	950X4M-6FF-1/4K	384006	a. A.
8	R 1/8	8.5	27.5	18.5	14	13	24.4	950X4-8FF-1/8K	380866	a. A.
8	R 1/4	10.5	27.5	23	14	13	26.8	950X4-8FF-1/4K	380867	a. A.
8	R 3/8	11	27.5	24.5	14	13	33.6	950X4-8FF-3/8K	380868	a. A.
10	R 1/4	10.5	29.5	23	16.5	13	26.8	950X4-10FF-1/4K	380871	a. A.
10	R 3/8	11	29.5	24.5	16.5	13	33.2	950X4-10FF-3/8K	380872	a. A.
12	R 3/8	11	32	24.5	20	17	46.5	950X4-12FF-3/8K	380875	a. A.

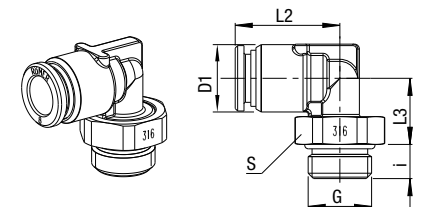
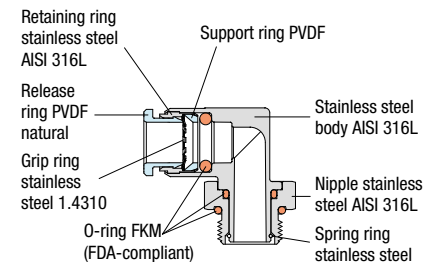
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	13	PN 16	T _{min} 0 °C T _{max} +120 °C	Thread cylindrical	Thread sealed by a FKM O-Ring in recess	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L		
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	M 5	3.5	16.5	11	10.5	8	8.5	930X4M-4FF-M5	384103	o. r.
4	G 1/8	5	17	11.5	10.5	13	12.5	930X4M-4FF-1/8	384104	o. r.
4	G 1/4	7	17	11.5	10.5	17	19	930X4M-4FF-1/4	384105	o. r.
6	M 5	3.5	17.5	12	12.5	8	9.8	930X4M-6FF-M5	384106	o. r.
6	G 1/8	5	18.5	12.5	12.5	13	13.8	930X4M-6FF-1/8	384107	o. r.
6	G 1/4	7	18.5	12.5	12.5	17	20.8	930X4M-6FF-1/4	384108	o. r.
8	G 1/8	5	20	13.5	14.5	13	16.7	930X4M-8FF-1/8	384109	o. r.
8	G 1/4	7	21.5	13.5	14.5	17	23.8	930X4M-8FF-1/4	384110	o. r.
8	G 3/8	8	21.5	14	14.5	19	30.6	930X4M-8FF-3/8	384111	o. r.
10	G 1/4	7	29.5	17.5	16.5	17	35.5	930X4-10FF-1/4	381071	o. r.
10	G 3/8	8	29.5	19.5	16.5	19	40.1	930X4-10FF-3/8	381072	o. r.
12	G 1/4	7	32	18.5	20	17	54	930X4-12FF-1/4	381074	o. r.
12	G 3/8	8	32	19.5	20	19	58	930X4-12FF-3/8	381075	o. r.

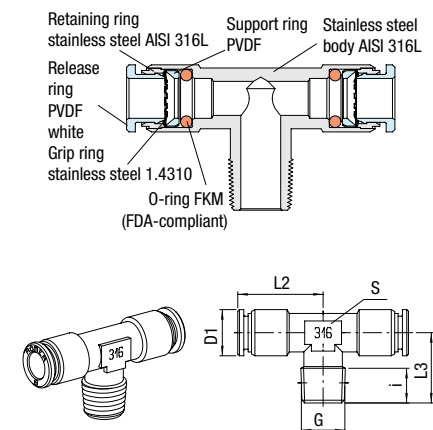
Illustration



T-Adaptor - Male

Product group	13	PN 20	T _{min}	0 °C	Thread conical	 Stainless steel AISI 316L				
			T _{max}	+120 °C						
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	9	22	18.5	10	10	19.3	941X4-4FF-1/8K	381856	o. r.
6	R 1/8	9	24	18.5	12	10	21.1	941X4-6FF-1/8K	381862	o. r.
6	R 1/4	10.5	24	21	12	10	24.6	941X4-6FF-1/4K	381863	o. r.
8	R 1/8	8.5	27.5	18.5	14	13	35	941X4-8FF-1/8K	381866	o. r.
8	R 1/4	10.5	27.5	23	14	13	38	941X4-8FF-1/4K	381867	o. r.
8	R 3/8	11	27.5	24.5	14	13	43	941X4-8FF-3/8K	381868	o. r.
10	R 1/4	10.5	29.5	23	16.5	13	39.2	941X4-10FF-1/4K	381871	o. r.
10	R 3/8	11	29.5	24.5	16.5	13	43	941X4-10FF-3/8K	381872	o. r.
12	R 3/8	11	32	24.5	20	17	66.3	941X4-12FF-3/8K	381875	o. r.

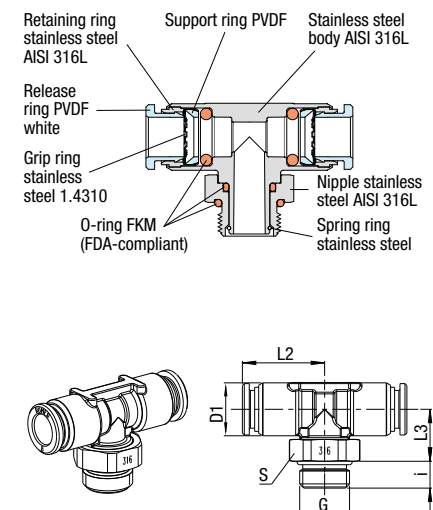
Illustration



T-Adaptor - Male - Positionable

Product group	13	PN 16	T _{min} 0 °C T _{max} +120 °C		Thread cylindrical	Thread sealed by a FKM O-Ring in recess			Stainless steel AISI 316L	
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	M 5	3.5	16.5	11	10.5	8	11.6	921X4M-4FF-M5	384303	o. r.
4	G 1/8	5	17.5	11.5	10.5	13	15.9	921X4M-4FF-1/8	384304	o. r.
4	G 1/4	7	17.5	11.5	10.5	17	22.5	921X4M-4FF-1/4	384305	o. r.
6	M 5	3.5	17.5	12	12.5	8	13.9	921X4M-6FF-M5	384306	o. r.
6	G 1/8	5	18.5	12	12.5	13	18.5	921X4M-6FF-1/8	384307	o. r.
6	G 1/4	7	19.5	12.5	12.5	17	25.9	921X4M-6FF-1/4	384308	o. r.
8	G 1/8	5	20	13	14.5	13	26.2	921X4M-8FF-1/8	382309	o. r.
8	G 1/4	7	21.5	13.5	14.5	17	33.5	921X4M-8FF-1/4	382310	o. r.
8	G 3/8	8	22.5	14	14.5	19	41	921X4M-8FF-3/8	382311	o. r.
10	G 1/4	7	29.5	17.5	16.5	17	47.2	921X4-10FF-1/4	382071	o. r.
10	G 3/8	8	29.5	19.5	16.5	19	52.6	921X4-10FF-3/8	382072	o. r.
12	G 3/8	8	32	19.5	20	19	77.7	921X4-12FF-3/8	382075	o. r.

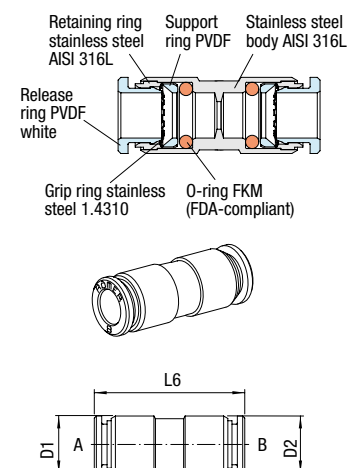
Illustration



Straight Connector

Product group		13	PN 20	T _{min} 0 °C T _{max} +120 °C	NSF Stainless steel AISI 316L			
for tube AD	for tube BD	L6	D1	D2	Weight in [g]	Type	Order number	Price
4	4	31	10	10	8.2	958X4-4FF	383054	o. r.
6	6	34	12	12	10.2	958X4-6FF	383060	o. r.
8	8	36.5	14	14	13.7	958X4-8FF	383062	o. r.

Illustration



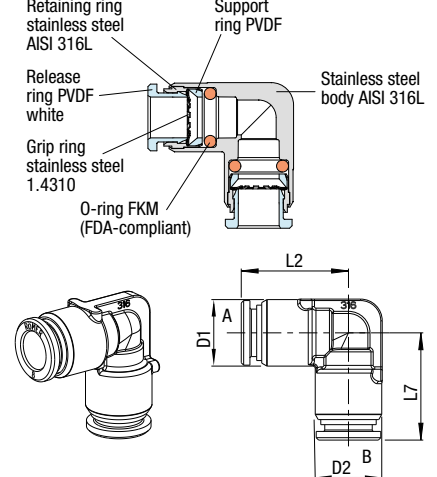
90° Elbow Connector

Product group **13** PN 20 T_{min} 0 °C T_{max} +120 °C

Stainless steel
AISI 316L

for tube AD	for tube BD	L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
4	4	17.5	17.5	10,5	10,5	8.3	955X4M-4FF	384403	o. r.
6	6	19.5	19.5	12,5	12,5	11.6	955X4M-6FF	384405	o. r.
8	8	22.5	22.5	14,5	14,5	16.3	955X4M-8FF	384407	o. r.
10	10	26	26	17	17	25.5	955X4M-10FF	384409	o. r.
12	12	32	32	20	20	53.6	955X4-12FF	383142	o. r.

Illustration



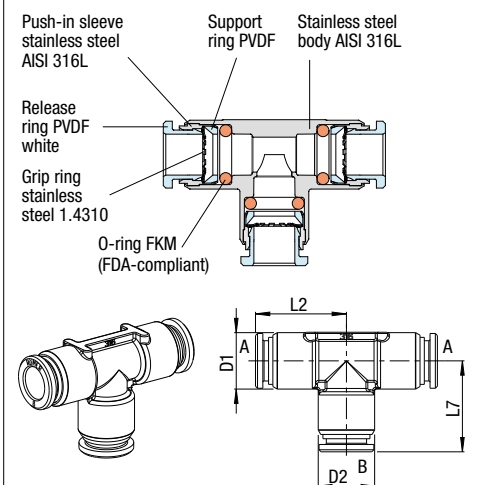
T-Connector

Product group **13** PN 20 T_{min} 0 °C T_{max} +120 °C

Stainless steel
AISI 316L

for tube AD	for tube BD	L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
4	4	17.5	17.5	10,5	10,5	11.5	954X4M-4FF	384453	o. r.
6	6	19.5	19.5	12,5	12,5	15.8	954X4M-6FF	384455	o. r.
8	8	22.5	22.5	14,5	14,5	21.7	954X4M-8FF	384457	o. r.
10	10	26	26	17	17	34.1	954X4M-10FF	384459	o. r.
12	12	32	32	20	20	73.3	954X4-12FF	383242	o. r.

Illustration



Straight Stem Adaptor

Product group **13** PN 20 T_{min} 0 °C T_{max} +140 °C

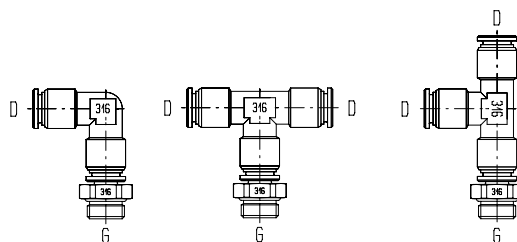
Thread cylindrical

Thread sealed by a
FKM O-Ring in recess

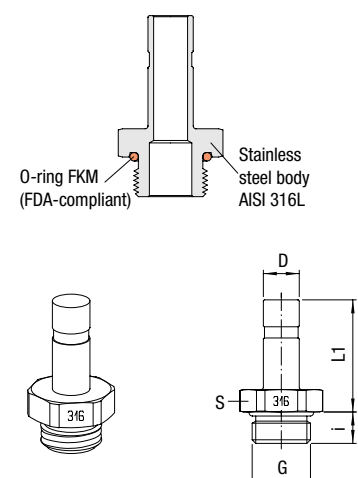
Stainless steel
AISI 316L

connection D	G	i	L1	S	Weight in [g]	Type	Order number	Price
4	G 1/8	5	21.5	13	6.5	908X4-4FF-1/8	383806	o. r.
4	G 1/4	7	22	17	12.5	908X4-4FF-1/4	383807	o. r.
6	G 1/8	5	22.5	13	7.3	908X4-6FF-1/8	383812	o. r.
6	G 1/4	7	23	17	16.7	908X4-6FF-1/4	383813	o. r.
8	G 1/8	5	24.5	13	8.2	908X4-8FF-1/8	383816	o. r.
8	G 1/4	7	25	17	16.1	908X4-8FF-1/4	383817	o. r.
10	G 1/4	7	29	17	15.5	908X4-10FF-1/4	383821	o. r.
10	G 3/8	8	29	19	23.4	908X4-10FF-3/8	383822	o. r.
12	G 3/8	8	31	19	26.3	908X4-12FF-3/8	383825	o. r.

Examples of possible combinations of ELSA push-in connectors to obtain rotatable connections.



Illustration



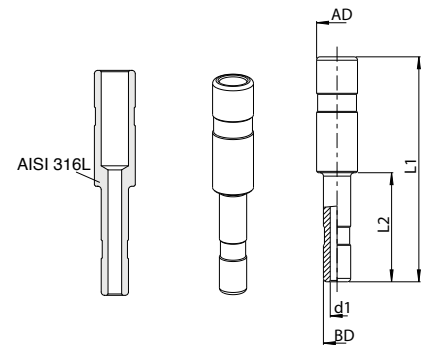
Straight Double Stem Connector

Product group **13** PN 20 T_{min} 0 °C T_{max} +120 °C

Stainless steel
AISI 316L

for push-in connection AD	for push-in connection BD	d1	L1	L2	Weight in [g]	Type	Order number	Price
6	4	2	33	16	3.6	904X4-D6-D4	283852	o. r.
6	6	4	34.5	-	5	904X4-D6	283853	o. r.
8	8	6	37.5	-	5	904X4-D8	283854	o. r.

Illustration



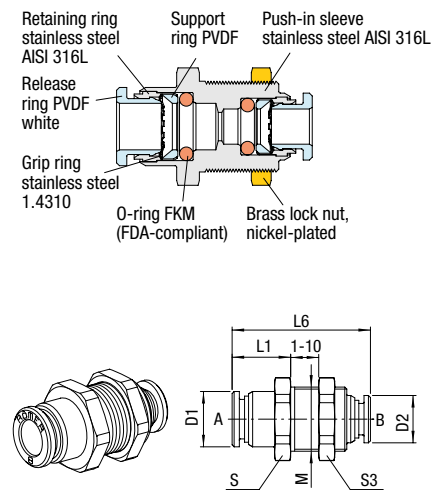
Straight Bulkhead Connector

Product group **13** PN 20 T_{min} 0 °C T_{max} +120 °C

Stainless steel
AISI 316L

for tube AD	for tube BD	M	L1	L6	D1	D2	S	S3	Weight in [g]	Type	Order number	Price
4	4	M12x1	12.5	31	10	10	14	17	17.2	959X4-4FF	383429	o. r.
6	6	M14x1	12.5	31.5	12	12	17	17	22	959X4-6FF	383435	o. r.
8	8	M14x1	13.5	32.5	14	14	17	17	29.2	959X4-8FF	383437	o. r.

Illustration



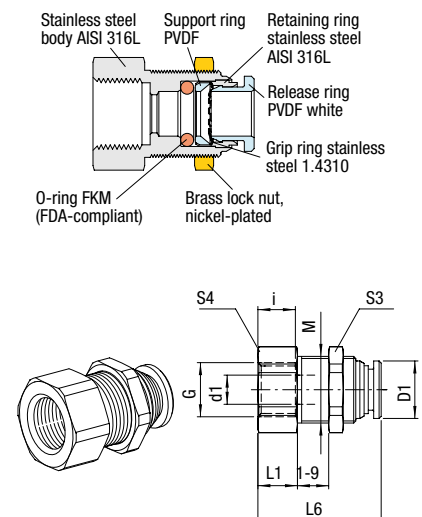
Straight Bulkhead Adaptor - Female

Product group **13** PN 20 T_{min} 0 °C T_{max} +120 °C Thread cylindrical

Stainless steel
AISI 316L

for tube D	G	M	L1	i	L6	d1	D1	S4	S3	Weight in [g]	Type	Order number	Price
4	G 1/8	M12x1	6.5	8	25.5	3	10	14	17	18.6	945X4-4FF-1/8	383606	o. r.
6	G 1/8	M14x1	6.5	8	25.5	5	12	17	17	24.2	945X4-6FF-1/8	383612	o. r.
6	G 1/4	M14x1	12	10.5	31	5	12	17	17	29.6	945X4-6FF-1/4	383613	o. r.
8	G 1/8	M16x1	7	8	27	7	14	19	19	33	945X4-8FF-1/8	383616	o. r.
8	G 1/4	M16x1	9.5	10.5	29.5	7	14	19	19	40.7	945X4-8FF-1/4	383617	o. r.

Illustration



RAPID Fittings Nickel-Plated Brass (Push-on)

Home



Rapid brass

Operating pressure: Technical vacuum up to maximum pressure as stated in the respective specification table under PN.

Temperature range: -40 °C to +120 °C
(for restrictions see specification table)

Application

RAPID fittings are used with aggressive gaseous and liquid media, where elastomer seals are not resistant. With guide cone and Cap nut these fittings are particularly suited to very harsh operating conditions.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Nickel-plated brass	CuZn39Pb3, galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring, FDA compliant.
Other materials	see relevant products

TUBE

Outside diameter [mm]	4.3/3 5/3 6/4 8/6 10/8	11.5/9 12/9 12/10 15/12.5 17.6/13
Permitted tolerance outside D	±0.1	±0.15
Permitted tolerance inside d	±0.1	±0.15
Permitted wall thickness tolerance	±0.1	±0.15
Permitted grades	Polyamide (PA), polyurethane (PU), polyethylene (PE), fabric reinforced PVC, fluoropolymer (FEP) (PFA)	

THREAD

External thread	"M" cylindrical thread: Metric ISO thread M5, M6 and M7.
External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2.
External thread	"R" cylindrical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 to R 1/2. Dimensions constructed so there can be pairing with internal thread according to DIN ISO 228-1.
Internal thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2.

OPERATING PRESSURE / TEMPERATURE

Metal version	PN 25	T _{min} -40 °C T _{max} +120 °C	Means that the fitting can be used up to the given nominal pressure PN within the specified temperature range "T". Allowable operating pressure and operating temperature of pipe/tube must be observed!
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THREAD SEAL

Cylindrical threaded nipple	Seal with sealing rings made of copper, fibre, aluminium, polyamide or hard PVC.
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Conical threaded nipple	External thread self-sealing with pre-coating "D"	Film with non-reactive mineral solid materials, non-adhesive. Resistant to air, water, motor oils etc. in temperature range of -40 °C to +120 °C.
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Straight, 90° elbow and T-adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings are 360°-swivelling to facilitate adjustment during assembly.
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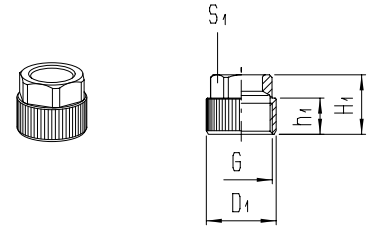
Cap Nut

Product group **11** PN 25 $T_{min} -40\text{ °C}$
 $T_{max} +120\text{ °C}$

Nickel-plated brass

for tube D/d	G	Exchangeable possible with	H1	h1	D1	S1	Weight in [g]	Type	Order number	Price
4.3/3	M7x0.75	250003	8.5	5	8	7	1.2	170M-43/0-M7x0.75	250002	o. r.
5/3	M7x0.75	250002	8.5	5	8	7	1.2	170M-5/0-M7x0.75	250003	o. r.
6/4	M8x0.75	-	10	6.5	9	8	1.7	170M-6/0-M8x0.75	250004	o. r.
6/4	M10x1	250017	11.5	7	11.5	10	3.5	170M-6/0-M10x1	250005	o. r.
8/6	M12x1	250018	11.5	7	13.5	12	4.4	170M-8/0-M12x1	250008	o. r.
10/8	M14x1	-	13.5	9	15.5	13	5.6	170M-10/0-M14x1	250010	o. r.
11.5/9	M16x1	250012	14.5	9	17.5	15	7.8	170M-115/0-M16x1	250011	o. r.
12/9	M16x1	250011	14.5	9	17.5	15	7.5	170M-12/0-M16x1	250012	o. r.
12/10	M16x1	250019	14.5	9	17.5	15	7.5	170M-12/0-M16x1	250012	o. r.
15/12.5	M20x1	250014	16.5	10.5	22	19	13.2	170M-15/12.5-M20x1	250013	o. r.
17.6/13	M20x1	250013	16.5	10.5	22	19	11.2	170M-176/0-M20x1	250014	o. r.
1/4/1/8	M10x1	250005	11.5	7	11.5	10	3.4	170M-64/0-M10x1	250017	o. r.
3/8/1/4	M12x1	250008	11.5	7	13.5	12	3.7	170M-96/0-M12x1	250018	o. r.
1/2/3/8	M16x1	250012	14.5	9	17.5	15	6.5	170M-13/0-M16x1	250019	o. r.

Illustration



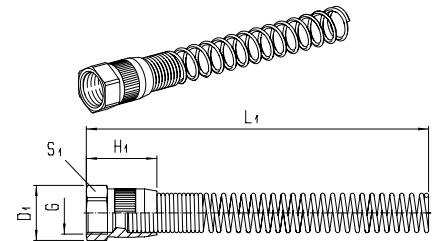
Cap Nut with Anti-kink Protection

Product group **11** PN 25 $T_{min} -40\text{ °C}$
 $T_{max} +120\text{ °C}$

Nickel-plated brass

for tube D/d	G	Exchange possible with	L1*	H1	D1	S1	Weight in [g]	Type	Order number	Price
6/4	M10x1	250005	96	19	13	12	14	172M-6/0-M10x1	331005	o. r.
8/6	M12x1	250008	97	20	15.5	14	17.6	172M-8/0-M12x1	331008	o. r.
10/8	M14x1	250010	97	20	17.5	16	23.1	172M-10/0-M14x1	331010	o. r.
12/9	M16x1	250012	97	20	21	19	29.3	172M-12/0-M16x1	331012	o. r.
12/10	M16x1	250012	97	20	21	19	29.3	172M-12/0-M16x1	331012	o. r.

Illustration



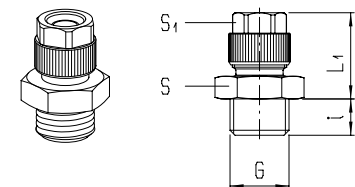
Straight Adaptor - Male

Product group **11** PN 25 $T_{min} -40\text{ °C}$
 $T_{max} +120\text{ °C}$ Cylindrical thread

Nickel-plated brass

for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price
4.3/3	M 5	4	14.5	7	8	4.6	151M-43/3-M5	300004	o. r.
4.3/3	G 1/8	6	15.5	7	13	9.8	151M-43/3-1/8	300006	o. r.
5/3	M 5	4	14.5	7	8	4.6	151M-5/3-M5	300007	o. r.
5/3	M 6	5	14.5	7	8	4.7	151M-5/3-M6	300499	o. r.
5/3	G 1/8	6	15.5	7	13	9.9	151M-5/3-1/8	300009	o. r.
6/4	M 5	4	15.5	8	8	5.5	151M-6/4-M5	300010	o. r.
6/4	M 6	5	15.5	8	8	5.6	151M-6/4-M6	300500	o. r.
6/4	G 1/8	6	18.5	10	13	15.3	151M-6/4-1/8	300014	o. r.
6/4	G 1/4	8	19	10	17	22.8	151M-6/4-1/4	300015	o. r.
6/4	G 3/8	9	19	10	19	25.7	151M-6/4-3/8	300016	o. r.
6/4	G 1/2	10	19.5	10	24	41.6	151M-6/4-1/2	300017	o. r.
8/6	G 1/8	6	18.5	12	13	17.3	151M-8/6-1/8	300020	o. r.
8/6	G 1/4	8	19	12	17	22.8	151M-8/6-1/4	300021	o. r.
8/6	G 3/8	9	19	12	19	27.4	151M-8/6-3/8	300022	o. r.
8/6	G 1/2	10	19.5	12	24	44.4	151M-8/6-1/2	300023	o. r.
10/8	G 1/8	6	20	13	14	20.4	151M-10/8-1/8	300029	o. r.
10/8	G 1/4	8	20.5	13	17	26.2	151M-10/8-1/4	300030	o. r.
10/8	G 3/8	9	20.5	13	19	31.8	151M-10/8-3/8	300031	o. r.
10/8	G 1/2	10	21	13	24	46	151M-10/8-1/2	300032	o. r.
11.5/9	G 1/4	8	22	15	17	30.9	151M-115/9-1/4	300033	o. r.
11.5/9	G 3/8	9	22	15	19	36.4	151M-115/9-3/8	300034	o. r.
12/9	G 1/4	8	22	15	17	30.1	151M-12/9-1/4	300036	o. r.
12/9	G 3/8	9	22	15	19	35.9	151M-12/9-3/8	300037	o. r.
12/10	G 3/8	9	22	15	19	35.2	151M-12/10-3/8	300043	o. r.
12/10	G 1/2	10	22.5	15	24**	49.4	151M-12/10-1/2	300044	o. r.
15/12.5	G 1/2	10	25	19	24**	58.7	151M-15/125-1/2	300048	o. r.
17.6/13	G 1/2	10	25	22	24**	51.2	151M-176/13-1/2	300050	o. r.

Illustration

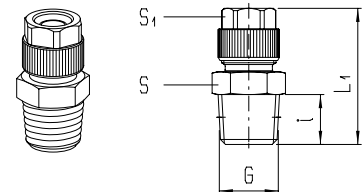


* approximate with fastened cap nut ** S24 = octagon

Straight Adaptor - Male

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C	Conical thread	Thread "D" self-sealing T _{max} +100 °C			Nickel-plated brass		
for tube D/d	G	i	L1*	S1	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
4.3/3	R 1/8	7.5	23	7	10	-	9.4	151M-43/3-1/8K	300506	o. r.
5/3	R 1/8	7.5	23	7	10	-	9.6	151M-5/3-1/8K	300509	o. r.
6/4	R 1/8	7.5	26	10	12	-	14.4	151M-6/4-1/8K	300514	o. r.
6/4	R 1/8	7.5	26	10	12	D	14.4	151M-6/4-D1/8K	306514	o. r.
6/4	R 1/4	11	30	10	14	-	17.8	151M-6/4-1/4K	300515	o. r.
6/4	R 1/4	11	30	10	14	D	17.8	151M-6/4-D1/4K	306515	o. r.
6/4	R 3/8	11.5	30.5	10	17	-	26.2	151M-6/4-3/8K	300516	o. r.
8/6	R 1/8	7.5	26	12	12	-	17.2	151M-8/6-1/8K	300520	o. r.
8/6	R 1/8	7.5	26	12	12	D	17.2	151M-8/6-D1/8K	306520	o. r.
8/6	R 1/4	11	30	12	14	-	22.1	151M-8/6-1/4K	300521	o. r.
8/6	R 1/4	11	30	12	14	D	22.1	151M-8/6-D1/4K	306521	o. r.
8/6	R 3/8	11.5	30.5	12	17	-	28.4	151M-8/6-3/8K	300522	o. r.
8/6	R 3/8	11.5	30.5	12	17	D	28.4	151M-8/6-D3/8K	306522	o. r.
10/8	R 1/8	7.5	27.5	13	14	-	20.8	151M-10/8-1/8K	300529	o. r.
10/8	R 1/4	11	31.5	13	14	-	23.8	151M-10/8-1/4K	300530	o. r.
10/8	R 1/4	11	31.5	13	14	D	23.8	151M-10/8-D1/4K	306530	o. r.
10/8	R 3/8	11.5	32	13	17	-	30.7	151M-10/8-3/8K	300531	o. r.
10/8	R 1/2	14	35	13	22	-	43.5	151M-10/8-1/2K	300532	o. r.
12/10	R 3/8	11.5	33.5	15	17	-	34	151M-12/10-3/8K	300543	o. r.
12/10	R 1/2	14	36.5	15	22	-	46.1	151M-12/10-1/2K	300544	o. r.
15/12.5	R 1/2	14	39	19	22	-	58	151M-15/125-1/2K	300548	o. r.
17.6/13	R 1/2	14	39	22	22	-	59.2	151M-176/13-1/2K	300550	o. r.

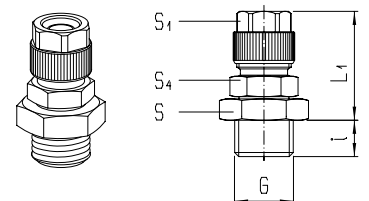
Illustration



Straight Adaptor - Male - Positionable

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing ring: NBR	not suitable for rotating or oscill. movement			Nickel-plated brass		
for tube D/d	G	i	L1*	S1	S4	S	Weight in [g]	Type	Order number	Price	
6/4	G 1/8	6	24.5	10	13	13	17.7	131M-6/4-1/8	300414	o. r.	
6/4	G 1/4	8	23.5	10	13	17	25.4	131M-6/4-1/4	300415	o. r.	
8/6	G 1/8	6	24.5	12	13	13	20.5	131M-8/6-1/8	300420	o. r.	
8/6	G 1/4	8	23.5	12	13	17	28.3	131M-8/6-1/4	300421	o. r.	
10/8	G 1/4	8	25	13	14	17	32.3	131M-10/8-1/4	300430	o. r.	
12/9	G 3/8	9	28.5	15	17	19	48	131M-12/9-3/8	300437	o. r.	
12/10	G 3/8	9	28.5	15	17	19	46.2	131M-12/10-3/8	300443	o. r.	

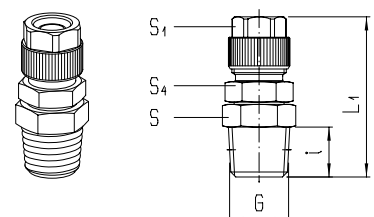
Illustration



Straight Adaptor - Male - Positionable

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Conical thread	Sealing ring: NBR	Thread "D" self-sealing	not suitable for rotating or oscill. movement	Nickel-plated brass			
for tube D/d	G	i	L1*	S1	S4	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	31.5	10	13	13	-	20	131M-6/4-1/8K	300714	o. r.
6/4	R 1/8	7.5	31.5	10	13	13	D	20	131M-6/4-D1/8K	306714	o. r.
6/4	R 1/4	11	34.5	10	13	14	-	26	131M-6/4-1/4K	300715	o. r.
6/4	R 1/4	11	34.5	10	13	14	D	26	131M-6/4-D1/4K	306715	o. r.
8/6	R 1/8	7.5	31.5	12	13	13	-	21.5	131M-8/6-1/8K	300720	o. r.
8/6	R 1/8	7.5	31.5	12	13	13	D	21.5	131M-8/6-D1/8K	306720	o. r.
8/6	R 1/4	11	34.5	12	13	14	-	27	131M-8/6-1/4K	300721	o. r.
8/6	R 1/4	11	34.5	12	13	14	D	27	131M-8/6-D1/4K	306721	o. r.
10/8	R 1/4	11	36	13	14	14	-	30.8	131M-10/8-1/4K	300730	o. r.
10/8	R 1/4	11	36	13	14	14	D	30.8	131M-10/8-D1/4K	306730	o. r.

Illustration

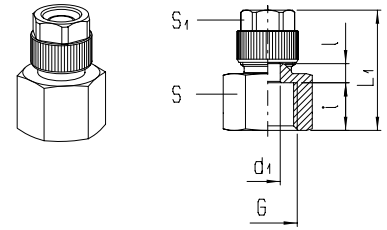


* approximate with fastened cap nut

Straight Adaptor - Female

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C									Nickel-plated brass	
for tube D/d	G	i	L1*	I	d1	S1	S	Weight in [g]	Type	Order number	Price		
4.3/3	G 1/8	8	21	-	2.2	7	13	10.3	146M-43/3-1/8	300806	o. r.		
5/3	G 1/8	8	21	-	2.2	7	13	10.3	146M-5/3-1/8	300809	o. r.		
6/4	G 1/8	8	24	7	5.5	10	13	15.3	146M-6/4-1/8	300814	o. r.		
6/4	G 1/4	10.5	26.5	7	5.5	10	17	21.1	146M-6/4-1/4	300815	o. r.		
8/6	G 1/8	8	24	7	5.5	12	13	17.5	146M-8/6-1/8	300820	o. r.		
8/6	G 1/4	10.5	26.5	7	5.5	12	17	26.4	146M-8/6-1/4	300821	o. r.		
8/6	G 3/8	11.5	27.5	7	6.5	12	19	23.7	146M-8/6-3/8	300822	o. r.		
8/6	G 1/2	15	31.5	7	6.5	12	24	38.2	146M-8/6-1/2	300823	o. r.		
10/8	G 1/4	10.5	28	-	7	13	17	27.7	146M-10/8-1/4	300830	o. r.		
10/8	G 3/8	11.5	29	-	7	13	19	29.6	146M-10/8-3/8	300831	o. r.		
10/8	G 1/2	15	33	-	7	13	24**	42.6	146M-10/8-1/2	300832	o. r.		
11.5/9	G 3/8	11.5	30.5	-	7.5	15	19	32.2	146M-115/9-3/8	300834	o. r.		
12/9	G 3/8	11.5	30.5	-	7.5	15	19	31.7	146M-12/9-3/8	300837	o. r.		

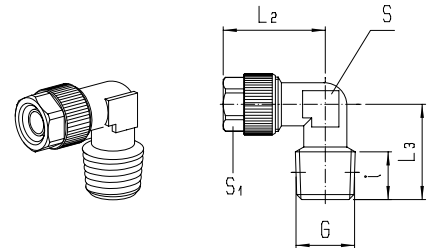
Illustration



90° Elbow Adaptor - Male

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C		Conical thread		Thread "D" self-sealing T _{max} +100 °C		Nickel-plated brass		
for tube D/d	G	i	L2*	L3	S1	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
4,3/3	R 1/8	7,5	18	17	7	8	-	10	150M-43/3-1/8K	301156	o. r.
5/3	R 1/8	7,5	18	17	7	8	-	10	150M-5/3-1/8K	301159	o. r.
6/4	R 1/8	7,5	21,5	17	10	8	-	13,3	150M-6/4-1/8K	301164	o. r.
6/4	R 1/8	7,5	21,5	17	10	8	D	13,3	150M-6/4-D1/8K	306864	o. r.
6/4	R 1/4	10,5	22,5	21	10	10	-	22,4	150M-6/4-1/4K	301165	o. r.
6/4	R 1/4	10,5	22,5	21	10	10	D	22,4	150M-6/4-D1/4K	306865	o. r.
8/6	R 1/8	7,5	21,5	17	12	8	-	15,1	150M-8/6-1/8K	301170	o. r.
8/6	R 1/8	7,5	21,5	17	12	8	D	15,1	150M-8/6-D1/8K	306870	o. r.
8/6	R 1/4	10,5	22,5	21	12	10	-	23,1	150M-8/6-1/4K	301171	o. r.
8/6	R 1/4	10,5	22,5	21	12	10	D	23,1	150M-6 8/6-D1/4K	306871	o. r.
8/6	R 3/8	11,5	26,5	25	12	13	-	40,4	150M-8/6-3/8K	301172	o. r.
8/6	R 3/8	11,5	26,5	25	12	13	D	40,4	150M-8/6-D3/8K	306872	o. r.
10/8	R 1/8	7,5	24	17	13	10	-	20,2	150M-10/8-1/8K	301179	o. r.
10/8	R 1/8	7,5	24	17	13	10	D	20,2	150M-10/8-D1/8K	306879	o. r.
10/8	R 1/4	10,5	24	21	13	10	-	24,3	150M-10/8-1/4K	301180	o. r.
10/8	R 1/4	10,5	24	21	13	10	D	24,3	150M-10/8-D1/4K	306880	o. r.
10/8	R 3/8	11,5	27	25	13	13	-	37,8	150M-10/8-3/8K	301181	o. r.
10/8	R 3/8	11,5	27	25	13	13	D	37,8	150M-10/8-D3/8K	306881	o. r.
11,5/9	R 1/4	10,5	29	23	15	13	-	39,4	150M-115/9-1/4K	301183	o. r.
11,5/9	R 3/8	11,5	29	25	15	13	-	42,6	150M-115/9-3/8K	301184	o. r.
12/9	R 1/4	10,5	29	23	15	13	-	38,5	150M-12/9-1/4K	301186	o. r.
12/9	R 3/8	11,5	29	25	15	13	-	41,5	150M-12/9-3/8K	301187	o. r.
12/10	R 3/8	11,5	29	25	15	13	-	41	150M-12/10-3/8K	301193	o. r.
15/12,5	R 1/2	14	32,5	29	19	17	-	71,8	150M-15/125-1/2K	301198	o. r.
17,6/13	R 1/2	14	32,5	29	22	17	-	69,8	150M-176/13-1/2K	301200	o. r.

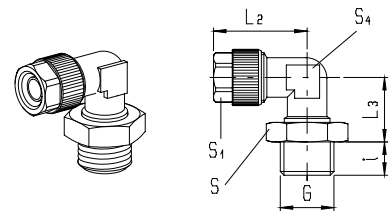
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing ring: NBR	not suitable for rotating or oscill. movement				Nickel-plated brass	
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	6	22.5	14.5	10	10	13	24.5	130M-6/4-1/8	301314	o. r.
6/4	G 1/4	8	22.5	14.5	10	10	17	30.8	130M-6/4-1/4	301315	o. r.
8/6	G 1/8	6	22.5	14.5	12	10	13	25.2	130M-8/6-1/8	301320	o. r.
8/6	G 1/4	8	22.5	14.5	12	10	17	32.5	130M-8/6-1/4	301321	o. r.
10/8	G 1/4	8	24	14.5	13	10	17	28.7	130M-10/8-1/4	301330	o. r.

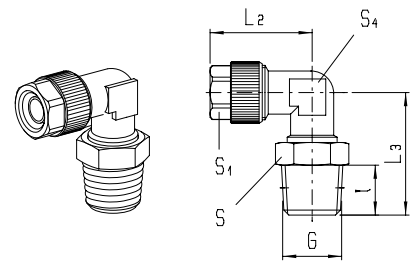
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	11	PN 16	T _{min} T _{max}	-20 °C +80 °C	Conical thread	Sealing ring: NBR	Thread "D" self-sealing	not suitable for rotating or oscill. movement	Nickel-plated brass			
for tube D/d	G	i	L2*	L3	S1	S4	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	10	10	13	-	24.1	130M-6/4-1/8K	301564	o. r.
6/4	R 1/8	7.5	22.5	21.5	10	10	13	D	24.1	130M-6/4-D1/8K	307264	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	14	-	30.8	130M-6/4-1/4K	301565	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	14	D	30.8	130M-6/4-D1/4K	307265	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	-	25.9	130M-8/6-1/8K	301570	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	D	25.9	130M-8/6-D1/8K	307270	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	14	-	31.3	130M-8/6-1/4K	301571	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	14	D	31.3	130M-8/6-D1/4K	307271	o. r.
10/8	R 1/4	11	24	24	13	10	17	-	32.2	130M-10/8-1/4K	301580	o. r.
10/8	R 1/4	11	24	24	13	10	17	D	32.2	130M-10/8-D1/4K	307280	o. r.

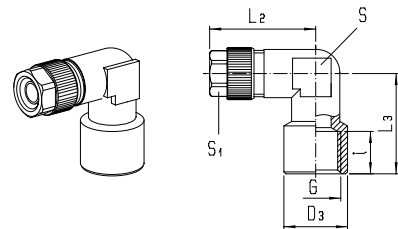
Illustration



90° Elbow Adaptor - Female

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread							Nickel-plated brass	
for tube D/d	G	i	L2*	L3	D3	S1	S	Weight in [g]	Type	Order number	Price	
6/4	G 1/8	8	22.5	20	13	10	10	22.3	149M-6/4-1/8	301464	o. r.	
6/4	G 1/4	10.5	25.5	26	17	10	13	38.2	149M-6/4-1/4	301465	o. r.	
8/6	G 1/8	8	22.5	20	13	12	10	23.4	149M-8/6-1/8	301470	o. r.	
8/6	G 1/4	10.5	25.5	26	17	12	13	38.9	149M-8/6-1/4	301471	o. r.	
10/8	G 1/4	10.5	29	26	17	13	13	42.5	149M-10/8-1/4	301480	o. r.	

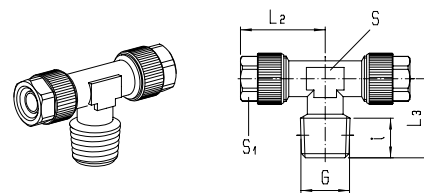
Illustration



T-Adaptor - Male

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C	Conical thread		Thread "D" self-sealing T _{max} +100 °C			Nickel-plated brass		
for tube D/d	G	i	L2*	L3	S1	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
4.3/3	R 1/8	7.5	18	17	7	8	-	13.8	141M-43/3-1/8K	301656	o. r.
5/3	R 1/8	7.5	18	17	7	8	-	13.8	141M-5/3-1/8K	301659	o. r.
6/4	R 1/8	7.5	21.5	17	10	8	-	22	141M-6/4-1/8K	301664	o. r.
6/4	R 1/8	7.5	21.5	17	10	8	D	22	141M-6/4-D1/8K	307464	o. r.
6/4	R 1/4	10.5	22.5	21	10	10	-	32.5	141M-6/4-1/4K	301665	o. r.
6/4	R 1/4	10.5	22.5	21	10	10	D	32.5	141M-6/4-D1/4K	307465	o. r.
8/6	R 1/8	7.5	21.5	17	12	8	-	25	141M-8/6-1/8K	301670	o. r.
8/6	R 1/8	7.5	21.5	17	12	8	D	25	141M-8/6-D1/8K	307470	o. r.
8/6	R 1/4	10.5	22.5	21	12	10	-	34.5	141M-8/6-1/4K	301671	o. r.
8/6	R 1/4	10.5	22.5	21	12	10	D	34.5	141M-8/6-D1/4K	307471	o. r.
10/8	R 1/8	7.5	24	17	13	10	-	33	141M-10/8-1/8K	301679	o. r.
10/8	R 1/4	10.5	24	21	13	10	-	37.7	141M-10/8-1/4K	301680	o. r.
10/8	R 1/4	10.5	24	21	13	10	D	37.7	141M-10/8-D1/4K	307480	o. r.
10/8	R 3/8	11.5	27	25	13	13	-	58	141M-10/8-3/8K	301681	o. r.
12/10	R 3/8	11.5	26	25	15	13	-	53	141M-12/10-3/8K	301693	o. r.
15/12.5	R 1/2	14	32.5	29	19	17	-	106	141M-15/12.5-1/2K	301698	o. r.
17.6/13	R 1/2	14	32.5	29	22	17	-	101	141M-17.6/13-1/2K	301700	o. r.

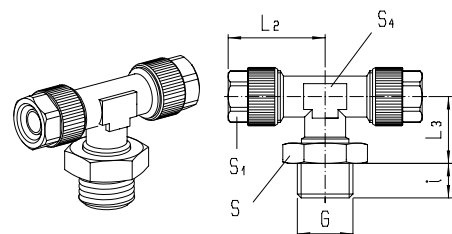
Illustration



T-Adaptor - Male - Positionable

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing ring: NBR		not suitable for rotating or oscill. movement		Nickel-plated brass		
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	6	22.5	14.5	10	10	13	33.9	121M-6/4-1/8	301814	o. r.
6/4	G 1/4	8	22.5	14.5	10	10	17	41	121M-6/4-1/4	301815	o. r.
8/6	G 1/8	6	22.5	14.5	12	10	13	on req.	121M-8/6-1/8	301820	o. r.
8/6	G 1/4	8	22.5	14.5	12	10	17	42.3	121M-8/6-1/4	301821	o. r.
10/8	G 1/4	8	24	14.5	13	10	17	47.5	121M-10/8-1/4	301830	o. r.

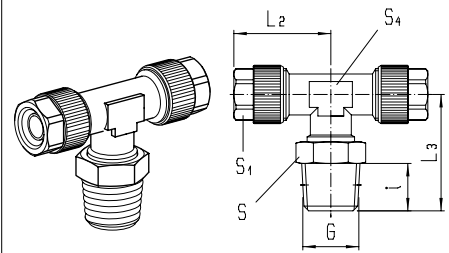
Illustration



T-Adaptor - Male - Positionable

Product group	11	PN	16	T _{min}	-20 °C	T _{max}	+80 °C	Conical thread	Sealing ring: NBR	Thread "D" self-sealing	not suitable for rotating or oscill. movement	Nickel-plated brass
for tube D/d	G	i	L2*	L3	S1	S4	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	10	10	13	-	31.2	121M-6/4-1/8K	301864	o. r.
6/4	R 1/8	7.5	22.5	21.5	10	10	13	D	31.2	121M-6/4-D1/8K	307664	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	14	-	36.3	121M-6/4-1/4K	301865	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	14	D	36.3	121M-6/4-D1/4K	307665	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	-	31.9	121M-8/6-1/8K	301870	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	D	31.9	121M-8/6-D1/8K	307670	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	14	-	41.7	121M-8/6-1/4K	301871	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	14	D	41.7	121M-8/6-D1/4K	307671	o. r.
10/8	R 1/4	11	24	25.5	13	10	17	-	45.6	121M-10/8-1/4K	301880	o. r.
10/8	R 1/4	11	24	25.5	13	10	17	D	45.6	121M-10/8-D1/4K	307680	o. r.

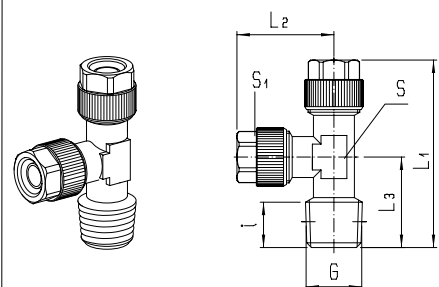
Illustration



Side T-Adaptor - Male

Product group	11	PN 25	T _{min} - 40 °C		T _{max} +120 °C		Conical thread		Nickel-plated brass		
for tube D/d	G	i	L1*	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price
4.3/3	R 1/8	7.5	35	18	17	7	8	14.8	142M-43/3-1/8K	301956	o. r.
5/3	R 1/8	7.5	35	18	17	7	8	14.8	142M-5/3-1/8K	301959	o. r.
6/4	R 1/8	7.5	38.5	21.5	17	10	8	23	142M-6/4-1/8K	301964	o. r.
6/4	R 1/4	10.5	43.5	22.5	21	10	10	32.5	142M-6/4-1/4K	301965	o. r.
8/6	R 1/8	7.5	38.5	21.5	17	12	8	25	142M-8/6-1/8K	301970	o. r.
8/6	R 1/4	10.5	43.5	22.5	21	12	10	34.5	142M-8/6-1/4K	301971	o. r.
10/8	R 1/8	7.5	41	24	17	13	10	35.5	142M-10/8-1/8K	301979	o. r.
10/8	R 1/4	10.5	45	24	21	13	10	38.5	142M-10/8-1/4K	301980	o. r.
10/8	R 3/8	11.5	52	27	25	13	13	58.5	142M-10/8-3/8K	301981	o. r.
12/10	R 3/8	11.5	54	29	25	15	13	60.6	142M-12/10-3/8K	301993	o. r.
15/12.5	R 1/2	14	61.5	32.5	29	19	17	96.2	142M-15/125-1/2K	301998	o. r.
17.6/13	R 1/2	14	61.5	32.5	29	22	17	98	142M-176/13-1/2K	302000	o. r.

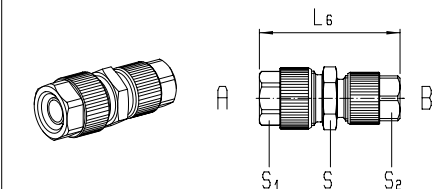
Illustration



Straight Fitting

Product group	11	PN 25	T _{min} - 40 °C T _{max} +120 °C						Nickel-plated brass	
for tube A D/d	for tube B D/d	L6*	S1	S2	S	Weight in [g]	Type	Order number	Price	
4.3/3	4.3/3	25	7	7	8	6.9	158M-43/3	302203	o. r.	
5/3	4.3/3	25	7	7	8	6.9	158M-5/3-43/3	302205	o. r.	
5/3	5/3	25	7	7	8	6.9	158M-5/3	302206	o. r.	
6/4	4.3/3	28	10	7	12	13.2	158M-6/4-43/3	302208	o. r.	
6/4	5/3	28	10	7	12	13.2	158M-6/4-5/3	302209	o. r.	
6/4	6/4	31	10	10	12	16.8	158M-6/4	302210	o. r.	
8/6	6/4	31	12	10	12	18.4	158M-8/6-6/4	302211	o. r.	
8/6	8/6	31	12	12	12	21.3	158M-8/6	302212	o. r.	
10/8	6/4	33	13	10	14	21.7	158M-10/8-6/4	302213	o. r.	
10/8	8/6	33	13	12	14	24.5	158M-10/8-8/6	302214	o. r.	
10/8	10/8	34.5	13	13	14	28.3	158M-10/8	302215	o. r.	
12/10	12/10	38	15	15	17	39.8	158M-12/10	302219	o. r.	
15/12.5	15/12.5	43.5	19	19	22	68.9	158M-15/125	302223	o. r.	
17.6/13	17.6/13	43.5	22	22	22	65.4	158M-176/13	302225	o. r.	

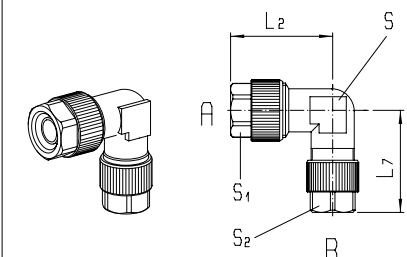
Illustration



90° Elbow Connector

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C								Nickel-plated brass	
for tube A D/d	for tube B D/d	L2*	L7*	S1	S2	S	Weight in [g]	Type	Order number	Price		
4.3/3	4.3/3	18	18	7	7	8	10.1	155M-43/3	302428	o. r.		
5/3	4.3/3	18	18	7	7	8	9.9	155M-5/3-43/3	302430	o. r.		
5/3	5/3	18	18	7	7	8	9.8	155M-5/3	302431	o. r.		
6/4	6/4	22.5	22.5	10	10	8	18.5	155M-6/4	302435	o. r.		
8/6	6/4	22.5	22.5	12	10	10	26.5	155M-8/6-6/4	302436	o. r.		
8/6	8/6	22.5	22.5	12	12	10	24.8	155M-8/6	302437	o. r.		
10/8	10/8	24	24	13	13	10	28.7	155M-10/8	302440	o. r.		
12/10	12/10	29	29	15	15	13	46.1	155M-12/10	302444	o. r.		
15/12.5	15/12.5	32.5	32.5	19	19	17	on req.	155M-15/125	302448	o. r.		
17.6/13	17.6/13	32.5	32.5	22	22	17	on req.	155M 176/13	302450	o. r.		

Illustration



* approximate with fastened cap nut

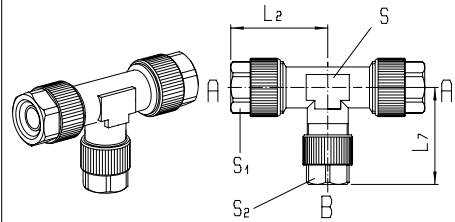
T-Connector

Product group **11** PN 25 $T_{min} -40\text{ }^{\circ}\text{C}$
 $T_{max} +120\text{ }^{\circ}\text{C}$

Nickel-plated brass

for tube A D/d	for tube B D/d	L2*	L7*	S1	S2	S	Weight in [g]	Type	Order number	Price
4.3/3	4.3/3	19	19	7	7	8	14.7	154M-43/3	302628	o. r.
5/3	4.3/3	19	19	7	7	8	14.8	154M-5/3-43/3	302630	o. r.
5/3	5/3	19	19	7	7	8	14.3	154M-5/3	302631	o. r.
6/4	6/4	21.5	21.5	10	10	8	26.7	154M-6/4	302635	o. r.
8/6	6/4	21.5	21.5	12	10	8	27.7	154M-8/6-6/4	302636	o. r.
8/6	8/6	21.5	21.5	12	12	8	30.3	154M-8/6	302637	o. r.
10/8	6/4	24	22.5	13	10	10	39.5	154M-10/8-6/4	302638	o. r.
10/8	8/6	24	22.5	13	12	10	39.1	154M-10/8-8/6	302639	o. r.
10/8	10/8	24	24	13	13	10	42.6	154M-10/8	302640	o. r.
11.5/9	11.5/9	29	29	15	15	13	71	154M-115/9	302641	o. r.
12/9	12/9	29	29	15	15	13	68	154M-12/9	302642	o. r.
12/10	12/10	29	29	15	15	13	64	154M-12/10	302644	o. r.
15/12.5	15/12.5	32.5	32.5	19	19	17	112	154M-15/125	302648	o. r.
17.6/13	17.6/13	32.5	32.5	22	19	17	115	154M 176/13	302650	o. r.

Illustration



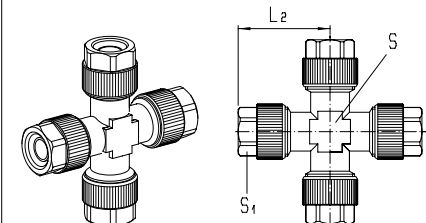
Cross Connector

Product group **11** PN 25 $T_{min} -40\text{ }^{\circ}\text{C}$
 $T_{max} +120\text{ }^{\circ}\text{C}$

Nickel-plated brass

for tube D/d	L2*	S1	S	Weight in [g]	Type	Order number	Price
6/4	22.5	10	10	42.3	160M-6/4	302835	o. r.
8/6	22.5	12	10	46.7	160M-8/6	302837	o. r.
10/8	24	13	10	54	160M-10/8	302840	o. r.

Illustration



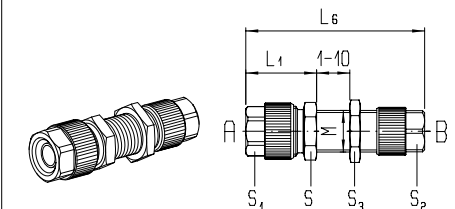
Straight Bulkhead Fitting

Product group **11** PN 25 $T_{min} -40\text{ }^{\circ}\text{C}$
 $T_{max} +120\text{ }^{\circ}\text{C}$

Nickel-plated brass

for tube A D/d	for tube B D/d	M	L1*	L6*	S1	S2	S3	S	Weight in [g]	Type	Order number	Price
4.3/3	4.3/3	M7x0.75	14	35	7	7	10	8	10.4	159M-43/3	303003	o. r.
5/3	4.3/3	M7x0.75	14	35	7	7	10	8	10.4	159M-5/3-43/3	303005	o. r.
5/3	5/3	M7x0.75	14	35	7	7	10	8	10.4	159M-5/3	303006	o. r.
6/4	4.3/3	M7x0.75	17	38	10	7	10	12	16.5	159M-6/4-43/3	303008	o. r.
6/4	5/3	M7x0.75	17	38	10	7	10	12	16.5	159M-6/4-5/3	303009	o. r.
6/4	6/4	M10x1	17	43	10	10	13	12	24.9	159M-6/4	303010	o. r.
8/6	6/4	M10x1	17	43	12	10	13	12	27.5	159M-8/6-6/4	303011	o. r.
8/6	8/6	M12x1	17.5	43.5	12	12	17	14	33.9	159M-8/6	303012	o. r.
10/8	6/4	M10x1	19	45	13	10	13	14	30.3	159M-10/8-6/4	303013	o. r.
10/8	8/6	M12x1	19	45	13	12	17	14	37.7	159M-10/8-8/6	303014	o. r.
10/8	10/8	M14x1	19.5	47.5	13	13	17	17	41.1	159M-10/8	303015	o. r.
11.5/9	11.5/9	M16x1	21	50	15	15	19	19	63	159M-115/9	303016	o. r.
12/9	12/9	M16x1	21	50	15	15	19	19	60	159M-12/9	303017	o. r.
12/10	12/10	M16x1	21	50	15	15	19	19	58	159M-12/10	303019	o. r.
15/12.5	15/12.5	M20x1	24	55	19	19	24**	22	96	159M-15/125	303023	o. r.
17.6/13	17.6/13	M20x1	24	55	19	19	24**	22	106	159M-176/13	303025	o. r.

Illustration



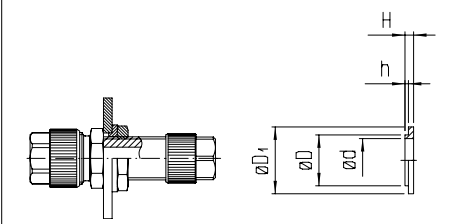
Bulkhead Fitting Accessories

Product group **11**

Nickel-plated brass

D1	D	d	H	h	Weight in [g]	Type	Order number	Price
15.5	9.8	7.1	2	0.8	1.8	258M-10-7	251991	o. r.
15.5	11.8	10.1	2	0.8	1.3	258M-12-10	251992	o. r.
17.5	13.8	10.1	2	0.8	2.1	258M-14-10	251993	o. r.
17.5	13.8	12.1	2	0.8	1.6	258M-14-12	251994	o. r.

Illustration

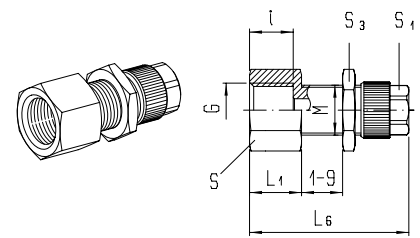


* approximate with fastened cap nut ** S24 = octagon

Bulkhead Adaptor also Suitable for Pressure Gauge

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread M, G	Nickel-plated brass							
for tube D/d	G	M	i	L1	L6*	S1	S3	S	Weight in [g]	Type	Order number	Price
4.3/3	M 5	M7x0.75	5	7	28	7	10	8	7.4	145M-43/3-M5	303104	o. r.
5/3	M 5	M7x0.75	5	7	28	7	10	8	7.4	145M-5/3-M5	303107	o. r.
6/4	G 1/8	M10x1	8	10	36	10	13	13	20	145M-6/4-1/8	303114	o. r.
8/6	G 1/4	M12x1	10.5	12.5	38.5	12	17	17	35.5	145M-8/6-1/4	303121	o. r.
10/8	G 1/4	M14x1	10.5	12.5	40.5	13	17	17	41.3	145M-10/8-1/4	303130	o. r.
11.5/9	G 3/8	M16x1	11.5	13.5	42.5	15	19	19	48.6	145M-115/9-3/8	303134	o. r.
12/9	G 3/8	M16x1	11.5	13.5	42.5	15	19	19	48.3	145M-12/9-3/8	303137	o. r.

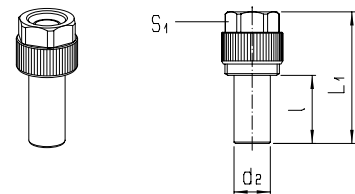
Illustration



Straight Solder-in Fitting

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C						Bright brass
for tube D/d	d2	L1*	I	S1	Weight in [g]	Type	Order number	Price	
4.3/3	6	26	15	7	4.6	147Y-43/3-6	303353	o. r.	
5/3	6	26	15	7	4.6	147Y-5/3-6	303356	o. r.	
6/4	6	29	15	10	9.7	147Y-6/4-6	303360	o. r.	
8/6	8	29	15	12	12.9	147Y-8/6-8	303362	o. r.	
10/8	10	35.5	20	13	19.3	147Y-10/8-10	303365	o. r.	
12/10	12	37	20	15	25.8	147Y-12/10-12	303369	o. r.	
15/12.5	15	39.5	20	19	46.9	147Y-15/125-15	303373	o. r.	
17.6/13	15	39.5	20	22	44.5	147Y-176/13-15	303375	o. r.	

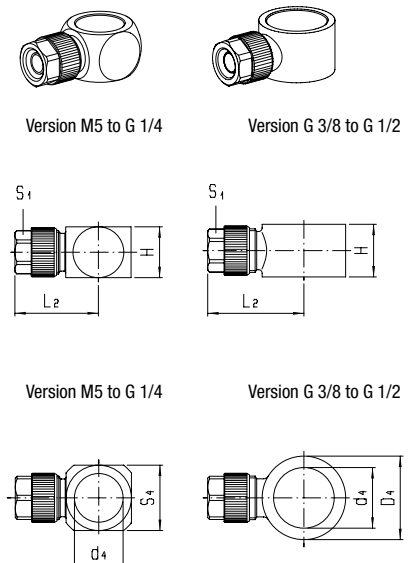
Illustration



Banjo Ring Piece

Product group	11	PN 25	T _{min} - 20 °C T _{max} +120 °C		Nickel-plated brass					
for tube D/d	for hollow screw	L2*	H	d4	S1	S4 and D4	Weight in [g]	Type	Order number	Price
4.3/3	M 5	15.5	9	5.1	7	9	7.3	161M-43/3S-M5	303404	o. r.
4.3/3	G 1/8	18	14	10.1	7	14	15.2	161M-43/3S-1/8	303406	o. r.
5/3	M 5	15.5	9	5.1	7	9	6.9	161M-5/3S-M5	303407	o. r.
5/3	G 1/8	18	14	10.1	7	14	15.2	161M-5/3S-1/8	303409	o. r.
6/4	M 5	16.5	9	5.1	8	9	7.5	161M-6/4S-M5	303410	o. r.
6/4	G 1/8	21	14	10.1	10	14	20	161M-6/4S-1/8	303414	o. r.
6/4	G 1/4	23	14	13.4	10	18	26.9	161M-6/4S-1/4	303415	o. r.
6/4	G 3/8	26.5	14.5	16.7	10	21	22.9	161M-6/4-3/8	303466	o. r.
6/4	G 1/2	29	14.5	21	10	26	35.3	161M-6/4-1/2	303467	o. r.
8/6	G 1/8	21	14	10.1	12	14	22.1	161M-8/6S-1/8	303420	o. r.
8/6	G 1/4	23	14	13.4	12	18	28.7	161M-8/6S-1/4	303421	o. r.
8/6	G 3/8	24.5	14.5	16.7	12	21	24.6	161M-8/6-3/8	303472	o. r.
8/6	G 1/2	29	14.5	21	12	26	34.9	161M-8/6-1/2	303473	o. r.
10/8	G 1/8	22.5	14	10.1	13	14	24.3	161M-10/8S-1/8	303429	o. r.
10/8	G 1/4	24.5	14	13.4	13	18	31	161M-10/8S-1/4	303430	o. r.
10/8	G 3/8	28	14.5	16.7	13	21	27.5	161M-10/8-3/8	303481	o. r.
10/8	G 1/2	30.5	14.5	21	13	26	39.3	161M-10/8-1/2	303482	o. r.
11.5/9	G 3/8	29.5	14.5	16.7	15	21	31	161M-115/9-3/8	303484	o. r.
12/9	G 3/8	29.5	14.5	16.7	15	21	32	161M-12/9-3/8	303487	o. r.
12/10	G 3/8	29.5	14.5	16.7	15	21	31	161M-12/10-3/8	303493	o. r.
12/10	G 1/2	32	14.5	21	15	26	39.1	161M-12/10-1/2	303494	o. r.
15/12.5	G 1/2	34.5	14.5	21	19	26	47.8	161M-15/125-1/2	303498	o. r.
17.6/13	G 1/2	34.5	14.5	21	19	26	46	161M-176/13-1/2	303500	o. r.

Illustration



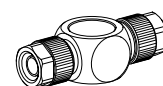
Banjo T-Ring Piece

Product group **11** PN 25 $T_{min} - 20\text{ }^{\circ}\text{C}$
 $T_{max} + 120\text{ }^{\circ}\text{C}$

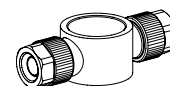
Nickel-plated
brass

for tube D/d	for hollow screw	L2*	H	d4	S1	S4 and D4	Weight in [g]	Type	Order number	Price
4.3/3	M 5	15.5	9	5.1	7	9	9.9	162M-43/3S-M5	303704	o. r.
4.3/3	G 1/8	18	14	10.1	7	14	18	162M-43/3S-1/8	303706	o. r.
5/3	M 5	15.5	9	5.1	7	9	9	162M-5/3S-M5	303707	o. r.
5/3	G 1/8	18	14	10.1	7	14	17.1	162M-5/3S-1/8	303709	o. r.
6/4	M 5	16.5	9	5.1	8	9	11.3	162M-6/4S-M5	303710	o. r.
6/4	G 1/8	21	14	10.1	10	14	27.4	162M-6/4S-1/8	303714	o. r.
6/4	G 1/4	23	14	13.4	10	18	32.1	162M-6/4S-1/4	303715	o. r.
6/4	G 3/8	26.5	14.5	16.7	10	21	32.2	162M-6/4-3/8	303766	o. r.
6/4	G 1/2	29	14.5	21	10	26	49.2	162M-6/4-1/2	303767	o. r.
8/6	G 1/8	21	14	10.1	12	14	29.6	162M-8/6S-1/8	303720	o. r.
8/6	G 1/4	23	14	13.4	12	18	37.7	162M-8/6S-1/4	303721	o. r.
8/6	G 3/8	24.5	14.5	16.7	12	21	36	162M-8/6-3/8	303772	o. r.
8/6	G 1/2	29	14.5	21	12	26	43.4	162M-8/6-1/2	303773	o. r.
10/8	G 1/8	22.5	14	10.1	13	14	34.5	162M-10/8S-1/8	303729	o. r.
10/8	G 1/4	24.5	14	13.4	13	18	41.4	162M-10/8S-1/4	303730	o. r.
10/8	G 3/8	28	14.5	16.7	13	21	39.8	162M-10/8-3/8	303781	o. r.
10/8	G 1/2	30.5	14.5	21	13	26	53.3	162M-10/8-1/2	303782	o. r.

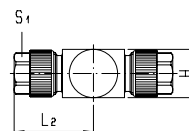
Illustration



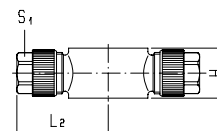
Version M5 to G 1/4



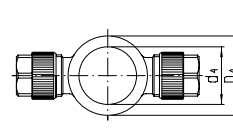
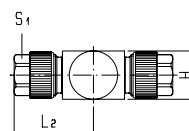
Version G 3/8 to G 1/2



Version M5 to G 1/4



Version G 3/8 to G 1/2



Banjo - Short

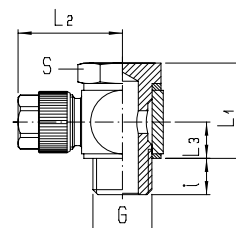
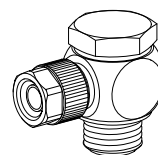
Product group **11** PN 25 Seal: A = Alu
 $T_{min} - 20\text{ }^{\circ}\text{C}$, $T_{max} + 120\text{ }^{\circ}\text{C}$

Seal: N = polyamide
 $T_{min} - 20\text{ }^{\circ}\text{C}$, $T_{max} + 90\text{ }^{\circ}\text{C}$

Nickel-plated
brass

for tube D/d	G	i**	L1**	L2*	L3**	S	Weight in [g]	Type	Order number	Price
4.3/3	M 5	4.5	13.5	15.5	5	8	10.4	152M-43/3S-M5N	325014	o. r.
4.3/3	G 1/8	6	20.5	18	8	14	28.6	152M-43/3S-1/8A	325021	o. r.
4.3/3	G 1/8	6	20.5	18	8	14	28.6	152M-43/3S-1/8N	325022	o. r.
5/3	M 5	4.5	13.5	15.5	5	8	9.7	152M-5/3S-M5N	325026	o. r.
5/3	G 1/8	6	20.5	18	8	14	28.1	152M-5/3S-1/8A	325033	o. r.
5/3	G 1/8	6	20.5	19	8	14	28.1	152M-5/3S-1/8N	325034	o. r.
6/4	M 5	4.5	13.5	16.5	5	8	10.8	152M-6/4S-M5N	325038	o. r.
6/4	G 1/8	6	20.5	21	8	14	32.9	152M-6/4S-1/8A	325061	o. r.
6/4	G 1/8	6	20.5	21	8	14	31.8	152M-6/4S-1/8N	325062	o. r.
6/4	G 1/4	8	21	23	8	17	51.1	152M-6/4S-1/4A	325065	o. r.
6/4	G 1/4	8	21	23	8	17	51.1	152M-6/4S-1/4N	325066	o. r.
6/4	G 3/8	8.5	22	26.5	8.5	19	58.5	152M-6/4-3/8A	325369	o. r.
6/4	G 3/8	8.5	22	26.5	8.5	19	58.5	152M-6/4-3/8N	325370	o. r.
6/4	G 1/2	9.5	22	29	8.5	27	100	152M-6/4-1/2A	325373	o. r.
6/4	G 1/2	9.5	22	29	8.5	27	100	152M-6/4-1/2N	325374	o. r.
8/6	G 1/8	6	20.5	21	8	14	35	152M-8/6S-1/8A	325097	o. r.
8/6	G 1/8	6	20.5	21	8	14	35	152M-8/6S-1/8N	325098	o. r.
8/6	G 1/4	8	21	23	8	17	52.9	152M-8/6S-1/4A	325101	o. r.
8/6	G 1/4	8	21	23	8	17	52.9	152M-8/6S-1/4N	325102	o. r.
8/6	G 3/8	8.5	22	26.5	8.5	19	60	152M-8/6-3/8A	325405	o. r.
8/6	G 3/8	8.5	22	26.5	8.5	19	60	152M-8/6-3/8N	325406	o. r.
8/6	G 1/2	9.5	22	29	8.5	27	100	152M-8/6-1/2A	325409	o. r.
8/6	G 1/2	9.5	22	29	8.5	27	100	152M-8/6-1/2N	325410	o. r.

Illustration

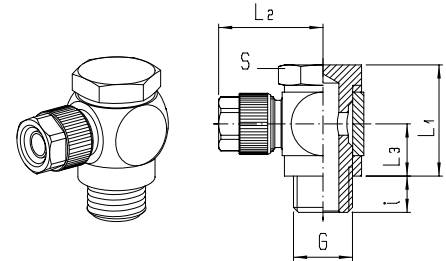


* approximate with fastened cap nut ** approximate with fastened fitting

Banjo - Long

Product group	11	PN 25	Seal: N = polyamide T _{min} -20 °C, T _{max} +90 °C	Cylindrical thread	Nickel-plated brass					
for tube D/d	G	i**	L1**	L2*	L3**	S	Weight in [g]	Type	Order number	Price
4.3/3	G 1/8	6.5	24	18	12	14	29.4	156M-43/3S-1/8N	326522	o. r.
5/3	G 1/8	6.5	24	18	12	14	29.4	156M-5/3S-1/8N	326534	o. r.
6/4	G 1/8	6.5	24	21	12	14	34.7	156M-6/4S-1/8N	326562	o. r.
6/4	G 1/4	8	24.5	23	12	17	53	156M-6/4S-1/4N	326566	o. r.
6/4	G 3/8	9	25	26.5	12	19	64.8	156M-6/4-3/8N	326870	o. r.
6/4	G 1/2	10	25	29	12	27	106	156M-6/4-1/2N	326874	o. r.
8/6	G 1/8	6.5	24	21	12	14	36.4	156M-8/6S-1/8N	326598	o. r.
8/6	G 1/4	8	24.4	23	12	17	53.6	156M-8/6S-1/4N	326602	o. r.
8/6	G 3/8	9	25	26.5	12	19	63	156M-8/6-3/8N	326906	o. r.
8/6	G 1/2	10	25	29	12	27	105	156M-8/6-1/2N	326910	o. r.
10/8	G 1/8	6.5	24	22.5	12	14	38.6	156M-10/8S-1/8N	326634	o. r.
10/8	G 1/4	8	24.5	24.5	12	17	57	156M-10/8S-1/4N	326638	o. r.
10/8	G 3/8	9	25	28	12	19	66	156M-10/8-3/8N	326942	o. r.
10/8	G 1/2	10	25	30.5	12	27	110	156M-10/8-1/2N	326946	o. r.
11.5/9	G 3/8	9	25	29.5	12	19	70	156M-11.5/9-3/8N	326954	o. r.
12/9	G 3/8	9	25	29.5	12	19	71	156M-12/9-3/8N	326966	o. r.
12/10	G 3/8	9	25	29.5	12	19	71	156M-12/10-3/8N	326990	o. r.
12/10	G 1/2	10	25	32	12	27	108	156M-12/10-1/2N	326994	o. r.
15/12.5	G 1/2	10	25	34.5	12	27	117	156M-15/12.5-1/2N	327010	o. r.
17.6/13	G 1/2	10	25	34.5	12	27	115	156M-17.6/13-1/2N	327018	o. r.

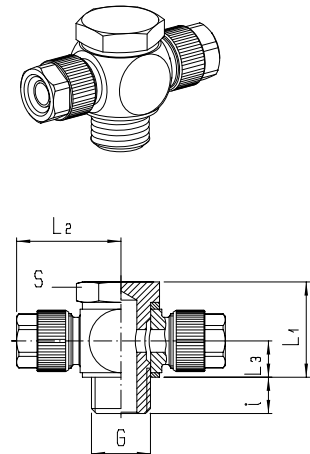
Illustration



T-Banjo - Short

Product group	11	PN 25	Seal: A = Alu T _{min} -20 °C, T _{max} +120 °C	Seal: N = polyamide T _{min} -20 °C, T _{max} +90 °C	Nickel-plated brass					
for tube D/d	G	i**	L1**	L2*	L3**	S	Weight in [g]	Type	Order number	Price
4.3/3	M 5	4.5	13.5	15.5	5	8	13	153M-43/3S-M5N	328014	o. r.
4.3/3	G 1/8	6	20.5	18	8	14	30.3	153M-43/3S-1/8A	328021	o. r.
4.3/3	G 1/8	6	20.5	18	8	14	30.3	153M-43/3S-1/8N	328022	o. r.
5/3	M 5	4.5	13.5	15.5	5	8	13.2	153M-5/3S-M5N	328026	o. r.
5/3	G 1/8	6	20.5	18	8	14	30.9	153M-5/3S-1/8A	328033	o. r.
5/3	G 1/8	6	20.5	19	8	14	30.9	153M-5/3S-1/8N	328034	o. r.
6/4	M 5	4.5	13.5	16.5	5	8	14.4	153M-6/4S-M5N	328038	o. r.
6/4	G 1/8	6	20.5	21	8	14	40.3	153M-6/4S-1/8A	328061	o. r.
6/4	G 1/8	6	20.5	21	8	14	40.3	153M-6/4S-1/8N	328062	o. r.
6/4	G 1/4	8	21	23	8	17	56	153M-6/4S-1/4A	328065	o. r.
6/4	G 1/4	8	21	23	8	17	56	153M-6/4S-1/4N	328066	o. r.
6/4	G 3/8	8.5	22	26.5	8.5	19	68	153M-6/4-3/8A	328369	o. r.
6/4	G 3/8	8.5	22	26.5	8.5	19	68	153M-6/4-3/8N	328370	o. r.
6/4	G 1/2	9.5	22	29	8.5	27	114	153M-6/4-1/2A	328373	o. r.
6/4	G 1/2	9.5	22	29	8.5	27	114	153M-6/4-1/2N	328374	o. r.
8/6	G 1/8	6	20.5	21	8	14	42.5	153M-8/6S-1/8A	328097	o. r.
8/6	G 1/8	6	20.5	21	8	14	42.5	153M-8/6S-1/8N	328098	o. r.
8/6	G 1/4	8	21	23	8	17	62	153M-8/6S-1/4A	328101	o. r.
8/6	G 1/4	8	21	23	8	17	62	153M-8/6S-1/4N	328102	o. r.
8/6	G 3/8	8.5	22	26.5	8.5	19	72	153M-8/6-3/8A	328405	o. r.
8/6	G 3/8	8.5	22	26.5	8.5	19	72	153M-8/6-3/8N	328406	o. r.
8/6	G 1/2	9.5	22	29	8.5	27	113	153M-8/6-1/2A	328409	o. r.
8/6	G 1/2	9.5	22	29	8.5	27	113	153M-8/6-1/2N	328410	o. r.

Illustration

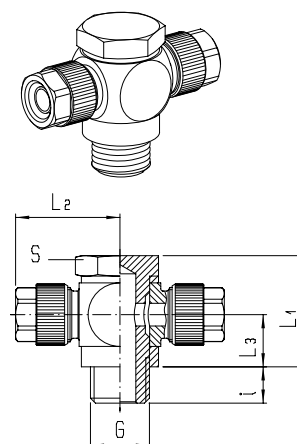


* approximate with fastened cap nut ** approximate with fastened fitting

T-Banjo - Long

Product group	11	PN 25	Seal: N = polyamide T _{max} -20 °C, T _{max} +90 °C	Cylindrical thread	Nickel-plated brass					
for tube D/d	G	i***	L1***	L2*	L3***	S	Weight in [g]	Type	Order number	Price
4.3/3	G 1/8	6.5	24	18	12	14	32.3	157M-43/3S-1/8N	329522	o. r.
5/3	G 1/8	6.5	24	18	12	14	32.3	157M-5/3S-1/8N	329534	o. r.
6/4	G 1/8	6.5	24	21	12	14	41.6	157M-6/4S-1/8N	329562	o. r.
6/4	G 1/4	8	24.5	23	12	17	59	157M-6/4S-1/4N	329566	o. r.
6/4	G 3/8	9	25	26.5	12	19	71	157M-6/4-3/8N	329870	o. r.
6/4	G 1/2	10	25	29	12	27	120	157M-6/4-1/2N	329874	o. r.
8/6	G 1/8	6.5	24	21	12	14	43.8	157M-8/6S-1/8N	329598	o. r.
8/6	G 1/4	8	24.4	23	12	17	64	157M-8/6S-1/4N	329602	o. r.
8/6	G 3/8	9	25	26.5	12	19	75	157M-8/6-3/8N	329906	o. r.
8/6	G 1/2	10	25	29	12	27	119	157M-8/6-1/2N	329910	o. r.
10/8	G 1/8	6.5	24	22.5	12	14	48.8	157M-10/8S-1/8N	329634	o. r.
10/8	G 1/4	8	24.5	24.5	12	17	68	157M-10/8S-1/4N	329638	o. r.
10/8	G 3/8	9	25	28	12	19	80	157M-10/8-3/8N	329942	o. r.
10/8	G 1/2	10	25	30.5	12	27	127	157M-10/8-1/2N	329946	o. r.

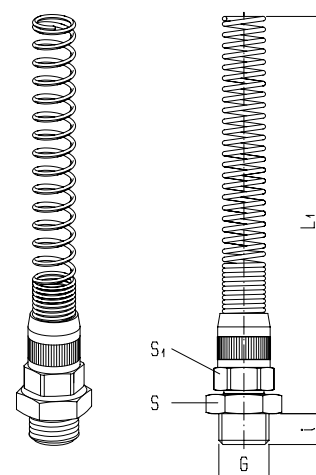
Illustration



Straight Adaptor - Male with Anti-kink Protection

Product group	11	PN 25	T _{mix} -40 °C T _{max} +120 °C	Cylindrical thread		Nickel-plated brass				
for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price	
6/4	G 1/8	6	102	12	13	27.1	151M-6/4KS-1/8	300364	o. r.	
6/4	G 1/4	8	102.5	12	17	34.3	151M-6/4KS-1/4	300365	o. r.	
6/4	G 3/8	9	102.5	12	19	38.6	151M-6/4KS-3/8	300366	o. r.	
6/4	G 1/2	10	103	12	24**	53.1	151M-6/4KS-1/2	300367	o. r.	
8/6	G 1/8	6	103	14	13	31.3	151M-8/6KS-1/8	300370	o. r.	
8/6	G 1/4	8	103	14	17	39	151M-8/6KS-1/4	300371	o. r.	
8/6	G 3/8	9	103.5	14	19	43.5	151M-8/6KS-3/8	300372	o. r.	
8/6	G 1/2	10	104	14	24**	58.4	151M-8/6KS-1/2	300373	o. r.	
10/8	G 1/8	6	103.5	16	14	39.2	151M-10/8KS-1/8	300379	o. r.	
10/8	G 1/4	8	104	16	17	45.1	151M-10/8KS-1/4	300380	o. r.	
10/8	G 3/8	9	104	16	19	50.7	151M-10/8KS-3/8	300381	o. r.	
10/8	G 1/2	10	104.5	16	24**	65.1	151M-10/8KS-1/2	300382	o. r.	
12/9	G 1/4	8	104	19	17	47	151M-12/9KS-1/4	300386	o. r.	
12/9	G 3/8	9	104	19	19	56.6	151M-12/9KS-3/8	300387	o. r.	
12/10	G 3/8	9	104	19	24**	56.8	151M-12/10KS-3/8	300393	o. r.	
12/10	G 1/2	10	104.5	19	24**	68	151M-12/10KS-1/2	300394	o. r.	

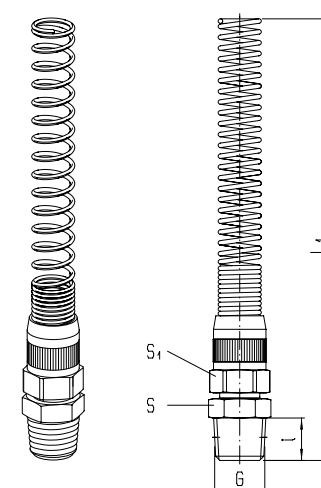
Illustration



Straight Adaptor - Male with Anti-kink Protection

Product group	11	PN 25	T _{mix} -40 °C T _{max} +120 °C	Conical thread	Thread "D" self-sealing T _{max} +100 °C	Nickel-plated brass				
for tube D/d	G	i	L1*	S1	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	109.5	12	12	-	24.5	151M-6/4KS-1/8K	300664	o. r.
6/4	R 1/8	7.5	109.5	12	12	D	24.5	151M-6/4KS-D1/8K	306664	o. r.
6/4	R 1/4	11	113.5	12	14	-	29.8	151M-6/4KS-1/4K	300665	o. r.
6/4	R 1/4	11	113.5	12	14	D	29.8	151M-6/4KS-D1/4K	306665	o. r.
6/4	R 3/8	11.5	114	12	17	-	36.7	151M-6/4KS-3/8K	300666	o. r.
8/6	R 1/8	7.5	110.5	14	12	-	30.4	151M-8/6KS-1/8K	300670	o. r.
8/6	R 1/8	7.5	110.5	14	12	D	30.4	151M-8/6KS-D1/8K	306670	o. r.
8/6	R 1/4	11	114.5	14	14	-	35.3	151M-8/6KS-1/4K	300671	o. r.
8/6	R 1/4	11	114.5	14	14	D	35.3	151M-8/6KS-D1/4K	306671	o. r.
8/6	R 3/8	11.5	115	14	17	-	41.6	151M-8/6KS-3/8K	300672	o. r.
10/8	R 1/8	7.5	111	16	14	-	38.3	151M-10/8KS-1/8K	300679	o. r.
10/8	R 1/4	11	115	16	14	-	41.3	151M-10/8KS-1/4K	300680	o. r.
10/8	R 1/4	11	115	16	14	D	41.3	151M-10/8KS-D1/4K	306680	o. r.
10/8	R 3/8	11.5	115.5	16	17	-	48.2	151M-10/8KS-3/8K	300681	o. r.
10/8	R 1/2	14	118.5	16	22	-	61	151M-10/8KS-1/2K	300682	o. r.
12/10	R 3/8	11.5	115.5	19	17	-	55.8	151M-12/10KS-3/8K	300693	o. r.
12/10	R 1/2	14	118.5	19	22	-	67.9	151M-12/10KS-1/2K	300694	o. r.

Illustration

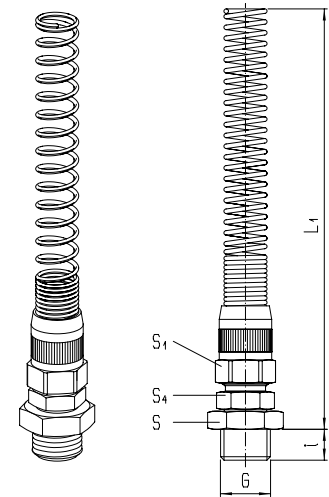


* approximate with fastened cap nut ** S24 = octagon *** approximate with fastened fitting

Straight Adaptor - Male - Positionable with Anti-kink Protection

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing ring: NBR	not suitable for rotating or oscill. movement		Nickel-plated brass		
for tube D/d	G	i	L1*	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	6	108	12	13	13	29.6	131M-6/4KS-1/8	300464	o. r.
6/4	G 1/4	8	108.5	12	13	17	37.3	131M-6/4KS-1/4	300465	o. r.
8/6	G 1/8	6	109	14	13	13	34.6	131M-8/6KS-1/8	300470	o. r.
8/6	G 1/4	8	109	14	13	17	42.3	131M-8/6KS-1/4	300471	o. r.
10/8	G 1/4	8	110	16	14	17	51.2	131M-10/8KS-1/4	300480	o. r.
12/9	G 3/8	9	110	19	17	19	68.2	131M-12/9KS-3/8	300487	o. r.
12/10	G 3/8	9	110	19	17	19	67.8	131M-12/10KS-3/8	300493	o. r.

Illustration

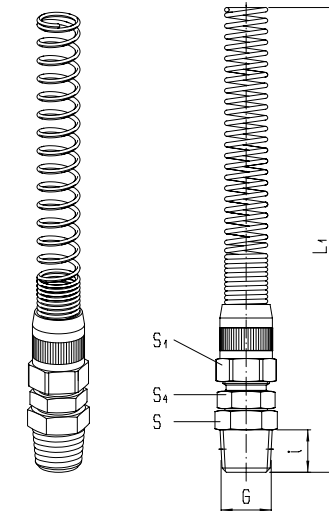


Home

Straight Adaptor - Male - Positionable with Anti-kink Protection

Product group	11	PN 25	T _{min} -20 °C T _{max} +80 °C	Conical thread		Sealing ring: NBR		Thread "D" self-sealing		not suitable for rotating or oscill. movement		Nickel-plated brass
for tube D/d	G	i	L1*	S1	S4	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price	
6/4	R 1/8	7.5	115.5	12	13	13	-	28.2	131M-6/4KS-1/8K	300764	o. r.	
6/4	R 1/8	7.5	115.5	12	13	13	D	28.2	131M-6/4KS-D1/8K	306764	o. r.	
6/4	R 1/4	11	119.5	12	13	14	-	35.9	131M-6/4KS-1/4K	300765	o. r.	
6/4	R 1/4	11	119.5	12	13	14	D	35.9	131M-6/4KS-D1/4K	306765	o. r.	
8/6	R 1/8	7.5	116.5	14	13	13	-	33.7	131M-8/6KS-1/8K	300770	o. r.	
8/6	R 1/8	7.5	116.5	14	13	13	D	33.7	131M-8/6KS-D1/8K	306770	o. r.	
8/6	R 1/4	11	120.5	14	13	14	-	41.9	131M-8/6KS-1/4K	300771	o. r.	
8/6	R 1/4	11	120.5	14	13	14	D	41.9	131M-8/6KS-D1/4K	306771	o. r.	
10/8	R 1/4	11	121	16	14	14	-	48.9	131M-10/8KS-1/4K	300780	o. r.	
10/8	R 1/4	11	121	16	14	14	D	48.9	131M-10/8KS-D1/4K	306780	o. r.	

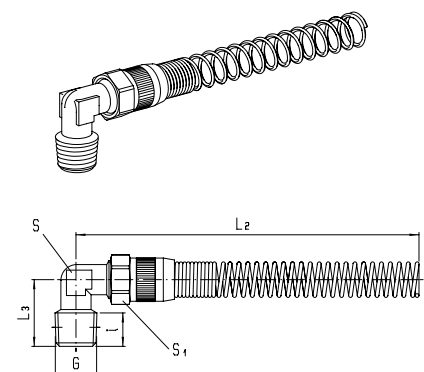
Illustration



90° Elbow Adaptor - Male with Bend Protection Spiral

Product group	11	PN 25	T _{min} -40 °C T _{max} +120 °C	Conical thread		Thread "D" self-sealing T _{max} +100 °C			Nickel-plated brass		
for tube D/d	G	i	L2*	L3	S1	S	self-sealing opt. "D"	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	106	17	12	8	-	25.2	150M-6/4KS-1/8K	301264	o. r.
6/4	R 1/8	7.5	106	17	12	8	D	25.2	150M-6/4KS-D1/8K	306964	o. r.
6/4	R 1/4	10.5	107	21	12	10	-	34.4	150M-6/4KS-1/4K	301265	o. r.
6/4	R 1/4	10.5	107	21	12	10	D	34.4	150M-6/4KS-D1/4K	306965	o. r.
8/6	R 1/8	7.5	107	17	14	4	-	29.1	150M-8/6KS-1/8K	301270	o. r.
8/6	R 1/8	7.5	107	17	14	4	D	29.1	150M-8/6KS-D1/8K	306970	o. r.
8/6	R 1/4	10.5	108	21	14	10	-	37.2	150M-8/6KS-1/4K	301271	o. r.
8/6	R 1/4	10.5	108	21	14	10	D	37.2	150M-8/6KS-D1/4K	306971	o. r.
8/6	R 3/8	11.5	114	25	14	13	-	54.5	150M-8/6KS-3/8K	301272	o. r.
10/8	R 1/8	7.5	108	17	16	10	-	40.9	150M-10/8KS-1/8K	301279	o. r.
10/8	R 1/4	10.5	108	21	16	10	-	44.9	150M-10/8KS-1/4K	301280	o. r.
10/8	R 1/4	10.5	108	21	16	10	D	44.9	150M-10/8KS-D1/4K	306980	o. r.
10/8	R 3/8	11.5	112	25	16	13	-	60.9	150M-10/8KS-3/8K	301281	o. r.
12/10	R 3/8	11.5	113	25	19	13	-	62.8	150M-12/10KS-3/8K	301293	o. r.

Illustration

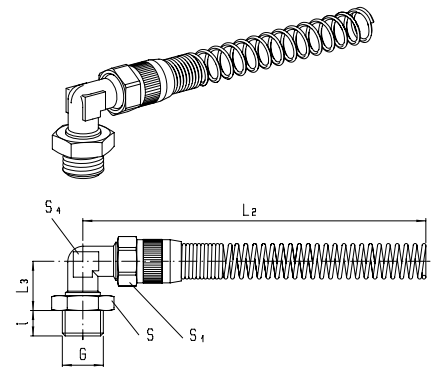


* approximate with fastened cap nut

90° Elbow Adaptor - Male - Positionable with Anti-kink Protection

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing ring: NBR	not suitable for rotating or oscill. movement		Nickel-plated brass			
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	6	107	14.5	12	10	13	35.5	130M-6/4KS-1/8	301364	o. r.
6/4	G 1/4	8	107	14.5	12	10	17	43	130M-6/4KS-1/4	301365	o. r.
8/6	G 1/8	6	108	14.5	14	10	13	39	130M-8/6KS-1/8	301370	o. r.
8/6	G 1/4	8	108	14.5	14	10	17	46.5	130M-8/6KS-1/4	301371	o. r.
10/8	G 1/4	8	107	14.5	16	10	17	51.9	130M-10/8KS-1/4	301380	o. r.

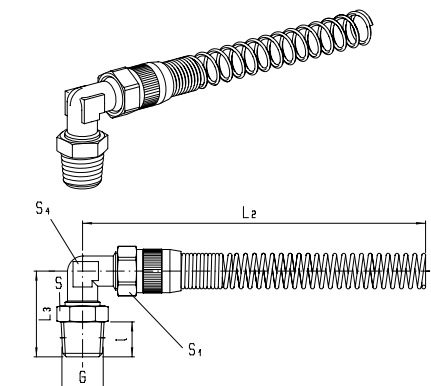
Illustration



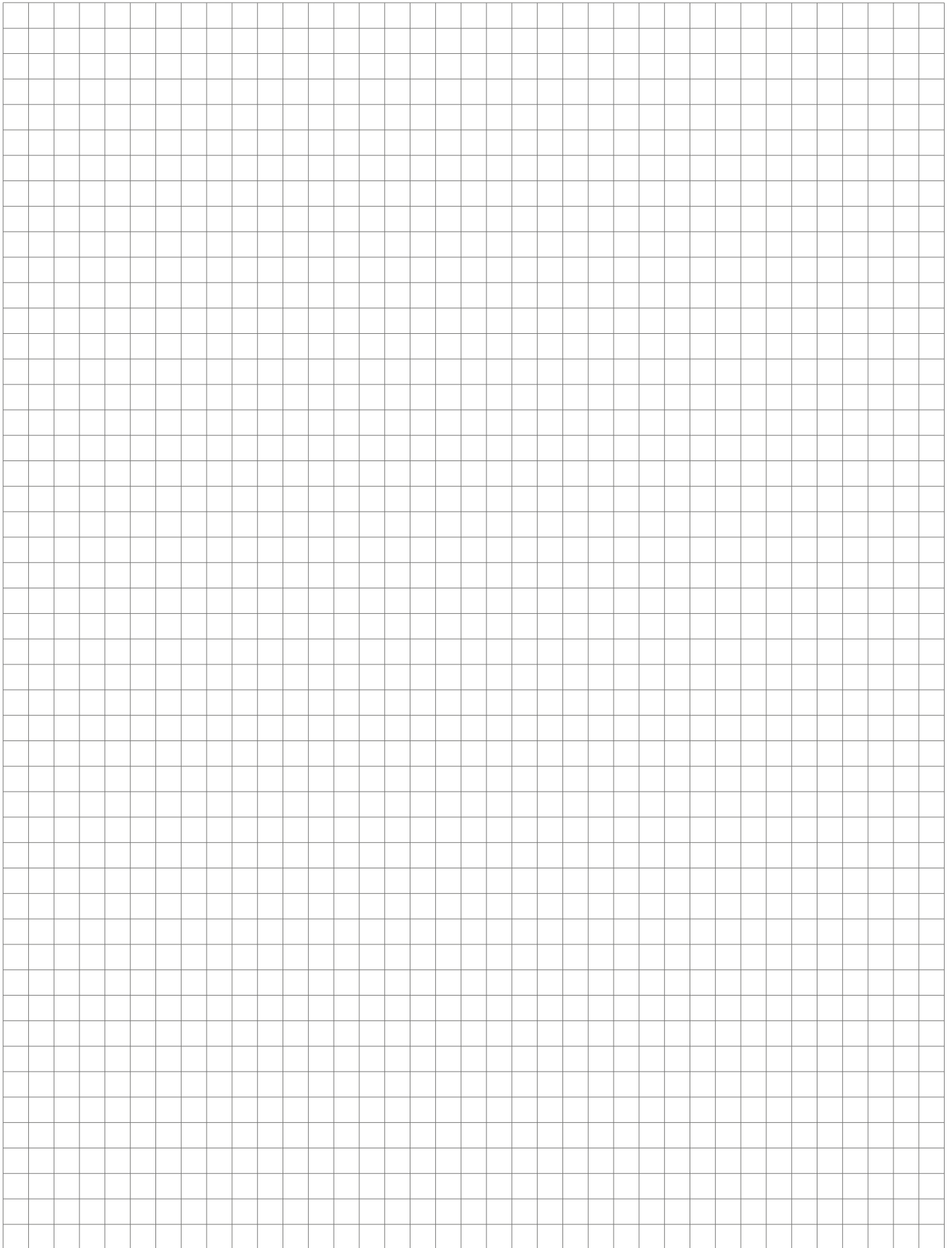
90° Elbow Adaptor - Male - Positionable with Anti-kink Protection

Product group	11	PN 16	T _{min} -20 °C T _{max} +80 °C	Conical thread			Sealing ring: NBR		Thread "D" self-sealing		not suitable for rotating or oscill. movement		Nickel-plated brass	
for tube D/d	G	i	L2*	L3	S1	S4	S	self-sealing opt. "D"	Weight in [g]	Type		Order number	Price	
6/4	R 1/8	7.5	106	21.5	12	10	13	-	34.6	130M-6/4KS-1/8K		301614	o. r.	
6/4	R 1/8	7.5	106	21.5	12	10	13	D	34.6	130M-6/4KS-D1/8K		307314	o. r.	
6/4	R 1/4	11	107	25.5	12	10	14	-	41.3	130M-6/4KS-1/4K		301615	o. r.	
6/4	R 1/4	11	107	25.5	12	10	14	D	41.3	130M-6/4KS-D1/4K		307315	o. r.	
8/6	R 1/8	7.5	107	21.5	14	10	13	-	39.1	130M-8/6KS-1/8K		301620	o. r.	
8/6	R 1/8	7.5	107	21.5	14	10	13	D	39.1	130M-8/6KS-D1/8K		307320	o. r.	
8/6	R 1/4	11	108	25.5	14	10	14	-	44.5	130M-8/6KS-1/4K		301621	o. r.	
8/6	R 1/4	11	108	25.5	14	10	14	D	44.5	130M-8/6KS-D1/4K		307321	o. r.	
10/8	R 1/4	11	108	25.5	16	10	14	-	49.7	130M-10/8KS-1/4K		301630	o. r.	
10/8	R 1/4	11	108	25.5	16	10	14	D	49.7	130M-10/8KS-D1/4K		307330	o. r.	

Illustration



* approximate with fastened cap nut



RAPID Fittings Stainless Steel AISI 316L (1.4404) with Union Nut Nickel-Plated Brass (Push-on)



Rapid version with Union nut (nickel-plated brass)

Operating pressure: Technical vacuum up to maximum pressure as stated in the respective specification table under PN.

Temperature range: -40 °C to +140 °C
(for restrictions see specification table)

Application

RAPID fittings are used with aggressive gaseous and liquid media, where elastomer seals are not resistant. With guide cone and Union nut these fittings are particularly suited to very harsh operating conditions.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Stainless steel AISI 316L	corresponds to stainless steel 1.4404 . Suitable for many aggressive media. The FKM seal ring is FDA-compliant and can be used in the food and pharmaceutical industries.
Union nut: Nickel-plated brass	CuZn39Pb3, galvanically nickel-plated. Union nut not in contact with the medium.
Other materials	see relevant products
Approval	NSF/ANSI 169

TUBE

Outside diameter D [mm] Inside diameter d [mm]	6/4 8/6 10/8	12/10
Permitted tolerance outside D	±0.1	±0.15
Permitted tolerance inside d	±0.1	±0.15

Permitted wall thickness tolerance	±0.1 With very soft tubes, for example PVC tubes, variations in the outside diameter or wall thickness of up to + 5/10 are allowable. In case of doubt please ask.
Permitted grades	Polyamide (PA), polyurethane (PU), polyethylene (PE), fabric reinforced PVC, fluoropolymer (FEP) (PFA)

THREAD

External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2
External thread	"R" Conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 to R 1/2. Dimensions constructed so there can be pairing with internal thread according to DIN ISO 228-1.

OPERATING PRESSURE / TEMPERATURE

Metal version	PN 25 T _{min} -40 °C T _{max} +140 °C	Means that the fitting can be used up to the given nominal pressure PN within the specified temperature range "T". Allowable operating pressure and operating temperature of pipe/tube must be observed!
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THREAD SEAL

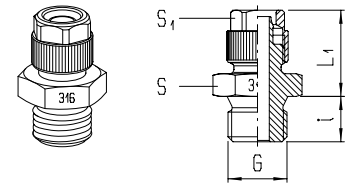
Cylindrical threaded nipple	Seal with sealing rings made of copper, fibre, aluminium, polyamide or hard PVC. Seal with chambered O-ring (FDA-compliant) on request
Conical threaded nipple	Seal with Teflon tape winding (FDA-compliant) on request

Straight, 90° elbow and T-adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings are 360°-swivelling to facilitate adjustment during assembly.
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Straight Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Cylindrical thread	NSF	Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price		
6/4	G 1/8	8	18.5	10	13	13.2	151X4-6/4M-1/8	360064	o. r.		
6/4	G 1/4	10	19	10	17	22.8	151X4-6/4M-1/4	360065	o. r.		
8/6	G 1/8	8	18.5	12	13	15.7	151X4-8/6M-1/8	360070	o. r.		
8/6	G 1/4	10	19	12	17	24.8	151X4-8/6M-1/4	360071	o. r.		
10/8	G 1/8	8	20	13	14	21.2	151X4-10/8M-1/8	360079	o. r.		
10/8	G 1/4	10	20.5	13	17	26.2	151X4-10/8M-1/4	360080	o. r.		
10/8	G 3/8	10	20.5	13	19	33.9	151X4-10/8M-3/8	360081	o. r.		
12/10	G 1/4	10	22	15	17	30.5	151X4-12/10M-1/4	360092	o. r.		
12/10	G 3/8	10	22	15	19	36	151X4-12/10M-3/8	360093	o. r.		
12/10	G 1/2	12	22.5	15	24**	40	151X4-12/10M-1/2	360094	o. r.		

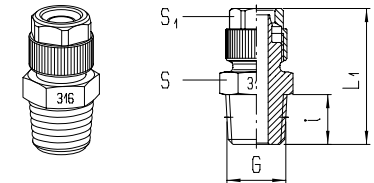
Illustration



Straight Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Conical thread	NSF	Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price		
6/4	R 1/8	7.5	26	10	12	12	151X4-6/4M-1/8K	360464	o. r.		
6/4	R 1/4	11	30	10	14	19	151X4-6/4M-1/4K	360465	o. r.		
8/6	R 1/8	7.5	26	12	12	14.6	151X4-8/6M-1/8K	360470	o. r.		
8/6	R 1/4	11	30	12	14	22	151X4-8/6M-1/4K	360471	o. r.		
10/8	R 1/8	7.5	27.5	13	14	21.4	151X4-10/8M-1/8K	360479	o. r.		
10/8	R 1/4	11	31.5	13	14	24	151X4-10/8M-1/4K	360480	o. r.		
10/8	R 3/8	11.5	32	13	17	33.2	151X4-10/8M-3/8K	360481	o. r.		
12/10	R 3/8	11.5	33.5	15	17	35.2	151X4-12/10M-3/8K	360493	o. r.		
12/10	R 1/2	14	36.5	15	22	on req.	151X4-12/10M-1/2K	360494	o. r.		

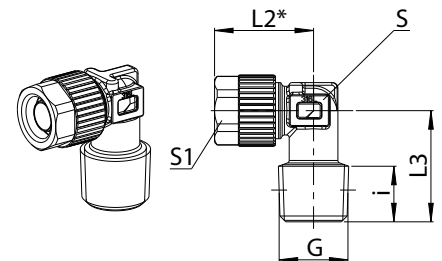
Illustration



90° Elbow Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Conical thread	NSF	Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price	
6/4	R 1/8	7.5	17.5	17	10	8	13.5	150X4M-6/4M-1/8K	361321	o. r.	
6/4	R 1/4	10.5	17.5	20	10	9	18.4	150X4M-6/4M-1/4K	361322	o. r.	
8/6	R 1/8	7.5	18.5	18	12	9	16.9	150X4M-8/6M-1/8K	361323	o. r.	
8/6	R 1/4	10.5	18.5	21	12	10	22.1	150X4M-8/6M-1/4K	361324	o. r.	
8/6	R 3/8	11	26.5	24.5	12	13	39.4	150X4-8/6M-3/8K	361072	o. r.	
10/8	R 1/8	9	24.5	18.5	13	10	29.5	150X4-10/8M-1/8K	361079	o. r.	
10/8	R 1/4	10.5	24.5	21	13	10	24.5	150X4-10/8M-1/4K	361080	o. r.	
10/8	R 3/8	11	27	24.5	13	13	39.6	150X4-10/8M-3/8K	361081	o. r.	
12/10	R 3/8	11.5	29	25	15	13	42.2	150X4-12/10M-3/8K	361093	o. r.	
12/10	R 1/2	14	30.5	29	15	17	58.5	150X4-12/10M-1/2K	361094	o. r.	

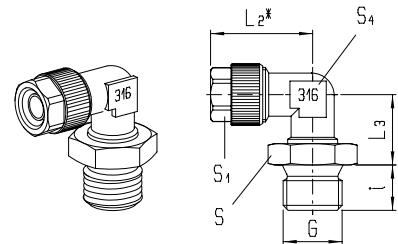
Illustration



90° Elbow Adaptor - Male - Positionable

Product group	13	PN	16	T _{min}	0 °C	T _{max}	+140 °C	Cylindrical thread	Seal: FKM FDA-compliant	not suitable for rotating or oscill. movement	NSF	Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price		
6/4	G 1/8	8	22.5	14	10	10	13	23.1	130X4-6/4M-1/8FF	361164	o. r.		
6/4	G 1/4	10	22.5	14.5	10	10	17	26.8	130X4-6/4M-1/4FF	361165	o. r.		
8/6	G 1/8	8	22.5	14	12	10	13	23.6	130X4-8/6M-1/8FF	361170	o. r.		
8/6	G 1/4	10	22.5	14.5	12	10	17	26.6	130X4-8/6M-1/4FF	361171	o. r.		
10/8	G 1/4	10	24	14.5	13	10	17	29.7	130X4-10/8M-1/4FF	361180	o. r.		

Illustration



* approximate with fastened Union nut ** S24 = octagon

90° Elbow Adaptor - Male - Positionable

Product group	13	PN 16	T _{min} 0 °C T _{max} +140 °C	Conical thread	Seal: FKM FDA-compliant	not suitable for rotating or oscill. movement
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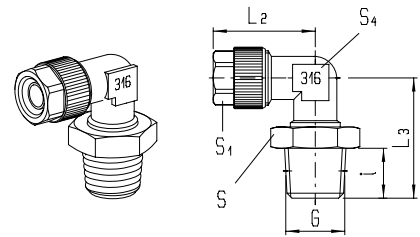


Union nut: Nickel-plated brass

Stainless steel AISI 316L

for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	10	10	13	22.5	130X4-6/4M-1/8KFF	361264	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	17	26.6	130X4-6/4M-1/4KFF	361265	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	23.6	130X4-8/6M-1/8KFF	361270	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	17	28.1	130X4-8/6M-1/4KFF	361271	o. r.
10/8	R 1/4	11	24	25.5	13	10	17	29.4	130X4-10/8M-1/4KFF	361280	o. r.

Illustration



T-Adaptor - Male

Product group	13	PN 25	T _{min} -40 °C T _{max} +140 °C	Conical thread
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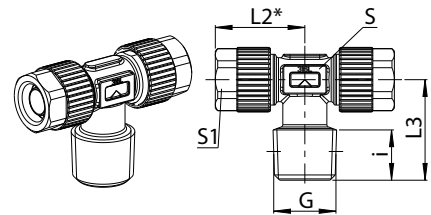


Union nut: Nickel-plated brass

Stainless steel AISI 316L

for tube D/d	G	i	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	17.5	17	10	8	20.8	141X4M-6/4M-1/8K	361821	o. r.
6/4	R 1/4	10.5	17.5	20	10	9	25.7	141X4M-6/4M-1/4K	361822	o. r.
8/6	R 1/8	7.5	18.5	18	12	9	26	141X4M-8/6M-1/8K	361823	o. r.
8/6	R 1/4	10.5	18.5	21	12	10	31.4	141X4M-8/6M-1/4K	361824	o. r.
10/8	R 1/8	9	25	18.5	13	10	34.1	141X4-10/8M-1/8K	361479	o. r.
10/8	R 1/4	10.5	25	21	13	10	37.9	141X4-10/8M-1/4K	361480	o. r.
10/8	R 3/8	11.5	27	25	13	13	39.6	141X4-10/8M-3/8K	361481	o. r.
12/10	R 3/8	11.5	29	25	15	13	59.9	141X4-12/10M-3/8K	361493	o. r.
12/10	R 1/2	14	30.5	29	15	17	91	141X4-12/10M-1/2K	361494	o. r.

Illustration



T-Adaptor - Male - Positionable

Product group	13	PN 16	T _{min} 0 °C T _{max} +140 °C	Cylindrical thread	Seal: FKM FDA-compliant	not suitable for rotating or oscill. movement
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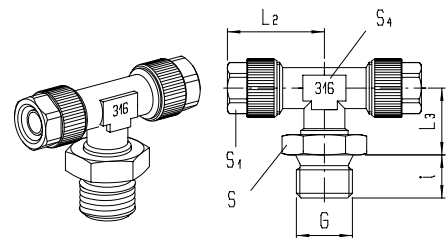


Union nut: Nickel-plated brass

Stainless steel AISI 316L

for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	8	22.5	14	10	10	13	32.3	121X4-6/4M-1/8FF	361564	o. r.
6/4	G 1/4	10	22.5	14.5	10	10	17	35.1	121X4-6/4M-1/4FF	361565	o. r.
8/6	G 1/8	8	22.5	14	12	10	13	34.2	121X4-8/6M-1/8FF	361570	o. r.
8/6	G 1/4	10	22.5	14.5	12	10	17	38.2	121X4-8/6M-1/4FF	361571	o. r.
10/8	G 1/4	10	24	14.5	13	10	17	41.5	121X4-10/8M-1/4FF	361580	o. r.

Illustration



T-Adaptor - Male - Positionable

Product group	13	PN 16	T _{min} 0 °C T _{max} +140 °C	Conical thread	Seal: FKM FDA-compliant	not suitable for rotating or oscill. movement
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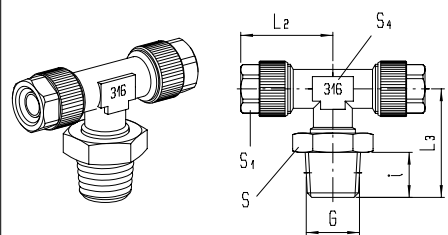


Union nut: Nickel-plated brass

Stainless steel AISI 316L

for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	10	10	13	32.2	121X4-6/4M-1/8KFF	361664	o. r.
6/4	R 1/4	11	22.5	25.5	10	10	17	36.4	121X4-6/4M-1/4KFF	361665	o. r.
8/6	R 1/8	7.5	22.5	21.5	12	10	13	34.3	121X4-8/6M-1/8KFF	361670	o. r.
8/6	R 1/4	11	22.5	25.5	12	10	17	38.9	121X4-8/6M-1/4KFF	361671	o. r.
10/8	R 1/4	11	24	25.5	13	10	17	40.9	121X4-10/8M-1/4KFF	361680	o. r.

Illustration

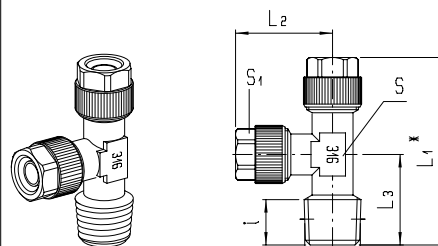


* approximate with fastened Union nut

Side T-Adaptor - Male

Product group	13	PN 25	T _{min} -40 °C T _{max} +140 °C							Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube D/d	G	i	L1*	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	9	41	22.5	18.5	10	10	26.8	142X4-6/4M-1/8K	361764	o. r.
6/4	R 1/4	10.5	43.5	22.5	21	10	10	29.5	142X4-6/4M-1/4K	361765	o. r.
8/6	R 1/8	9	41	22.5	18.5	12	10	28.9	142X4-8/6M-1/8K	361770	o. r.
8/6	R 1/4	10.5	43.5	22.5	21	12	10	31.6	142X4-8/6M-1/4K	361771	o. r.
10/8	R 1/8	9	43.5	25	18.5	13	10	on req.	142X4-10/8M-1/8K	361779	o. r.
10/8	R 1/4	10.5	46	25	21	13	10	on req.	142X4-10/8M-1/4K	361780	o. r.
10/8	R 3/8	11.5	52	27	25	13	13	on req.	142X4-10/8M-3/8K	361781	o. r.

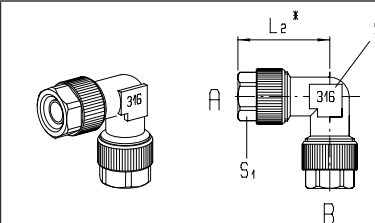
Illustration



90° Elbow Connector

Product group	13	PN 25	T _{min} -40 °C T _{max} +140 °C				Union nut: Nickel-plated brass	Stainless steel AISI 316L
for tube A D/d	for tube B D/d	L2*	S1	S	Weight in [g]	Type	Order number	Price
6/4	6/4	22.5	10	10	23	155X4-6/4M	362185	o. r.
8/6	8/6	22.5	12	10	24.6	155X4-8/6M	362187	o. r.
10/8	10/8	25	13	10	29.2	155X4-10/8M	362190	o. r.
12/10	12/10	29	15	13	on req.	155X4-12/10M	362194	o. r.

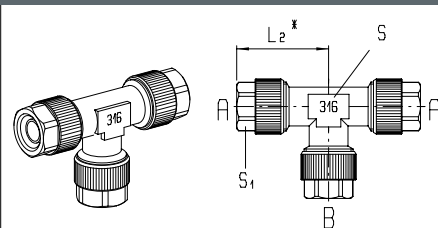
Illustration



T-Connector

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C		Union nut: Nickel -plated brass	Stainless steel AISI 316L
for tube A D/d	for tube B D/d	L2*	S1	S	Weight in [g]	Type	Order number	Price		
6/4	6/4	22.5	10	10	32.2	154X4-6/4M	362385	o. r.		
8/6	8/6	22.5	12	10	34.1	154X4-8/6M	362387	o. r.		
10/8	10/8	25	13	10	42.7	154X4-10/8M	362390	o. r.		
12/10	12/10	29	15	13	93	154X4-12/10M	362394	o. r.		

Illustration



* approximate with fastened Union nut

RAPID Fittings Stainless Steel AISI 316L (1.4404) (Push-on)



Rapid version

Operating pressure Technical vacuum up to maximum pressure as stated in the respective specification table under PN.

Temperature range: -40 °C to +140 °C (for restrictions see specification table)

Application

Rapid fittings are used with aggressive gaseous and liquid media, where elastomer seals are not resistant. With guide cone and cap nut these fittings are particularly suited to very harsh operating conditions.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Stainless steel AISI 316L	Corresponds to 1.4404 stainless steel . Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.
Other materials	see relevant products
Approval	NSF/ANSI 169

TUBE

Outside diameter D [mm] Inside diameter d [mm]	6/4 8/6 10/8	12/10
Perm. tolerance outside D	±0.1	±0.15
Perm. tolerance inside d	±0.1	±0.15

Max. wall thickness tolerance	±0.1 With very soft tubes, for example PVC tubes, variations in the outside diameter or wall thickness of up to + 5/10 are allowable. In case of doubt please ask.
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Permitted grades	Polyamide (PA), polyurethane (PU), polyethylene (PE), fabric reinforced PVC, fluorine polymer (FEP and PFA)
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THREAD

External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/2
External thread	"R" conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 up to R 1/2. Designed for pairing with internal thread according to DIN ISO 228-1.

OPERATING PRESSURE / TEMPERATURE

Metal version	PN 25 T _{min} -40 °C T _{max} +140 °C	Means that the fitting can be used up to the given nominal pressure PN within the specified temperature range "T". Allowable operating pressure and operating temperature of pipe/tube must be observed!
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THREAD SEAL

Cylindrical threaded nipple	Seal with sealing rings made of copper, fiber, aluminium, polyamide or hard PVC. Seal with chambered O-ring (FDA-compliant) on request
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Tapered threaded nipple	Seal with Teflon tape winding (FDA-compliant) on request
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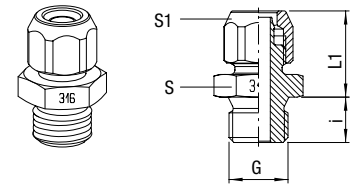
Straight, 90° elbow and T-adaptors, male	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly or for compensating movement.
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Straight Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Thread	cylindrical	NSF	Stainless steel AISI 316L
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for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	8	18.5	12	13	14.8	151X4-6/4-1/8	360014	o. r.
6/4	G 1/4	10	19	12	17	23.9	151X4-6/4-1/4	360015	o. r.
8/6	G 1/8	8	18.5	14	13	17.8	151X4-8/6-1/8	360020	o. r.
8/6	G 1/4	10	19	14	17	26.7	151X4-8/6-1/4	360021	o. r.
10/8	G 1/8	8	20	17	14	27.7	151X4-10/8-1/8	360029	o. r.
10/8	G 1/4	10	20.5	17	17	32.7	151X4-10/8-1/4	360030	o. r.
10/8	G 3/8	10	20.5	17	19	40.4	151X4-10/8-3/8	360031	o. r.
12/10	G 3/8	10	22	19	19	43.8	151X4-12/10-3/8	360043	o. r.
12/10	G 1/2	12	22.5	19	24	47.3	151X4-12/10-1/2	360044	o. r.

Illustration

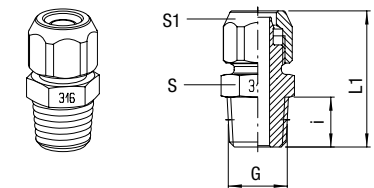


Straight Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Thread	conical	NSF	Stainless steel AISI 316L
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for tube D/d	G	i	L1*	S1	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	26	12	12	18.8	151X4-6/4-1/8K	360414	o. r.
6/4	R 1/4	11	30	12	14	21.8	151X4-6/4-1/4K	360415	o. r.
8/6	R 1/8	7.5	26	14	12	17.2	151X4-8/6-1/8K	360420	o. r.
8/6	R 1/4	11	30	14	14	25.1	151X4-8/6-1/4K	360421	o. r.
10/8	R 1/8	7.5	27.5	17	14	27.9	151X4-10/8-1/8K	360429	o. r.
10/8	R 1/4	11	31.5	17	14	30.4	151X4-10/8-1/4K	360430	o. r.
10/8	R 3/8	11.5	32	17	17	41	151X4-10/8-3/8K	360431	o. r.
12/10	R 3/8	11.5	33.5	19	17	43.9	151X4-12/10-3/8K	360443	o. r.
12/10	R 1/2	14	36.5	19	22	34.0	151X4-12/10-1/2K	360444	o. r.

Illustration

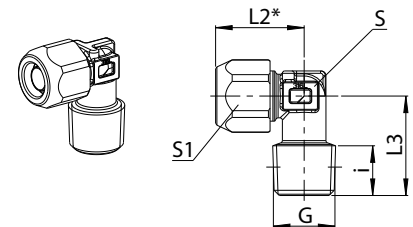


90° Elbow Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	T _{max}	+140 °C	Thread	conical	NSF	Stainless steel AISI 316L
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for tube D/d	G	i	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	17.5	17	12	8	15.2	150X4M-6/4-1/8K	361301	o. r.
6/4	R 1/4	10.5	17.5	20	12	9	20.1	150X4M-6/4-1/4K	361302	o. r.
8/6	R 1/8	7.5	18.5	18	14	9	19	150X4M-8/6-1/8K	361303	o. r.
8/6	R 1/4	10.5	18.5	21	14	10	24.3	150X4M-8/6-1/4K	361304	o. r.
8/6	R 3/8	11	26.5	24.5	14	13	41.4	150X4-8/6-3/8K	361022	o. r.
10/8	R 1/8	9	24.5	18.5	17	10	27	150X4-10/8-1/8K	361029	o. r.
10/8	R 1/4	10.5	24.5	21	17	10	30.6	150X4-10/8-1/4K	361030	o. r.
10/8	R 3/8	11	27	24.5	17	13	46.2	150X4-10/8-3/8K	361031	o. r.
12/10	R 3/8	11.5	29	25	19	13	48.6	150X4-12/10-3/8K	361043	o. r.
12/10	R 1/2	14	30.5	29	19	17	66.1	150X4-12/10-1/2K	361044	o. r.

Illustration

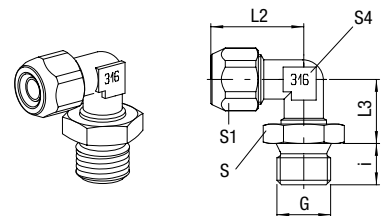


90° Elbow Adaptor - Male - Positionable

Product group	13	PN	16	T _{min}	0 °C	T _{max}	+140 °C	Thread	cylindrical	Seal: FKM (FDA-compliant)	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L
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for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	8	22.5	14	12	10	13	24.9	130X4-6/4-1/8FF	361114	o. r.
6/4	G 1/4	10	22.5	14.5	12	10	17	28.2	130X4-6/4-1/4FF	361115	o. r.
8/6	G 1/8	8	22.5	14	14	10	13	25.6	130X4-8/6-1/8FF	361120	o. r.
8/6	G 1/4	10	22.5	14.5	14	10	17	29.6	130X4-8/6-1/4FF	361121	o. r.
10/8	G 1/4	10	24	14.5	17	10	17	36.1	130X4-10/8-1/4FF	361130	o. r.

Illustration

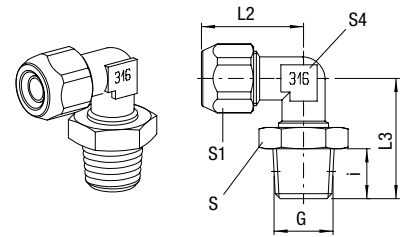


* Approx. dimension with cap nut tightened

90° Elbow Adaptor - Male - Positionable

Product group	13	PN	16	T _{min}	0 °C	Thread	conical	Seal: FKM (FDA-compliant)	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	12	10	13	24.1	130X4-6/4-1/8KFF	361214	o. r.
6/4	R 1/4	11	22.5	25.5	12	10	17	28.2	130X4-6/4-1/4KFF	361215	o. r.
8/6	R 1/8	7.5	22.5	21.5	14	10	13	25.2	130X4-8/6-1/8KFF	361220	o. r.
8/6	R 1/4	11	22.5	25.5	14	10	17	29.7	130X4-8/6-1/4KFF	361221	o. r.
10/8	R 1/4	11	24	25.5	17	10	17	35.5	130X4-10/8-1/4KFF	361230	o. r.

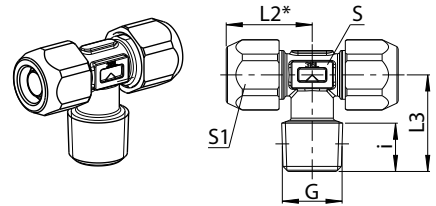
Illustration



T-Adaptor - Male

Product group	13	PN 25	T _{min} -40 °C T _{max} +140 °C	Thread conical							Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price	
6/4	R 1/8	7.5	17.5	17	12	8	24.2	141X4M-6/4-1/8K	361801	o. r.	
6/4	R 1/4	10.5	17.5	20	12	9	29.1	141X4M-6/4-1/4K	361802	o. r.	
8/6	R 1/8	7.5	18.5	18	14	9	30.3	141X4M-8/6-1/8K	361803	o. r.	
8/6	R 1/4	10.5	18.5	21	14	10	35.7	141X4M-8/6-1/4K	361804	o. r.	
10/8	R 1/8	9	25	18.5	17	10	46.9	141X4-10/8-1/8K	361429	o. r.	
10/8	R 1/4	10.5	25	21	17	10	50.8	141X4-10/8-1/4K	361430	o. r.	
10/8	R 3/8	11.5	27	25	17	13	69.5	141X4-10/8-3/8K	361431	o. r.	
12/10	R 3/8	11.5	29	25	19	13	74.2	141X4-12/10-3/8K	361443	o. r.	
12/10	R 1/2	14	30.5	29	19	17	106	141X4-12/10-1/2K	361444	o. r.	

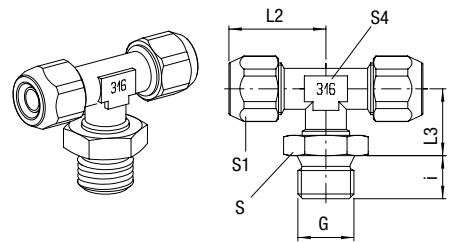
Illustration



T-Adaptor - Male - Positionable

Product group	13	PN	16	T _{min}	0 °C	Thread	cylindrical	Seal: FKM (FDA-compliant)	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	G 1/8	8	22.5	14	12	10	13	35.5	121X4-6/4-1/8FF	361514	o. r.
6/4	G 1/4	10	22.5	14.5	12	10	17	38.3	121X4-6/4-1/4FF	361515	o. r.
8/6	G 1/8	8	22.5	14	14	10	13	37.4	121X4-8/6-1/8FF	361520	o. r.
8/6	G 1/4	10	22.5	14.5	14	10	17	41.4	121X4-8/6-1/4FF	361521	o. r.
10/8	G 1/4	10	24	14.5	17	10	17	53.7	121X4-10/8-1/4FF	361530	o. r.

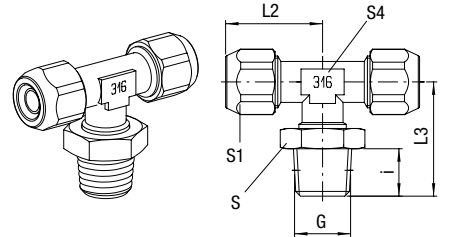
Illustration



T-Adaptor - Male - Positionable

Product group	13	PN	16	T _{min}	0 °C	Thread	conical	Seal: FKM (FDA-compliant)	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L
for tube D/d	G	i	L2*	L3	S1	S4	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	7.5	22.5	21.5	12	10	13	35.4	121X4-6/4-1/8KFF	361614	o. r.
6/4	R 1/4	11	22.5	25.5	12	10	17	39.6	121X4-6/4-1/4KFF	361615	o. r.
8/6	R 1/8	7.5	22.5	21.5	14	10	13	37.5	121X4-8/6-1/8KFF	361620	o. r.
8/6	R 1/4	11	22.5	25.5	14	10	17	42.1	121X4-8/6-1/4KFF	361621	o. r.
10/8	R 1/4	11	24	25.5	17	10	17	53.1	121X4-10/8-1/4KFF	361630	o. r.

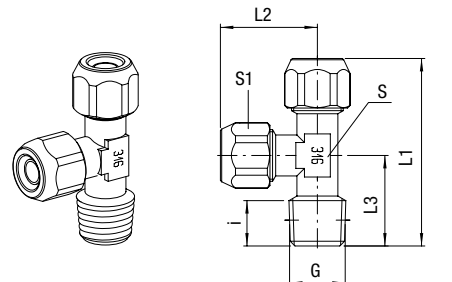
Illustration



Side T-Adaptor - Male

Product group	13	PN	25	T _{min}	-40 °C	Thread	conical	Seal: FKM (FDA-compliant)	not suitable for rotating or oscill. movement	NSF	Stainless steel AISI 316L
for tube D/d	G	i	L1*	L2*	L3	S1	S	Weight in [g]	Type	Order number	Price
6/4	R 1/8	9	41	22.5	18.5	12	10	30	142X4-6/4-1/8K	361714	o. r.
6/4	R 1/4	10.5	43.5	22.5	21	12	10	32.8	142X4-6/4-1/4K	361715	o. r.
8/6	R 1/8	9	41	22.5	18.5	14	10	32.1	142X4-8/6-1/8K	361720	o. r.
8/6	R 1/4	10.5	43.5	22.5	21	14	10	34.8	142X4-8/6-1/4K	361721	o. r.
10/8	R 1/8	9	43.5	25	18.5	17	10	44.4	142X4-10/8-1/8K	361729	o. r.
10/8	R 1/4	10.5	46	25	21	17	10	55.4	142X4-10/8-1/4K	361730	o. r.
10/8	R 3/8	11.5	52	27	25	17	13	68	142X4-10/8-3/8K	361731	o. r.

Illustration



* Approx. dimension with cap nut tightened

90° Elbow Connector

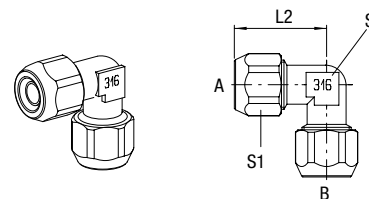
Product group **13** PN 25 $T_{min} -40\text{ °C}$
 $T_{max} +140\text{ °C}$



Stainless steel
AISI 316L

for pipe A D/d	for pipe B D/d	L2*	S1	S	Weight in [g]	Type	Order number	Price
6/4	6/4	22.5	12	10	26.2	155X4-6/4	362135	o. r.
8/6	8/6	22.5	14	10	27.8	155X4-8/6	362137	o. r.
10/8	10/8	25	17	10	41.4	155X4-10/8	362140	o. r.
12/10	12/10	29	19	13	60	155X4-12/10	362144	o. r.

Illustration



T-Connector

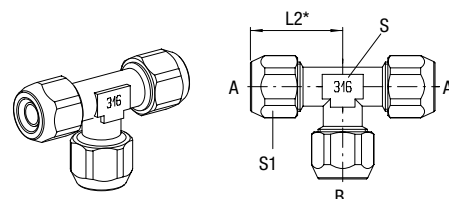
Product group **13** PN 25 $T_{min} -40\text{ °C}$
 $T_{max} +140\text{ °C}$



Stainless steel
AISI 316L

for pipe A D/d	for pipe B D/d	L2*	S1	S	Weight in [g]	Type	Order number	Price
6/4	6/4	22.5	12	10	37	154X4-6/4	362335	o. r.
8/6	8/6	22.5	14	10	38.9	154X4-8/6	362337	o. r.
10/8	10/8	25	17	10	61	154X4-10/8	362340	o. r.
12/10	12/10	29	19	13	115	154X4-12/10	362344	o. r.

Illustration



* Approx. dimension with cap nut tightened

Fitting Accessories Nickel-Plated Brass / Alu

Home



CHARACTERISTICS

BODY MATERIAL / SUITABILITY

Nickel-plated brass	CuZn39Pb3, electrolytically nickel-plated (on request also chemically nickel-plated)
Aluminium	Aluminium alloy AlCuMgPbF37

THREAD

External thread	"M" cylindrical thread: Metric ISO thread M5
External thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/4
External thread	"R" conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 to R 3/4. Dimensions constructed so with inner thread there can be pairing according to DIN ISO 228-1.
Internal thread	"M" cylindrical thread: Metric ISO thread M5
Internal thread	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2

OPERATING PRESSURE / TEMPERATURE

Metal version	PN 50 $T_{min} -40\text{ °C}$ $T_{max} +120\text{ °C}$ Means that the fitting can be used up to the given nominal pressure PN within the specified temperature range "T".
Permitted operating pressure and temperature of pipe/tube must be observed.	

THREAD SEAL

Cylindrical threaded nipple	Seal with sealing rings made of copper, fibre, aluminium, polyamide or hard PVC
Conical threaded nipple	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 3/4
	Option: "D" self-sealing Seal with sealant Film with non-reactive mineral solid materials, non-adhesive. Resistant to air, water, motor oils etc.

"POSITIONABLE" VERSION

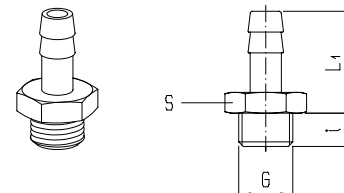
Reducer nipple type 232 see "Reducer - Positionable"	Not suitable for rotating or oscill. movements. This nipple is 360°-positionable to facilitate adjustment during assembly.
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Hosetail Adaptor

Product group	16	PN 50	Cylindrical thread	T_{min} -40 °C T_{max} +120 °C	Nickel-plated brass				
for tube LW	G	i	L1	S	Weight in [g]	Type	Order number	Price	
1.6 - 2	M 5	4	12	8	2	260M-2-M5	250150	o. r.	
2.7 - 3	M 5	4	12	8	2.2	260M-3-M5	250151	o. r.	
3.5 - 4	M 5	4	12	8	2.6	260M-4-M5	250152	o. r.	
5 - 6	G 1/8	6	24	13	11	260M-7-1/8	250169	o. r.	
5 - 6	G 1/4	8	24.5	17	18.3	260M-7-1/4	250170	o. r.	
6 - 7	G 1/8	6	24	13	11.5	260M-8-1/8	250178	o. r.	
6 - 7	G 1/4	8	24.5	17	17.8	260M-8-1/4	250179	o. r.	
7 - 8	G 1/8	6	24	13	11.6	260M-9-1/8	250187	o. r.	
7 - 8	G 1/4	8	24.5	17	19.3	260M-9-1/4	250188	o. r.	
7 - 8	G 3/8	9	24.5	19	24.7	260M-9-3/8	250189	o. r.	
9 - 10	G 1/4	8	24.5	17	19.6	260M-10-1/4	250194	o. r.	
10 - 11	G 1/4	8	24.5	17	20.7	260M-12-1/4	250206	o. r.	
10 - 11	G 3/8	9	24.5	19	25.8	260M-12-3/8	250207	o. r.	
10 - 11	G 1/2	10	25	24*	42.2	260M-12-1/2	250208	o. r.	
12 - 13	G 1/4	8	24.5	17	24.5	260M-14-1/4	250210	o. r.	
12 - 13	G 3/8	9	24.5	19	27.2	260M-14-3/8	250211	o. r.	
12 - 13	G 1/2	10	25	24*	39.4	260M-14-1/2	250212	o. r.	
15 - 16	G 3/8	9	29	19	34.5	260M-17-3/8	250217	o. r.	
15 - 16	G 1/2	10	29.5	24*	45.7	260M-17-1/2	250218	o. r.	
18 - 19	G 1/2	10	29.5	24*	43.8	260M-20-1/2	250222	o. r.	

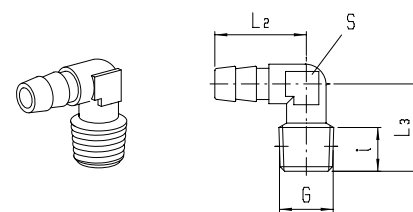
Illustration



90° Elbow Hosetail Adaptor

Product group	16	PN 50	T_{min} -40 °C T_{max} +120 °C	Conical thread	Nickel-plated brass				
for tube LW	G	i	L2	L3	S	Weight in [g]	Type	Order number	Price
6 - 7	R 1/8	7.5	22	17	10	14.4	270M-8-1/8K	251778	o. r.
7 - 8	R 1/8	7.5	22	17	10	12.8	270M-9-1/8K	251787	o. r.

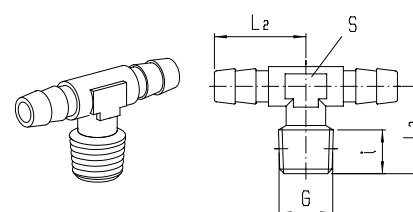
Illustration



T-Hosetail Adaptor

Product group	16	PN 50	T_{min} -40 °C T_{max} +120 °C	Conical thread	Nickel-plated brass				
for tube LW	G	i	L2	L3	S	Weight in [g]	Type	Order number	Price
6 - 7	R 1/8	7.5	22	17	10	18.2	271M-8-1/8K	251878	o. r.

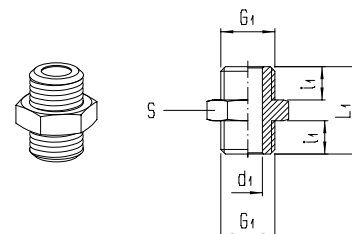
Illustration



Double Nipple

Product group	16	PN 50	T_{min} -40 °C T_{max} +120 °C	Cylindrical thread	Nickel-plated brass				
G1	i1	L1	d1	S	Weight in [g]	Type	Order number	Price	
M 5	4	11.5	2	8	2.3	250M-M5	250251	o. r.	
G 1/8	6	16.5	5	13	8.9	250M-1/8	250253	o. r.	
G 1/4	8	21	7	17	19.5	250M-1/4	250257	o. r.	
G 3/8	9	23	10	19	26.8	250M-3/8	250260	o. r.	
G 1/2	10	25.5	13	24*	44.7	250M-1/2	250262	o. r.	

Illustration

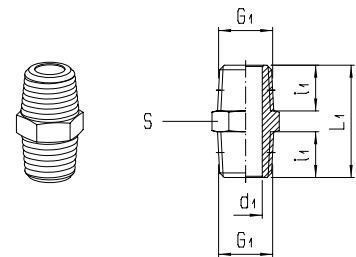


* S24 = octagon

Double Nipple

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Conical thread	Thread self-sealing by pre-coating "D"	Option "D" T _{max} +100 °C	Nickel-plated brass		
G1	i1	L1	d1	S	self-sealing "D"	Weight in [g]	Type	Order number	Price
R 1/8	7.5	19.5	5.5	10	-	7.5	250M-1/8K	250353	o. r.
R 1/8	7.5	19.5	5.5	10	D	7.6	250M-D1/8K	260353	o. r.
R 1/4	11	27	8	14	-	17.1	250M-1/4K	250357	o. r.
R 1/4	11	27	8	14	D	20.1	250M-D1/4K	260357	o. r.
R 3/8	11.5	28	11	17	-	25.5	250M-3/8K	250360	o. r.
R 3/8	11.5	28	11	17	D	28.9	250M-D3/8K	260360	o. r.
R 1/2	14	33.5	15	22	-	42.1	250M-1/2K	250362	o. r.
R 1/2	14	33.5	15	22	D	42.1	250M-D1/2K	260362	o. r.
R 3/4	16	39	19	27	-	78.9	250M-3/4K	250364	o. r.

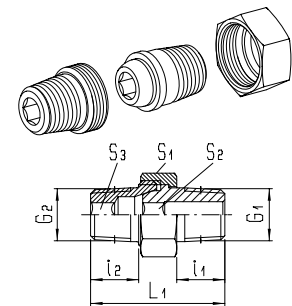
Illustration



Double Nipple - Union

Product group	16	PN 16	T _{min} -40 °C T _{max} +120 °C	Conical thread						Nickel-plated brass	
G1+G2	i1	i2	L1	S1	S2	S3	Weight in [g]	Type	Order number	Price	
R 1/8	9	9	27.5	15	5	5	17	230M-1/8K	319903	o. r.	
R 1/4	12	12	34	19	6	6	34	230M-1/4K	319907	o. r.	
R 3/8	13	13	37	22	8	8	53	230M-3/8K	319910	o. r.	
R 1/2	15.5	16	44.5	27	12	12	83	230M-1/2K	319912	o. r.	

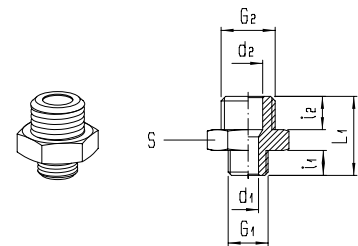
Illustration



Double Reducing Nipple

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C		Cylindrical thread M,G					Nickel-plated brass		
G1	G2	i1	i2	L1	d1	d2	S	Weight in [g]	Type	Order number	Price	
M 5	G 1/8	4	6	14.5	2	5	13	8	251M-M5-1/8	250452	o. r.	
G 1/8	G 1/4	6	8	19	5	7	17	17.3	251M-1/8-1/4	250454	o. r.	
G 1/8	G 3/8	6	9	20	5	9.5	19	22.8	251M-1/8-3/8	250455	o. r.	
G 1/8	G 1/2	6	10	21.5	5	14	24*	34.3	251M-1/8-1/2	250456	o. r.	
G 1/4	G 3/8	8	9	22	7	10	19	24.1	251M-1/4-3/8	250458	o. r.	
G 1/4	G 1/2	8	10	23.5	7	14	24*	34.3	251M-1/4-1/2	250459	o. r.	
G 3/8	G 1/2	9	10	24.5	10	14	24*	36.6	251M-3/8-1/2	250461	o. r.	

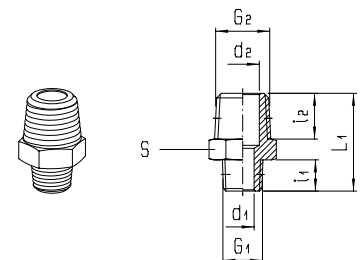
Illustration



Double Reducer Nipple

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C		Conical thread							Nickel-plated brass
G1	G2	i1	i2	L1	d1	d2	S	Weight in [g]	Type	Order number	Price	
R 1/8	R 1/4	7.5	11	23.5	5.5	8	14	14.8	251M-1/8K-1/4K	250554	o. r.	
R 1/8	R 3/8	7.5	11.5	24	5.5	11	17	21.1	251M-1/8K-3/8K	250555	o. r.	
R 1/8	R 1/2	7.5	14	27	5.5	15	22	33.4	251M-1/8K-1/2K	250556	o. r.	
R 1/4	R 3/8	11	11.5	27.5	8	11	17	23.8	251M-1/4K-3/8K	250558	o. r.	
R 1/4	R 1/2	11	14	30.5	8	15	22	37.8	251M-1/4K-1/2K	250559	o. r.	
R 3/8	R 1/2	11.5	14	31	11	15	22	39.5	251M-3/8K-1/2K	250561	o. r.	
R 1/2	R 3/4	14	16	37	15	19	27	69.4	251M-1/2K-3/4K	250563	o. r.	

Illustration



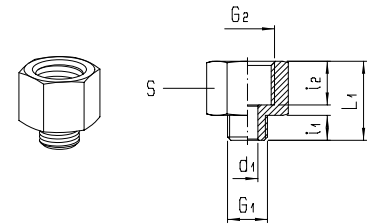
* S24 = octagon

Reducer

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread M, G	Nickel-plated brass
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G1	G2	i1	i2	L1	d1	S	Weight in [g]	Type	Order number	Price
M5	M 5	4	5	11	2	8	2.9	252M-M5-M5	250651	o. r.
M5	G 1/8	4	8	14	2	13	8.3	252M-M5-1/8	250652	o. r.
G 1/8	G 1/8	6	8	16	6	13	8.9	252M-1/8-1/8	250653	o. r.
G 1/8	G 1/4	6	10.5	19	6	17	17.3	252M-1/8-1/4	250654	o. r.
G 1/8	G 3/8	6	11.5	20	6	19	18.5	252M-1/8-3/8	250655	o. r.
G 1/8	G 1/2	6	15	24	6	24*	32.2	252M-1/8-1/2	250656	o. r.
G 1/4	G 1/4	8	10.5	21	8	17	19.4	252M-1/4-1/4	250657	o. r.
G 1/4	G 3/8	8	11.5	22	8	19	20.4	252M-1/4-3/8	250658	o. r.
G 1/4	G 1/2	8	15	26	8	24*	34.9	252M-1/4-1/2	250659	o. r.
G 3/8	G 3/8	9	11.5	23	12	19	20.1	252M-3/8-3/8	250660	o. r.
G 3/8	G 1/2	9	15	27	12	24*	38.7	252M-3/8-1/2	250661	o. r.
G 1/2	G 1/2	10	15	28	14	24*	39.8	252M-1/2-1/2	250662	o. r.

Illustration

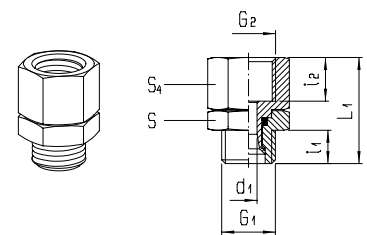


Reducer - Positionable

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread G	Sealing ring: NBR	not suitable for rotating or oscill. movements	Nickel-plated brass
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G1	G2	i1	i2	L1	d1	S4	S	Weight in [g]	Type	Order number	Price
G 1/8	G 1/8	6	8	20.5	4	13	13	14.8	232M-1/8-1/8	320003	o. r.
G 1/4	G 1/4	8	10.5	26	6.5	17	17	29.6	232M-1/4-1/4	320007	o. r.
G 3/8	G 3/8	9	11.5	28.5	8.5	19	19	37.6	232M-3/8-3/8	320010	o. r.

Illustration

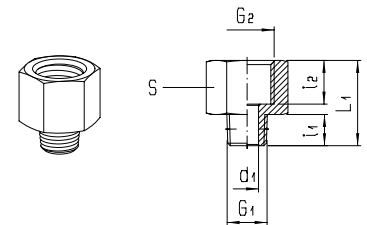


Reducer

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.	Nickel-plated brass
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G1	G2	i1	i2	L1	d1	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	7.5	8	17.5	5.5	13	9.8	252M-1/8K-1/8	250753	o. r.
R 1/8	G 1/4	7.5	10.5	20.5	5.5	17	18.5	252M-1/8K-1/4	250754	o. r.
R 1/8	G 3/8	7.5	11.5	21.5	5.5	19	20	252M-1/8K-3/8	250755	o. r.
R 1/8	G 1/2	7.5	15	25.5	5.5	24*	36.2	252M-1/8K-1/2	250756	o. r.
R 1/4	G 1/4	11	10.5	24	8	17	21.1	252M-1/4K-1/4	250757	o. r.
R 1/4	G 3/8	11	11.5	25	8	19	21.2	252M-1/4K-3/8	250758	o. r.
R 1/4	G 1/2	11	15	29	8	24*	36.7	252M-1/4K-1/2	250759	o. r.
R 3/8	G 3/8	11.5	11.5	25.5	11	19	25.4	252M-3/8K-3/8	250760	o. r.
R 3/8	G 1/2	11.5	15	29.5	11	24*	39.4	252M-3/8K-1/2	250761	o. r.
R 1/2	G 1/2	14	15	32	15	24*	44.3	252M-1/2K-1/2	250762	o. r.

Illustration

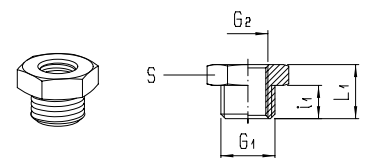


Reducer

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread	Nickel-plated brass
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G1	G2	i1	L1	S	Weight in [g]	Type	Order number	Price
G 1/8	M5	6	10.5	13	7.2	253M-1/8-M5	250852	o. r.
G 1/4	G 1/8	8	13	17	10.8	253M-1/4-1/8	250854	o. r.
G 3/8	G 1/8	9	14	19	19.3	253M-3/8-1/8	250855	o. r.
G 1/2	G 1/8	10	15.5	24*	38.7	253M-1/2-1/8	250856	o. r.
G 3/8	G 1/4	9	14	19	13.1	253M-3/8-1/4	250858	o. r.
G 1/2	G 1/4	10	15.5	24*	31.2	253M-1/2-1/4	250859	o. r.
G 1/2	G 3/8	10	15.5	24*	20.9	253M-1/2-3/8	250861	o. r.

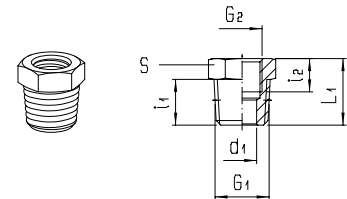
Illustration



Reducer

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.		Option "D" self-sealing		Option "D" T _{max} +100 °C		Nickel-plated brass	
G1	G2	i1	i2	L1	d1	S	Option "D"	Weight in [g]	Type	Order number	Price
R 1/4	G 1/8	11	7.5	16	8.5	14	-	9.3	253M-1/4K-1/8	250954	o. r.
R 1/4	G 1/8	11	7.5	16	8.5	14	D	9.4	253M-D1/4K-1/8	260954	o. r.
R 3/8	G 1/8	11.5	7.5	16.5	8.5	17	-	20	253M-3/8K-1/8	250955	o. r.
R 3/4	G 1/8	11.5	7.5	16.5	8.5	17	D	20,6	253M-D3/8K-1/8	250985	o. r.
R 1/2	G 1/8	14	7.5	19.5	8.5	22	-	45	253M-1/2K-1/8	250956	o. r.
R 3/8	G 1/4	11.5	9	16.5	8.5	17	-	16.1	253M-3/8K-1/4	250958	o. r.
R 3/8	G 1/4	11.5	9	16.5	8.5	17	D	16.3	253M-D3/8K-1/4	260958	o. r.
R 1/2	G 1/4	14	11.5	19.5	11.5	22	-	35.2	253M-1/2K-1/4	250959	o. r.
R 1/2	G 3/8	14	11.5	19.5	15	22	-	23.5	253M-1/2K-3/8	250961	o. r.
R 1/2	G 3/8	14	11.5	19.5	15	22	D	23.7	253M-D1/2K-3/8	260961	o. r.
R 3/4	G 1/2	16	13.5	23	19	27	-	45.1	253M-3/4K-1/2	250963	o. r.

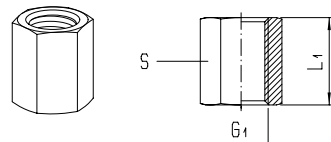
Illustration



Socket

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread	Nickel-plated brass		
G1	L1	S	Weight in [g]	Type	Order number	Price	
M 5	10	8	3.3	254M-M5	251051	o. r.	
G 1/8	15	13	9.7	254M-1/8	251053	o. r.	
G 1/4	21	17	22.4	254M-1/4	251057	o. r.	
G 3/8	23	19	21.1	254M-3/8	251060	o. r.	
G 1/2	30	24*	39.6	254M-1/2	251062	o. r.	

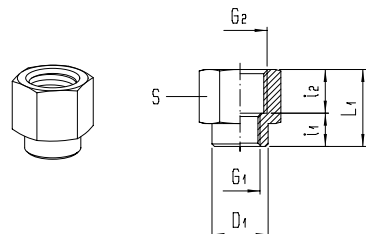
Illustration



Reducing Socket

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread							Nickel-plated brass
G1	G2	i1	i2	L1	D1	S	Weight in [g]	Type	Order number	Price	
M5	G 1/8	5	8	13	8	13	8.2	255M-M5-1/8	251152	o. r.	
G 1/8	G 1/4	8	10.5	18.5	13.5	17	18.2	255M-1/8-1/4	251154	o. r.	
G 1/8	G 3/8	8	11.5	19.5	13.5	19	19.2	255M-1/8-3/8	251155	o. r.	
G 1/8	G 1/2	8	15	23	13.5	24*	33.9	255M-1/8-1/2	251156	o. r.	
G 1/4	G 3/8	10.5	11.5	22	17	19	21.3	255M-1/4-3/8	251158	o. r.	
G 1/4	G 1/2	10.5	15	25.5	17	24*	34.3	255M-1/4-1/2	251159	o. r.	
G 3/8	G 1/2	11.5	15	26.5	21	24*	37.4	255M-3/8-1/2	251161	o. r.	

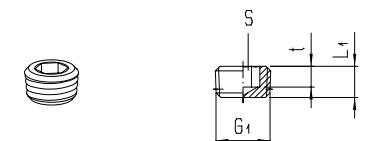
Illustration



Blind Plug

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Conical thread				Brass
G1	L1	t	S	Weight in [g]	Type	Order number	Price	
R 1/8	5	3	5	2	257U-1/8K	251303	o. r.	
R 1/4	7.5	5	7	5	257U-1/4K	251307	o. r.	
R 3/8	8	5	8	9.9	257U-3/8K	251310	o. r.	
R 1/2	9	6	10	17.7	257U-1/2K	251312	o. r.	
R 3/4	10	7	12	36.3	257U-1/2K	251314	o. r.	

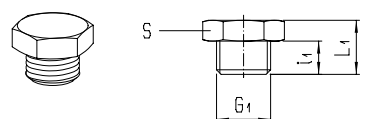
Illustration



Plug

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread				Nickel-plated brass
G1	i1	L1	S	Weight in [g]	Type	Order number	Price	
M 5	4	7.5	8	2	261M-M5	251401	o. r.	
G 1/8	6	10.5	13	7.3	261M-1/8	251403	o. r.	
G 1/4	8	13	17	15	261M-1/4	251407	o. r.	
G 3/8	9	14	19	21	261M-3/8	251410	o. r.	
G 1/2	10	15.5	24*	34.4	261M-1/2	251412	o. r.	

Illustration

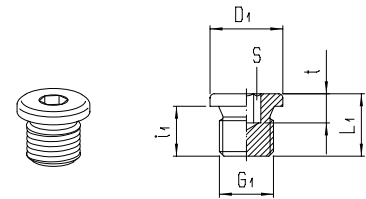


* S24 = octagon

Plug with Internal Hexagon - DIN 908

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread				Nickel-plated steel	Brass
G1	i1	L1	D1	t	S	Weight in [g]	Type	Order number	Price
G 1/8	8	11	14	5	5	6.8	262U-1/8	251553	o. r.
G 1/4	12	15	17.5	7	6	15.3	262U-1/4	251557	o. r.
G 3/8	12	15	22	7.5	8	24.6	262U-3/8	251560	o. r.
G 1/2	14	18	26	7.5	10	41.8	262S-1/2	251587	o. r.
G 3/4	16	20	32	9	12	74	262S-3/4	251589	o. r.

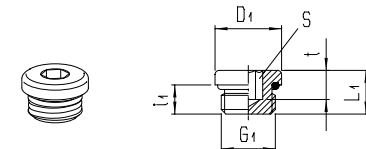
Illustration



Plug with Internal Hexagon

Product group	16	PN 25	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Sealing thread NBR					Nickel-plated brass
G1	i1	L1	D1	t	S	Weight in [g]	Type	Order number	Price	
M5	3.5	6.5	8	2	3	2	262M-M5B	251533	o. r.	
G 1/8	5	8	13	4	5	4.4	262M-1/8B	251543	o. r.	
G 1/4	7	10.5	16	5.5	6	9.8	262M-1/4B	251549	o. r.	
G 3/8	8	11.5	20	6	8	17.2	262M-3/8B	251547	o. r.	
G 1/2	9	13	25	6	10	31.2	262M-1/2B	251545	o. r.	

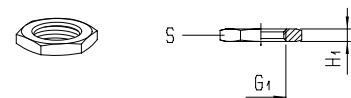
Illustration



Lock Nut

Product group	16	T _{min}	-40 °C	Cylindrical thread M,G	Nickel-plated brass			
		T _{max}	+120 °C					
G1		H1		S	Weight in [g]	Type	Order number	Price
M7x0.75		2		10	0.8	256M-M7x0.75	251701	o. r.
M10x1		2.5		13	1	256M-M10x1	251702	o. r.
M12x1		3		17	3.5	256M-M12x1	251703	o. r.
M14x1		3		17	2.5	256M-M14x1	251704	o. r.
M16x1		3.5		19	3.3	256M-M16x1	251705	o. r.
M20x1		4		24*	5.8	256M-M20x1	251706	o. r.
M20x1.5		4		24*	5.9	256M-M20x1.5	251707	o. r.
G 1/8		3.5		13	2.2	256M-1/8	251708	o. r.
G 1/4		4		17	4.1	256M-1/4	251709	o. r.
G 3/8		4.5		22	7.8	256M-3/8	251710	o. r.
G 1/2		5		24*	6.3	256M-1/2	251711	o. r.

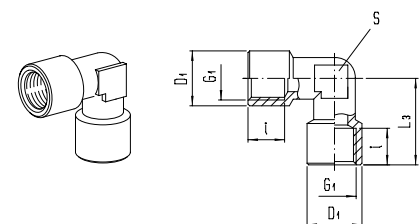
Illustration



90° Elbow

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread					Nickel-plated brass
G1	i	L3	D1	S	Weight in [g]	Type	Order number	Price	
G 1/8	8	21	13	10	21.1	201M-1/8	252003	o. r.	
G 1/4	10.5	26	17	13	40.4	201M-1/4	252007	o. r.	
G 3/8	11.5	28	21	17	60	201M-3/8	252010	o. r.	
G 1/2	15	33.5	26.5	21	106	201M-1/2	252012	o. r.	
G 3/4	16.5	36.5	32	25	145	201M-3/4	252014	o. r.	
G 1	19	45	39	30	245	201M-1	252016	o. r.	

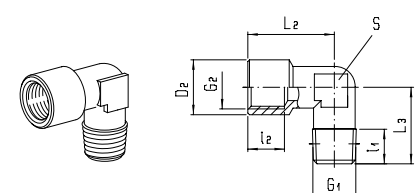
Illustration



90° Elbow

Product group 16		PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.				Nickel-plated brass			
G1	G2	i1	i2	L2	L3	D2	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	8	8	21	18.5	13	10	16.5	202M-1/8K-1/8	252053	o. r.
R 1/4	G 1/4	11	10.5	26	23	17	13	35	202M-1/4K-1/4	252057	o. r.
R 3/8	G 3/8	11.5	11.5	28	26	21	17	50	202M-3/8K-3/8	252060	o. r.
R 1/2	G 1/2	14	15	33.5	31	26.5	21	87	202M-1/2K-1/2	252062	o. r.
R 3/4	G 3/4	16	16.5	36.5	33	32	25	124	202M-3/4K-3/4	252064	o. r.
R 1	G 1	17.5	19	45	39	39	30	216	202M-1K -1	252066	o. r.

Illustration



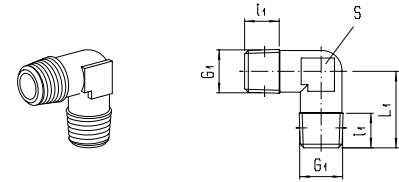
* S24 = octagon

90° Elbow

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Conical thread	Nickel-plated brass
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G1	i1	L1	S	Weight in [g]	Type	Order number	Price
R 1/8	8	18.5	10	12.8	204M-1/8K	252103	o. r.
R 1/4	11	23	13	27.6	204M-1/4K	252107	o. r.
R 3/8	11.5	26	17	41.2	204M-3/8K	252110	o. r.
R 1/2	14	31	21	72.5	204M-1/2K	252112	o. r.

Illustration

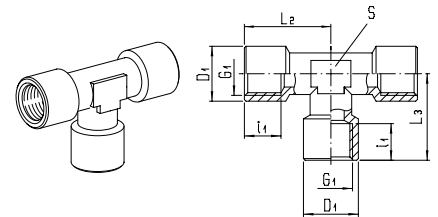


T-Piece

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread	Nickel-plated brass
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G1	i1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
G 1/8	8	21	21	13	10	28.5	200M-1/8	252153	o. r.
G 1/4	10.5	26	26	17	13	56.5	200M-1/4	252157	o. r.
G 3/8	11.5	28	28	21	17	84	200M-3/8	252160	o. r.
G 1/2	15	33.5	33.5	26.5	21	145	200M-1/2	252162	o. r.
G 3/4	16.5	36.5	36.5	32	25	193	200M-3/4	252164	o. r.
G 1	19	45	45	39	30	330	200M-1	252166	o. r.

Illustration

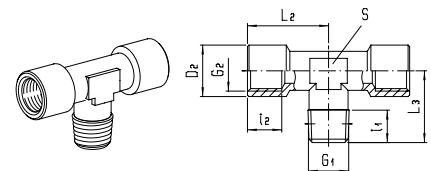


T-Piece

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.	Nickel-plated brass
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G1	G2	i1	i2	L2	L3	D2	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	8	8	21	18.5	13	10	24.7	206M-1/8K-1/8	252203	o. r.
R 1/4	G 1/4	11	10.5	26	23	17	13	50	206M-1/4K-1/4	252207	o. r.
R 3/8	G 3/8	11.5	11.5	28	26	21	17	74.5	206M-3/8K-3/8	252210	o. r.
R 1/2	G 1/2	14	15	33.5	31	26.5	21	128	206M-1/2K-1/2	252212	o. r.
R 3/4	G 3/4	16	16.5	36.5	33	32	25	175	206M-3/4K-3/4	252214	o. r.
R 1	G 1	17.5	19	45	39	39	30	295	206M-1K-1	252216	o. r.

Illustration

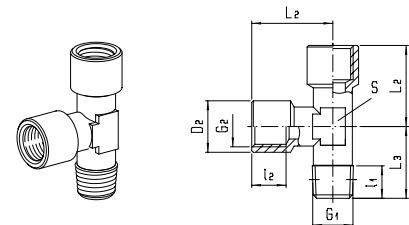


T-Piece

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.	Nickel-plated brass
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G1	G2	i1	i2	L2	L3	D2	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	8	8	21	18.5	13	10	24.5	207M-1/8K-1/8	252253	o. r.
R 1/4	G 1/4	11	10.5	26	23	17	13	52	207M-1/4K-1/4	252257	o. r.
R 3/8	G 3/8	11.5	11.5	28	26	21	17	74	207M-3/8K-3/8	252260	o. r.
R 1/2	G 1/2	14	15	33.5	31	26.5	21	128	207M-1/2K-1/2	252262	o. r.
R 3/4	G 3/4	16	16.5	36.5	33	32	25	177	207M-3/4K-3/4	252264	o. r.
R 1	G 1	17.5	19	45	39	39	30	300	207M-1K-1	252266	o. r.

Illustration

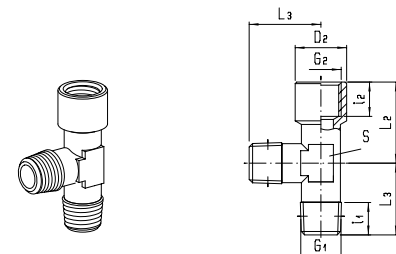


T-Piece

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.	Nickel-plated brass
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G1	G2	i1	i2	L2	L3	D2	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	8	8	21	18.5	13	10	21	205M-1/8K-1/8	252303	o. r.
R 1/4	G 1/4	11	10.5	26	23	17	13	44.6	205M-1/4K-1/4	252307	o. r.
R 3/8	G 3/8	11.5	11.5	28	26	21	17	64.4	205M-3/8K-3/8	252310	o. r.
R 1/2	G 1/2	14	15	33.5	31	26.5	21	109	205M-1/2K-1/2	252312	o. r.

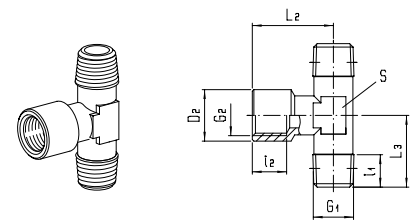
Illustration



T-Piece

Product group	16	PN 50	$T_{min} -40\text{ }^{\circ}\text{C}$ $T_{max} +120\text{ }^{\circ}\text{C}$	Thread R conical, thread G cylindr.	Nickel-plated brass						
G1	G2	i1	i2	L2	L3	D2	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	8	8	21	18.5	13	10	21	208M-1/8K-1/8	252353	o. r.
R 1/4	G 1/4	11	10.5	26	23	17	13	44.7	208M-1/4K-1/4	252357	o. r.
R 3/8	G 3/8	11.5	11.5	28	26	21	17	64	208M-3/8K-3/8	252360	o. r.

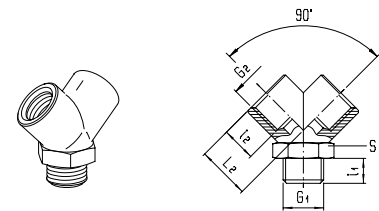
Illustration



Y-Piece

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Thread R conical, thread G cylindr.							Nickel-plated brass	
G1	G2	i1	i2	L2	D2	S	Weight in [g]	Type	Order number	Price		
R 1/8	G 1/8	8	8	15	14	13	22.3	216M-1/8K-1/8	252403	o. r.		
R 1/4	G 1/4	11	10.5	17	17	17	38.6	216M-1/4K-1/4	252407	o. r.		
R 3/8	G 3/8	11.5	11.5	18	21	20	53.2	216M-3/8K-3/8	252410	o. r.		
R 1/2	G 1/2	14	15	25	26.5	25	106	216M-1/2K-1/2	252412	o. r.		

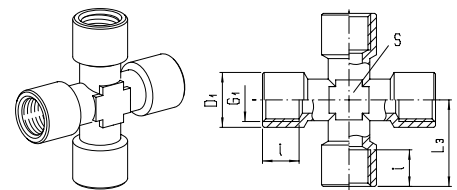
Illustration



Cross-Piece

Product group	16	PN 50	T_{min} -40 °C T_{max} +120 °C	Cylindrical thread					Nickel-plated brass
G1	i1	L3	D1	S	Weight in [g]	Type	Order number	Price	
G 1/8	8	21	13	10	37.7	203M-1/8	252453	o. r.	
G 1/4	10.5	26	17	13	74.3	203M-1/4	252457	o. r.	
G 3/8	11.5	28	21	17	110	203M-3/8	252460	o. r.	
G 1/2	15	33.5	26.5	21	182	203M-1/2	252462	o. r.	

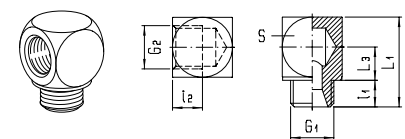
Illustration



90° Elbow Compact

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread						Nickel-plated brass	
G1	G2	i1	i2	L1	L3	S	Weight in [g]	Type	Order number	Price	
M 5	M 5	4	4.5	13	4.5	9	5.2	302M-M5	254021	o. r.	
G 1/8	G 1/8	6	7	21	8	14	18.5	302M-1/8	254031	o. r.	
G 1/4	G 1/4	8	9	27	10	18	38.7	302M-1/4	254032	o. r.	

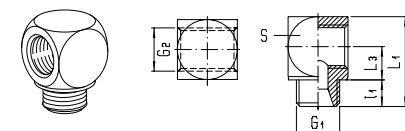
Illustration



T-Piece - Compact

Product group	16	PN 50	T_{min} -40 °C T_{max} +120 °C	Cylindrical thread					Nickel-plated brass	
G1	G2	i1	L1	L3	S	Weight in [g]	Type	Order number	Price	
M 5	M 5	4	13	4.5	9	4.8	306M-M5	254071	o. r.	
G 1/8	G 1/8	6	21	8	14	16.8	306M-1/8	254081	o. r.	
G 1/4	G 1/4	8	27	10	18	34.4	306M-1/4	254082	o. r.	

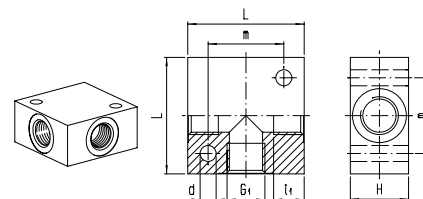
Illustration



Cross-Manifold

Product group	16	PN 50	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread					Aluminium bright	Nickel-plated brass
G1	material	i1	L	m	d	H	Weight in [g]	Type	Order number	Price
M 5	Nickel-plated brass	5	18	11	3.3	10	20.9	303M-M5	254221	o. r.
G 1/8	Aluminium alloy	6.5	25	17	4.5	16	18.2	303A-1/8	254211	o. r.
G 1/4	Aluminium alloy	10.5	40	26	5.5	20	62.7	303A-1/4	254212	o. r.
G 3/8	Aluminium alloy	11.5	50	34	5.5	26	130	303A-3/8	254213	o. r.
G 1/2	Aluminium alloy	13.5	50	34	5.5	32	148	303A-1/2	254214	o. r.

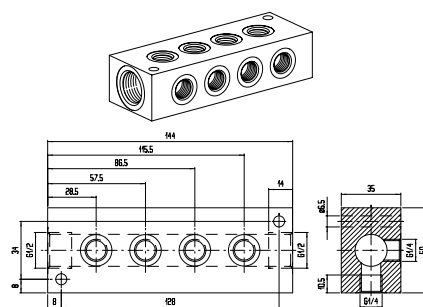
Illustration

[Home](#)

Manifold

Product group	16	PN 25	T _{min} -40 °C T _{max} +120 °C	Cylindrical thread	Aluminium bright		
Connector inlet		Connector outlet		Weight in [g]	Type	Order number	Price
G 1/2		G 1/4		557	383A-1/2-1/4	255859	o. r.

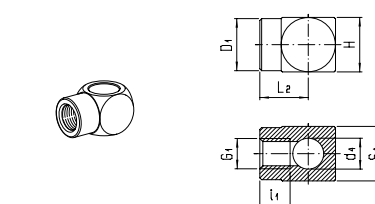
Illustration



Banjo Ring Piece

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread							Nickel-plated brass	
G1	for hollow screw	i1	L2	H	D1	d4	S4	Weight in [g]	Type	Order number	Price	
M 5	M 5	5	8	9	8.6	5.1	9	5.1	322M-M5S-M5	254321	o. r.	
G 1/8	G1/8 M10	7	15	14	13.5	10.1	14	17.5	322M-1/8S-1/8	254331	o. r.	

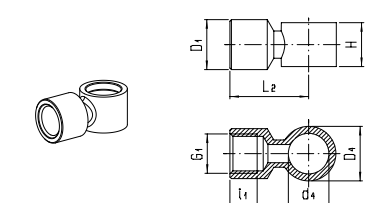
Illustration



Banjo Ring Piece

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread							Nickel-plated brass	
G1	for hollow screw	i1	L2	H	D1	d4	D4	Weight in [g]	Type	Order number	Price	
G 1/4	G 1/4	9	26	14.5	16.5	13.4	18	27.5	322M-1/4-1/4	254382	o. r.	

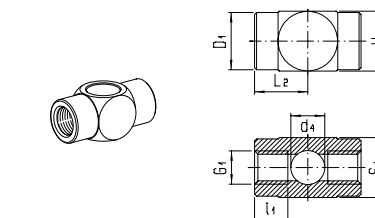
Illustration



T-Banjo Ring Piece

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread							Nickel-plated brass	
G1	for hollow screw	i1	L2	H	D1	d4	S4	Weight in [g]	Type	Order number	Price	
M 5	M5	5	8	9	8.8	5.1	9	6	326M-M5S-M5	254421	o. r.	
G 1/8	G1/8 M10	7	15	14	13.5	10.1	14	22.1	326M-1/8S-1/8	254431	o. r.	

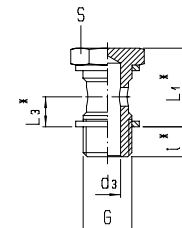
Illustration



Banjo Bolt - Short

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread								Nickel-plated brass
G	Sealing rings	i*	L1*	L3*	d3	S	Weight in [g]	Type	Order number	Price		
M 5	Polyamide	4.5	13.5	5	2	8	3.1	163M-11-M5N	304002	o. r.		
M 10x1	Aluminium	6.5	20.5	8	5	13	12.8	163M-11-M10x1A	304005	o. r.		
M 10x1	Polyamide	6.5	20.5	8	5	13	12.6	163M-11-M10x1N	304006	o. r.		
G 1/8	Aluminium	6	20.5	8	5	14	13.1	163M-11-1/8A	304025	o. r.		
G 1/8	Polyamide	6	20.5	8	5	14	12.8	163M-11-1/8N	304026	o. r.		
G 1/4	Aluminium	8	21	8	7	17	23.9	163M-11-1/4A	304029	o. r.		
G 1/4	Polyamide	8	21	8	7	17	23.5	163M-11-1/4N	304030	o. r.		
G 3/8	Aluminium	9	22	8.5	9.5	19	35.8	163M-11-3/8A	304033	o. r.		
G 3/8	Polyamide	9	22	8.5	9.5	19	35.3	163M-11-3/8N	304034	o. r.		
G 1/2	Aluminium	9.5	22	8.5	12	27	65.1	163M-11-1/2A	304037	o. r.		
G 1/2	Polyamide	9.5	22	8.5	12	27	64.8	163M-11-1/2N	304038	o. r.		

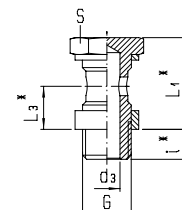
Illustration



Banjo Bolt - Long

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread							Nickel-plated brass
G	Sealing rings	i*	L1*	L3*	d3	S	Weight in [g]	Type	Order number	Price	
G 1/8	Polyamide	6.5	24	11.5	5	14	14.8	163M-15-1/8N	304226	o. r.	
G 1/4	Polyamide	8	24.5	11.5	7	17	26.9	163M-15-1/4N	304230	o. r.	
G 3/8	Polyamide	9	25.5	12	9.5	19	40.6	163M-15-3/8N	304234	o. r.	
G 1/2	Polyamide	10	25.5	12	12	27	72.3	163M-15-1/2N	304238	o. r.	

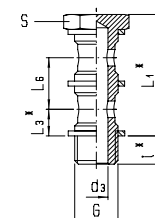
Illustration



Banjo Bolt - Double Stacking - Short

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Nickel-plated brass						
G	Sealing rings	i*	L1*	L3*	L6	d3	S	Weight in [g]	Type	Order number	Price
G 1/8	Aluminium	6.5	36	8	15.5	5	14	18.3	163M-21-1/8A	304425	o. r.
G 1/8	Polyamide	6.5	36	8	15.5	5	14	17.8	163M-21-1/8N	304426	o. r.
G 1/4	Aluminium	8.5	36.5	8	15.5	7	17	33.6	163M-21-1/4A	304429	o. r.
G 1/4	Polyamide	8.5	36.5	8	15.5	7	17	33.1	163M-21-1/4N	304430	o. r.
G 3/8	Aluminium	8.5	37.5	8.5	15.5	9.5	19	49.1	163M-21-3/8A	304433	o. r.
G 3/8	Polyamide	8.5	37.5	8.5	15.5	9.5	19	48.3	163M-21-3/8N	304434	o. r.
G 1/2	Aluminium	9.5	37.5	8.5	15.5	12	27	85.8	163M-21-1/2A	304437	o. r.
G 1/2	Polyamide	9.5	37.5	8.5	15.5	12	27	85.3	163M-21-1/2N	304438	o. r.

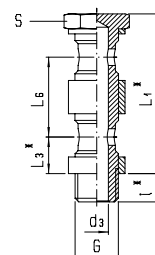
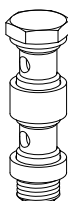
Illustration



Banjo Bolt - Double Stacking - Long

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	Nickel-plated brass						
G	Sealing rings	i*	L1*	L3*	L6	d3	S	Weight in [g]	Type	Order number	Price
G 1/8	Polyamide	6.5	47	10.5	24	5	14	23.7	163M-25-1/8N	304626	o. r.
G 1/4	Polyamide	8.5	48	11	24	7	17	43.9	163M-25-1/4N	304630	o. r.
G 3/8	Polyamide	8.5	49.5	12	24	9.5	19	64.7	163M-25-3/8N	304634	o. r.
G 1/2	Polyamide	9.5	49.5	12	24	12	27	112.1	163M-25-1/2N	304638	o. r.

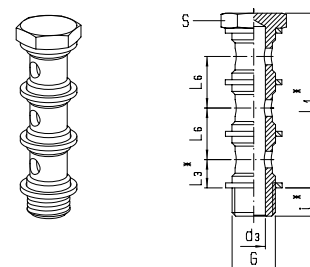
Illustration



Banjo Bolt - Triple Stacking - Short

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread								Nickel-plated brass
G	Sealing rings	i*	L1*	L3*	L6	d3	S	Weight in [g]	Type	Order number	Price	
G 1/8	Aluminium	6.5	51	7.5	15.5	5	14	23.2	163M-31-1/8A	304825	o. r.	
G 1/8	Polyamide	6.5	51	7.5	15.5	5	14	22.6	163M-31-1/8N	304826	o. r.	
G 1/4	Aluminium	8.5	51.5	7.5	15.5	7	17	43	163M-31-1/4A	304829	o. r.	
G 1/4	Polyamide	8.5	51.5	7.5	15.5	7	17	42.3	163M-31-1/4N	304830	o. r.	
G 3/8	Aluminium	8.5	53.5	9	15.5	9.5	19	62.9	163M-31-3/8A	304833	o. r.	
G 3/8	Polyamide	8.5	53.5	9	15.5	9.5	19	61.8	163M-31-3/8N	304834	o. r.	
G 1/2	Aluminium	9.5	53.5	9	15.5	12	27	109.7	163M-31-1/2A	304837	o. r.	
G 1/2	Polyamide	9.5	53.5	9	15.5	12	27	108.9	163M-31-1/2N	304838	o. r.	

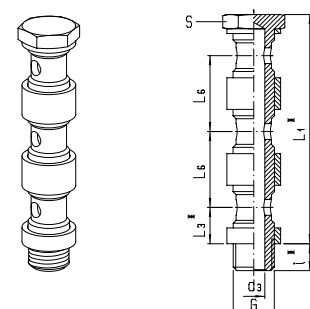
Illustration



Banjo Bolt - Triple Stacking - Long

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread								Nickel-plated brass	
G	Sealing rings	i*	L1*	L3*	L6	d3	S	Weight in [g]	Type	Order number	Price		
G 1/8	Polyamide	6.5	71.5	11	24	5	14	32.3	163M-35-1/8N	305026	o. r.		
G 1/4	Polyamide	8	72	11	24	7	17	59.8	163M-35-1/4N	305030	o. r.		
G 3/8	Polyamide	8.5	74	12.5	24	9.5	19	88.4	163M-35-3/8N	305034	o. r.		
G 1/2	Polyamide	9.5	74	12.5	24	12	27	153	163M-35-1/2N	305038	o. r.		

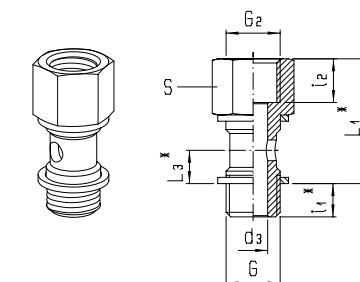
Illustration



Banjo Bolt with Top Port - Short

Product group	16	PN 16	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread	* = approximate for fastened fitting with ring pieces					Nickel-plated brass	
G	Sealing rings	i1	i2	L1	L3	d3	S	Weight in [g]	Type	Order number	Price
G 1/8	Aluminium	6.5	8	27	8	5	14	17.3	164M-11-1/8A	305225	o. r.
G 1/8	Polyamide	6.5	8	27	8	5	14	17	164M-11-1/8N	305226	o. r.
G 1/4	Aluminium	8	10.5	30	8	7	17	30.8	164M-11-1/4A	305229	o. r.
G 1/4	Polyamide	8	10.5	30	8	7	17	30.5	164M-11-1/4N	305230	o. r.

Illustration



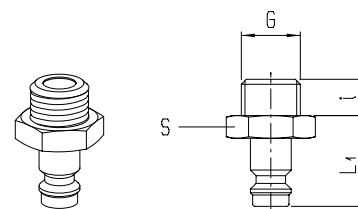
Quick Release Coupling Plug with Male Thread - NG 5 and NG 8

Product group **17** PN 16 $T_{min} -20\text{ °C}$
 $T_{max} +80\text{ °C}$

Nickel-plated brass

Nominal size	G	i	L1	S	Type	Order number	Price
5	G 1/8	6	19.5	13	515M-1/8	258009	o. r.
5	G 1/4	8	20	17	515M-1/4	258010	o. r.
8	G 1/4	8	25	17	518M-1/4	258018	o. r.
8	G 3/8	9	25	19	518M-3/8	258019	o. r.
8	G 1/2	10	25.5	24**	518M-1/2	258020	o. r.

Illustration



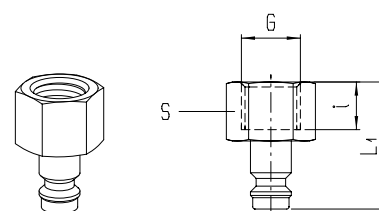
Quick Release Coupling Plug with Female Thread - NG 5 and NG 8

Product group **17** PN 16 $T_{min} -20\text{ °C}$
 $T_{max} +80\text{ °C}$

Nickel-plated brass

Nominal size	G	i	L1	S	Type	Order number	Price
5	G 1/8	8	25	13	535M-1/8	258209	o. r.
5	G 1/4	10.5	27	17	535M-1/4	258210	o. r.
8	G 1/4	10.5	33	17	538M-1/4	258218	o. r.
8	G 3/8	11.5	34	19	538M-3/8	258219	o. r.
8	G 1/2	15	38	24**	538M-1/2	258220	o. r.

Illustration



Quick Release Coupling Plug with Hosetail - NG 5 and NG 8

Product group **17** PN 16 $T_{min} -20\text{ °C}$
 $T_{max} +80\text{ °C}$

Nickel-plated brass

Nominal size	for tube LW	L1	Type	Order number	Price
5	4 - 5	33.5	565M-6	258406	o. r.
5	7 - 8	33.5	565M-9	258409	o. r.
8	4 - 5	39.5	568M-6	258411	o. r.
8	7 - 8	39.5	568M-9	258414	o. r.
8	10 - 11	39.5	568M-12	258417	o. r.
8	12 - 13	39.5	568M-14	258418	o. r.

Illustration



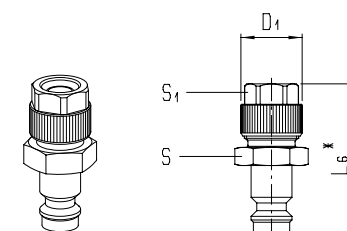
Quick Release Coupling Plug with Push-on Connector - NG 5 and NG 8

Product group **17** PN 16 $T_{min} -20\text{ °C}$
 $T_{max} +80\text{ °C}$

Nickel-plated brass

Nominal size	for tube D/d	L6*	D1	S1	S	Type	Order number	Price
5	6/4	33	11.5	10	12	545M-6/4	358608	o. r.
5	8/6	33	13.5	12	14	545M-8/6	358609	o. r.
8	8/6	39	13.5	12	14	548M-8/6	358615	o. r.
8	10/8	40.5	15.5	13	14	548M-10/8	358616	o. r.

Illustration



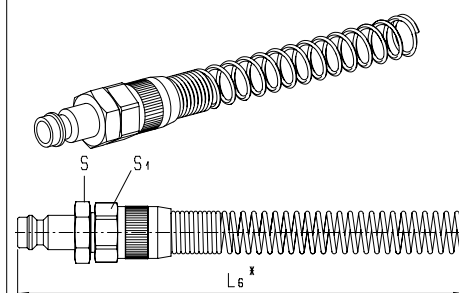
Quick Release Coupling Plug with Push-on Connector and Anti-kink Protection - NG 5 and NG 8

Product group **17** PN 16 $T_{min} -20\text{ °C}$
 $T_{max} +80\text{ °C}$

Nickel-plated brass

Nominal size	for tube D/d	L6*	S1	S	Type	Order number	Price
5	6/4	118	12	12	585M-6/4	358908	o. r.
5	8/6	119	14	14	585M-8/6	358909	o. r.
8	8/6	125	14	14	588M-8/6	358915	o. r.
8	10/8	125	16	14	588M-10/8	358916	o. r.

Illustration

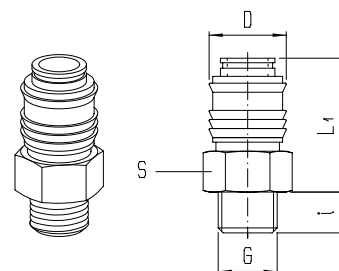


* Approximate dimension with the union nut pulled ** S24 octagon

Quick Release Coupling with Male Thread - NG 5 and NG 8

Product group	17	PN 16	T _{min} -20 °C T _{max} +80 °C	Seal: NBR	Nickel-plated brass			
Nominal size	G	i	L1	D	S	Type	Order number	Price
5	G 1/8	7	29.5	17	14	551M-1/8	359009	o. r.
5	G 1/4	9	29	17	17	551M-1/4	359010	o. r.
8	G 1/4	9	31	27	22	581M-1/4	359018	o. r.
8	G 3/8	10	31	27	22	581M-3/8	359019	o. r.
8	G 1/2	10	31	27	24**	581M-1/2	359020	o. r.

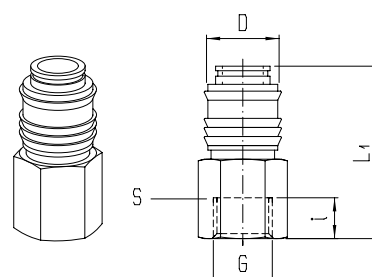
Illustration



Quick Release Coupling with Female Thread - NG 5 and NG 8

Product group	17	PN 16	T _{min} -20 °C T _{max} +80 °C	Seal: NBR	Nickel-plated brass			
Nominal size	G	i	L1	D	S	Type	Order number	Price
5	G 1/8	9	38	17	14	553M-1/8	359209	o. r.
5	G 1/4	9	38	17	17	553M-1/4	359210	o. r.
8	G 1/4	9	41	27	22	583M-1/4	359218	o. r.
8	G 3/8	9	41	27	22	583M-3/8	359219	o. r.
8	G 1/2	10	41	27	24**	583M-1/2	359220	o. r.

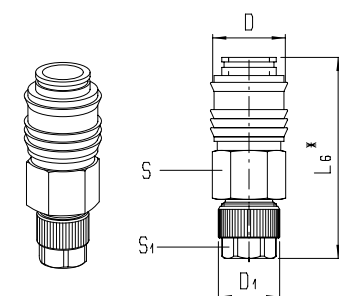
Illustration



Quick Release Coupling with Push-on Connector - NG 5

Product group	17	PN 16	T _{min} -20 °C T _{max} +80 °C	Seal: NBR						Nickel-plated brass
Nominal size	for tube D/d	L6*	D	D1	S1	S	Type	Order number	Price	
5	6/4	44.5	17	11.5	10	14	554M-6/4	359308	o. r.	
5	8/6	44.5	17	13.5	12	14	554M-8/6	359309	o. r.	

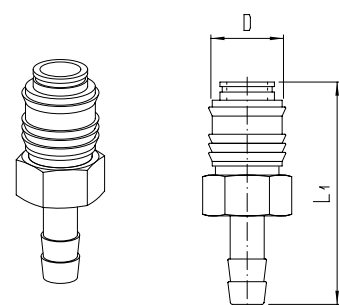
Illustration



Quick Release Coupling with Hosetail - NG 8

Product group	17	PN 16	T _{min} -20 °C T _{max} +80 °C	Seal: NBR	Nickel-plated brass		
Nominal size		for tube D/d	L1	D	Type	Order number	Price
8		4 - 5	55	27	586M-6	359511	o. r.
8		7 - 8	55	27	586M-9	359514	o. r.
8		12 - 13	55	27	586M-14	359518	o. r.

Illustration

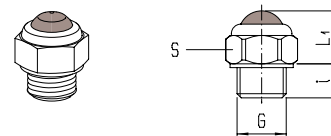


* Approximate for union nut ** S24 octagon

Silencer

Product group	19	PN 10	T _{min} -40 °C T _{max} +130 °C	Silencer insert wire mesh	Brass Nickel-plated brass		
G	i	L1	S	Type	Order number	Price	
G 1/8	6	8	13	290M-1/8	395028	o. r.	
G 1/4	8	10.5	16	290M-1/4-16	395032	o. r.	
G 3/8	8	11.5	19	290U-3/8	395035	o. r.	
G 1/2	9.5	12	24	290U-1/2	395037	o. r.	
G 3/4	10	15.5	30	290U-3/4	395039	o. r.	

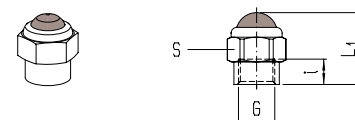
Illustration



Silencer

Product group	19	PN 10	T _{min} -40 °C T _{max} +130 °C	Silencer insert wire mesh	Brass		
G	i	L1	S	Type	Order number	Price	
G 1/8	6.5	13.5	13	291U-1/8	395128	o. r.	

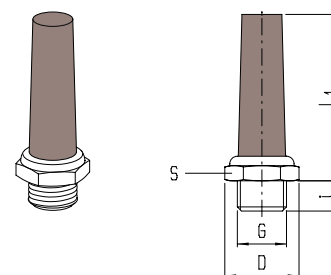
Illustration



Silencer

Product group	19	PN 10	T _{min} -40 °C T _{max} +130 °C	Silencer insert wire mesh	Brass		
G	i	L1	D	S	Type	Order number	Price
M5	4	20	9	8	293U-M5	395226	o. r.
G 1/8	6	36	15	13	293U-1/8	395228	o. r.
G 1/4	8	44	18.5	16	293U-1/4	395232	o. r.
G 3/8	8	47	22	19	293U-3/8	395235	o. r.
G 1/2	10	57	27.5	24	293U-1/2	395237	o. r.
G 3/4	10	57	34	30	293U-3/4	395239	o. r.
G 1	12	67	41.5	36	293U-1	395241	o. r.

Illustration



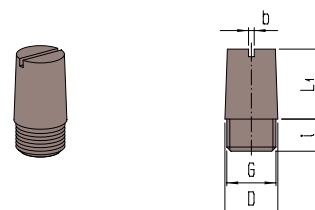
Silencer

Product group **19** PN 10 $T_{min} -40\text{ °C}$
 $T_{max} +130\text{ °C}$

Sinter metal

G	i	L1	D	b	Type	Order number	Price
G 1/8	5.5	15.5	11	1.5	294C-1/8	295003	o. r.
G 1/4	8.5	18.5	14	1.5	294C-1/4	295007	o. r.
G 3/8	11	25	18	2	294C-3/8	295010	o. r.
G 1/2	11	33	24	2	294C-1/2	295012	o. r.
G 3/4	12	53	29.5	2.5	294C-3/4	295014	o. r.
G 1	15	60	35.5	4	294C-1	295016	o. r.

Illustration



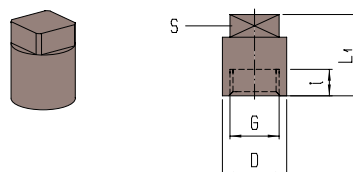
Silencer

Product group **19** PN 10 $T_{min} -40\text{ °C}$
 $T_{max} +130\text{ °C}$

Sinter metal

G	i	L1	D	S	Type	Order number	Price
G 1/8	5	13.5	13	9	295C-1/8	295053	o. r.

Illustration



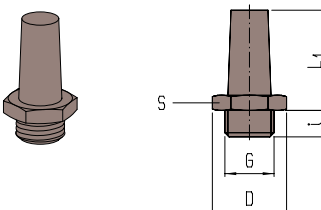
Silencer

Product group **19** PN 10 $T_{min} -40\text{ °C}$
 $T_{max} +130\text{ °C}$

Sinter metal

G	i	L1	D	S	Type	Order number	Price
G 1/8	5.5	22.5	14.5	13	298C-1/8	295103	o. r.
G 1/4	8	25	19	17	298C-1/4	295107	o. r.
G 3/8	10	26	24.5	22	298C-3/8	295110	o. r.
G 1/2	12	32	30	27	298C-1/2	295112	o. r.
G 3/4	15	40	35.5	32	298C-3/4	295114	o. r.
G 1	15	50	44.5	40	298C-1	295116	o. r.

Illustration



Silencer

Product group **19** PN 10 $T_{min} -40\text{ °C}$
 $T_{max} +130\text{ °C}$

Sinter metal

G	L1	D	S	Type	Order number	Price
G 1/8	20.5	14	10	299C-1/8	295153	o. r.
G 1/4	20.5	17	14	299C-1/4	295157	o. r.

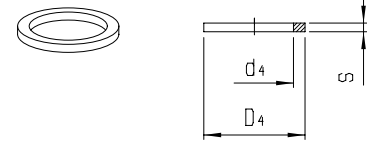
Illustration



Sealing Ring

Product group	16	Copper T _{max} +120 °C								Copper
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100	
G1/8 and M10	-	14	10.3	1	100	45.1	263C-1/8x1	252771	o. r.	
G 1/4	-	18	14	1	100	60.8	263C-1/4x1	252776	o. r.	
G 3/8	-	21	17	1	100	74.7	263C-3/8x1	252781	o. r.	
G 3/8	-	21	17	1.5	100	112.1	263C-3/8x1.5	252782	o. r.	
G 1/2	-	26	21.3	1	100	116.8	263C-1/2x1	252786	o. r.	
G 3/4	-	32	27.2	1	100	178.5	263C-3/4x1	252791	o. r.	

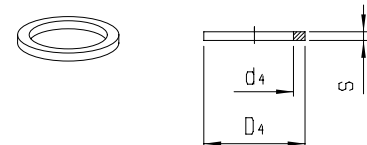
Illustration



Sealing Ring

Product group	16	Fibre T _{max} +90 °C								Fibre
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100	
G1/8 and M10	-	14	10	1.5	100	10.8	264V-1/8x1.5	252821	o. r.	
G 1/4	-	17.5	13.5	1.5	100	16.3	264V-1/4x1.5	252826	o. r.	
G 3/8	-	21	16.7	1.5	100	13.3	264V-3/8x1.5	252831	o. r.	
G 1/2	-	25	21.3	1.5	100	24.6	264V-1/2x1.5	252836	o. r.	

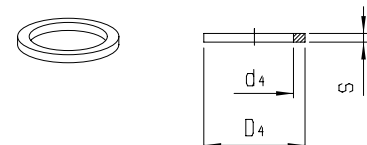
Illustration



Sealing Ring

Product group	16	Aluminium T _{max} +120 °C								Aluminium
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100	
M5	-	7.5	5.1	0.5	100	3.2	265A-M5x0.5	252851	o. r.	
M5	-	7.5	5.1	1	100	6.2	265A-M5x1	252852	o. r.	
M5	-	8	5.1	1.5	100	11.4	265A-M5x1.5	252853	o. r.	
G1/8 + M10	-	14	10.3	1.5	100	25	265A-1/8x1.5	252871	o. r.	
G 1/4	-	17	13.5	1.5	100	33	265A-1/4x1.5	252876	o. r.	
G 3/8	-	21	16.7	1.5	100	47	265A-3/8x1.5	252881	o. r.	
G 1/2	-	25	21.3	1.5	100	47	265A-1/2x1.5	252886	o. r.	
G 3/4	-	32	27.2	1.5	100	84	265A-3/4x1.5	252891	o. r.	

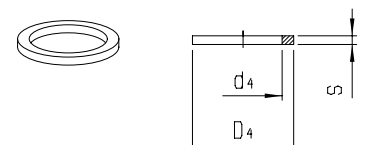
Illustration



Sealing Ring

Product group	16	Polyamide T _{max} +90 °C								Polyamide
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100	
M5	-	8	5.1	1	100	3.4	266N-M5x1	252902	o. r.	
M5	und detachable	8	4.8	1	100	3.7	266N-M5x1x4.8	252904	o. r.	
G1/8 + M10	-	14	10.3	1.5	100	11.4	266N-1/8x1.5	252921	o. r.	
G1/8 + M10	und detachable	14	10.3	1.5	100	12.1	266N-1/8x1.5x9	252922	o. r.	
G 1/4	-	17	13.5	1.5	100	14.5	266N-1/4x1.5	252926	o. r.	
G 1/4	und detachable	17	13.5	1.5	100	13.6	266N-1/4x1.5x12	252927	o. r.	
G 3/8	-	21	17	1.5	100	21.6	266N-3/8x1.5	252931	o. r.	
G 3/8	und detachable	21	17	1.5	100	19.6	266N-3/8x1.5x15	252932	o. r.	
G 1/2	-	26	21.5	1.5	100	26.9	266N-1/2x1.5	252936	o. r.	
G 1/2	und detachable	26	21.5	1.5	100	28.7	266N-1/2x1.5x19	252937	o. r.	

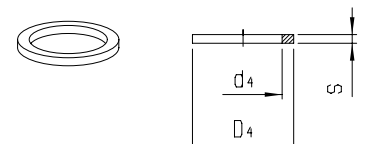
Illustration



Sealing Ring

Product group	16	Hard PVC T _{max} +70 °C								Hard PVC
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100	
M5	-	8	5.1	1	100	41.1	269N-M5x1	252952	o. r.	
M5	und detachable	8	4.8	1	100	4	269N-M5x1x4.8	252954	o. r.	
G1/8 + M10	-	14	10	1.5	100	13.2	269N-1/8x1.5	252971	o. r.	
G 1/4	-	17.5	13.5	1.5	100	18.3	269N-1/4x1.5	252976	o. r.	
G 3/8	-	21	16.7	1.5	100	28.5	269N-3/8x1.5	252981	o. r.	
G 1/2	-	26	21.3	1.5	100	35.6	269N-1/2x1.5	252986	o. r.	

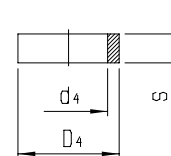
Illustration



Distance Ring

Product group	16	Polyamide T _{max} +90 °C	Polyamide						
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price / 100
G1/8 + M10	und detachable	13.8	10.3	4		32	266N-1/8x4x9	252906	o. r.
G1/8 + M10	und detachable	13.8	10.3	5		36	266N-1/8x5x9	252923	o. r.
G1/4	und detachable	17	13.5	5		43	266N-1/4x5x12	252928	o. r.
G3/8	und detachable	21	17	5		64	266N-3/8x5x15	252933	o. r.
G 1/2	und detachable	26	21.5	5		93	266N-1/2x5x19	252938	o. r.

Illustration



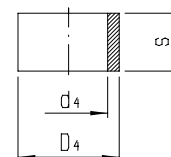
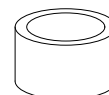
Home



Distance Ring

Product group	16	Polyamide T _{max} +90 °C	Polyamide						
for thread	special feature	D4	d4	s	Pack unit	Weight in [g/100]	Type	Order number	Price
G 1/8 + M10	-	13.8	10.3	10		74	266N-1/8x10	252925	o. r.
G 1/4	-	17	13.5	10		80	266N-1/4x10	252930	o. r.
G 3/8	-	21	17	10		125	266N-3/8x10	252935	o. r.
G 1/2	-	26	21.5	10		179	266N-1/2x10	252940	o. r.

Illustration



Pressure Gauge Sealing Ring

Product group	16	Copper T _{max} +120 °C	Copper			
for inner thread	special feature	Pack unit	Weight in [g/100]	Type	Order number	Price
G 1/8	-		60.8	275C-1/8	252991	o. r.
G 1/4	-		86.5	275C-1/4	252992	o. r.

Illustration

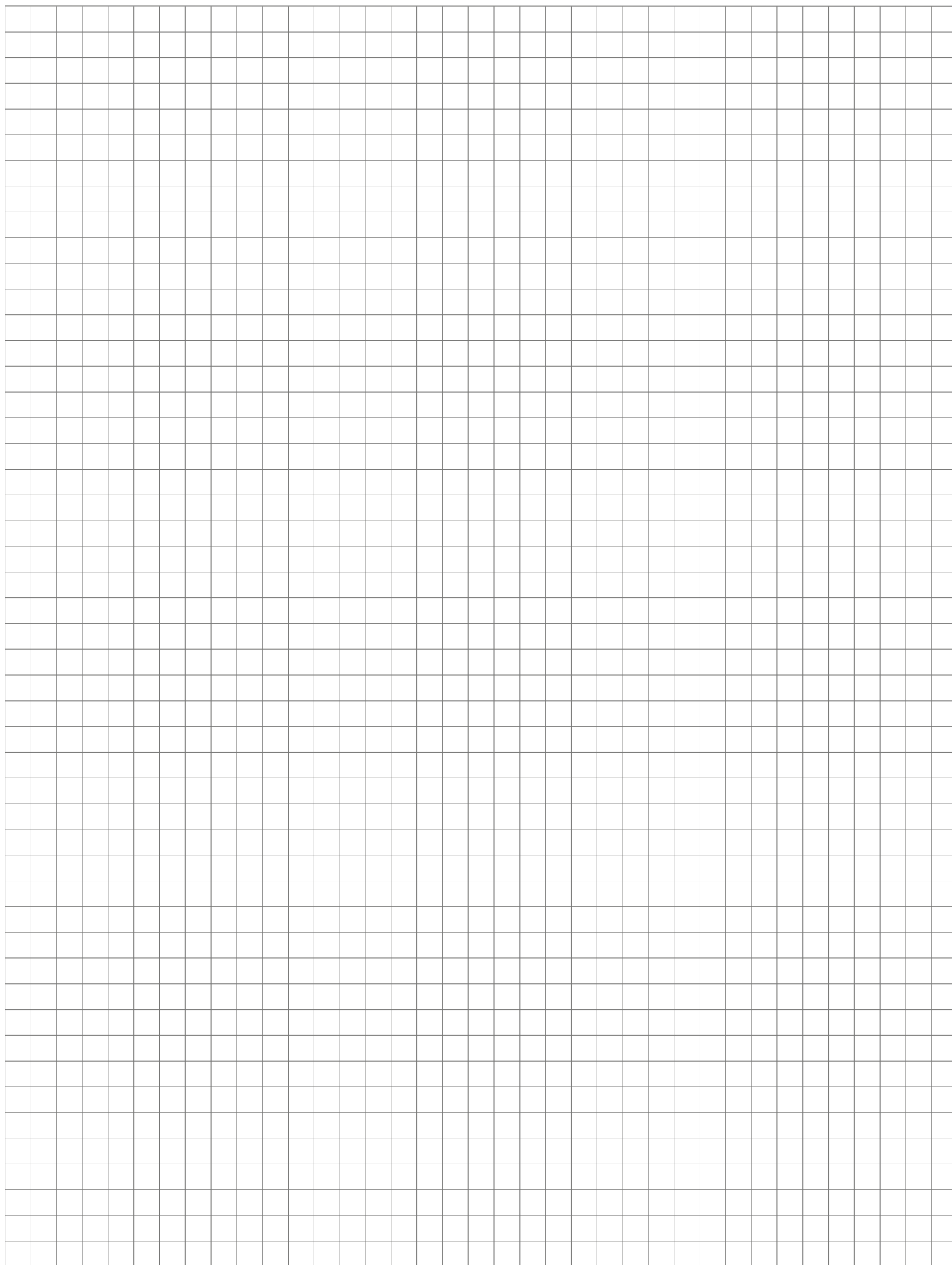


PTFE Band

Product group		18		PTFE		
Length [m]	Width [mm]	Thickness [mm]	Type	Order number	Price	
12	12	0.08	420P-12-12	296401	o. r.	

Illustration





Fitting Accessories Stainless Steel AISI 316L (1.4404)



Home



Stainless steel version

Operating pressure Technical vacuum up to maximum pressure as stated in the respective specification table under PN.

Temperature range: -40 °C to +140 °C (for restrictions see specification table)

Application

Fitting accessories made of stainless steel 1.4404 are used in particular for aggressive gaseous and liquid media under harsh operating conditions. These connectors are equipped with FDA-compliant FKM sealing rings, on request they are available with FDA-compliant and KTW-approved EPDM sealing rings.

CHARACTERISTICS

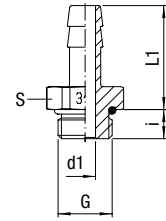
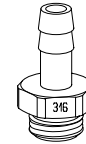
BODY MATERIAL / SUITABILITY

Stainless steel AISI 316L	Corresponds to 1.4404 stainless steel . Suitable for many aggressive media, in particular at higher pressures. The FKM seal is FDA-compliant and can be used in the food and pharmaceutical industries.		
Approval	NSF/ANSI 169		
THREAD			
External thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8-G 1/2		
External thread	“R” conical thread: Whitworth pipe thread DIN 2999-1 and ISO 7/1 R 1/8 up to R 1/2. Designed so it can be paired with internal thread according to DIN ISO 228-1.		
Internal thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/2		
OPERATING PRESSURE / TEMPERATURE			
Metal version	PN 50	T _{min} -40 °C T _{max} +140 °C	Means that the fitting can be used up to the shown nominal pressure PN in the specified temperature range “T”.
Allowable operating pressure and operating temperature of pipe/tube must be complied with.			
THREAD SEAL			
Cylindrical threaded nipple	Seal with FKM sealing rings (FDA-compliant)		
Conical threaded nipple	Seal with Teflon tape winding (FDA-compliant) on request		

Hose Tail Adaptor

Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C	Thread cylindrical	Seal FKM (FDA-compliant)						Stainless steel AISI 316L
for tube LW	G		i	L1	d1	S	Weight in [g]	Type	Order number	Price	
3,5-4	M 5		3.5	12.5	-	-	2,5	260X4-4-M5FF	356553	o. r.	
5-6	G 1/8		5	24	4	13	10	260X4-7-1/8FF	356561	o. r.	
5-6	G 1/4		7	24.5	4	17	34.7	260X4-7-1/4FF	356562	o. r.	
6-7	G 1/8		5	24	5	13	18.7	260X4-8-1/8FF	356563	o. r.	
6-7	G 1/4		7	24.5	5	17	34.7	260X4-8-1/4FF	356564	o. r.	
7-8	G 1/8		5	24	6	13	18.7	260X4-9-1/8FF	356565	o. r.	
7-8	G 1/4		7	24.5	6	17	34.7	260X4-9-1/4FF	356566	o. r.	
7-8	G 3/8		8	24.5	6	19	44.9	260X4-9-3/8FF	356567	o. r.	
9-10	G 1/4		7	24.5	7	17	34.7	260X4-10-1/4FF	356568	o. r.	
10-11	G 1/4		7	24.5	8	17	20	260X4-12-1/4FF	356570	o. r.	
10-11	G 3/8		8	24.5	9	19	44.9	260X4-12-3/8FF	356571	o. r.	
10-11	G 1/2		9	25	9	24	74.4	260X4-12-1/2FF	356572	o. r.	
12-13	G 1/4		7	24.5	8	17	26	260X4-14-1/4FF	356573	o. r.	
12-13	G 3/8		8	24.5	11	19	44.9	260X4-14-3/8FF	356574	o. r.	
12-13	G 1/2		9	25	11	24	74.4	260X4-14-1/2FF	356575	o. r.	
15-16	G 3/8		8	29	11	19	50.4	260X4-17-3/8FF	356576	o. r.	
15-16	G 1/2		9	29.5	14	24	84	260X4-17-1/2FF	356577	o. r.	
18-19	G 1/2		9	29.5	15	24	53	260X4-20-1/2FF	356578	o. r.	

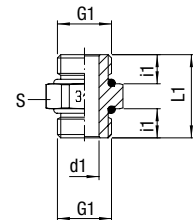
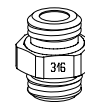
Illustration



Double Nipple

Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C	Thread cylindrical	Seal FKM (FDA-compliant)	 Stainless steel AISI 316L		
G1	i1	L1	d1	S	Weight in [g]	Type	Order number	Price
G 1/8	5	15.5	6	13	10.7	250X4-1/8FF	356603	o. r.
G 1/4	7	20	8	17	23	250X4-1/4FF	356604	o. r.
G 3/8	8	22	11	19	31.2	250X4-3/8FF	356605	o. r.
G 1/2	9	24.5	14	24	55	250X4-1/2FF	356606	o. r.

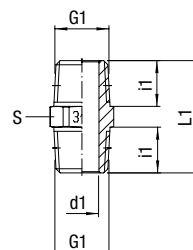
Illustration



Double Nipple

Product group	13	PN 50	T _{min} -40 °C T _{max} +140 °C	Thread conical					Stainless steel AISI 316L
G1	i1	L1	d1	S	Weight in [g]	Type	Order number	Price	
R 1/8	7.5	19.5	5.5	10	7	250X4-1/8K	256621	o. r.	
R 1/4	11	27	8	14	15.8	250X4-1/4K	256622	o. r.	
R 3/8	11.5	28	11	17	31	250X4-3/8K	256623	o. r.	
R 1/2	14	33.5	15	22	61.7	250X4-1/2K	256624	o. r.	

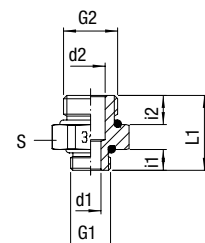
Illustration



Double Reducing Nipple

Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C		Thread cylindrical	Seal FKM (FDA-compliant)				Stainless steel AISI 316L	
G1	G2	i1	i2	L1	d1	d2	S	Weight in [g]	Type	Order number	Price
G 1/8	G 1/4	5	7	18	6	8	17	20.9	251X4-1/8-1/4FF	356652	o. r.
G 1/8	G 3/8	5	8	19	6	11	19	27.5	251X4-1/8-3/8FF	356653	o. r.
G 1/8	G 1/2	5	9	20.5	6	14	24	46.7	251X4-1/8-1/2FF	356654	o. r.
G 1/4	G 3/8	7	8	21	8	11	19	29.9	251X4-1/4-3/8FF	356655	o. r.
G 1/4	G 1/2	7	9	22.5	8	14	24	50.7	251X4-1/4-1/2FF	356656	o. r.
G 3/8	G 1/2	8	9	23.5	11	14	24	53	251X4-3/8-1/2FF	356657	o. r.

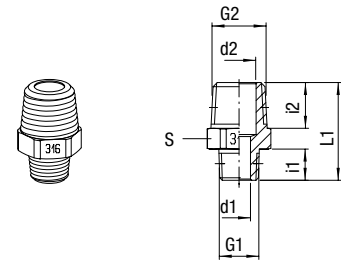
Illustration



Double Reducing Nipple

Product group	13	PN 50	T _{min} -40 °C T _{max} +140 °C	Thread "R" conical								Stainless steel AISI 316L	
G1	G2	i1	i2	L1	d1	d2	S	Weight in [g]	Type	Order number	Price		
R 1/8	R 1/4	7.5	11	23.5	5.5	8	14	13.2	251X4-1/8K-1/4K	256671	o. r.		
R 1/8	R 3/8	7.5	11.5	24	5.5	11	17	19.1	251X4-1/8K-3/8K	256672	o. r.		
R 1/8	R 1/2	7.5	14	27	5.5	15	22	50.4	251X4-1/8K-1/2K	256673	o. r.		
R 1/4	R 3/8	11	11.5	27.5	8	11	17	21.3	251X4-1/4K-3/8K	256674	o. r.		
R 1/4	R 1/2	11	14	30.5	8	15	22	56.7	251X4-1/4K-1/2K	256675	o. r.		
R 3/8	R 1/2	11.5	14	31	11	15	22	57.4	251X4-3/8K-1/2K	256676	o. r.		

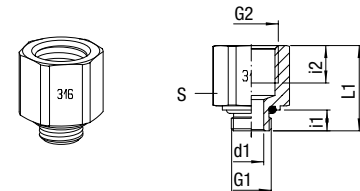
Illustration



Reducer

Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C	Thread “G” cylindrical	Seal FKM (FDA-compliant)					Stainless steel AISI 316L
G1	G2	i1	i2	L1	d1	S	Weight in [g]	Type	Order number	Price
G 1/8	G 1/8	5	6.5	17	6	13	8.9	252X4-1/8FF-1/8	356703	o. r.
G 1/8	G 1/4	5	9	20.5	6	17	23.4	252X4-1/8FF-1/4	356704	o. r.
G 1/8	G 3/8	5	9.5	21.5	6	19	18	252X4-1/8FF-3/8	356705	o. r.
G 1/8	G 1/2	5	12.5	26.5	6	24	58.8	252X4-1/8FF-1/2	356706	o. r.
G 1/4	G 1/4	7	9	21.5	8	17	45.6	252X4-1/4FF-1/4	356707	o. r.
G 1/4	G 3/8	7	9.5	23	8	19	32.6	252X4-1/4FF-3/8	356708	o. r.
G 1/4	G 1/2	7	12.5	27.5	8	24	61.3	252X4-1/4FF-1/2	356709	o. r.
G 3/8	G 3/8	8	9.5	23	11	19	32.3	252X4-3/8FF-3/8	356710	o. r.
G 3/8	G 1/2	8	12.5	28	11	24	61.9	252X4-3/8FF-1/2	356711	o. r.
G 1/2	G 1/2	9	12.5	28.5	14	24	63.2	252X4-1/2FF-1/2	356712	o. r.

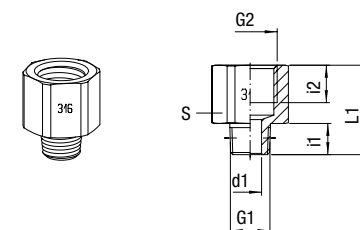
Illustration



Reducer

Product group	13	PN 50	T _{min} -40 °C T _{max} +140 °C	Thread “R” conical, Thread “G” cylindrical					Stainless steel AISI 316L	
G1	G2	i1	i2	L1	d1	S	Weight in [g]	Type	Order number	Price
R 1/8	G 1/8	7.5	6.5	18	5.5	13	9.2	252X4-1/8K-1/8	256751	o. r.
R 1/8	G 1/4	7.5	9	21.5	5.5	17	17.4	252X4-1/8K-1/4	256752	o. r.
R 1/8	G 3/8	7.5	9.5	23	5.5	19	18.7	252X4-1/8K-3/8	256753	o. r.
R 1/8	G 1/2	7.5	12.5	27.5	5.5	24	61.3	252X4-1/8K-1/2	256754	o. r.
R 1/4	G 1/4	11	9	25	8	17	20.4	252X4-1/4K-1/4	256755	o. r.
R 1/4	G 3/8	11	9.5	26	8	19	20.2	252X4-1/4K-3/8	256756	o. r.
R 1/4	G 1/2	11	12.5	30.5	8	24	67.6	252X4-1/4K-1/2	256757	o. r.
R 3/8	G 3/8	11.5	9.5	26.5	11	19	23.4	252X4-3/8K-3/8	256758	o. r.
R 3/8	G 1/2	11.5	12.5	31	11	24	68.4	252X4-3/8K-1/2	256759	o. r.
R 1/2	G 1/2	14	12.5	33.5	15	24	73.5	252X4-1/2K-1/2	256760	o. r.

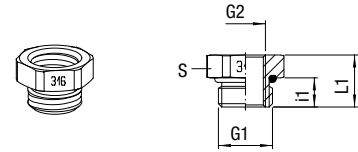
Illustration



Reducer

Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C	Thread cylindrical	Seal FKM (FDA-compliant)			Stainless steel AISI 316L	
G1	G2	i1	L1	S	Weight in [g]	Type	Order number	Price	
G 1/4	G 1/8	7	12.5	17	15.3	253X4-1/4FF-1/8	356802	o. r.	
G 3/8	G 1/8	8	13.5	19	20.3	253X4-3/8FF-1/8	356803	o. r.	
G 1/2	G 1/8	9	15.5	24	36.5	253X4-1/2FF-1/8	356804	o. r.	
G 3/8	G 1/4	8	13.5	19	20.3	253X4-3/8FF-1/4	356805	o. r.	
G 1/2	G 1/4	9	15.5	24	30.1	253X4-1/2FF-1/4	356806	o. r.	
G 1/2	G 3/8	9	15.5	24	36.5	253X4-1/2FF-3/8	356807	o. r.	

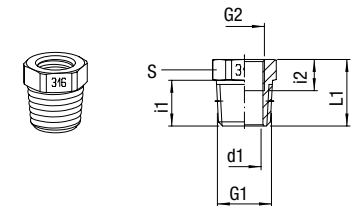
Illustration



Reducer

Product group	13	PN	50	T _{min}	-40 °C	T _{max}	+140 °C	Thread "R" conical, Thread "G" cylindrical	NSF	Stainless steel AISI 316L
G1	G2	i1	i2	L1	d1	S	Weight in [g]	Type	Order number	Price
R 1/4	G 1/8	11	7.5	16	9	14	8.6	253X4-1/4K-1/8	256852	o. r.
R 3/8	G 1/8	11.5	7.5	16.5	9	17	18.4	253X4-3/8K-1/8	256853	o. r.
R 1/2	G 1/8	14	7.5	19.5	9	22	37.7	253X4-1/2K-1/8	256854	o. r.
R 3/8	G 1/4	11.5	9	16.5	9	17	13.4	253X4-3/8K-1/4	256855	o. r.
R 1/2	G 1/4	14	11.5	19.5	12	22	37.7	253X4-1/2K-1/4	256856	o. r.
R 1/2	G 3/8	14	11.5	19.5	15.5	22	37.7	253X4-1/2K-3/8	256857	o. r.

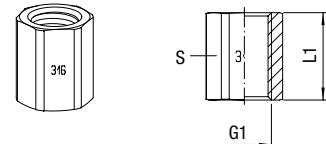
Illustration



Socket

Product group	13	PN	50	T _{min}	-40 °C	T _{max}	+140 °C	Thread	cylindrical	NSF	Stainless steel AISI 316L
G1	L1	S	Weight in [g]	Type	Order number	Price					
G 1/8	15	13	8.9	254X4-1/8	256902	o. r.					
G 1/4	21	17	20.4	254X4-1/4	256903	o. r.					
G 3/8	23	19	32.6	254X4-3/8	256904	o. r.					
G 1/2	30	24	66.1	254X4-1/2	256905	o. r.					

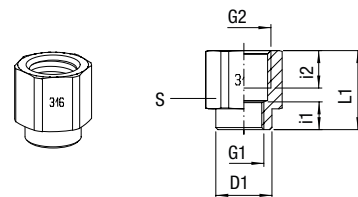
Illustration



Reducing Socket

Product group	13	PN 50	T_{min}	-40 °C	Thread cylindrical							Stainless steel AISI 316L
			T_{max}	+140 °C								
G1	G2	i1	i2	L1	D1	S	Weight in [g]	Type	Order number	Price		
G 1/8	G 1/4	7	9	19	13.5	17	22	255X4-1/8-1/4	256922	o. r.		
G 1/8	G 3/8	7	9.5	20.5	13.5	19	29.2	255X4-1/8-3/8	256923	o. r.		
G 1/8	G 1/2	7	12.5	25	13.5	24	56	255X4-1/8-1/2	256924	o. r.		
G 1/4	G 3/8	9	9.5	22	17	19	31.2	255X4-1/4-3/8	256925	o. r.		
G 1/4	G 1/2	9	12.5	27	17	24	60	255X4-1/4-1/2	256926	o. r.		
G 3/8	G 1/2	9.5	12.5	27	21	24	60	255X4-3/8-1/2	256927	o. r.		

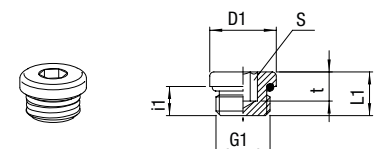
Illustration



Blind Plug

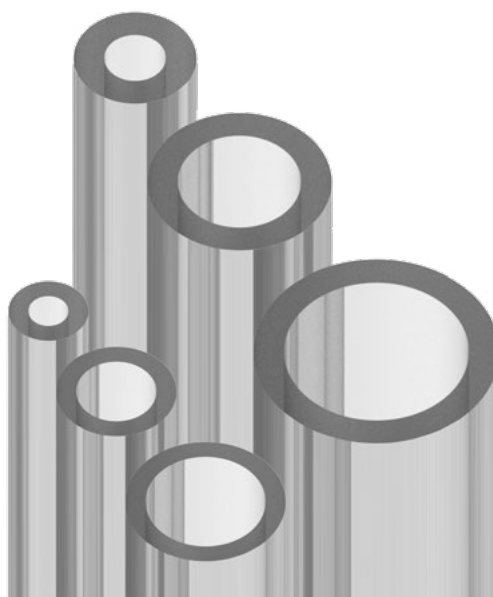
Product group	13	PN 25	T _{min} -20 °C T _{max} +140 °C	Thread cylindrical	Seal FKM (FDA-compliant)				Stainless steel AISI 316L	
G1	i1	L1	D1	t	S	Weight in [g]	Type	Order number	Price	
G 1/8	5	8	13	4	5	4.6	262X4-1/8FF	356522	o. r.	
G 1/4	7	10.5	16	5.5	6	9.2	262X4-1/4FF	356526	o. r.	
G 3/8	8	11.5	20	6	8	16.2	262X4-3/8FF	356529	o. r.	
G 1/2	9	13	25	6	10	29	262X4-1/2FF	356532	o. r.	

Illustration



Tubes

Home



CHARACTERISTICS

MATERIAL / SUITABILITY

Polyamid PA12-PHL	Polyamide 12w (PA) is marked by high robustness and comparatively good chemical resistance and is well suited for damp environments. The thermoplastic absorbs little water.
Polyethylen LD-PE	Polyethylene LD (PE-LD) is marked by high chemical resistance, good electrical insulation capabilities and good gliding behaviour.
Polyurethan PUR	Polyurethane (PU) is marked by special flexibility and has very good cold flexibility and recovery properties. It is resistant to aliphatic hydrocarbons, most lubricants and age-resistant in oxygen.
Polyvinylchlorid PVC Gewebe	PVC fabric tubes for air, gases, water and a great number of liquids. The tube is used as a compressed air tube in industry and as conveying hose in the chemical industry.
Fluorethylenpropylen FEP	Fluoroethylenpropylene (FEP) is mainly used for transparent tube materials. They have poreless, anti-adhesive interior walls and can be put through all usual sterilisation procedures. Since FEP in addition meets FDA requirements, the synthetic material is permitted for use in all areas of the food and pharma industries as well as medical technology.
Perfluoralkoxy- Copolymer PFA	Perfluoroalkoxy-copolymer (PFA) has low resistance and hardness. It is resistant to nearly all chemicals, has a very high resistance to temperature and is flame-resistant. PFA has a low friction co-efficient and is suitable for food.

TUBE

Outside diameter D [mm] / Inside diameter d [mm]	4/2 4/2.5 4.3/3 5/3 6/4 6.2/4 8/6 8.2/6 10/8 10.2/8 11.6/9 12/9 12/10 12.5/10 14/11 15/12.5 16/13 17.6/13 22/18
Permitted Ø tolerance	see relevant table
Permitted wall thickness tolerance (s)	

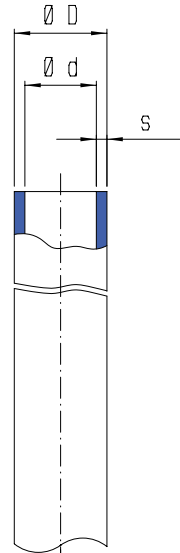
OPERATING PRESSURE / TEMPERATURE

All versions	Maximum operating pressure in bar at temperature	Displays the permitted operating pressure in bar at specified temperature.
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Polyamide Tube - Flexible

Product group	18	T _{min} -60 °C T _{max} +100 °C		Polyamide PA12-PHL									
		Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at temperature					Package Length [m]	Type	Order number	Price /100 m
Diameter D/d	ø D	Wall thickness s	20 °C		40 °C	60 °C	80 °C	100 °C					
4 / 2.5	±0.07	±0.1	20	31	22.5	17.5	14.5	11.0	50	PA-4/25-transp.	295501	o. r.	
4 / 2.5		±0.1	20	31	22.5	17.5	14.5	11.0	50	PA-4/25-blue	295502	o. r.	
4 / 2.5		±0.1	20	31	22.5	17.5	14.5	11.0	50	PA-4/25-black	295506	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-transp.	295521	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-blue	295522	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-red	295523	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-green	295524	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-yellow	295525	o. r.	
5 / 3		±0.1	25	34	25.0	19.0	15.5	12.0	50	PA-5/3-black	295526	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-transp.	295531	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-blue	295532	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-red	295533	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-green	295534	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-yellow	295535	o. r.	
6 / 4		±0.1	30	27	19.5	15.0	12.5	9.5	50	PA-6/4-black	295536	o. r.	
8 / 6	±0.1	±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-transp.	295541	o. r.	
8 / 6		±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-blue	295542	o. r.	
8 / 6		±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-red	295543	o. r.	
8 / 6		±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-green	295544	o. r.	
8 / 6		±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-yellow	295545	o. r.	
8 / 6		±0.1	40	19	14.0	10.5	8.5	6.5	50	PA-8/6-black	295546	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-transp.	295551	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-blue	295552	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-red	295553	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-green	295554	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-yellow	295555	o. r.	
10 / 8		±0.1	60	15	11.0	8.5	7.0	5.0	50	PA-10/8-black	295556	o. r.	
12 / 9		±0.15	60	19	14.0	10.5	8.5	6.5	50	PA-12/9-blue	295572	o. r.	
12 / 10		±0.1	85	12	8.5	6.5	5.5	4.0	50	PA-12/10-transp.	295581	o. r.	
12 / 10		±0.1	85	12	8.5	6.5	5.5	4.0	50	PA-12/10-blue	295582	o. r.	
14 / 11	±0.15	±0.15	80	16	11.5	9.0	7.5	5.5	50	PA-14/11-transp.	295587	o. r.	
14 / 11		±0.15	80	16	11.5	9.0	7.5	5.5	50	PA-14/11-blue	295588	o. r.	
14 / 11		±0.15	80	16	11.5	9.0	7.5	5.5	50	PA-14/11-black	295590	o. r.	
15 / 12.5		±0.15	90	13	9.5	7.0	6.0	4.5	50	PA-15/125-transp.	295591	o. r.	
16 / 13		±0.15	90	14	10.0	7.5	6.5	5.0	50	PA-16/13-transp.	295597	o. r.	
16 / 13		±0.15	90	14	10.0	7.5	6.5	5.0	50	PA-16/13-blue	295598	o. r.	
16 / 13	±0.15	±0.15	90	14	10.0	7.5	6.5	5.0	50	PA-16/13-black	295600	o. r.	
22 / 18		±0.20	150	13	9.5	7.0	6.0	4.5	50	PA-22/18-transp.	296211	o. r.	
22 / 18		±0.20	150	13	9.5	7.0	6.0	4.5	50	PA-22/18-blue	296212	o. r.	
22 / 18		±0.20	150	13	9.5	7.0	6.0	4.5	50	PA-22/18-black	296214	o. r.	

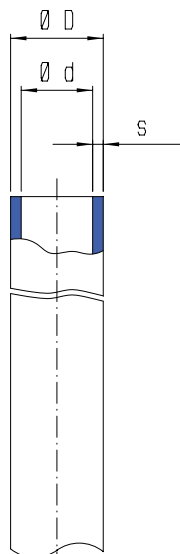
Illustration



Polyethylene Tube - Flexible - High Pressure

Product group	18	T _{min} -10 °C T _{max} +40 °C		Polyethylene LD-PE							
		Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at perature			Package Length [m]	Type	Order number	Price /100 m
Diameter D/d	ø D	Wall thickness s	20 °C		30 °C	40 °C					
5 / 3	±0.1	±0.1	25	15.0	12.0	10.5	50	PE-5/3-transp.	295621	o. r.	
5 / 3			25	15.0	12.0	10.5	50	PE-5/3-blue	295622	o. r.	
5 / 3			25	15.0	12.0	10.5	50	PE-5/3-red	295623	o. r.	
5 / 3			25	15.0	12.0	10.5	50	PE-5/3-green	295624	o. r.	
5 / 3			25	15.0	12.0	10.5	50	PE-5/3-yellow	295625	o. r.	
5 / 3			25	15.0	12.0	10.5	50	PE-5/3-black	295626	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-transp.	295631	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-blue	295632	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-red	295633	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-green	295634	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-yellow	295635	o. r.	
6 / 4			30	13.0	10.5	9.0	50	PE-6/4-black	295636	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-transp.	295641	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-blue	295642	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-red	295643	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-green	295644	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-yellow	295645	o. r.	
8 / 6			40	8.0	6.5	5.5	50	PE-8/6-black	295646	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-transp.	295651	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-blue	295652	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-red	295653	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-green	295654	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-yellow	295655	o. r.	
10 / 8			60	6.0	4.5	4.0	50	PE-10/8-black	295656	o. r.	

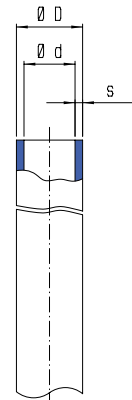
Illustration



Polyurethane Tube - Flexible

Product group		18		T _{min} -35 °C T _{max} +60 °C		Polyurethane PUR						
Diameter D/d	Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at temperature					Package Length [m]	Type	Order number	Price /100 m
	ø D	Wall thickness s		20 °C	30 °C	40 °C	50 °C	60 °C				
4 / 2.5	±0.1	±0.15	13	15	12.5	11.0	10.0	9.0	50	PU-4/25-transp.	295701	o. r.
4 / 2.5			13	15	12.5	11.0	10.0	9.0	50	PU-4/25-blue	295702	o. r.
4 / 2.5			13	15	12.5	11.0	10.0	9.0	50	PU-4/25-black	295706	o. r.
4.3 / 3			14	12	10.0	9.0	8.0	7.0	50	PU-43/3-transp.	295711	o. r.
4.3 / 3			14	12	10.0	9.0	8.0	7.0	50	PU-43/3-blue	295712	o. r.
4.3 / 3			14	12	10.0	9.0	8.0	7.0	50	PU-43/3-black	295716	o. r.
5 / 3			12	16	13.5	12.0	10.5	9.5	50	PU-5/3-transp.	295721	o. r.
5 / 3			12	16	13.5	12.0	10.5	9.5	50	PU-5/3-blue	295722	o. r.
5 / 3			12	16	13.5	12.0	10.5	9.5	50	PU-5/3-black	295726	o. r.
6 / 4			20	14	12.0	10.5	9.5	8.5	50	PU-6/4-transp.	295731	o. r.
6 / 4			20	14	12.0	10.5	9.5	8.5	50	PU-6/4-blue	295732	o. r.
6 / 4			20	14	12.0	10.5	9.5	8.5	50	PU-6/4-black	295736	o. r.
8 / 6			30	12	10.0	9.0	8.0	7.0	50	PU-8/6-transp.	295741	o. r.
8 / 6			30	12	10.0	9.0	8.0	7.0	50	PU-8/6-blue	295742	o. r.
8 / 6			30	12	10.0	9.0	8.0	7.0	50	PU-8/6-black	295746	o. r.
10 / 8			60	9	7.5	6.5	6.0	5.5	50	PU-10/8-transp.	295751	o. r.
10 / 8			60	9	7.5	6.5	6.0	5.5	50	PU-10/8-blue	295752	o. r.
10 / 8			60	9	7.5	6.5	6.0	5.5	50	PU-10/8-black	295756	o. r.

Illustration



PVC-Braid Tube - Flexible

Product group

18

T_{min}

-20 °C

T_{max}

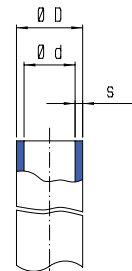
+60 °C

Polyvinylchloride
PVC-Braid

Due to the braid the tube shrinks by pressuration. Therefore it is recommended that up to 10 % excess length should be used.

Diameter D/d	Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at temperature					Package Length [m]	Type	Order number	Price /100 m
	ø D	Wall thickness s		20 °C	30 °C	40 °C	50 °C	60 °C				
6.2 / 4	±0.15	±0.1	50	40	37,0	33,0	28,0	21,0	50	PV-6/4-blue	295832	o. r.
8.2 / 6	±0.2	±0.1	60	38	35,0	31,5	26,5	19,0	50	PV-8/6-blue	295842	o. r.
10.2 / 8			65	30	27,5	24,5	21,0	15,0	50	PV-10/8-blue	295852	o. r.
11.6 / 9	±0.25	±0.15	70	30	27,5	24,5	21,0	15,0	50	PV-115/9-blue	295862	o. r.
12.5 / 10			80	24	22,0	19,5	17,0	13,0	50	PV-12/10-blue	295882	o. r.
15 / 12.5			90	18	16,5	14,5	12,5	10,0	50	PV-15/125-blue	295892	o. r.
17.6 / 13	±0.3	±0.2	100	18	16,5	14,5	12,5	10,0	50	PV-176/13-blue	295897	o. r.

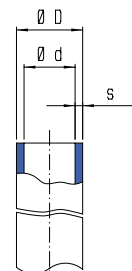
Illustration



Plastic Tube - Flexible

Product group	18	T _{min} -200 °C T _{max} +205 °C		Fluoroethylenepropylene FEP									
Diameter D/d	Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at temperature						Package Length [m]	Type	Order num- ber	Price /100 m
	ø D	Wall thickness s		20 °C	50 °C	75 °C	100 °C	150 °C	200 °C				
4 / 2	±0.1	±0.1	16	27	20.0	16.5	10.5	4.0	1.0	50	FEP-4/2-natural	296001	o. r.
6 / 4			36	18	13.5	11.0	7.0	2.5	0.5	50	FEP-6/4-natural	296002	o. r.
8 / 6			64	13.5	10.0	8.0	5.0	2.0	0.5	50	FEP-8/6-natural	296003	o. r.
10 / 8			100	10.8	8.0	6.5	4.0	1.5	0.5	50	FEP-10/8-natural	296004	o. r.

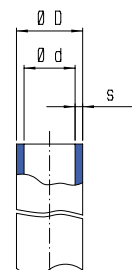
Illustration



Plastic Tube - Flexible

Product group 18		T _{min} -200 °C T _{max} +260 °C												Perfluoroalkoxy-copolymer PFA	
Diameter D/d	Tolerance		Min. bending radius [mm]	Maximum operating pressure in bar at temperature							Package Length [m]	Type	Order number	Price /100 m	
	ø D	Wall thickness s		20 °C	50 °C	75 °C	100 °C	150 °C	200 °C	250 °C					
4 / 2	±0.1	±0.1	16	27	23.0	20.5	18.0	14.0	10.5	7.5	50	PFA-4/2-natural	296006	o. r.	
6 / 4			36	18	15.5	13.5	12.0	9.5	7.0	5.0	50	PFA-6/4-natural	296007	o. r.	
8 / 6			64	13.5	11.5	10.0	9.0	7.0	5.0	3.5	50	PFA-8/6-natural	296008	o. r.	
10 / 8			100	10.8	9.0	8.0	7.0	5.5	4.0	3.0	50	PFA-10/8-natural	296009	o. r.	
12 / 10			144	9	7.5	6.5	6.0	4.5	3.5	2.5	50	PFA-12/10-natural	296011	o. r.	

Illustration



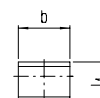
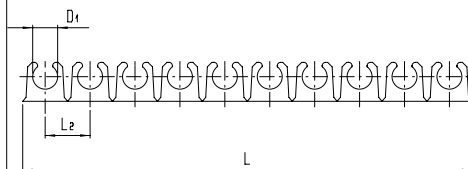
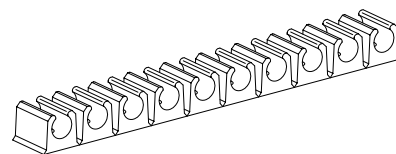
10-fold Tube Terminal

Product group **18**
 T_{min} -20 °C
 T_{max} +50 °C

Polyethylene

for tube D	L	L2	l1	D1	b	Type	Order number	Price
6	110	11	9	6	14	410N-6	296304	o. r.
8	140.5	14	12.5	7.5	15	410N-8	296305	o. r.

Illustration



Home



Function Fittings Nickel-Plated Brass / POM / Alu (Push-in)


Application

AVS-Römer Function Fittings can be used with the most varied of neutral gaseous and liquid media. So long as the fitting materials are suitable, application with aggressive media is also possible. See also the information under characteristics.

CHARACTERISTICS
BODY MATERIAL / SUITABILITY

Nickel-plated brass	CuZn39Pb3, galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring, FDA compliant.
Plastic POM	Polyoxymethylene, UV-resistant. Suitable for neutral gaseous and liquid media, especially compressed air, water etc.
Aluminium bright	AlCuMgPbF37, aluminium alloy
Other materials	see relevant products

TUBE

Outside diameter D [mm]	4, 6 and 8		
Permitted tolerance [mm]	±0.1		
Permitted grades	Polyamide (PA), polyurethane (PU), fluoropolymer (FEP) (PFA)		
THREAD			
External thread	“M” cylindrical thread: Metric ISO thread M5		
External thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2		
Internal thread	“M” cylindrical thread: Metric ISO thread M5		
Internal thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 to G 1/2		

OPERATING PRESSURE / TEMPERATURE

Plastic version	PN 10	T _{min} -20 °C T _{max} +60 °C	Means that the permitted operating pressure OP corresponds to the given nominal pressure PN within the specified temperature range "T".
Metal version	PN 16	T _{min} -20 °C T _{max} +60 °C	Means that the permitted operating pressure OP corresponds to the given nominal pressure PN within the specified temperature range "T".
Permitted operating pressure and temperature of pipe/tube must be observed!			

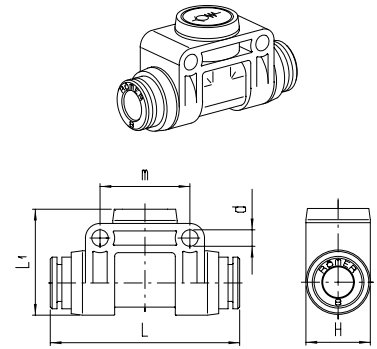
Non-Return Valve with ELSA Push-in Connector

Product group	23	PN 10		Constructional design: Spring loaded disc	Application: Compressed air	T _{min} -20 °C T _{max} +60 °C	Plastic POM
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Material: Body POM (blue), plate holder: Brass (bright), Seal: NBR (nitrile rubber)

DN	for tube D	Q _N -value air [l/min]	Operating pressure [bar]	L	L1	H	m	d	Type	Order number	Price
4.5	4	max. 330	0.2 - 10	49	28.5	17	24	4.3	VNR-958-P45-4	635061	o. r.
4.5	6	max. 330	0.2 - 10	50	28.5	17	24	4.3	VNR-958-P45-6	635062	o. r.
4.5	8	max. 330	0.2 - 10	51	28.5	17	24	4.3	VNR-958-P45-8	635063	o. r.

Illustration



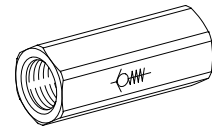
Non-Return Valve

Product group	23	PN 16		Constructional design: Spring-loaded ball	Application: neutral media	Nickel-plated brass
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Operating pressure: 0.2 to 16 bar
Material: Body brass (nickel-plated), ball: Stainless steel 1.4034, spring: Stainless steel 1.4310, seal: NBR (nitrile rubber) or FKM (fluorinated rubber)

DN	K _v -value water [m³/h]	G	Sealing material	Temperature range [°C]	Total length	Thread length	Width across flats	Type	Order number	Price
4	0.5	G 1/8	NBR	-10 to + 90	35	8	13	VNR-133-M40-1/8B	635001	o. r.
4	0.5	G 1/8	FKM	-10 to + 130	35	8	13	VNR-133-M40-1/8F	635002	o. r.
6	0.9	G 1/4	NBR	-10 to + 90	42	9	17	VNR-133-M60-1/4B	635004	o. r.
6	0.9	G 1/4	FKM	-10 to + 130	42	9	17	VNR-133-M60-1/4F	635005	o. r.

Illustration



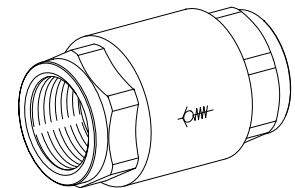
Non-Return Valve

Product group	23	PN 16		Constructional design: Spring-loaded disc	Application: neutral media	Nickel-plated brass
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Operating pressure: 0.02 to 16 bar
Material: Body: Brass (nickel-plated), closure plates: Hostaform, Spring: Stainless steel 1.4310, seal: NBR (nitrile rubber)

DN	K _v -value water [m³/h]	G	Temperature range [°C]	Total length	Thread length	Largest outer DIAMETER	Type	Order number	Price
10	3	G 3/8	-20 to +90	52	11	29	VSR-333-3/8	635111	o. r.
15	4.1	G 1/2	-20 to +90	58	13	32	VSR-333-1/2	635112	o. r.
20	9	G 3/4	-20 to +90	65	14	40	VSR-333-3/4	635113	o. r.
25	12	G 1	-20 to +90	75	17	48	VSR-333-1	635114	o. r.
32	20	G 1 1/4	-20 to +90	80	18	60	VSR-333-1 1/4	635115	o. r.
40	31	G 1 1/2	-20 to +90	86	19	68	VSR-333-1 1/2	635116	o. r.

Illustration

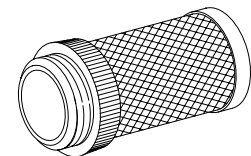


Inlet Strainer

Product group	23	Material: Body: Brass (nickel-plated) and stainless steel 1.4310
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G	Total length	Thread length	Largest outer DIAMETER	Type	Order number	Price
G 3/8	40	7	19	ZSR-311-3/8	635141	o. r.
G 1/2	45	9	23	ZSR-311-1/2	635142	o. r.
G 3/4	49	10	29	ZSR-311-3/4	635143	o. r.
G 1	54	11	35	ZSR-311-1	635144	o. r.
G 1 1/4	63	11	44	ZSR-311-1 1/4	635145	o. r.
G 1 1/2	69	11	50	ZSR-311-1 1/2	635146	o. r.

Illustration



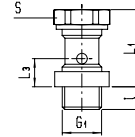
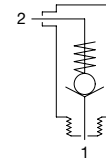
Banjo Non-Return Valve - Supply Air Closing

Product group	24	PN	10	Constructional design: Lip seal	Application: Compressed air	Operating pressure: 0.2 to 10 bar	Nickel-plated brass
T _{min}	-10 °C	Material: Valve body: Brass (nickel-plated), Seal: NBR (Perbunan)					
T _{max}	+80 °C						

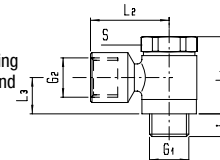
DN	Q _{Nn} -value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d	i	L1	L2	L3	S	Type	Order number	Price
2.5	280	G 1/8	without ring piece	6	24	-	9	14	VCR-219M-1/8N	636502	o. r.
4.5	400	G 1/4	without ring piece	7.5	25.5	-	9.5	17	VCR-219M-1/4N	636503	o. r.
1.5	70	M5	M5	-	4	15.5	10	7.5	VCR-219M-M5N-M5	636511	o. r.
2.5	280	G 1/8	G 1/8	-	6	24	15	11	VCR-219M-1/8N-1/8	636512	o. r.
4.5	400	G 1/4	G 1/8	-	7.5	25.5	26	12	VCR-219M-1/4N-1/4	636513	o. r.
1.5	70	M5	-	4, 3/3	4	15.5	15.5	7.5	VCR-219M-M5N-43/3	636552	o. r.
1.5	70	M5	-	5/3	4	15.5	15.5	7.5	VCR-219M-M5N-5/3	636553	o. r.
1.5	70	M5	-	6/4	4	15.5	16.5	7.5	VCR-219M-M5N-6/4	636554	o. r.
2.5	280	G 1/8	-	4, 3/3	6	24	18	11	VCR-219M-1/8N-43/3	636562	o. r.
2.5	280	G 1/8	-	5/3	6	24	18	11	VCR-219M-1/8N-5/3	636563	o. r.
2.5	280	G 1/8	-	6/4	6	24	21	11	VCR-219M-1/8N-6/4	636564	o. r.
2.5	280	G 1/8	-	8/6	6	24	21	11	VCR-219M-1/8N-8/6	636565	o. r.
4.5	400	G 1/4	-	6/4	7.5	25.5	23	12	VCR-219M-1/4N-6/4	636571	o. r.
4.5	400	G 1/4	-	8/6	7.5	25.5	23	12	VCR-219M-1/4N-8/6	636572	o. r.
4.5	400	G 1/4	-	10/8	7.5	25.5	24.5	12	VCR-219M-1/4N-10/8	636573	o. r.
1.5	70	M5	-	4	4	15.5	17.5	7.5	VCR-219M-M5-4P	636601	o. r.
1.5	70	M5	-	6	4	15.5	18.5	7.5	VCR-219M-M5-6P	636603	o. r.
2.5	280	G 1/8	-	4	5	25	22	12	VCR-219M-1/8N-4P	636611	o. r.
2.5	280	G 1/8	-	6	5	25	22.5	12	VCR-219M-1/8N-6P	636613	o. r.
2.5	280	G 1/8	-	8	5	25	23	12	VCR-219M-1/8N-8P	636614	o. r.
4.5	400	G 1/4	-	6	6.5	26.5	24.5	13	VCR-219M-1/4N-6P	636623	o. r.
4.5	400	G 1/4	-	8	6.5	26.5	25	13	VCR-219M-1/4N-8P	636624	o. r.

Illustration

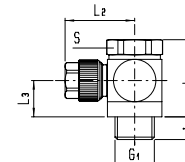
Supply air
closing



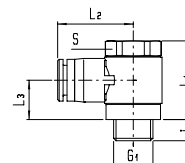
Option:
Banjo ring
piece and
female
thread



Option:
Banjo ring
piece and
Push-on
connector



Option:
Banjo ring
piece and
Push-in
connector

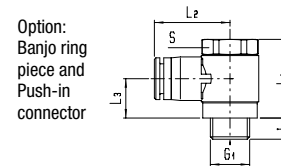
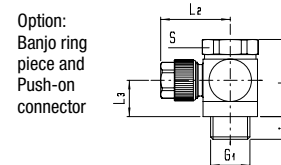
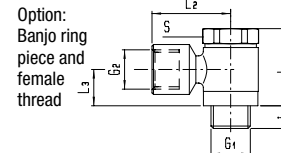
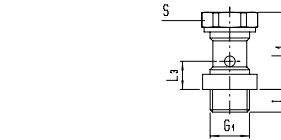
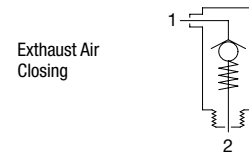


Banjo Non-Return Valve - Exhaust Air Closing

Product group	24	PN	10	Constructional design:	Lip seal	Application:	Compressed air	Operating pressure:	0.2 to 10 bar	Nickel-plated brass
T _{min}	-10 °C	Material: Valve body: Brass (nickel-plated)								
T _{max}	+80 °C	Seal: NBR (Perbunan)								

DN	Qn-value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d	i	L1	L2	L3	S	Type	Order number	Price
2.5	280	G 1/8	without ring piece	6	24	-	9	14	VRC-219M-1/8N	636507	o. r.
4.5	400	G 1/4	without ring piece	7.5	25.5	-	9.5	17	VRC-219M-1/4N	636508	o. r.
1.5	70	M5	M5	-	4	15.5	10	7.5	VRC-219M-M5N-M5	636516	o. r.
2.5	280	G 1/8	G 1/8	-	6	24	15	11	VRC-219M-1/8N-1/8	636517	o. r.
4.5	400	G 1/4	G 1/4	-	7.5	25.5	26	12	VRC-219M-1/4N-1/4	636518	o. r.
1.5	70	M5	-	4, 3/3	4	15.5	15.5	7.5	VRC-219M-M5N-43/3	636557	o. r.
1.5	70	M5	-	5/3	4	15.5	15.5	7.5	VRC-219M-M5N-5/3	636558	o. r.
1.5	70	M5	-	6/4	4	15.5	16.5	7.5	VRC-219M-M5N-6/4	636559	o. r.
2.5	280	G 1/8	-	4, 3/3	6	24	18	11	VRC-219M-1/8N-43/3	636567	o. r.
2.5	280	G 1/8	-	5/3	6	24	18	11	VRC-219M-1/8N-5/3	636568	o. r.
2.5	280	G 1/8	-	6/4	6	24	21	11	VRC-219M-1/8N-6/4	636569	o. r.
2.5	280	G 1/8	-	8/6	6	24	21	11	VRC-219M-1/8N-8/6	636570	o. r.
4.5	400	G 1/4	-	6/4	7.5	25.5	23	12	VRC-219M-1/4N-6/4	636576	o. r.
4.5	400	G 1/4	-	8/6	7.5	25.5	23	12	VRC-219M-1/4N-8/6	636577	o. r.
4.5	400	G 1/4	-	10/8	7.5	25.5	24.5	12	VRC-219M-1/4N-10/8	636578	o. r.
1.5	70	M5	-	4	4	15.5	17.5	7.5	VRC-219M-M5-4P	636606	o. r.
1.5	70	M5	-	6	4	15.5	18.5	7.5	VRC-219M-M5-6P	636608	o. r.
2.5	280	G 1/8	-	4	5	25	22	12	VRC-219M-1/8N-4P	636616	o. r.
2.5	280	G 1/8	-	6	5	25	22.5	12	VRC-219M-1/8N-6P	636618	o. r.
2.5	280	G 1/8	-	8	5	25	23	12	VRC-219M-1/8N-8P	636619	o. r.
4.5	400	G 1/4	-	6	6.5	26.5	24.5	13	VRC-219M-1/4N-6P	636628	o. r.
4.5	400	G 1/4	-	8	6.5	26.5	25	13	VRC-219M-1/4N-8P	636629	o. r.

Illustration

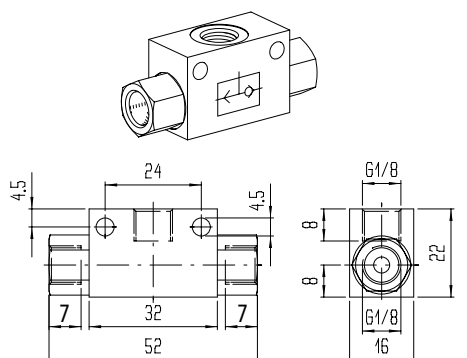


Double Non-Return Valve

Product group	24	PN	10	Constructional design:	Spool valve, non-overlapping	Application:	Compressed air	Aluminium
Material: Aluminium alloy body, Spindle: Brass, Thread socket: Brass (nickel-plated), seal: NBR (nitrile rubber)								

DN	G	Qn-value air [l/min]	Operating pressure [bar]	Operating temperature [°C]	Type	Order number	Price
4	G 1/8	600	0.5 - 10	-20 to +90	SCS-233-A40-1/8B	636231	o. r.

Illustration

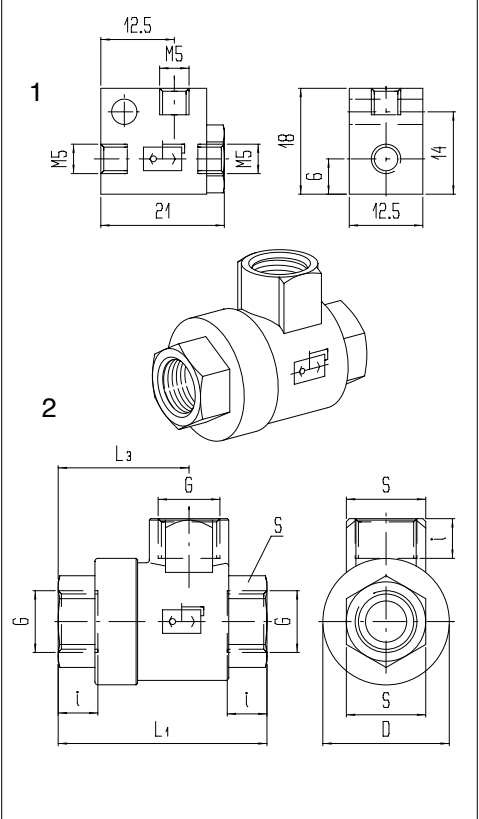


Quick Relief Valve

Product group	25	PN	10	Constructional design: Lip seal	Application: Compressed air	Operating pressure: 0.2 to 10 bar	Nickel-plated brass
T _{min}	-20 °C	Body material: DN 3: Brass (bright), DN 6 to DN 14: Brass (nickel-plated)		Lip seal material: DN 3: NBR (nitrile rubber), DN 6 to DN 14: AU (Vulkollan), FKM (fluorinated rubber) on request			
T _{max}	+80 °C	Sealing ring material: PA (polyamide)					

DN	Dimension drawing	G	Q _{Nn} -value air [l/min]		i	L1	L3	D	S	Type	Order number	Price
			P>A	A>R								
3	1	M5	200	230	-	-	-	-	-	VSC-233-U30-M05B	636291	o. r.
6	2	G 1/8	600	900	7	43	28	28	14	VSC-133-M60-1/8L	636261	o. r.
9	2	G 1/4	1,200	2,000	9	53	34	33	19	VSC-133-M90-1/4L	636262	o. r.
14	2	G 1/2	4,000	6,800	12	71	45	44	27	VSC-133-M14-1/2L	636264	o. r.

Illustration

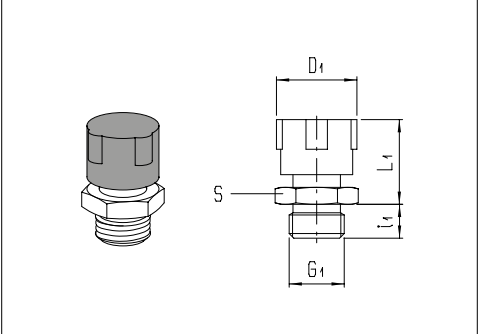


Throttle - Male

Product group	26	PN	16	Constructional design: Conical with silencer	Application: Compressed air	Operating pressure: 0 to 16 bar	Nickel-plated brass
Material: Throttle body: Brass (nickel-plated), regulator cone: Brass, Spring: stainless steel, Silencer: Sinter bronze				T _{min} -50 °C T _{max} +100 °C			

DN	G	Air flow [l/min]	i1	L1	D1	S	Type	Order number	Price
3.5	G 1/8	max. 450	8	19	15	14	RSS-111-M35-1/8	635352	o. r.
4.5	G 1/4	max. 700	8	22	18.5	17	RSS-111-M45-1/4	635353	o. r.
6.5	G 1/4	max. 2,000	8	22	18.5	17	RSS-111-M65-1/4	635363	o. r.
10	G 1/2	max. 3,500	12	31	29	27	RSS-111-M10-1/2	635355	o. r.
13	G 1/2	max. 5,000	12	31	29	27	RSS-111-M13-1/2	635365	o. r.
18	G 3/4	max. 9,500	15	39	35	32	RSS-111-M18-3/4	635366	o. r.

Illustration

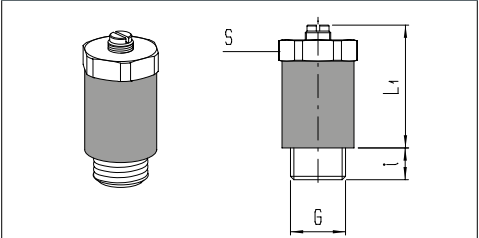


Throttle - Male

Product group	26	PN	12	Constructional design: Precision throttle with silencer	Application: Compressed air	Operating pressure: 0 to 12 bar	Nickel-plated brass
Material: Body: Brass (nickel-plated), spindle: Brass, silencer pipe: Sinter bronze, seal: NBR (nitrile rubber)				T _{min} -10 °C T _{max} +80 °C			

DN	G	Air flow [l/min]	i	L1	S	Type	Order number	Price
2.5	G 1/8	max. 320	5	30	14	SSC-219M-1/8	635522	o. r.
4.5	G 1/4	max. 650	7.5	31	17	SSC-219M-1/4	635523	o. r.

Illustration



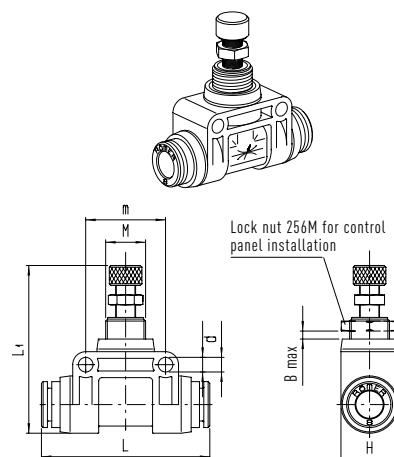
Throttle Valve with ELSA Push-in Connector

Product group	27	PN 10		Constructional design: Precision cone throttle	Application: Compressed air	Operating pressure: 0 to 10 bar	Plastic POM
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T _{min}	-20 °C	Material: Body POM (blue), spindle: brass (bright), Headstock: Brass (bright), seal: NBR (nitrile rubber)
T _{max}	+60 °C	

DN	for tube D	QnN-value air [l/min]	L	L1	M	B	H	m	d	Type	Order number	Price
2	4	0 - 100	49	50.5	M 12 x1	4	17	24	4.3	RFO-958-P20-4	635621	o. r.
2	6	0 - 100	50	50.5	M 12 x1	4	17	24	4.3	RFO-958-P20-6	635622	o. r.
2	8	0 - 100	51	50.5	M 12 x1	4	17	24	4.3	RFO-958-P20-8	635623	o. r.
3	4	0 - 200	49	50.5	M 12 x1	4	17	24	4.3	RFO-958-P30-4	635624	o. r.
3	6	0 - 200	50	50.5	M 12 x1	4	17	24	4.3	RFO-958-P30-6	635625	o. r.
3	8	0 - 200	51	50.5	M 12 x1	4	17	24	4.3	RFO-958-P30-8	635626	o. r.

Illustration



Home



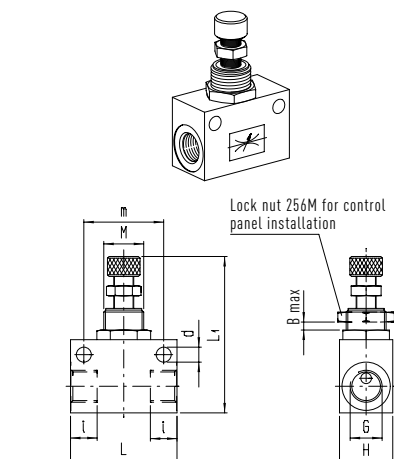
Throttle Valve

Product group	27	PN 10		Constructional design DN 2 and DN 3: Precision cone throttle	Constructional design DN 6: Precision slotted throttle	Aluminium
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Application: Compressed air	Material: Body: Aluminium alloy, spindle: Brass (bright), Headstock: Brass (bright), seal: NBR (nitrile rubber)	Operating pressure: 0 to 10 bar	T _{min} -20 °C T _{max} +80 °C
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DN	G	QnN-value air [l/min]	i	L	L1	M	B	H	m	d	Type	Order number	Price
2	G 1/8	0 - 100	8	32	48	M 12 x1	4	16	24	4.3	RFO-133-A20-1/8	635661	o. r.
3	G 1/8	0 - 200	8	32	48	M 12 x1	4	16	24	4.3	RFO-133-A30-1/8	635681	o. r.
6	G 1/4	0 - 900	10.5	46	58	M 20 x1.5	7	20	35	6.4	RFO-133-A60-1/4	635682	o. r.

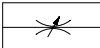
Illustration



Swivel Throttle Valve with Screw Slot

Product group **24**

PN 10


Application:
Compressed air

Operating pressure:
0 to 10 bar

T_{min} -10 °C
T_{max} +80 °C

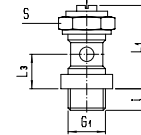
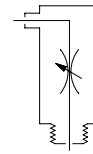
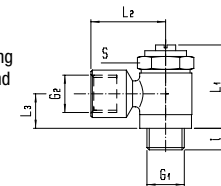
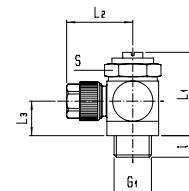
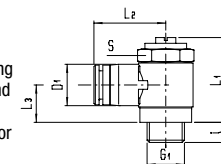
Nickel-plated
brass

Material: Valve body: Brass (nickel-plated),
Seal: NBR (nitrile rubber)

DN	Q _N -value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d		i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece		6	29	-	9	14	SCO-219M-1/8N	636702	o. r.
4.5	0-400	G 1/4	without ring piece		7.5	31	-	9.5	17	SCO-219M-1/4N	636703	o. r.
1.5	0-70	M5	M5	-	4	21.5	10	7.5	8	SCO-219M-M5N-M5	636711	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	29	15	11	14	SCO-219M-1/8N-1/8	636712	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	31	26	12	17	SCO-219M-1/4N-1/4	636713	o. r.
1.5	0-70	M5	-	4, 3/3	4	21.5	15.5	7.5	8	SCO-219M-M5N-43/3	636752	o. r.
1.5	0-70	M5	-	5/3	4	21.5	15.5	7.5	8	SCO-219M-M5N-5/3	636753	o. r.
1.5	0-70	M5	-	6/4	4	21.5	16.5	7.5	8	SCO-219M-M5N-6/4	636754	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	29	18	11	14	SCO-219M-1/8N-43/3	636762	o. r.
2.5	0-280	G 1/8	-	5/3	6	29	18	11	14	SCO-219M-1/8N-5/3	636763	o. r.
2.5	0-280	G 1/8	-	6/4	6	29	21	11	14	SCO-219M-1/8N-6/4	636764	o. r.
2.5	0-280	G 1/8	-	8/6	6	29	21	11	14	SCO-219M-1/8N-8/6	636765	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	31	23	12	17	SCO-219M-1/4N-6/4	636771	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	31	23	12	17	SCO-219M-1/4N-8/6	636772	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	31	24.5	12	17	SCO-219M-1/4N-10/8	636773	o. r.
1.5	0-70	M5	-	4	4	21.5	17.5	7.5	8	SCO-219M-M5-4P	636801	o. r.
1.5	0-70	M5	-	6	4	21.5	18.5	7.5	8	SCO-219M-M5-6P	636803	o. r.
2.5	0-280	G 1/8	-	4	5	30	22	12	14	SCO-219M-1/8N-4P	636811	o. r.
2.5	0-280	G 1/8	-	6	5	30	22.5	12	14	SCO-219M-1/8N-6P	636813	o. r.
2.5	0-280	G 1/8	-	8	5	30	23	12	14	SCO-219M-1/8N-8P	636814	o. r.
4.5	0-400	G 1/4	-	6	6.5	32	24.5	13	17	SCO-219M-1/4N-6P	636823	o. r.
4.5	0-400	G 1/4	-	8	6.5	32	25	13	17	SCO-219M-1/4N-8P	636824	o. r.

Illustration

Screw Slot


Option:
Banjo ring
piece and
female
thread

Option:
Banjo ring
piece and
Push-on
connector

Option:
Banjo ring
piece and
Push-in
connector


Home



Banjo Throttle Valve - Knurled Screw Lockable

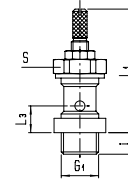
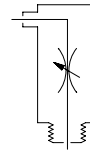
Product group	24	PN 10		Application: Compressed air	Operating pressure: 0 to 10 bar	T _{min} -10 °C T _{max} +80 °C	Nickel-plated brass
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Material: Valve body: Brass (nickel-plated), Seal: NBR (nitrile rubber)

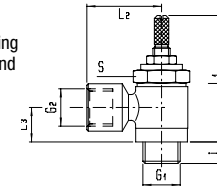
DN	Qn-value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d	i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece	6	43	-	9	14	RCO-219M-1/8N	636707	o. r.
4.5	0-400	G 1/4	without ring piece	7.5	46	-	9.5	17	RCO-219M-1/4N	636708	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	43	15	11	RCO-219M-1/8N-1/8	636717	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	46	26	12	RCO-219M-1/4N-1/4	636718	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	43	18	11	RCO-219M-1/8N-43/3	636767	o. r.
2.5	0-280	G 1/8	-	5/3	6	43	18	11	RCO-219M-1/8N-5/3	636768	o. r.
2.5	0-280	G 1/8	-	6/4	6	43	21	11	RCO-219M-1/8N-6/4	636769	o. r.
2.5	0-280	G 1/8	-	8/6	6	43	21	11	RCO-219M-1/8N-8/6	636770	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	46	23	12	RCO-219M-1/4N-6/4	636776	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	46	23	12	RCO-219M-1/4N-8/6	636777	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	46	24.5	12	RCO-219M-1/4N-10/8	636778	o. r.
2.5	0-280	G 1/8	-	4	5	44	22	12	RCO-219M-1/8N-4P	636816	o. r.
2.5	0-280	G 1/8	-	6	5	44	22.5	12	RCO-219M-1/8N-6P	636818	o. r.
2.5	0-280	G 1/8	-	8	5	44	23	12	RCO-219M-1/8N-8P	636819	o. r.
4.5	0-400	G 1/4	-	6	6.5	47	24.5	13	RCO-219M-1/4N-6P	636828	o. r.
4.5	0-400	G 1/4	-	8	6.5	47	25	13	RCO-219M-1/4N-8P	636829	o. r.

Illustration

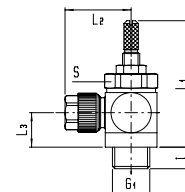
Knurled screw lockable



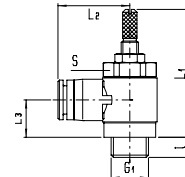
Option:
Banjo ring
piece and
female
thread



Option:
Banjo ring
piece and
Push-on
connector



Option:
Banjo ring
piece and
Push-in
connector



Throttle Non-Return Valve with ELSA Push-in Connector

Product group	28	PN 10		Constructional design: Precision cone throttle with plate non-return valve	Application: Compressed air	Plastic POM
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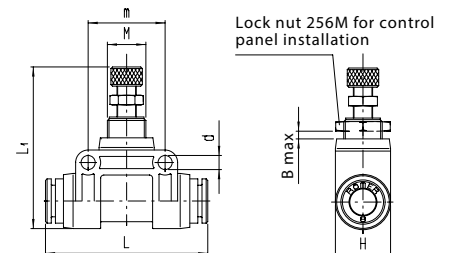
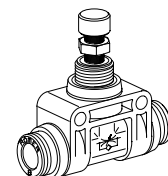
Operating pressure: 0.2 to 10 bar

Material: Body: POM (blue), spindle: Brass (bright), Headstock: Brass (bright), seal: NBR (nitrile rubber)

T_{min} -20 °C
T_{max} +60 °C

DN	D	Qn-value air [l/min]	L	L1	M	B	H	m	d	Type	Order number	Price
2	4	0 - 100	49	50.5	M 12 x1	4	17	24	4.3	RFU-958-P20-4	635921	o. r.
2	6	0 - 100	50	50.5	M 12 x1	4	17	24	4.3	RFU-958-P20-6	635922	o. r.
2	8	0 - 100	51	50.5	M 12 x1	4	17	24	4.3	RFU-958-P20-8	635923	o. r.
3	4	0 - 200	49	50.5	M 12 x1	4	17	24	4.3	RFU-958-P30-4	635924	o. r.
3	6	0 - 200	50	50.5	M 12 x1	4	17	24	4.3	RFU-958-P30-6	635925	o. r.
3	8	0 - 200	51	50.5	M 12 x1	4	17	24	4.3	RFU-958-P30-8	635926	o. r.

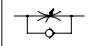
Illustration



Throttle Non-Return Valve

Product group **28**

PN 10



Aluminium

Constructional design DN 2 and DN 3: Precision cone throttle
Constructional design DN 6: Precision slotted throttle (all with disc non-return valve)

Application:
Compressed air

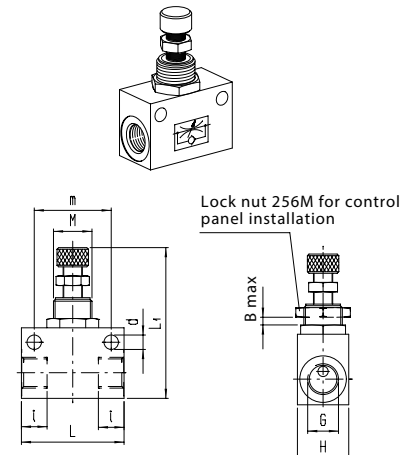
Material: Body: Aluminium alloy, spindle: Brass (bright),
Headstock: Brass (bright), seal: NBR (nitrile rubber)

Operating pressure:
0.2 to 10 bar

 T_{min} -20 °C
 T_{max} +80 °C

DN	G	Q _{Nn} - value air [l/min]	i	L	L1	M	B	H	m	d	Type	Order number	Price
2	G 1/8	0 - 100	8	32	48	M12x1	4	16	24	4.3	RFU-133-A20-1/8	635961	o. r.
3	G 1/8	0 - 200	8	32	48	M12x1	4	16	24	4.3	RFU-133-A30-1/8	635981	o. r.
6	G 1/4	0 - 900	10.5	46	58	M20x1.5	8	20	35	6.4	RFU-133-A60-1/4	635982	o. r.

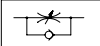
Illustration



Banjo Throttle Non-Return Valve - Exhaust Air Restricting - Screw Slot

Product group **24**

PN 10


Application:
Compressed air

Operating pressure:
0.2 to 10 bar

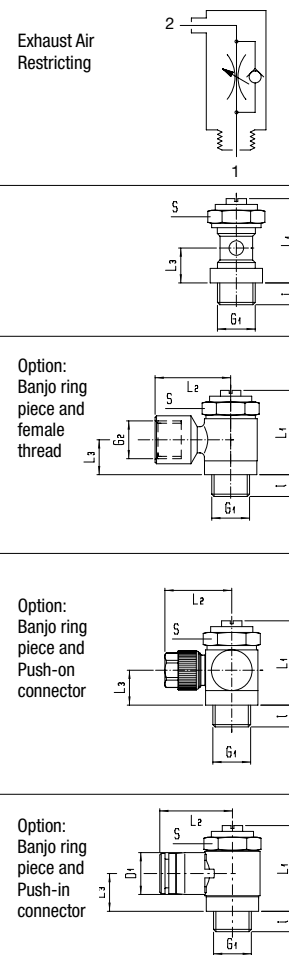
 T_{min} -10 °C
 T_{max} +80 °C

Nickel-plated
brass

Material: Valve body: Brass (nickel-plated),
Seal: NBR (nitrile rubber)

DN	Q _{Nn} -value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d		i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece		6	29	-	9	14	SCU-219M-1/8N	636902	o. r.
4.5	0-400	G 1/4	without ring piece		7.5	31	-	9.5	17	SCU-219M-1/4N	636903	o. r.
1.5	0-70	M5	M5	-	4	21.5	10	7.5	8	SCU-219M-M5N-M5	636911	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	29	15	11	14	SCU-219M-1/8N-1/8	636912	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	31	26	12	17	SCU-219M-1/4N-1/4	636913	o. r.
1.5	0-70	M5	-	4, 3/3	4	21.5	15.5	7.5	8	SCU-219M-M5N-43/3	636952	o. r.
1.5	0-70	M5	-	5/3	4	21.5	15.5	7.5	8	SCU-219M-M5N-5/3	636953	o. r.
1.5	0-70	M5	-	6/4	4	21.5	16.5	7.5	8	SCU-219M-M5N-6/4	636954	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	29	18	11	14	SCU-219M-1/8N-43/3	636962	o. r.
2.5	0-280	G 1/8	-	5/3	6	29	18	11	14	SCU-219M-1/8N-5/3	636963	o. r.
2.5	0-280	G 1/8	-	6/4	6	29	21	11	14	SCU-219M-1/8N-6/4	636964	o. r.
2.5	0-280	G 1/8	-	8/6	6	29	21	11	14	SCU-219M-1/8N-8/6	636965	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	31	23	12	17	SCU-219M-1/4N-6/4	636971	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	31	23	12	17	SCU-219M-1/4N-8/6	636972	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	31	24.5	12	17	SCU-219M-1/4N-10/8	636973	o. r.
1.5	0-70	M5	-	4	4	21.5	17.5	7.5	8	SCU-219M-M5-4P	637001	o. r.
1.5	0-70	M5	-	6	4	21.5	18.5	7.5	8	SCU-219M-M5-6P	637003	o. r.
2.5	0-280	G 1/8	-	4	5	30	22	12	14	SCU-219M-1/8N-4P	637011	o. r.
2.5	0-280	G 1/8	-	6	5	30	22.5	12	14	SCU-219M-1/8N-6P	637013	o. r.
2.5	0-280	G 1/8	-	8	5	30	23	12	14	SCU-219M-1/8N-8P	637014	o. r.
4.5	0-400	G 1/4	-	6	6.5	32	24.5	13	17	SCU-219M-1/4N-6P	637023	o. r.
4.5	0-400	G 1/4	-	8	6.5	32	25	13	17	SCU-219M-1/4N-8P	637024	o. r.

Illustration



Banjo Throttle Non-Return Valve - Exhaust Air Restricting - Knurled Screw Lockable

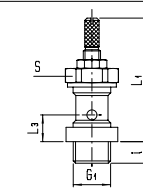
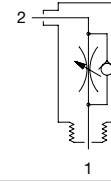
Product group	24	PN 10		Application: Compressed air	Operating pressure: 0.2 to 10 bar	T _{min} -10 °C T _{max} +80 °C	Nickel-plated brass
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Material: Valve body: Brass (nickel-plated), seal: NBR (nitrile rubber)

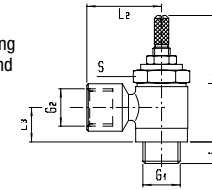
DN	Q _{Nn} -value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d		i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece		6	43	-	9	14	RCU-219M-1/8N	637102	o. r.
4.5	0-400	G 1/4	without ring piece		7.5	46	-	9.5	17	RCU-219M-1/4N	637103	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	43	15	11	14	RCU-219M-1/8N-1/8	637112	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	46	26	12	17	RCU-219M-1/4N-1/4	637113	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	43	18	11	14	RCU-219M-1/8N-43/3	637162	o. r.
2.5	0-280	G 1/8	-	5/3	6	43	18	11	14	RCU-219M-1/8N-5/3	637163	o. r.
2.5	0-280	G 1/8	-	6/4	6	43	21	11	14	RCU-219M-1/8N-6/4	637164	o. r.
2.5	0-280	G 1/8	-	8/6	6	43	21	11	14	RCU-219M-1/8N-8/6	637165	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	46	23	12	17	RCU-219M-1/4N-6/4	637171	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	46	23	12	17	RCU-219M-1/4N-8/6	637172	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	46	24.5	12	17	RCU-219M-1/4N-10/8	637173	o. r.
2.5	0-280	G 1/8	-	4	5	44	22	12	14	RCU-219M-1/8N-4P	637211	o. r.
2.5	0-280	G 1/8	-	6	5	44	22.5	12	14	RCU-219M-1/8N-6P	637213	o. r.
2.5	0-280	G 1/8	-	8	5	44	23	12	14	RCU-219M-1/8N-8P	637214	o. r.
4.5	0-400	G 1/4	-	6	6.5	47	24.5	13	17	RCU-1/4N-6P	637223	o. r.
4.5	0-400	G 1/4	-	8	6.5	47	25	13	17	RCU-219M-1/4N-8P	637224	o. r.

Illustration

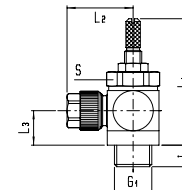
Exhaust air restricting, knurled screw lockable



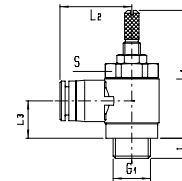
Option: Banjo ring piece and female thread



Option: Banjo ring piece and Push-on connector



Option: Banjo ring piece and Push-in connector



Banjo Throttle Non-Return Valve - Supply Air Restricting

Product group **24**

PN 10


Application:
Compressed air

Operating pressure:
0.2 to 10 bar

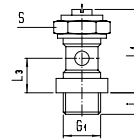
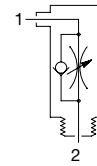
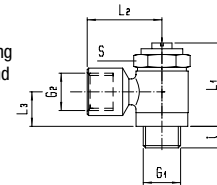
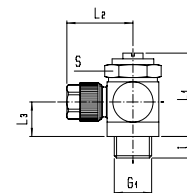
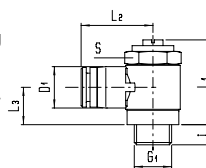
T_{min} -10 °C
T_{max} +80 °C

Nickel-plated
brass

Material: Valve body: Brass (nickel-plated),
Seal: NBR (nitrile rubber)

DN	Q _N -value air [l/min]	G1	Connector on banjo ring piece G2 or tube D/d		i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece		6	29	-	9	14	SUC-219M-1/8N	636907	o. r.
4.5	0-400	G 1/4	without ring piece		7.5	31	-	9.5	17	SUC-219M-1/4N	636908	o. r.
1.5	0-70	M5	M5	-	4	21.5	10	7.5	8	SUC-219M-M5N-M5	636916	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	29	15	11	14	SUC-219M-1/8N-1/8	636917	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	31	26	12	17	SUC-219M-1/4N-1/4	636918	o. r.
1.5	0-70	M5	-	4, 3/3	4	21.5	15.5	7.5	8	SUC-219M-M5N-43/3	636957	o. r.
1.5	0-70	M5	-	5/3	4	21.5	15.5	7.5	8	SUC-219M-M5N-5/3	636958	o. r.
1.5	0-70	M5	-	6/4	4	21.5	16.5	7.5	8	SUC-219M-M5N-6/4	636959	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	29	18	11	14	SUC-219M-1/8N-43/3	636967	o. r.
2.5	0-280	G 1/8	-	5/3	6	29	18	11	14	SUC-219M-1/8N-5/3	636968	o. r.
2.5	0-280	G 1/8	-	6/4	6	29	21	11	14	SUC-219M-1/8N-6/4	636969	o. r.
2.5	0-280	G 1/8	-	8/6	6	29	21	11	14	SUC-219M-1/8N-8/6	636970	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	31	23	12	17	SUC-219M-1/4N-6/4	636976	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	31	23	12	17	SUC-219M-1/4N-8/6	636977	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	31	24.5	12	17	SUC-219M-1/4N-10/8	636978	o. r.
1.5	0-70	M5	-	4	4	21.5	17.5	7.5	8	SUC-219M-M5-4P	637006	o. r.
1.5	0-70	M5	-	6	4	21.5	18.5	7.5	8	SUC-219M-M5-6P	637008	o. r.
2.5	0-280	G 1/8	-	4	5	30	22	12	14	SUC-219M-1/8N-4P	637016	o. r.
2.5	0-280	G 1/8	-	6	5	30	22.5	12	14	SUC-219M-1/8N-6P	637018	o. r.
2.5	0-280	G 1/8	-	8	5	30	23	12	14	SUC-219M-1/8N-8P	637019	o. r.
4.5	0-400	G 1/4	-	6	6.5	32	24.5	13	17	SUC-219M-1/4N-6P	637028	o. r.
4.5	0-400	G 1/4	-	8	6.5	32	25	13	17	SUC-219M-1/4N-8P	637029	o. r.

Illustration

Supply air
restricting

Option:
Banjo ring
piece and
female
thread

Option:
Banjo ring
piece and
Push-on
connector

Option:
Banjo ring
piece and
Push-in
connector


Swivel Throttle Non-Return Valve - Air Inlet Throttling - Knurled Screw Lockable

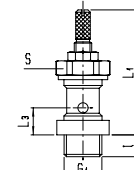
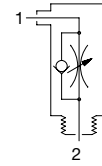
Product group	24	PN	10		Application: Compressed air	Operating pressure: 0.2 to 10 bar	T_{min} -10 °C T_{max} +80 °C	Nickel-plated brass
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Material: Valve body: Brass (nickel-plated),
Seal: NBR (nitrile rubber)

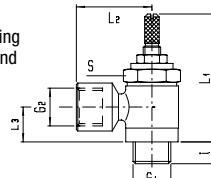
DN	Q _N -value air [l/min]	G1	Connector on ring piece G2 or D/d	i	L1 max.	L2	L3	S	Type	Order number	Price
2.5	0-280	G 1/8	without ring piece	6	43	-	9	14	RUC-219M-1/8N	637107	o. r.
4.5	0-400	G 1/4	without ring piece	7.5	46	-	9.5	17	RUC-219M-1/4N	637108	o. r.
2.5	0-280	G 1/8	G 1/8	-	6	43	15	11	RUC-219M-1/8N-1/8	637117	o. r.
4.5	0-400	G 1/4	G 1/4	-	7.5	31	26	12	RUC-219M-1/4N-1/4	637118	o. r.
2.5	0-280	G 1/8	-	4, 3/3	6	43	18	11	RUC-219M-1/8N-43/3	637167	o. r.
2.5	0-280	G 1/8	-	5/3	6	43	18	11	RUC-219M-1/8N-5/3	637168	o. r.
2.5	0-280	G 1/8	-	6/4	6	43	21	11	RUC-219M-1/8N-6/4	637169	o. r.
2.5	0-280	G 1/8	-	8/6	6	43	21	11	RUC-219M-1/8N-8/6	637170	o. r.
4.5	0-400	G 1/4	-	6/4	7.5	46	23	12	RUC-219M-1/4N-6/4	637176	o. r.
4.5	0-400	G 1/4	-	8/6	7.5	46	23	12	RUC-219M-1/4N-8/6	637177	o. r.
4.5	0-400	G 1/4	-	10/8	7.5	46	24.5	12	RUC-219M-1/4N-10/8	637178	o. r.
2.5	0-280	G 1/8	-	4	5	44	22	12	RUC-219M-1/8N-4P	637216	o. r.
2.5	0-280	G 1/8	-	6	5	44	22.5	12	RUC-219M-1/8N-6P	637218	o. r.
2.5	0-280	G 1/8	-	8	5	44	23	12	RUC-219M-1/8N-8P	637219	o. r.
4.5	0-400	G 1/4	-	6	6.5	47	24.5	13	RUC-219M-1/4N-6P	637228	o. r.
4.5	0-400	G 1/4	-	8	6.5	47	25	13	RUC-219M-1/4N-8P	637229	o. r.

Illustration

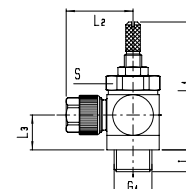
Supply air
resticking



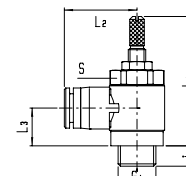
Option:
Banjo ring
piece and
female
thread



Option:
Banjo ring
piece and
Push-on
connector



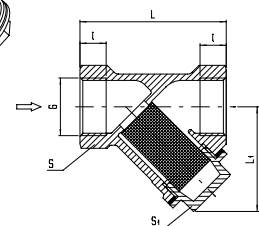
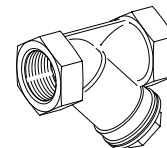
Option:
Banjo ring
piece and
Push-in
connector


Strainer Type SMF Series 100

Product group	29	PN	20		T_{min} -10 °C T_{max} +180 °C	Bright brass
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Body material: CW511L (CuZn38As), screw fitting: CW617N (CuZn40Pb2)
Sieve insert: stainless steel, mesh width 0.25 mm, seal material: IT 200

DN	G	PN	permitted excess operating pressure PB [bar] at temperature			L	i	L1	S	S1	Type	Order number	Price
			80 °C	130 °C	180 °C								
10	G 3/8	20	20	16	9	55	9	38	23	18	SMF-U133-3/8	498104	o. r.
15	G 1/2	20	20	16	9	59	10	40	28	18	SMF-U133-1/2	498107	o. r.
20	G 3/4	20	20	16	9	68	10	46	34	22	SMF-U133-3/4	498110	o. r.
25	G 1	20	20	16	9	76	12	58	42	29	SMF-U133-1	498113	o. r.
32	G 1 1/4	20	20	16	9	92	13	70	52	34	SMF-U133-5/4	498116	o. r.
40	G 1 1/2	20	20	16	9	100	13	80	56	39	SMF-U133-6/4	498119	o. r.
50	G 2	20	20	16	9	125	18	100	70	55	SMF-U133-2	498122	o. r.

Illustration


Function Fittings PPSU / Stainless Steel AISI 316L (1.4404) (Push-in)



AVS Römer function fittings, i.e., filters, non-return valves, throttles, quick-release couplings... in combination with the Established **ELSA push-in connectors** by AVS-Römer.

Application

AVS Römer function fittings are used in a variety of neutral gaseous and liquid media. If the fitting materials are suitable, application with aggressive media is permitted. See also the information on characteristics.

CHARACTERISTICS

BODY MATERIAL / SUITABILITY

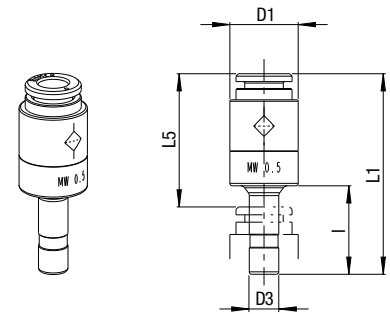
Stainless steel AISI 316L	Corresponds to 1.4404 stainless steel . Suitable for many aggressive media, in particular at higher pressures.	
Plastic PPSU	Polyphenylsulfone . Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). Can be used with FDA-compliant FKM sealing rings or FDA-compliant and KTW-approved EPDM sealing rings in the food and pharmaceutical industries. Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!	
Other materials	see relevant products	
Approval	NSF/ANSI 169	
TUBE		
Outside diameter [mm]	4, 6 and 8	
Perm. tolerance [mm]	±0.1	
Permitted grade	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)	
THREAD		
External thread	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8-G 1/4	
OPERATING PRESSURE / TEMPERATURE		
Plastic version	Operating pressure 0 to 16 bar Temperature-dependent	Means that the allowable operating pressure OP is also dependent on the medium temperature within the allowable ambient temperature. Values on request.
Allowable operating pressure and operating temperature of pipe/tube must be observed!		
THREAD SEAL		
Cylindrical threaded nipple	Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples

Filter with Push-in Connector and Stem

Product group	23	PN 16		Amb. temp. T_{min} 0 °C, T_{max} +60 °C Med.-Temp. T_{min} 0 °C, T_{max} +140 °C
Operating pressure 0 to max. 16 bar Temperature-dependent				Material: Body: PPSU, filter: 1.4301, Seal: EPDM (KTW-approved)

DN	KV value water [m³/h]	for tube D	D3	I	L1	L5	D1	Mesh size MW [mm]	Weight in [g]	Type	Order number	Price
2.5	0.15	4	4	17	40.5	25.5	14	0.1	4.7	SMF-947P3-4PF-D4-100	498143	o. r.
2.5	0.15	4	4	17	40.5	25.5	14	0.5	4.8	SMF-947P3-4PF-D4-500	498144	o. r.
4	0.5	6	6	18	41	25	14	0.1	4.8	SMF-947P3-6PF-D6-100	498145	o. r.
4	0.5	6	6	18	41	25	14	0.5	4.9	SMF-947P3-6PF-D6-500	498146	o. r.

Illustration

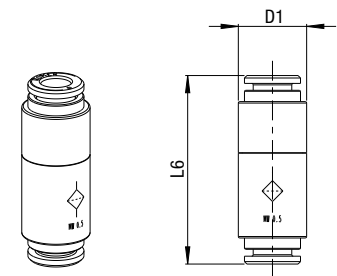


Filter with Push-in Connectors

Product group	23	PN	16		Amb. temp. T_{min} 0 °C, T_{max} +60 °C Med.-Temp. T_{min} 0 °C, T_{max} +140 °C		Plastic PPSU
Operating pressure 0 to max. 16 bar Temperature-dependent					Material: Body: PPSU, filter: 1.4301, Seal: EPDM (KTW-approved)		

DN	KV value water [m³/h]	for tube D	L6	D1	Mesh size MW [mm]	Weight in [g]	Type	Order number	Price
2.5	0.15	4	37.5	14	0.1	7.3	SMF-958P3-4PF-100	498147	o. r.
2.5	0.15	4	37.5	14	0.5	7.4	SMF-958P3-4PF-500	498148	o. r.
4	0.5	6	38.5	14	0.1	7.6	SMF-958P3-6PF-100	498149	o. r.
4	0.5	6	38.5	14	0.5	7.7	SMF-958P3-6PF-500	498150	o. r.

Illustration

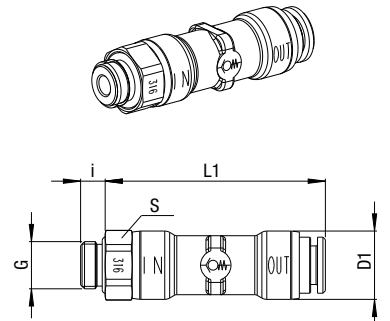


Non-Return Valve with Push-in Connector on Outlet

Product group	23	PN 16		Constr. design: spring-loaded cone non-return valve	Amb. temp. T_{min} 0 °C, T_{max} +60 °C Med. temp. T_{min} 0 °C, T_{max} +140 °C		Plastic PPSU
Operating pressure 0.1 to max. 16 bar; Temperature-dependent				Thread sealed by a FKM O-Ring in recess	Material: Body: PPSU, nipple: 1.4404, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)		

DN	KV value water [m³/h]	for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price
2.5	0.15	4	1/8	5	48	14	13	20.2	VNR-951-P325-4FF-1/8	634901	o. r.
2.5	0.15	4	1/4	7	48.5	14	17	29.5	VNR-951-P325-4FF-1/4	634902	o. r.
4	0.5	6	1/8	5	45	14	13	17	VNR-951-P340-6FF-1/8	634903	o. r.
4	0.5	6	1/4	7	45.5	14	17	26.4	VNR-951-P340-6FF-1/4	634904	o. r.

Illustration

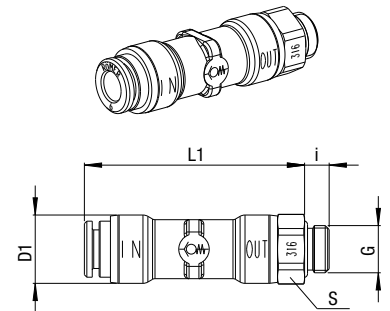


Non-Return Valve with Push-in Connector on Inlet

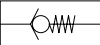
Product group	23	PN	16		Constr. design: spring-loaded cone non-return valve	Amb. temp. T_{min} 0 °C, T_{max} +60 °C Med. temp. T_{min} 0 °C, T_{max} +140 °C		
Operating pressure 0.1 to max. 16 bar; Temperature-dependent				Thread sealed by a FKM O-Ring in recess		Material: Body: PPSU, nipple: 1.4404, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)		

DN	KV value water [m³/h]	for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price
2.5	0.15	4	1/8	5	44.5	14	13	16.8	VRN-951-P325-4FF-1/8	634909	o. r.
2.5	0.15	4	1/4	7	45	14	17	26.2	VRN-951-P325-4FF-1/4	634910	o. r.
4	0.5	6	1/8	5	45	14	13	17	VRN-951-P340-6FF-1/8	634911	o. r.
4	0.5	6	1/4	7	45.5	14	17	26.5	VRN-951-P340-6FF-1/4	634912	o. r.

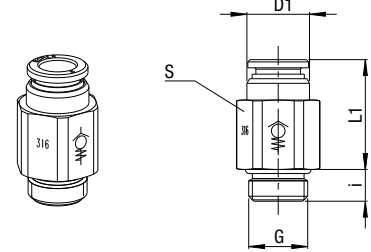
Illustration



Non-Return Valve with Push-in Connector on Inlet

Product group		23	PN	8		Constr. design: spring-loaded cone non-return valve			T_{min} 0 °C T_{max} +140 °C			Stainless steel AISI 316L	
Operating pressure				Thread sealed by a			Material: Body: 1.4404, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)						
0.1 to max. 8 bar				FKM O-Ring in recess									
DN	KV value water [m³/h]	for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price		
4	0.5	8	1/4	7	24	14	17	26.8	VRN-951-X 440-8FF-1/4	634943	o. r.		

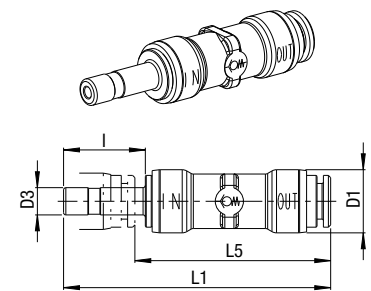
Illustration



Non-Return Valve with Plug-in Connector - Stem on Inlet

Product group	23	PN 16		Constr. design: spring-loaded cone non-return valve				Amb. temp. T _{min} 0 °C, T _{max} +60 °C Med. temp. T _{min} 0 °C, T _{max} +140 °C			Plastic PPSU
Operating pressure 0.1 to max. 16 bar Temperature-dependent				Material: Body: PPSU, Stem: 1.4404, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)							
DN	KV value water [m³/h]	for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price
2.5	0.15	4	4	17	60.5	47	14	14.3	VNR-947-P325-4FF-D4	634917	o. r.
2.5	0.15	4	6	18	61.5	46	14	15.4	VNR-947-P325-4FF-D6	634918	o. r.
2.5	0.15	6	4	17	57.5	43.5	14	11.2	VNR-947-P325-6FF-D4	634919	o. r.
4	0.5	6	6	18	58.5	43.5	14	12.3	VNR-947-P340-6FF-D6	634920	o. r.

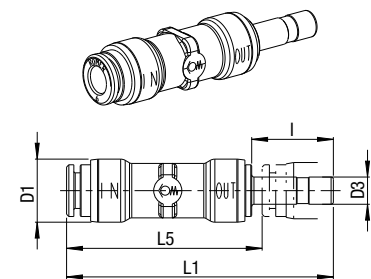
Illustration



Non-Return Valve with Plug-in Connector - Stem on Outlet

Product group	23	PN 16		Constr. design: spring-loaded cone non-return valve				Amb. temp. T _{min} 0 °C, T _{max} +60 °C Med. temp. T _{min} 0 °C, T _{max} +140 °C			Plastic PPSU
Operating pressure 0.1 to max. 16 bar Temperature-dependent				Material: Body: PPSU, Stem: 1.4404, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)							
DN	KV value water [m³/h]	for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price
2.5	0.15	4	4	17	57	42	14	11	VRN-947-P325-4FF-D4	634925	o. r.
2.5	0.15	4	6	18	58	42	14	12	VRN-947-P325-4FF-D6	634926	o. r.
2.5	0.15	6	4	17	57.5	43.5	14	11.2	VRN-947-P325-6FF-D4	634927	o. r.
4	0.5	6	6	18	58.5	43.5	14	12.3	VRN-947-P340-6FF-D6	634928	o. r.

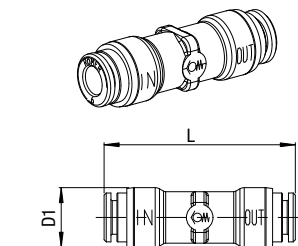
Illustration



Non-Return Valve with Push-in Connectors

Product group	23	PN	16		Constr. design: spring-loaded cone non-return valve		Amb. temp. $T_{\min}$ 0 °C, $T_{\max}$ +60 °C Med. temp. $T_{\min}$ 0 °C, $T_{\max}$ +140 °C			Plastic PPSU	
Operating pressure 0.1 to max. 16 bar Temperature-dependent					Material: Body: PPSU, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)						
DN	KV value water [m³/h]	for tube D	L	D1	Temperature [°C]	Operating pressure Temperature-dependent [bar]	Weight in [g]	Type	Order number	Price	
2.5	0.15	4	47.3	13.9	0 to +140	0.1 to max. 16	11.1	VNR-958-P325-4FF	635077	o. r.	
4	0.5	6	44.6	13.9	0 to +140	0.1 to max. 16	8.1	VNR-958-P340-6FF	635080	o. r.	

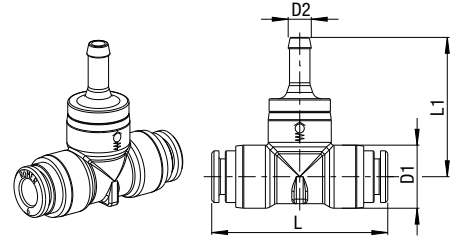
Illustration



Non-Return Valve with Push-in Connectors and Hose Tail

Product group	23	PN 16		Constr. design: spring-loaded cone non-return valve				Amb. temp. T _{min} 0 °C, T _{max} +60 °C Med. temp. T _{min} 0 °C, T _{max} +140 °C			Plastic PPSU	
Operating pressure 0.1 to max. 16 bar Temperature-dependent				Material: Body: PPSU, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)								
DN	KV value water [m³/h]	for tube D	for tube LW	L	L1	D1	D2	Weight in [g]	Type	Order number	Price	
2.5	0.15	4	3.5-4	38	30.5	14	5.1	14.6	VRN-954-P325-4FF-4	634933	o. r.	
3	2	6	3.5-4	39	30.5	14	5.1	14.7	VRN-954-P330-6FF-4	634934	o. r.	

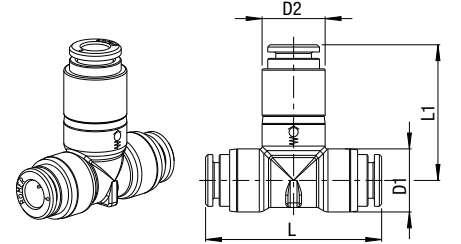
Illustration



Non-Return Valve with Push-in Connectors

Product group	23	PN 16		Constr. design: spring-loaded cone non-return valve			Amb. temp. T _{min} 0 °C, T _{max} +60 °C Med. temp. T _{min} 0 °C, T _{max} +140 °C			Plastic PPSU
Operating pressure 0.1 to max. 16 bar Temperature-dependent				Material: Body: PPSU, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)						
DN	KV value water [m³/h]	for tube D	L	L1	D1	D2	Weight in [g]	Type	Order number	Price
2.5	0.15	4	38	29.5	13	14	20.6	VRN-954-P325-4FF	634937	o. r.
4	0.3	6	39	30	17	14	19.1	VRN-954-P340-6FF	634938	o. r.

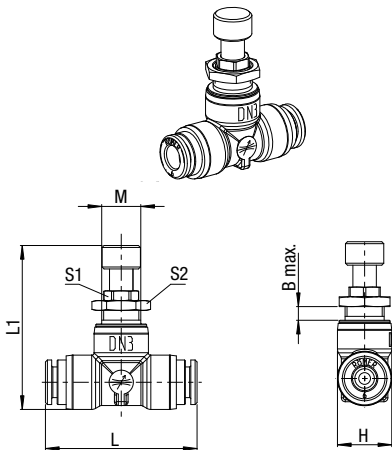
Illustration



Throttle Valve with Push-in Connectors

Product group	27	PN 20		Constr. design: Precision cone throttle				Amb. temp. T_{min} 0 °C, T_{max} +60 °C Med. temp. T_{min} 0 °C, T_{max} +140 °C					Plastic PPSU
				Operating pressure 0 to max. 20 bar Temperature-dependent				Material: Body: PPSU, spindle 1.4404, seal: FKM (FDA-compliant)					
DN	KV value water [m³/h]	for tube D	L	L1	M	B	H	S1	S2	Weight in [g]	Type	Order number	Price
1.5	0-0.05	4	38	42	M10x1	3.5	14	8	13	23	RFO-958-P315-4FF	635635	o. r.
1.5	0-0.05	6	39	42	M10x1	3.5	14	8	13	23.2	RFO-958-P315-6FF	635636	o. r.
2	0-0.1	4	38	42	M10x1	3.5	14	8	13	23.1	RFO-958-P320-4FF	635637	o. r.
2	0-0.1	6	39	42	M10x1	3.5	14	8	13	23.2	RFO-958-P320-6FF	635638	o. r.
3	0-0.2	6	39	42	M10x1	3.5	14	8	13	23.3	RFO-958-P330-6FF	635639	o. r.

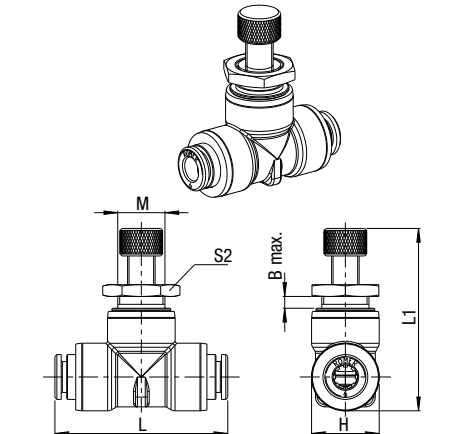
Illustration



Shut-Off Valve with Push-in Connectors

Product group	27	PN 16			Constr. design: Cone poppet valve				Amb. temp. $T_{\min}$ 0 °C, $T_{\max}$ +60 °C Med. temp. $T_{\min}$ 0 °C, $T_{\max}$ +140 °C					Plastic PPSU
Operating pressure 0 to max. 16 bar Temperature-dependent					Material: Body: PPSU, spindle 1.4404, Seal: FKM (FDA-compliant)									
DN	KV value water [m³/h]	for tube D	L	L1	M	B	H	S2	Weight in [g]	Type	Order number	Price		
4	0-0.5	6	44	46.5	M12x1	3.5	17	17	35.6	AFO-958-P340-6FF	694949	o. r.		

Illustration



Quick Coupling with Push-in Connectors - int. NRV

Product group **23**


Constr. design: Quick-release coupling with single-sided integrated non-return valve

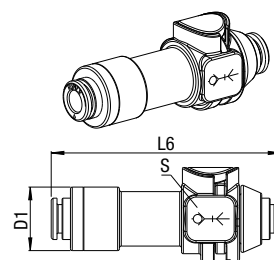


Plastic PPSU

Material: Body: PPSU, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)

DN	KV value water [m³/h]	for tube D	Max. allow. OP [bar] at medium temp.			L6	D1	S	Weight in [g]	Type	Order number	Price
			20 °C	100 °C	140 °C							
2.5	0.16	4	12	8	4	62.5	17.5	20	18.4	SVK-958-P325-4FF	359320	o. r.
4	0.35	6	12	8	4	63.5	17.5	20	18.6	SVK-958-P340-6FF	359321	o. r.

Illustration



Bulkhead Quick Coupling with Push-in Connectors, int. NRV

Product group **23**


Constr. design: Schott quick-release coupling with single-sided integrated non-return valve

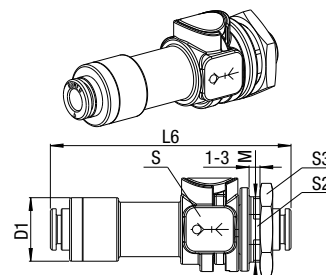


Plastic PPSU

Material: Body: PPSU, cone PPSU, spring: Stainless steel 1.4310, seal: FKM (FDA-compliant)

DN	KV value water [m³/h]	for tube D	Max. allow. OP [bar] at medium temp.			L6	M	D1	S	S2	S3	Weight in [g]	Type	Order number	Price
			20 °C	100 °C	140 °C										
2.5	0.16	4	12	8	4	65.5	M18x1	17.5	20	16	22	25.5	SVK-959-P325-4FF	359322	o. r.
4	0.35	6	12	8	4	66.5	M18x1	17.5	20	16	22	26.0	SVK-959-P340-6FF	359323	o. r.

Illustration



Pressure Relief Valve

Product group **23**


Constr. design: Pressure relief valve

Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C

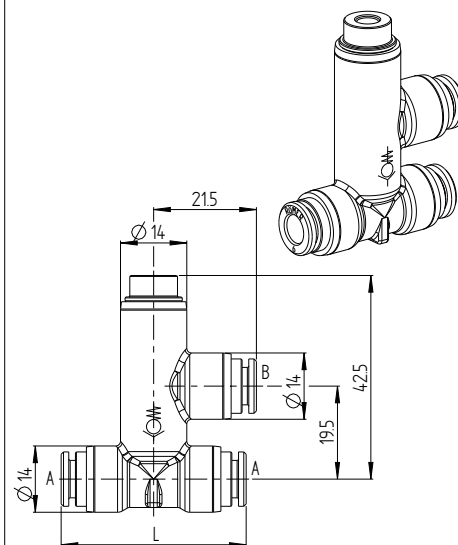

Plastic PPSU

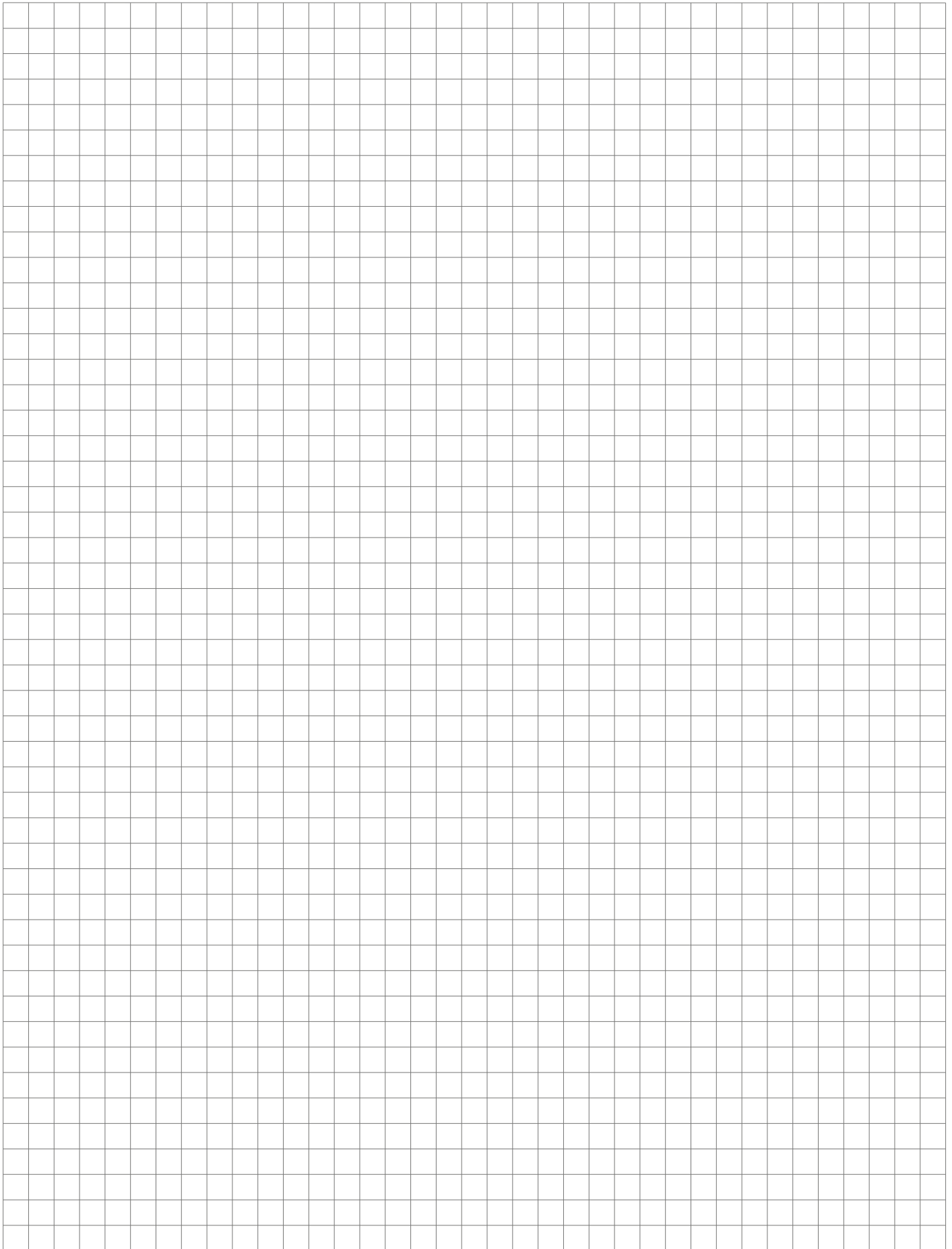
Material: Body: PPSU, spring: Stainless steel 1.4310, contact with the medium internals: Stainless steel 1.4404; seal: FKM (FDA-compliant)

This pressure relief valve is not approved as a safety valve!

for tube AD	for tube BD	DN	Max. allow. OP [bar] at medium temp.			L	opening pressure [air]	Weight in [g]	Type	Order number	Price
			20 °C	100 °C	140 °C						
4	6	2.5	6	6	6	38	3	27	UDV-982P3-6-4PF-030	499101	o. r.
4	6	2.5	10	10	10	38	6	27	UDV-982P3-6-4PF-060	499102	o. r.
4	6	2.5	14	12	10	38	10	27	UDV-982P3-6-4PF-100	499103	o. r.
6	6	2.5	6	6	6	39	3	28	UDV-982P3-6PF-030	499104	o. r.
6	6	2.5	10	10	10	39	6	28	UDV-982P3-6PF-060	499105	o. r.
6	6	2.5	14	12	10	39	10	28	UDV-982P3-6PF-100	499106	o. r.

Illustration





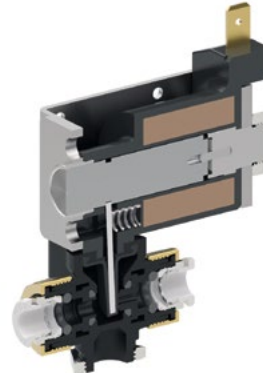
MAGMA Solenoid Valves Type ETV Series 100

MAGMA the special valve principle from AVS-Römer

**MEDIUM
SEPARATED**

ELSA
Push-in Fittings

NSF
COMPONENT



High quality valve series with coaxial flow or 90° flow, in 2/2- and 3/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

Other features:

- minimal dead space without dirt pockets
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- medium is barely heated by the solenoid
- emergency manual override with position indicator as standard
- materials and constructional design are particularly suited for food applications

Variations / options:

- other tube connector
- other material for seal
- other nominal diameter or other pressure range
- version for vacuum
- other nominal voltage

CHARACTERISTICS

GENERAL

Constructional design	Lever actuated seat valve with separating membrane		
Product name	2/2-way solenoid valve	3/2-way solenoid valve	3/2-way solenoid valve
Actuation	Electric, direct acting or via emergency manual override with position indicator		
Product type	ETV-12x- A .	ETV-117- C .	ETV-139- F .
Function	"A" in 0-position closed	"C" in 0-position "1" closed, "2" to "3" discharged	"F" in 0-position "1" to "2" closed, "1" to "4" open
Nominal diameter	DN 2 to DN 4		
Connection	ELSA push-in connectors for pipe/tube OD 6 (others on request)		
Ambient temperature	0 °C to +60 °C (others on request)		
Medium temperature	0 °C to +130 °C (others on request)		
Medium viscosity	up to approx. 35 mm ² /s		
Valve body and insert material	PPA		
O-ring material	FKM, EPDM on request		
Membran material	FKM, EPDM on request		
Union nut material	Brass		
Solenoid housing material	Plastic-molded PBT, "H" (180 °C)		
Mounting method	with lock nut M14x1 or with self-tapping screws ISO 7049-ST3.5x6.5-C		
Mounting position	optional		
Approval	NSF/ANSI 169		

PNEUMATIC - HYDRAULIC

Nominal pressure [bar]	up to PN 16 in accordance with the specification table
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or liquids which do not corrode the materials specified
Response time	Opening time 10 to 25 ms; Closing time: 15 to 25 ms

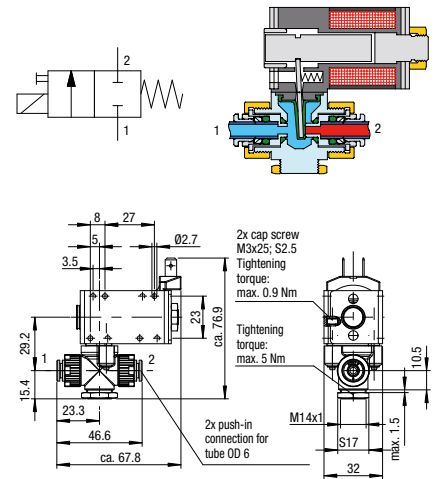
ELECTRIC

Nominal voltage	24 V DC (other DC upon request)
Voltage tolerance	±10 %
Nominal power P ₂₀	8 W
Duty cycle	100 %
Electrical connection	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247
Protection class according to EN 60529	IP 00

2/2-Way Coaxial Solenoid Valve - Type ETV Series 100

Product group		56	"A" in 0-position closed (closing with the flow)				 NSF		Plastic PPA	
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price	
2	1.8	6	16	0-16	FKM (FDA-compliant)	24 V DC	ETV-122-A20-6FF-024/=-R0	627003	o. r.	
3	3.4	6	16	0-16	FKM (FDA-compliant)	24 V DC	ETV-122-A30-6FF-024/=-R0	627008	o. r.	
4	5.4	6	8	0-8	FKM (FDA-compliant)	24 V DC	ETV-122-A40-6FF-024/=-R0	627010	o. r.	

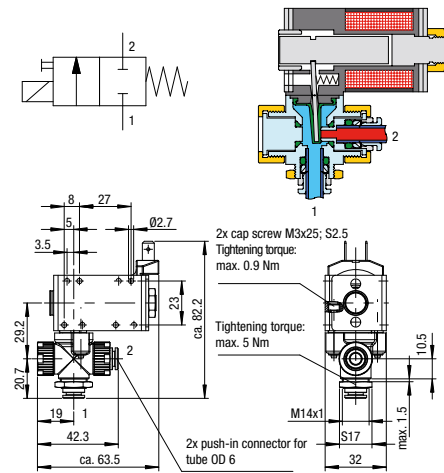
Illustration



2/2-Way 90° Solenoid Valve - Type ETV Series 100

Product group		56		"A" in 0-position closed (closing with the flow)					Plastic PPA	
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price	
2	1.8	6	16	0-16	FKM (FDA-compliant)	24 V DC	ETV-125-A20-6FF-024/=-R0	627033	o. r.	
3	3.4	6	16	0-16	FKM (FDA-compliant)	24 V DC	ETV-125-A30-6FF-024/=-R0	627038	o. r.	
4	5.4	6	8	0-8	FKM (FDA-compliant)	24 V DC	ETV-125-A40-6FF-024/=-R0	627040	o. r.	

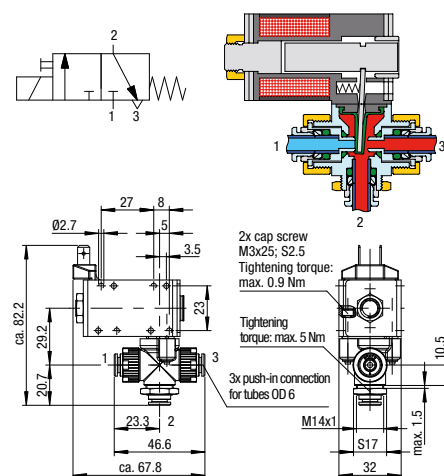
Illustration



3/2-Way Solenoid Valve - Type ETV Series 100

Product group	56	"C" in 0-position "1" closed, "2" to "3" discharged					Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.7	6	12.5	0-12.5	FKM (FDA-compliant)	24 V DC	ETV-117-C20-6FF-024/=-R0	627103	o. r.
3	3.3	6	6	0-6	FKM (FDA-compliant)	24 V DC	ETV-117-C30-6FF-024/=-R0	627108	o. r.
4	5.3	6	3	0-3	FKM (FDA-compliant)	24 V DC	ETV-117-C40-6FF-024/=-R0	627113	o. r.

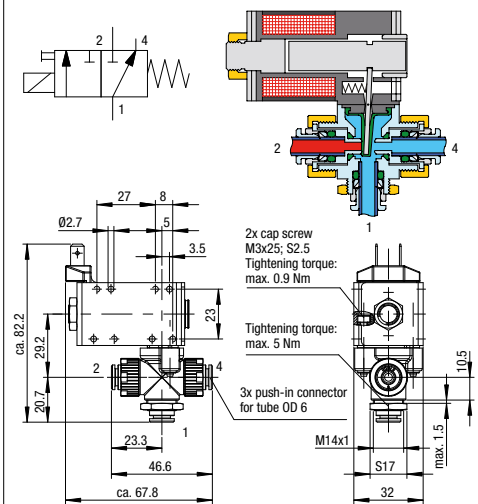
Illustration



3/2-Way Solenoid Valve - Type ETV Series 100

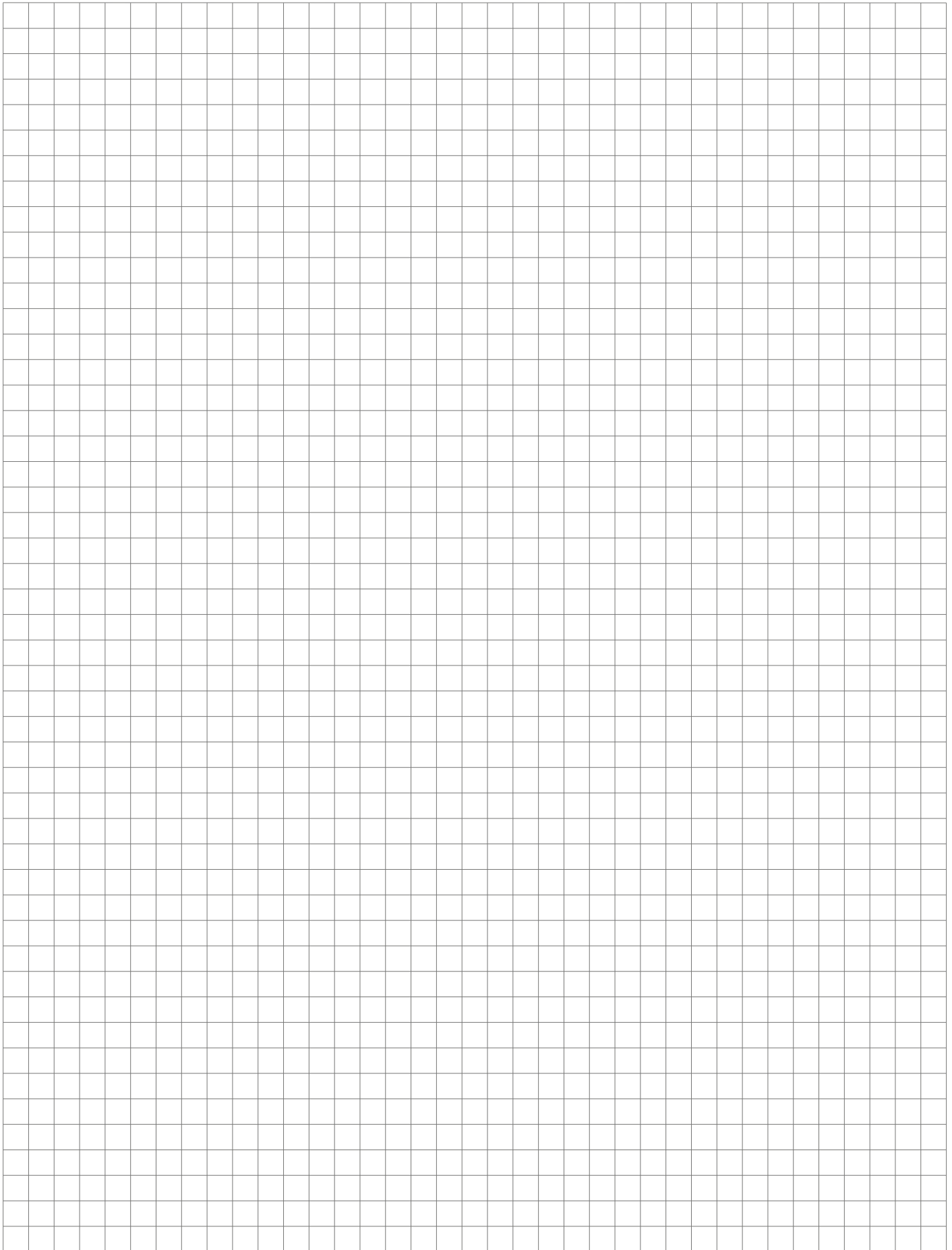
Product group		"F" in 0-position "1" to "2" closed, "1" to "4" open				NSF		Plastic PPA	
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.7	6	10	0-10	FKM (FDA-compliant)	24 V DC	ETV-139-F20-6FF-024/=-R0	627153	o. r.
3	3.3	6	8	0-8	FKM (FDA-compliant)	24 V DC	ETV-139-F30-6FF-024/=-R0	627157	o. r.
4	5.3	6	6	0-6	FKM (FDA-compliant)	24 V DC	ETV-139-F40-6FF-024/=-R0	627161	o. r.

Illustration



Home





MAGMA Solenoid Valves Type ETV Series 200

MAGMA the valve principle from AVS-Römer

MEDIUM
SEPARATED

ELSA
Push-in Fittings

NSF
COMPONENT



High quality valve series with coaxial flow or 90° flow, in 2/2-way and 3/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

Other features:

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- thermal insulation between the electro-magnet and the medium
- emergency manual override with position indicator as standard
- materials and constructional design especially optimised for food applications

Variations / options:

- other tube connector
- other material for seal
- other nominal diameter or other pressure range
- version for vacuum
- other function (e.g. 3/2-way distribution valve)
- other nominal voltage

CHARACTERISTICS

GENERAL

Constructional design	Lever actuated seat valve with separating membrane			
Product name	2/2-way solenoid valve		3/2-way solenoid valve	
Actuation	Electric, direct acting or by emergency manual override with position indicator			
Product type	ETV-222-A .	ETV-211-B .	ETV-217-C .	ETV-219-F .
Function	“A” in 0-position closed	“B” in 0-position open	“C” in 0-position “1” closed, “2” to “3” discharged	“F” in 0-position “1” to “2” closed, “1” to “4” open
Nominal diameter	DN 1.5 to DN 2.5	DN 1.5 to DN 2.5	DN 1.5 to DN 3	DN 1.5 to DN 3
Connection	ELSA push-in connectors for pipe/tube OD 6 or OD 4			
Ambient temperature	0 °C to +60 °C			
Medium temperature	0 °C to +130 °C			
Medium viscosity	up to approx. 35 mm²/s			
Valve body and insert material	PPA, PPSU			
Membrane and O-ring material	FKM			
Solenoid housing material	PPS, EPDM (UL94-V0) plastic, insulation class “F” (155 °C)			
Mounting method	with 2 thread press-fit inserts M3, self-tapping screws ISO7049-ST3.5x6.5-C or with M14x1 locknut			
Mounting position	optional			
Approval	NSF/ANSI 169			

PNEUMATIC - HYDRAULIC

Nominal pressure	up to PN 16 in accordance with the specification table
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table depending on duty, OP 50 % duty is valid at max. SD 60 s
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or liquids which do not corrode the materials specified
Response time	Opening time 10 to 25 ms; Closing time: 10 to 25 ms

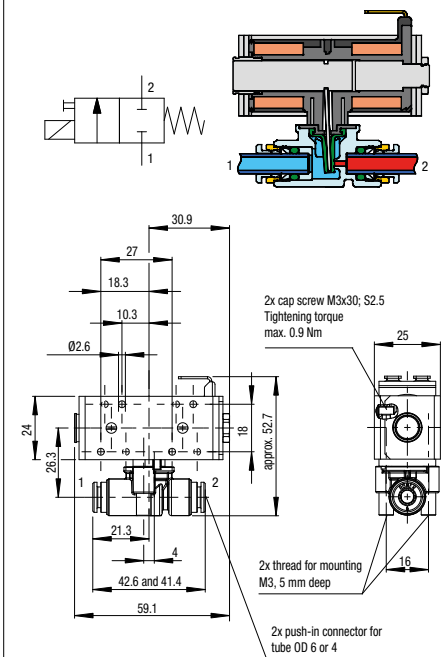
ELECTRIC

Nominal voltage	24 V DC
Voltage tolerance	±10 %
Nominal power P ₂₀	6 W
Duty cycle	100 %, depending on the duty cycle the power consumption decreases by up to 30 %
Electrical connection	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247
Protection class according to EN 60529	IP 00

2/2-Way Coaxial Solenoid Valve - Type ETV Series 200

Product group 56		"A" in 0-position closed (closing with the flow)							Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	16	16	12.5	6	EPDM	24 V DC	ETV-222-A15-4PF-024/=U0	627351	o. r.
1.5	1.4	6	16	16	12.5	6	EPDM	24 V DC	ETV-222-A15-6PF-024/=U0	627352	o. r.
2	2.4	4	12.5	12.5	10	5	EPDM	24 V DC	ETV-222-A20-4PF-024/=U0	627363	o. r.
2	2.4	6	12.5	12.5	10	5	EPDM	24 V DC	ETV-222-A20-6PF-024/=U0	627364	o. r.
2.5	2.5	4	8	8	6	3	EPDM	24 V DC	ETV-222-A25-4PF-024/=U0	627353	o. r.
2.5	3.4	6	8	8	6	3	EPDM	24 V DC	ETV-222-A25-6PF-024/=U0	627354	o. r.
1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-222-A15-4FF-024/=U0	627355	o. r.
1.5	1.4	6	16	16	12.5	6	FKM	24 V DC	ETV-222-A15-6FF-024/=U0	627356	o. r.
2	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-222-A20-4FF-024/=U0	627365	o. r.
2	2.4	6	12.5	12.5	10	5	FKM	24 V DC	ETV-222-A20-6FF-024/=U0	627366	o. r.
2.5	2.5	4	8	8	6	3	FKM	24 V DC	ETV-222-A25-4FF-024/=U0	627357	o. r.
2.5	3.4	6	8	8	6	3	FKM	24 V DC	ETV-222-A25-6FF-024/=U0	627358	o. r.

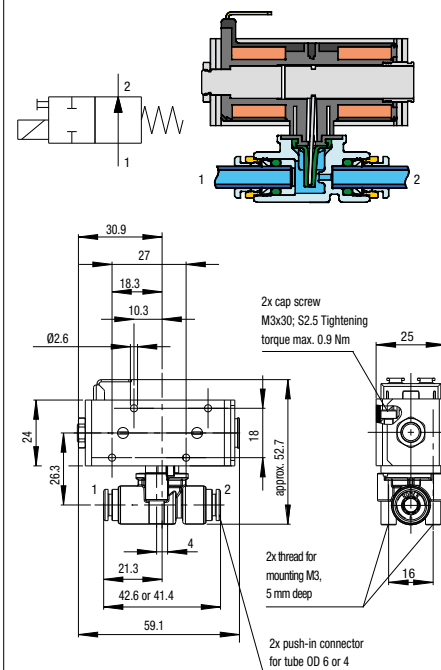
Illustration



2/2-Way Coaxial Solenoid Valve - Type ETV Series 200

Product group 56		"B" in 0-position open (closing with the flow)							Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	12.5	12.5	12.5	12.5	EPDM	24 V DC	ETV-211-B15-4PF-024/=U0	627401	o. r.
1.5	1.4	6	12.5	12.5	12.5	12.5	EPDM	24 V DC	ETV-211-B15-6PF-024/=U0	627402	o. r.
2	2.4	4	8	8	8	8	EPDM	24 V DC	ETV-211-B20-4PF-024/=U0	627409	o. r.
2	2.4	6	8	8	8	8	EPDM	24 V DC	ETV-211-B20-6PF-024/=U0	627410	o. r.
2.5	2.5	4	4	4	4	4	EPDM	24 V DC	ETV-211-B25-4PF-024/=U0	627403	o. r.
2.5	3.4	6	4	4	4	4	EPDM	24 V DC	ETV-211-B25-6PF-024/=U0	627404	o. r.
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-211-B15-4FF-024/=U0	627405	o. r.
1.5	1.4	6	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-211-B15-6FF-024/=U0	627406	o. r.
2	2.4	4	8	8	8	8	FKM	24 V DC	ETV-211-B20-4FF-024/=U0	627411	o. r.
2	2.4	6	8	8	8	8	FKM	24 V DC	ETV-211-B20-6FF-024/=U0	627412	o. r.
2.5	2.5	4	4	4	4	4	FKM	24 V DC	ETV-211-B25-4FF-024/=U0	627407	o. r.
2.5	3.4	6	4	4	4	4	FKM	24 V DC	ETV-211-B25-6FF-024/=U0	627408	o. r.

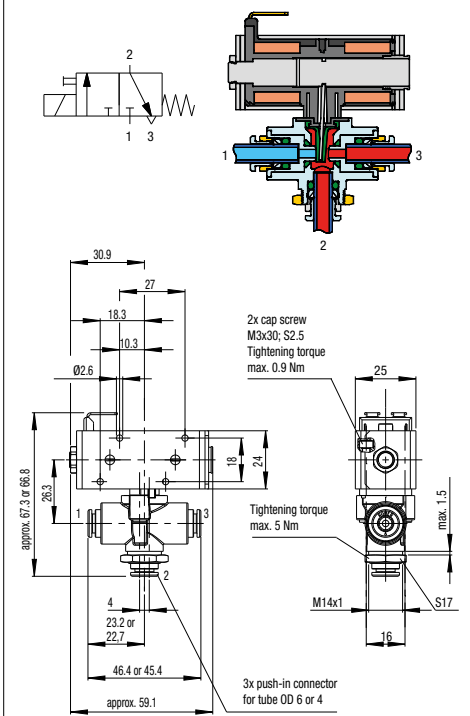
Illustration



3/2-Way Coaxial Solenoid Valve - Type ETV Series 200

Product group 56		"C" in 0-position "1" closed, "2" to "3" discharged							Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	6	6	6	6	EPDM	24 V DC	ETV-217-C15-4PF-024/=-U0	627421	o. r.
1.5	1.5	6	6	6	6	6	EPDM	24 V DC	ETV-217-C15-6PF-024/=-U0	627424	o. r.
2	1.5	4	5	5	5	5	EPDM	24 V DC	ETV-217-C20-4PF-024/=-U0	627427	o. r.
2	1.8	6	5	5	5	5	EPDM	24 V DC	ETV-217-C20-6PF-024/=-U0	627430	o. r.
3	1.7	4	2	2	2	2	EPDM	24 V DC	ETV-217-C30-4PF-024/=-U0	627433	o. r.
3	2.5	6	2	2	2	2	EPDM	24 V DC	ETV-217-C30-6PF-024/=-U0	627436	o. r.
1.5	1.4	4	6	6	6	6	FKM	24 V DC	ETV-217-C15-4FF-024/=-U0	627422	o. r.
1.5	1.5	6	6	6	6	6	FKM	24 V DC	ETV-217-C15-6FF-024/=-U0	627425	o. r.
2	1.5	4	5	5	5	5	FKM	24 V DC	ETV-217-C20-4FF-024/=-U0	627428	o. r.
2	1.8	6	5	5	5	5	FKM	24 V DC	ETV-217-C20-6FF-024/=-U0	627431	o. r.
3	1.7	4	2	2	2	2	FKM	24 V DC	ETV-217-C30-4FF-024/=-U0	627434	o. r.
3	2.5	6	2	2	2	2	FKM	24 V DC	ETV-217-C30-6FF-024/=-U0	627437	o. r.

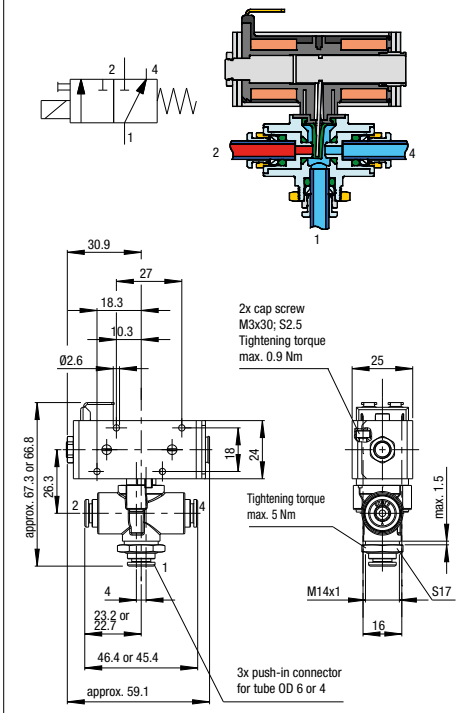
Illustration

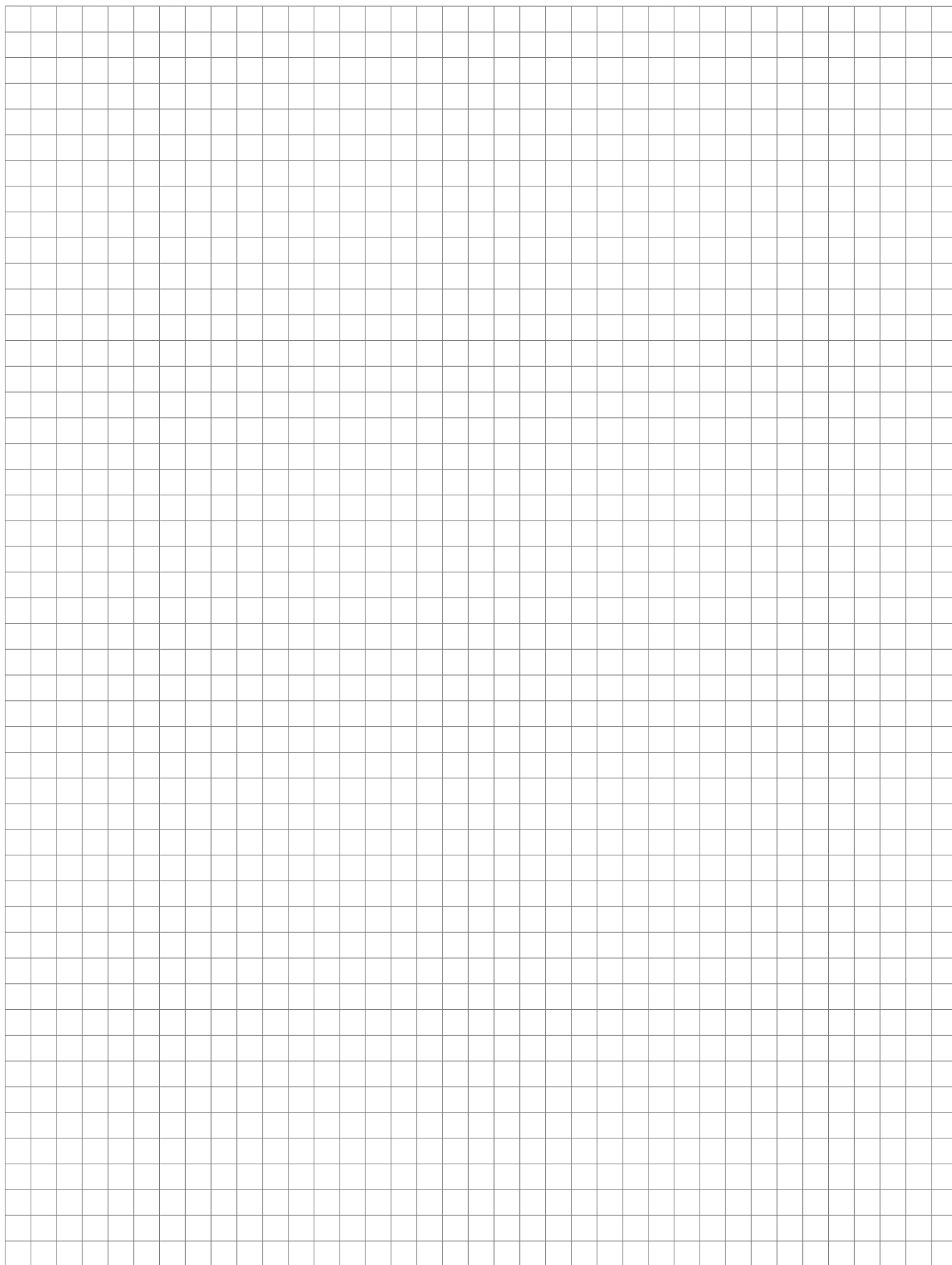


3/2-Way Coaxial Solenoid Valve - Type ETV Series 200

Product group 56		"F" in 0-position "1" to "2" closed, "1" to "4" open							Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	12.5	12.5	12.5	6	EPDM	24 V DC	ETV-219-F15-4PF-024/=-U0	627451	o. r.
1.5	1.5	6	12.5	12.5	12.5	6	EPDM	24 V DC	ETV-219-F15-6PF-024/=-U0	627454	o. r.
2	1.6	4	10	10	10	6	EPDM	24 V DC	ETV-219-F20-4PF-024/=-U0	627457	o. r.
2	1.8	6	10	10	10	6	EPDM	24 V DC	ETV-219-F20-6PF-024/=-U0	627460	o. r.
3	1.8	4	4	4	4	3	EPDM	24 V DC	ETV-219-F30-4PF-024/=-U0	627463	o. r.
3	2.8	6	4	4	4	3	EPDM	24 V DC	ETV-219-F30-6PF-024/=-U0	627466	o. r.
1.5	1.4	4	12.5	12.5	12.5	6	FKM	24 V DC	ETV-219-F15-4FF-024/=-U0	627452	o. r.
1.5	1.5	6	12.5	12.5	12.5	6	FKM	24 V DC	ETV-219-F15-6FF-024/=-U0	627455	o. r.
2	1.6	4	10	10	10	6	FKM	24 V DC	ETV-219-F20-4FF-024/=-U0	627458	o. r.
2	1.8	6	10	10	10	6	FKM	24 V DC	ETV-219-F20-6FF-024/=-U0	627461	o. r.
3	1.8	4	4	4	4	3	FKM	24 V DC	ETV-219-F30-4FF-024/=-U0	627464	o. r.
3	2.8	6	4	4	4	3	FKM	24 V DC	ETV-219-F30-6FF-024/=-U0	627467	o. r.

Illustration





MAGMA Solenoid Valve Batteries Type ETV Series 200

MAGMA the valve principle from AVS-Römer

MEDIUM
SEPARATED

ELSA
Push-in Fittings

NSF
COMPONENT



High quality valve series with coaxial flow, in 2/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

Other features:

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- thermal insulation between the electro-magnet and the medium
- emergency manual override with position indicator as standard
- materials and constructional design especially optimised for food applications

Variations / options:

- distribution connection left, right, both sides
- valves with varying nominal diameters in one battery
- NC and NO valves in one battery
- mixer version

CHARACTERISTICS

GENERAL

Constructional design	Lever actuated seat valve with separating membrane	
Product name	2/2-way solenoid valve, battery	
Actuation	electric, direct acting or by emergency manual override with position indicator	
Product type	ETV-2221/V-A.	ETV-2111/V.- B.
Function	"A" in 0-position closed	"B" in 0-position open
Nominal diameter	DN 1.0 to DN 2.5	DN 1.0 to DN 2.5
Connection	ELSA push-in connectors for pipe/tube OD 6 or OD 4	
Ambient temperature	0 °C to +60 °C	
Medium temperature	0 °C to +130 °C	
Medium viscosity	up to approx. 35 mm ² /s	
Valve body and insert material	PPA and PPSU	
Membrane material	EPDM or FKM	
O-ring material	FKM or EPDM	
Solenoid housing material	PPS (UL94-V0) plastic, insulation class "F" (155 °C)	
Mounting method	with 2 thread press-fit inserts M3 per single valve	
Mounting position	optional	
Approval	NSF/ANSI 169	

PNEUMATIC - HYDRAULIC

Nominal pressure	up to PN 16 in accordance with the specification table
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table depending on duty, OP 50 % duty is valid at max. SD 60 s
Flow rate	Kv-value in accordance with the specification table
Medium	gases or liquids which do not corrode the materials specified
Response time	Opening time 10 to 25 ms; Closing time: 10 to 25 ms

ELECTRIC

Nominal voltage	24 V DC
Voltage tolerance	±10 %
Nominal power P ₂₀	6 W
Duty cycle	100 %, depending on the duty cycle the power consumption decreases by up to 30 %
Electrical connection	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247
Protection class according to EN 60529	IP 00

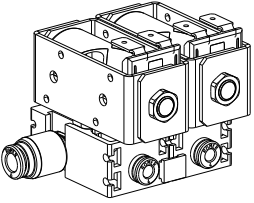
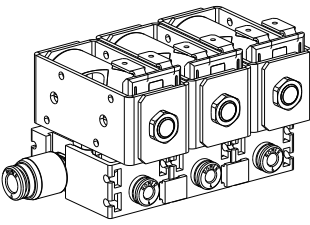
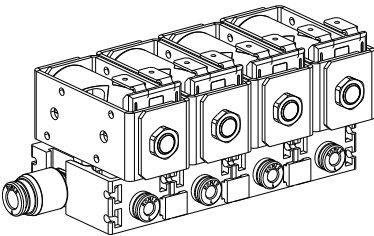
2/2-Way Solenoid Valve Battery - Type ETV Series 200

Product group **56**

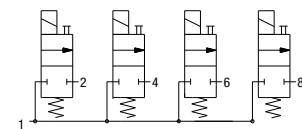
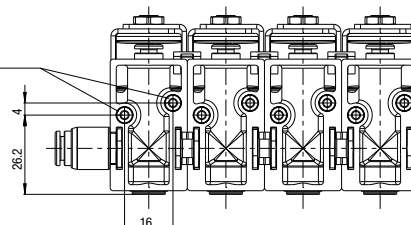
"A" in 0-position closed
(closing with the flow)

Plastic
PPA

Home

Version	DN	Kv-value water [l/min]	for tube OD	PN	Al- low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal mate- rial	Voltage / current	Type	Order number	Price
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V2-A10-4FF-024/-U0	627901	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A10-4PF-024/-U0	627902	o. r.
			4					FKM	24 V DC	ETV-2221/V2-A10-6FF-024/-U0	627903	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A10-6PF-024/-U0	627904	o. r.
	1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V2-A15-4FF-024/-U0	627905	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A15-4PF-024/-U0	627906	o. r.
			4					FKM	24 V DC	ETV-2221/V2-A15-6FF-024/-U0	627907	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A15-6PF-024/-U0	627908	o. r.
	2.0	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V2-A20-4FF-024/-U0	627909	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A20-4PF-024/-U0	627910	o. r.
			4					FKM	24 V DC	ETV-2221/V2-A20-6FF-024/-U0	627911	o. r.
			6					EPDM	24 V DC	ETV-2221/V2-A20-6PF-024/-U0	627912	o. r.
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V3-A10-4FF-024/-U0	627917	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A10-4PF-024/-U0	627918	o. r.
			4					FKM	24 V DC	ETV-2221/V3-A10-6FF-024/-U0	627919	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A10-6PF-024/-U0	627920	o. r.
	1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V3-A15-4FF-024/-U0	627921	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A15-4PF-024/-U0	627922	o. r.
			4					FKM	24 V DC	ETV-2221/V3-A15-6FF-024/-U0	627923	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A15-6PF-024/-U0	627924	o. r.
	2.0	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V3-A20-4FF-024/-U0	627925	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A20-4PF-024/-U0	627926	o. r.
			4					FKM	24 V DC	ETV-2221/V3-A20-6FF-024/-U0	627927	o. r.
			6					EPDM	24 V DC	ETV-2221/V3-A20-6PF-024/-U0	627928	o. r.
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V4-A10-4FF-024/-U0	627933	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A10-4PF-024/-U0	627934	o. r.
			4					FKM	24 V DC	ETV-2221/V4-A10-6FF-024/-U0	627935	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A10-6PF-024/-U0	627936	o. r.
	1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V4-A15-4FF-024/-U0	627937	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A15-4PF-024/-U0	627938	o. r.
			4					FKM	24 V DC	ETV-2221/V4-A15-6FF-024/-U0	627939	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A15-6PF-024/-U0	627940	o. r.
	2.0	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V4-A20-4FF-024/-U0	627941	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A20-4PF-024/-U0	627942	o. r.
			4					FKM	24 V DC	ETV-2221/V4-A20-6FF-024/-U0	627943	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A20-6PF-024/-U0	627944	o. r.
	2.5	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V4-A25-4FF-024/-U0	627945	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A25-4PF-024/-U0	627946	o. r.
			4					FKM	24 V DC	ETV-2221/V4-A25-6FF-024/-U0	627947	o. r.
			6					EPDM	24 V DC	ETV-2221/V4-A25-6PF-024/-U0	627948	o. r.

Illustration

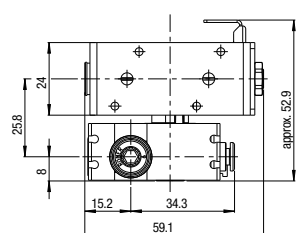
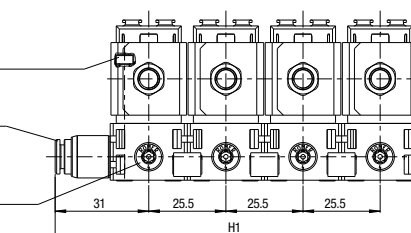
2x thread for
mounting
M3, 5 mm deep


Valve Design

Description	H1
2-valve battery	69.2
3-valve battery	94.7
4-valve battery	120.2

Cap screw
M3x30; S2.5
Tightening torque: max. 0.9 Nm

Push-in connector
for tube OD 6

4 x push-in connector
for tube OD 6 or 4


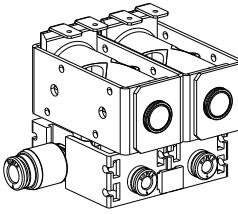
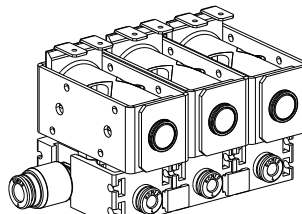
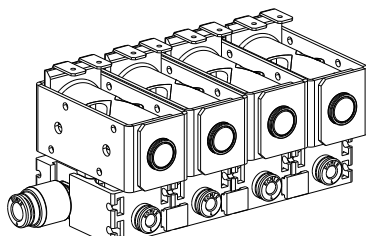
2/2-Way Solenoid Valve Battery - Type ETV Series 200

Product group **56**

"B" in 0-position open
(closing with the flow)

Plastic
PPA

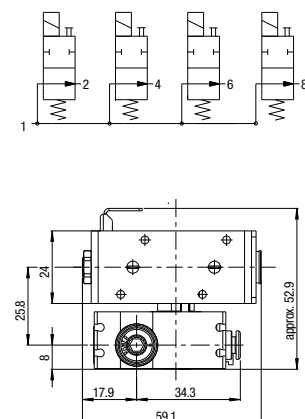
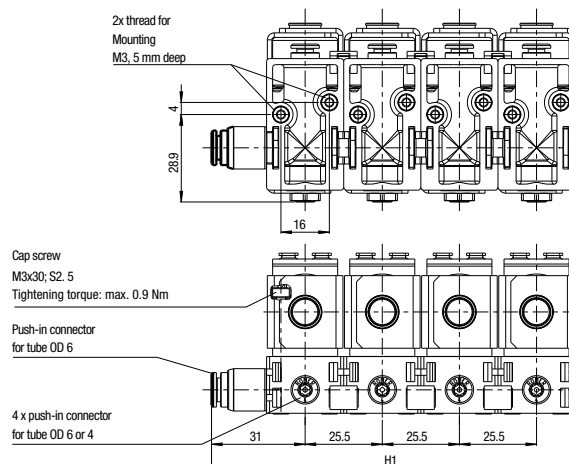
Home

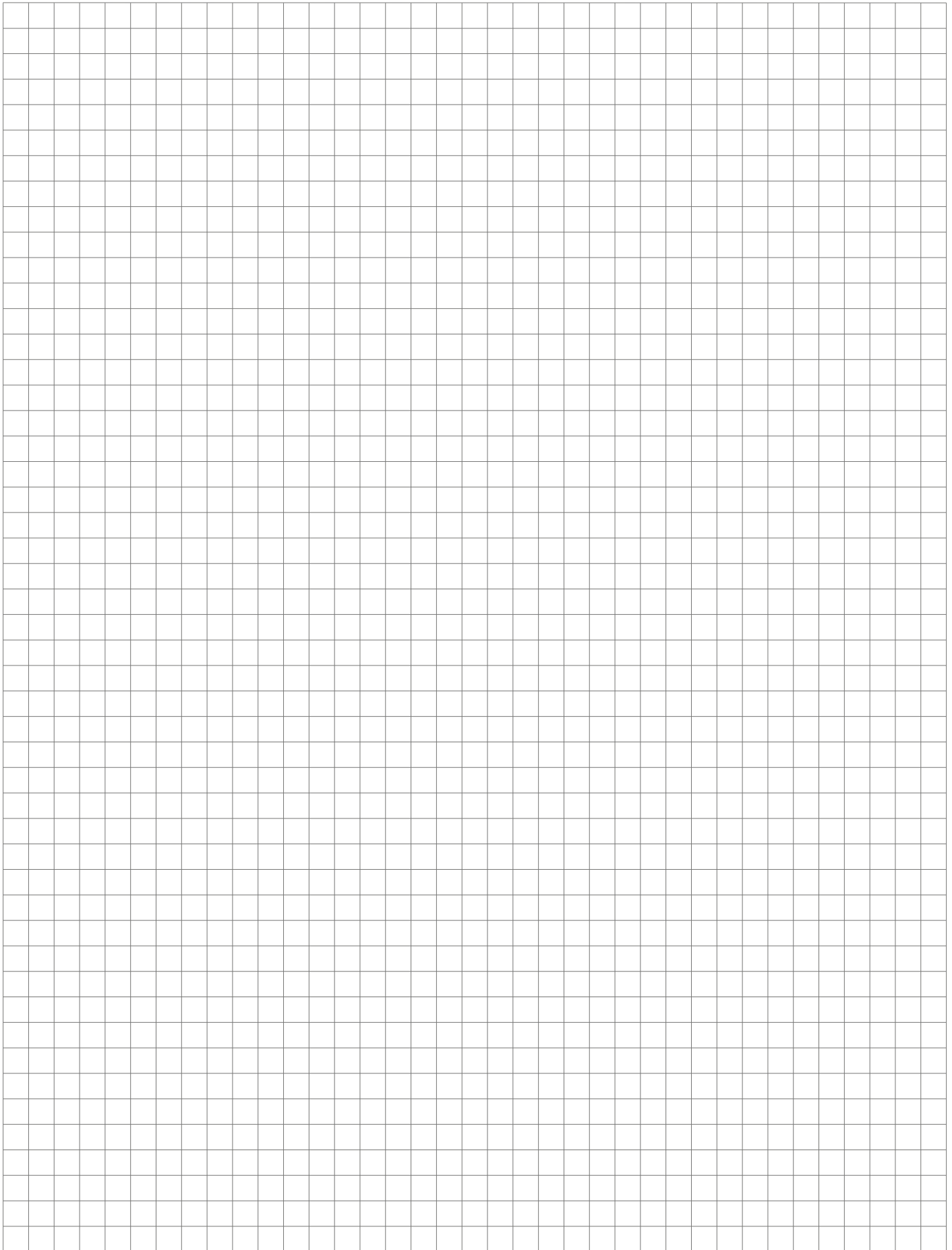
DN	Kv-value water [l/min]	for tube OD	PN	Al- low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal mate- rial	Voltage / current	Type	Order number	Price	Version
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V2-B10-4FF-024/=-U0	627951	o. r.	
		EPDM					24 V DC	ETV-2111/V2-B10-4PF-024/=-U0	627952	o. r.		
		FKM					24 V DC	ETV-2111/V2-B10-6FF-024/=-U0	627953	o. r.		
		EPDM					24 V DC	ETV-2111/V2-B10-6PF-024/=-U0	627954	o. r.		
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V2-B15-4FF-024/=-U0	627955	o. r.	
		EPDM					24 V DC	ETV-2111/V2-B15-4PF-024/=-U0	627956	o. r.		
		FKM					24 V DC	ETV-2111/V2-B15-6FF-024/=-U0	627957	o. r.		
		EPDM					24 V DC	ETV-2111/V2-B15-6PF-024/=-U0	627958	o. r.		
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V2-B20-4FF-024/=-U0	627959	o. r.	
		EPDM					24 V DC	ETV-2111/V2-B20-4PF-024/=-U0	627960	o. r.		
		FKM					24 V DC	ETV-2111/V2-B20-6FF-024/=-U0	627961	o. r.		
		EPDM					24 V DC	ETV-2111/V2-B20-6PF-024/=-U0	627962	o. r.		
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V2-B25-4FF-024/=-U0	627963	o. r.	
		EPDM					24 V DC	ETV-2111/V2-B25-4PF-024/=-U0	627964	o. r.		
		FKM					24 V DC	ETV-2111/V2-B25-6FF-024/=-U0	627965	o. r.		
		EPDM					24 V DC	ETV-2111/V2-B25-6PF-024/=-U0	627966	o. r.		
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V3-B10-4FF-024/=-U0	627967	o. r.	
		EPDM					24 V DC	ETV-2111/V3-B10-4PF-024/=-U0	627968	o. r.		
		FKM					24 V DC	ETV-2111/V3-B10-6FF-024/=-U0	627969	o. r.		
		EPDM					24 V DC	ETV-2111/V3-B10-6PF-024/=-U0	627970	o. r.		
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V3-B15-4FF-024/=-U0	627971	o. r.	
		EPDM					24 V DC	ETV-2111/V3-B15-4PF-024/=-U0	627972	o. r.		
		FKM					24 V DC	ETV-2111/V3-B15-6FF-024/=-U0	627973	o. r.		
		EPDM					24 V DC	ETV-2111/V3-B15-6PF-024/=-U0	627974	o. r.		
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V3-B20-4FF-024/=-U0	627975	o. r.	
		EPDM					24 V DC	ETV-2111/V3-B20-4PF-024/=-U0	627976	o. r.		
		FKM					24 V DC	ETV-2111/V3-B20-6FF-024/=-U0	627977	o. r.		
		EPDM					24 V DC	ETV-2111/V3-B20-6PF-024/=-U0	627978	o. r.		
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V3-B25-4FF-024/=-U0	627979	o. r.	
		EPDM					24 V DC	ETV-2111/V3-B25-4PF-024/=-U0	627980	o. r.		
		FKM					24 V DC	ETV-2111/V3-B25-6FF-024/=-U0	627981	o. r.		
		EPDM					24 V DC	ETV-2111/V3-B25-6PF-024/=-U0	627982	o. r.		
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V4-B10-4FF-024/=-U0	627983	o. r.	
		EPDM					24 V DC	ETV-2111/V4-B10-4PF-024/=-U0	627984	o. r.		
		FKM					24 V DC	ETV-2111/V4-B10-6FF-024/=-U0	627985	o. r.		
		EPDM					24 V DC	ETV-2111/V4-B10-6PF-024/=-U0	627986	o. r.		
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V4-B15-4FF-024/=-U0	627987	o. r.	
		EPDM					24 V DC	ETV-2111/V4-B15-4PF-024/=-U0	627988	o. r.		
		FKM					24 V DC	ETV-2111/V4-B15-6FF-024/=-U0	627989	o. r.		
		EPDM					24 V DC	ETV-2111/V4-B15-6PF-024/=-U0	627990	o. r.		
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V4-B20-4FF-024/=-U0	627991	o. r.	
		EPDM					24 V DC	ETV-2111/V4-B20-4PF-024/=-U0	627992	o. r.		
		FKM					24 V DC	ETV-2111/V4-B20-6FF-024/=-U0	627993	o. r.		
		EPDM					24 V DC	ETV-2111/V4-B20-6PF-024/=-U0	627994	o. r.		
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V4-B25-4FF-024/=-U0	627995	o. r.	
		EPDM					24 V DC	ETV-2111/V4-B25-4PF-024/=-U0	627996	o. r.		
		FKM					24 V DC	ETV-2111/V4-B25-6FF-024/=-U0	627997	o. r.		
		EPDM					24 V DC	ETV-2111/V4-B25-6PF-024/=-U0	627998	o. r.		

Illustration

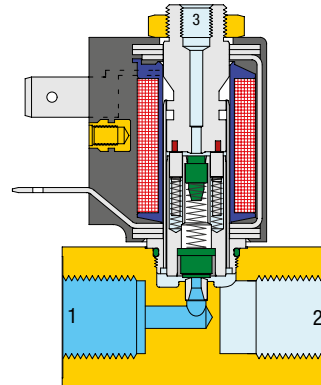
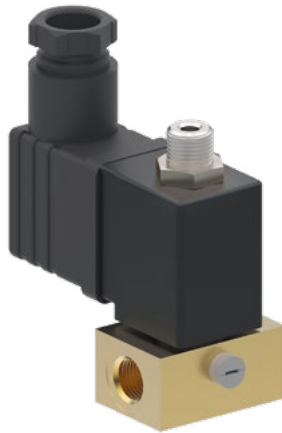
Valve Design

Description	H1
2-valve battery	69.2
3-valve battery	94.7
4-valve battery	120.2





2/2- and 3/2-Way Solenoid Valves Type EAV Series 200



Solenoid valve series with familiar constructional design, however with significantly improved magnetic circuit.

On the lower part of the guid tube a magnetic nipple is welded on, which reduces the magnetic resistance of the circuit.

This improvement enables among other things the use of solenoid valves with significantly reduced power consumption and thus lowers the self-heating of the system.

A further feature of this series is the especially strong and corrosion-resistant construction. Solenoid coils with four graduated performance classes enable convenient adjustment to various requirements, with respect to nominal width, diameters, operating pressure, power consumption, Type of current or permitted self-heating.

CHARACTERISTICS

GENERAL

Constructional design	Seat valve, rubber seals			
Product name	2/2-way solenoid valve		3/2-way solenoid valve	
Actuation	electric, direct-acting, resting manual override optional			
Product type	EAV-2...-A..	EAV-2...-B..	EAV-2...-C..	EAV-2...-D..
Function	“A” normally closed (closing with flow)	“B” normally open (closing against current)	“C” normally closed with “1”, “2” to “3” discharged (closing against current)	“D” in 0 position “1” to “2” open, “3” closed (closing against current)
Nominal diameter	DN 1.2 to DN 2.2	DN 1.2 to DN 1.8		
Connection	M 5 or pipe thread (ISO 228) G 1/8 to G 1/4			
Ambient temperature	-20 °C to +60 °C (others on request)			
Medium temperature	with NBR: -10 °C to +90 °C for FKM: -10 °C to +130 °C (for exceptions see table)			
Medium viscosity	up to approx. 20 mm²/s			
Valve body material	Brass			
Manual override	PPE (Polyphenylene ether)			
Seat nozzle material	Stainless steel			
Other inner component material	Stainless steel and non-ferrous metal. DC non-ferrous metal-free version			
Seal material	NBR (Nitrile rubber) or FKM (Fluoride rubber) (others on request)			
Mounting method	2 M3 tapped holes in valve body or using rigid pipework			
Mounting position	optional, preferably upright			
PNEUMATIC - HYDRAULIC				
Nominal pressure	According to Type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure OP in bar at 60 °C ambient temperature and 60 °C medium temperature. Insofar as two values are given, the first value refers to solenoid coils with highest electrical power consumption, the second value to that with lowest power consumption.			
Pressure range	Technical vacuum up to permitted operating pressure OP. For exceptions which refer to minimum permitted operating pressure see table.			
Flow rate	Kv-value and QNn-value according to Type table			
Medium	gaseous or liquid Sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases Sealing material FKM: e.g. solvents, hot water, hot air			
Response time	opening time: 7 - 20 ms closing time: 12 - 20 ms			
Electrical	see solenoid coils			

2/2-Way Solenoid Valve - Type EAV Series 200

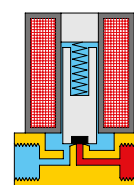
Product group **51**

"A" normally closed NC

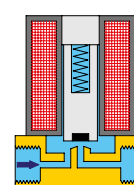
Brass

Version	DN	Kv-value water [m³/h]	Q _{Nn} -value air [l/min]	G	PN	Sealing material	Type	Order number	Price
without manual override for all AC and DC coils	1.2	0.05	50	M5	40/16	NBR	EAV-211-A12-M05BK-00	605001	o. r.
	1.2	0.05	50	M5	40/16	FKM	EAV-211-A12-M05FK-00	605002	o. r.
	1.2	0.05	50	G 1/8	40/16	NBR	EAV-211-A12-1/8BK-00	605003	o. r.
	1.2	0.05	50	G 1/8	40/16	FKM	EAV-211-A12-1/8FK-00	605004	o. r.
	1.5	0.06	68	M5	32/6	NBR	EAV-211-A15-M05BK-00	605007	o. r.
	1.5	0.06	68	M5	32/6	FKM	EAV-211-A15-M05FK-00	605008	o. r.
	1.5	0.06	68	G 1/8	32/6	NBR	EAV-211-A15-1/8BK-00	605009	o. r.
	1.5	0.06	68	G 1/8	32/6	FKM	EAV-211-A15-1/8FK-00	605010	o. r.
	1.8	0.11	125	M5	32/6	NBR	EAV-211-A18-M05BK-00	605013	o. r.
	1.8	0.11	125	M5	32/6	FKM	EAV-211-A18-M05FK-00	605014	o. r.
	1.8	0.11	125	G 1/8	32/6	NBR	EAV-211-A18-1/8BK-00	605015	o. r.
	1.8	0.11	125	G 1/8	32/6	FKM	EAV-211-A18-1/8FK-00	605016	o. r.
	2	0.12	145	M5	25/4	NBR	EAV-211-A20-M05BK-00	605019	o. r.
	2	0.12	145	M5	25/4	FKM	EAV-211-A20-M05FK-00	605020	o. r.
	2	0.12	145	G 1/8	25/4	NBR	EAV-211-A20-1/8BK-00	605021	o. r.
	2	0.12	145	G 1/8	25/4	FKM	EAV-211-A20-1/8FK-00	605022	o. r.
	2	0.12	145	G 1/4	25/4	NBR	EAV-211-A20-1/4BK-00	605023	o. r.
	2	0.12	145	G 1/4	25/4	FKM	EAV-211-A20-1/4FK-00	605024	o. r.
	2.2	0.13	165	M5	16/3	NBR	EAV-211-A22-M05BK-00	605025	o. r.
	2.2	0.13	165	M5	16/3	FKM	EAV-211-A22-M05FK-00	605026	o. r.
	2.2	0.13	165	G 1/8	16/3	NBR	EAV-211-A22-1/8BK-00	605027	o. r.
	2.2	0.13	165	G 1/8	16/3	FKM	EAV-211-A22-1/8FK-00	605028	o. r.
	2.2	0.13	165	G 1/4	16/3	NBR	EAV-211-A22-1/4BK-00	605029	o. r.
	2.2	0.13	165	G 1/4	16/3	FKM	EAV-211-A22-1/4FK-00	605030	o. r.
without manual override for all DC coils	3	0.21	210	G 1/8	10/2	NBR	EAV-211-A30-1/8BK-00	605031	o. r.
	3	0.21	210	G 1/8	10/2	FKM	EAV-211-A30-1/8FK-00	605032	o. r.
	3	0.21	210	G 1/4	10/2	NBR	EAV-211-A30-1/4BK-00	605033	o. r.
	3	0.21	210	G 1/4	10/2	FKM	EAV-211-A30-1/4FK-00	605034	o. r.
	1.2	0.05	50	M5	40/12.5	NBR	EAV-213-A12-M05BK-00	605051	o. r.
	1.2	0.05	50	M5	40/12.5	FKM	EAV-213-A12-M05FK-00	605052	o. r.
	1.2	0.05	50	G 1/8	40/12.5	NBR	EAV-213-A12-1/8BK-00	605053	o. r.
	1.2	0.05	50	G 1/8	40/12.5	FKM	EAV-213-A12-1/8FK-00	605054	o. r.
	1.5	0.06	68	M5	32/6	NBR	EAV-213-A15-M05BK-00	605057	o. r.
	1.5	0.06	68	M5	32/6	FKM	EAV-213-A15-M05FK-00	605058	o. r.
	1.5	0.06	68	G 1/8	32/6	NBR	EAV-213-A15-1/8BK-00	605059	o. r.
	1.5	0.06	68	G 1/8	32/6	FKM	EAV-213-A15-1/8FK-00	605060	o. r.
	1.8	0.11	125	M5	25/5	NBR	EAV-213-A18-M05BK-00	605063	o. r.
	1.8	0.11	125	M5	25/5	FKM	EAV-213-A18-M05FK-00	605064	o. r.
	1.8	0.11	125	G 1/8	25/5	NBR	EAV-213-A18-1/8BK-00	605065	o. r.
	1.8	0.11	125	G 1/8	25/5	FKM	EAV-213-A18-1/8FK-00	605066	o. r.
	2	0.12	145	M5	16/4	NBR	EAV-213-A20-M05BK-00	605069	o. r.
	2	0.12	145	M5	16/4	FKM	EAV-213-A20-M05FK-00	605070	o. r.
	2	0.12	145	G 1/8	16/4	NBR	EAV-213-A20-1/8BK-00	605071	o. r.
	2	0.12	145	G 1/8	16/4	FKM	EAV-213-A20-1/8FK-00	605072	o. r.
	2	0.12	145	G 1/4	16/4	NBR	EAV-213-A20-1/4BK-00	605073	o. r.
	2	0.12	145	G 1/4	16/4	FKM	EAV-213-A20-1/4FK-00	605074	o. r.
	2.2	0.13	165	M5	16/3	NBR	EAV-213-A22-M05BK-00	605075	o. r.
	2.2	0.13	165	M5	16/3	FKM	EAV-213-A22-M05FK-00	605076	o. r.
	2.2	0.13	165	G 1/8	16/3	NBR	EAV-213-A22-1/8BK-00	605077	o. r.
	2.2	0.13	165	G 1/8	16/3	FKM	EAV-213-A22-1/8FK-00	605078	o. r.
	2.2	0.13	165	G 1/4	16/3	NBR	EAV-213-A22-1/4BK-00	605079	o. r.
	2.2	0.13	165	G 1/4	16/3	FKM	EAV-213-A22-1/4FK-00	605080	o. r.
with manual override for all AC and DC coils	3	0.21	210	G 1/8	10/2	NBR	EAV-213-A30-1/8BK-00	605081	o. r.
	3	0.21	210	G 1/8	10/2	FKM	EAV-213-A30-1/8FK-00	605082	o. r.
	3	0.21	210	G 1/4	10/2	NBR	EAV-213-A30-1/4BK-00	605083	o. r.
	3	0.21	210	G 1/4	10/2	FKM	EAV-213-A30-1/4FK-00	605084	o. r.
	1.5	0.06	68	M5	12.5/6	NBR	EAV-221-A15-M05BK-00	605207	o. r.
	1.5	0.06	68	M5	12.5/6	FKM	EAV-221-A15-M05FK-00	605208	o. r.
	1.5	0.06	68	G 1/8	12.5/6	NBR	EAV-221-A15-1/8BK-00	605209	o. r.
	1.5	0.06	68	G 1/8	12.5/6	FKM	EAV-221-A15-1/8FK-00	605210	o. r.
	2	0.12	145	G 1/8	12.5/4	NBR	EAV-221-A20-1/8BK-00	605221	o. r.
	2	0.12	145	G 1/8	12.5/4	FKM	EAV-221-A20-1/8FK-00	605222	o. r.
	2	0.12	145	G 1/4	12.5/4	NBR	EAV-221-A20-1/4BK-00	605223	o. r.
	2	0.12	145	G 1/4	12.5/4	FKM	EAV-221-A20-1/4FK-00	605224	o. r.
	3	0.21	210	G 1/8	10/2	NBR	EAV-221-A30-1/8BK-00	605231	o. r.
	3	0.21	210	G 1/8	10/2	FKM	EAV-221-A30-1/8FK-00	605232	o. r.
	3	0.21	210	G 1/4	10/2	NBR	EAV-221-A30-1/4BK-00	605233	o. r.
	3	0.21	210	G 1/4	10/2	FKM	EAV-221-A30-1/4FK-00	605234	o. r.

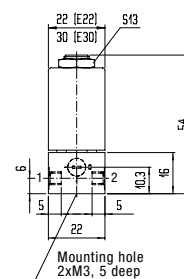
Illustration



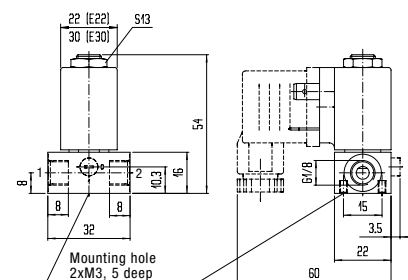
Normal position



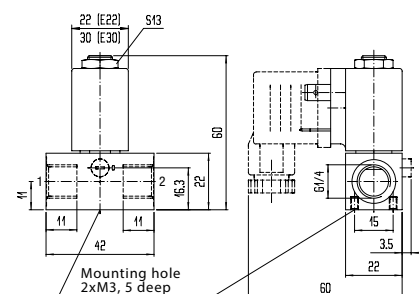
Operational position



Version with M5 Ports



Version with G 1/8 Port



Version with G 1/4 Port

Permitted Operating Pressure for 2/2-Way Solenoid Valve - Type EAV Series 200

"A" normally closed NC

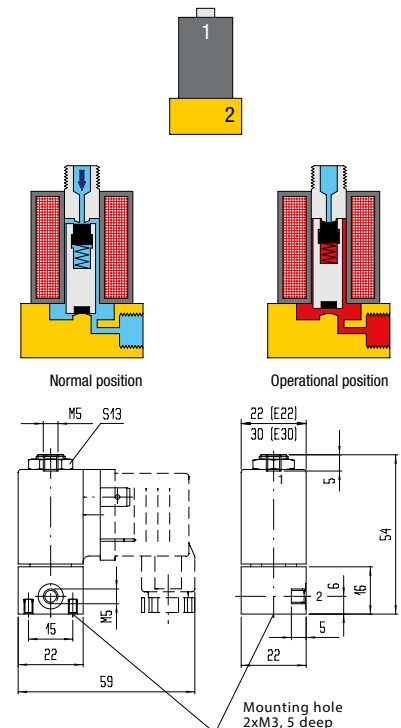
Home

DN	Type	PN	Combinable solenoid coils			Permitted operating pressure [bar] at ambient temperature +60 °C																														
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature						AC 60 Hz  90 %U _N Medium temperature						DC  90 %U _N Medium temperature						DC  90 %U _N Medium temperature						DC  100 %U _N Medium temperature					
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]																														
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C												
1.2	EAV-211-A12..	40/16	E22...L.	3.5	on req.	2.5	16	13	12	16	13	12	15	10	9	8	6	4	9	8	7															
			E22...M.	5.5	5	5	40	35	30	40	35	30	30	25	20	20	18	15	23	21	20															
			E22...H.	-	-	8	-	-	-	-	-	-	40	35	30	30	25	20	38	32	28															
			E30...P.	12	10.5	8	40	35	30	40	35	30	40	35	30	40	35	30	40	35	30															
	EAV-213-A12..	40/12.5	E22...L.	-	-	2.5	-	-	-	-	-	-	15	10	9	8	6	4	9	9	7															
			E22...M.	-	-	5	-	-	-	-	-	-	30	25	20	20	18	15	25	22	20															
E22...H.			-	-	8	-	-	-	-	-	-	40	35	30	30	25	20	38	32	28																
E30...P.			-	-	8	-	-	-	-	-	-	40	35	30	40	35	30	40	35	30																
1.5	EAV-211-A15..	32/6	E22...L.	3.5	on req.	2.5	7	on req.	on req.	7	on req.	on req.	6	5	4	4	3	2	6	5	4															
			E22...M.	5.5	5	5	28	26	24	28	26	24	18	16	14	12	10	8	15	13	12															
			E22...H.	-	-	8	-	-	-	-	-	-	25	20	18	17	13	10	20	18	16															
			E30...P.	12	10.5	8	35	32	28	28	25	20	32	28	22	28	25	21	30	28	26															
	EAV-213-A15..	32/6	E22...L.	-	-	2.5	-	-	-	-	-	-	7	5	4	4	3	2	6	5	4															
			E22...M.	-	-	5	-	-	-	-	-	-	18	16	14	12	10	8	16	14	13															
			E22...H.	-	-	8	-	-	-	-	-	-	25	20	18	17	13	10	20	18	15															
			E30...P.	-	-	8	-	-	-	-	-	-	35	30	25	28	25	21	30	28	26															
	EAV-221-A15..	12.5/6	E22...L.	3.5	on req.	2.5	7	*	*	7	*	*	6	*	*	4	*	*	6	*	*															
			E22...M.	5.5	5	5	12.5	*	*	12.5	*	*	12.5	*	*	12	*	*	12.5	*	*															
			E22...H.	-	-	8	-	*	*	-	*	*	12.5	*	*	12.5	*	*	12.5	*	*															
			E30...P.	12	10.5	8	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*															
1.8	EAV-211-A18..	32/6	E22...L.	3.5	on req.	2.5	6	on req.	on req.	6	on req.	on req.	5	4	3	3.5	2	1.5	5	4	3															
			E22...M.	5.5	5	5	20	19	18	20	18	17	12	10	8	8	7	6	12	10	9															
			E22...H.	-	-	8	-	-	-	-	-	-	19	17	14	13	10	8	16	14	10															
			E30...P.	12	10.5	8	30	25	22	20	18	16	24	22	18	23	21	18	25	23	22															
	EAV-213-A18..	25/6	E22...L.	-	-	2.5	-	-	-	-	-	-	5	4	3	3.5	2	1.5	5	4	3															
			E22...M.	-	-	5	-	-	-	-	-	-	12	10	8	8	7	6	12	10	9															
			E22...H.	-	-	8	-	-	-	-	-	-	19	17	14	13	10	8	15	14	10															
			E30...P.	-	-	8	-	-	-	-	-	-	28	25	21	20	18	15	24	22	18															
2	EAV-211-A20..	16/4	E22...L.	3.5	on req.	2.5	4	on req.	on req.	4	on req.	on req.	4	3	2.5	2.5	1.5	1.1	3	2.5	2															
			E22...M.	5.5	5	5	15	14	13	15	14	13	11	8	7	6	5	4.5	8	7	6															
			E22...H.	-	-	8	-	-	-	-	-	-	16	14	11	9	8	7	12	10	8															
			E30...P.	12	10.5	8	25	23	20	17	14	11	17	14	12	17	15	14	20	18	16															
	EAV-213-A20..	12.5/4	E22...L.	-	-	2.5	-	-	-	-	-	-	4	3	2.5	2.5	1.5	1	3	2.5	2															
			E22...M.	-	-	5	-	-	-	-	-	-	11	8	7	6	5	4.5	8	7	6															
			E22...H.	-	-	8	-	-	-	-	-	-	16	14	11	10	8	7	12	10	8															
			E30...P.	-	-	8	-	-	-	-	-	-	18	15	13	17	15	14	20	18	16															
	EAV-221-A20..	12.5/4	E22...L.	3.5	on req.	2.5	4	*	*	4	*	*	4	*	*	2.5	*	*	3	*	*															
			E22...M.	5.5	5	5	12.5	*	*	12.5	*	*	11	*	*	6	*	*	8	*	*															
			E22...H.	-	-	8	-	*	*	-	*	*	12.5	*	*	9	*	*	12	*	*															
			E30...P.	12	10.5	8	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*															
2.2	EAV-211-A22..	16/3	E22...L.	3.5	on req.	2.5	3.5	3	2.5	3.5	on req.	on req.	3	2.5	2	1.5	1	0.8	2.5	2	1															
			E22...M.	5.5	5	5	14	13	12	14	13	12	4	3.5	3	3	2.5	2	3.5	3	2.5															
			E22...H.	-	-	8	-	-	-	-	-	-	13	11	8	7	5	4	9	7.5	6															
			E30...P.	12	10.5	8	16	14	13	16	14	13	16	13	11	13	12	11	16	14	12															
	EAV-213-A22..	16/3	E22...L.	-	-	2.5	-	-	-	-	-	-	3	2.5	2	1.5	1	0.8	2	1.5	1															
			E22...M.	-	-	5	-	-	-	-	-	-	4	3.5	3	3	2.5	2	3.5	3	2.5															
			E22...H.	-	-	8	-	-	-	-	-	-	13	11	8	7	5.5	4	9	7	6															
			E30...P.	-	-	8	-	-	-	-	-	-	16	13	11	13	12	11	16	14	12															
3	EAV-211-A30..	10/2	E22...L.	3.5	on req.	2.5	2	on req.	on req.	2	on req.	on req.	2	1.5	1.2	1.2	0.8	0.6	2.1	1.5	0.8															
			E22...M.	5.5	5	5	8	7	6	8	7	6	3.5	3	2.8	2.5	2	1.5	3	2.5	2															
			E22...H.	-	-	8	-	-	-	-	-	-	9	7	6	5	4	3	6	5	4															
			E30...P.	12	10.5	8	12	9	7	11	8	7	11	9	7	9	7	6	10	9	8															
	EAV-213-A30..	10/2	E22...L.	-	-	2.5	-	-	-	-	-	-	2	1.5	1.2	1.2	0.9	0.7	1.8	1.4	0.8															
			E22...M.	-	-	5	-	-	-	-	-	-	3.5	3	2.8	2.5	2	1.5	3	2.5	2															
			E22...H.	-	-	8	-	-	-	-	-	-	9	7	6	5	4	3	6	5	4															
			E30...P.	-	-	8	-	-	-	-	-	-	11	9	7	9	7	6	10	9	8															
	EAV-221-A30..	10/2	E22...L.	3.5	on req.	2.5	2	*	*	2	*	*	2	*	*	1.2	*	*	2	*	*															
			E22...M.	5.5	5	5	8	*	*	8	*	*	3.5	*	*	2.5	*	*	2.5	*	*															
			E22...H.	-	-	8	-	*	*	-	*	*	9	*	*	5	*	*	6	*	*															
			E30...P.	12	10.5	8	12	*	*	11	*	*	11	*	*	9	*	*	10	*	*															

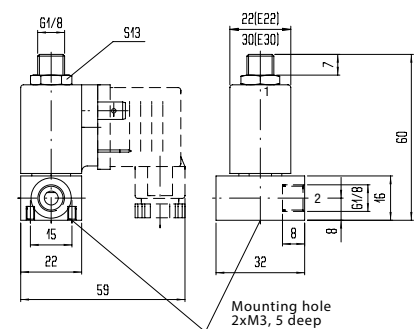
2/2-Way Solenoid Valve - Type EAV Series 200

Product group	51	"B" normally open	Permitted operating pressure table below	Brass					
Version	DN	Kv-value water [m³/h]	Qn-value air [l/min]	G	PN	Sealing material	Type	Order number	Price
without manual override for AC and DC not for L-coils	1.2	0.05	48	M5	16	NBR	EAV-211-B12-M05B-00	605401	o. r.
	1.2	0.05	48	M5	16	FKM	EAV-211-B12-M05F-00	605402	o. r.
	1.2	0.05	48	G 1/8	16	NBR	EAV-211-B12-1/8B-00	605403	o. r.
	1.2	0.05	48	G 1/8	16	FKM	EAV-211-B12-1/8F-00	605404	o. r.
	1.5	0.06	65	M5	10	NBR	EAV-211-B15-M05B-00	605407	o. r.
	1.5	0.06	65	M5	10	FKM	EAV-211-B15-M05F-00	605408	o. r.
	1.5	0.06	65	G 1/8	10	NBR	EAV-211-B15-1/8B-00	605409	o. r.
	1.5	0.06	65	G 1/8	10	FKM	EAV-211-B15-1/8F-00	605410	o. r.
	1.8	0.1	110	M5	8	NBR	EAV-211-B18-M05B-00	605413	o. r.
	1.8	0.1	110	M5	8	FKM	EAV-211-B18-M05F-00	605414	o. r.
	1.8	0.1	110	G 1/8	8	NBR	EAV-211-B18-1/8B-00	605415	o. r.
	1.8	0.1	110	G 1/8	8	FKM	EAV-211-B18-1/8F-00	605416	o. r.
without manual override for DC not for L-coils	1.2	0.05	48	M5	16	NBR	EAV-213-B12-M05B-00	605426	o. r.
	1.2	0.05	48	M5	16	FKM	EAV-213-B12-M05F-00	605427	o. r.
	1.2	0.05	48	G 1/8	16	NBR	EAV-213-B12-1/8B-00	605428	o. r.
	1.2	0.05	48	G 1/8	16	FKM	EAV-213-B12-1/8F-00	605429	o. r.
	1.5	0.06	65	M5	10	NBR	EAV-213-B15-M05B-00	605432	o. r.
	1.5	0.06	65	M5	10	FKM	EAV-213-B15-M05F-00	605433	o. r.
	1.5	0.06	65	G 1/8	10	NBR	EAV-213-B15-1/8B-00	605434	o. r.
	1.5	0.06	65	G 1/8	10	FKM	EAV-213-B15-1/8F-00	605435	o. r.
	1.8	0.1	110	M5	8	NBR	EAV-213-B18-M05B-00	605438	o. r.
	1.8	0.1	110	M5	8	FKM	EAV-213-B18-M05F-00	605439	o. r.
	1.8	0.1	110	G 1/8	8	NBR	EAV-213-B18-1/8B-00	605440	o. r.
	1.8	0.1	110	G 1/8	8	FKM	EAV-213-B18-1/8F-00	605441	o. r.

Illustration



Version with M 5 Ports



Version with G 1/8 Ports

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Permitted Excess Operating Pressure OP for 2/2-Way Solenoid Valve - Type EAV Series 200

DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 			
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature			
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	
1.2	EAV-211-B12..	16	E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	14	13	16	16	16	
			E22...H.	-	-	8	-	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	EAV-213-B12..	16	E22...M.	-	-	5	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16
			E30...P.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16
1.5	EAV-211-B15..	10	E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	9	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	EAV-213-B15..	10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	9	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
1.8	EAV-211-B18..	8	E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	7	7	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	EAV-213-B18..	8	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	7	7	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8

Home

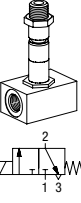
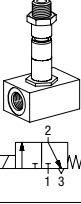
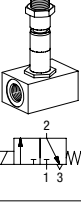
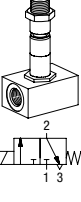
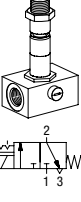
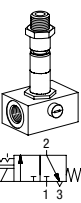


3/2-Way Solenoid Valve - Type EAV Series 200

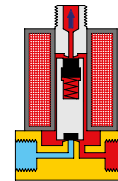
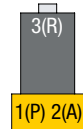
Product group **51**

“C” in 0-position “1” closed, “2” after “3” discharged

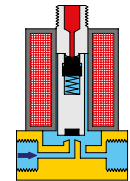
Brass

Version	DN	Kv-value Water [m³/h]	Q _N -value air [l/min]	G	PN	Sealing material	Type	Order number	Price
without manual override for AC and DC not for L-coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	12.5	NBR	EAV-211-C12-M05B-00	606001	o. r.
				M 5	12.5	FKM	EAV-211-C12-M05F-00	606002	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	12.5	NBR	EAV-211-C12- 1/8B-00	606003	o. r.
				G 1/8	12.5	FKM	EAV-211-C12- 1/8F-00	606004	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	10	NBR	EAV-211-C15-M05B-00	606007	o. r.
				M 5	10	FKM	EAV-211-C15-M05F-00	606008	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	10	NBR	EAV-211-C15-1/8B-00	606009	o. r.
				G 1/8	10	FKM	EAV-211-C15- 1/8F-00	606010	o. r.
	1.8	1 > 2 0.11	1 > 2 120	M 5	8	NBR	EAV-211-C18-M05B-00	606013	o. r.
				M 5	8	FKM	EAV-211-C18-M05F-00	606014	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-211-C18-1/8B-00	606015	o. r.
				G 1/8	8	FKM	EAV-211-C18-1/8F-00	606016	o. r.
without manual override for all AC and DC coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	10	NBR	EAV-215-C12-M05B-00	606051	o. r.
				M 5	10	FKM	EAV-215-C12-M05F-00	606052	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	10	NBR	EAV-215-C12-1/8B-00	606053	o. r.
				G 1/8	10	FKM	EAV-215-C12-1/8F-00	606054	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	8	NBR	EAV-215-C15-M05B-00	606057	o. r.
				M 5	8	FKM	EAV-215-C15-M05F-00	606058	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-215-C15-1/8B-00	606059	o. r.
				G 1/8	8	FKM	EAV-215-C15-1/8F-00	606060	o. r.
without manual override for DC not for L-coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	12.5	NBR	EAV-213-C12-M05B-00	606026	o. r.
				M 5	12.5	FKM	EAV-213-C12-M05F-00	606027	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	12.5	NBR	EAV-213-C12-1/8B-00	606028	o. r.
				G 1/8	12.5	FKM	EAV-213-C12-1/8F-00	606029	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	10	NBR	EAV-213-C15-M05B-00	606032	o. r.
				M 5	10	FKM	EAV-213-C15-M05F-00	606033	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	10	NBR	EAV-213-C15-1/8B-00	606034	o. r.
				G 1/8	10	FKM	EAV-213-C15-1/8F-00	606035	o. r.
	1.8	1 > 2 0.11	1 > 2 120	M 5	8	NBR	EAV-213-C18-M05B-00	606038	o. r.
				M 5	8	FKM	EAV-213-C18-M05F-00	606039	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-213-C18- 1/8B-00	606040	o. r.
				G 1/8	8	FKM	EAV-213-C18- 1/8F-00	606041	o. r.
without manual override for all DC coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	10	NBR	EAV-217-C12-M05B-00	606076	o. r.
				M 5	10	FKM	EAV-217-C12-M05F-00	606077	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	10	NBR	EAV-217-C12- 1/8B-00	606078	o. r.
				G 1/8	10	FKM	EAV-217-C12- 1/8F-00	606079	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	10	NBR	EAV-217-C15-M05B-00	606082	o. r.
				M 5	8	FKM	EAV-217-C15-M05F-00	606083	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-217-C15-1/8B-00	606084	o. r.
				G 1/8	8	FKM	EAV-217-C15-1/8F-00	606085	o. r.
with manual override for AC and DC not for L-coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	12.5	NBR	EAV-221-C12-M05B-00	606151	o. r.
				M 5	12.5	FKM	EAV-221-C12-M05F-00	606152	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	12.5	NBR	EAV-221-C12-1/8B-00	606153	o. r.
				G 1/8	12.5	FKM	EAV-221-C12-1/8F-00	606154	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	10	NBR	EAV-221-C15-M05B-00	606157	o. r.
				M 5	10	FKM	EAV-221-C15-M05F-00	606158	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	10	NBR	EAV-221-C15-1/8B-00	606159	o. r.
				G 1/8	10	FKM	EAV-221-C15-1/8F-00	606160	o. r.
	1.8	1 > 2 0.11	1 > 2 120	M 5	8	NBR	EAV-221-C18-M05B-00	606163	o. r.
				M 5	8	FKM	EAV-221-C18-M05F-00	606164	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-221-C18-1/8B-00	606165	o. r.
				G 1/8	8	FKM	EAV-221-C18-1/8F-00	606166	o. r.
with manual override for all AC and DC coils 	1.2	1 > 2 0.05	1 > 2 50	M 5	10	NBR	EAV-225-C12-M05B-00	606201	o. r.
				M 5	10	FKM	EAV-225-C12-M05F-00	606202	o. r.
		2 > 3 0.06	2 > 3 65	G 1/8	10	NBR	EAV-225-C12-1/8B-00	606203	o. r.
				G 1/8	10	FKM	EAV-225-C12-1/8F-00	606204	o. r.
	1.5	1 > 2 0.06	1 > 2 68	M 5	8	NBR	EAV-225-C15-M05B-00	606207	o. r.
				M 5	8	FKM	EAV-225-C15-M05F-00	606208	o. r.
		2 > 3 0.10	2 > 3 115	G 1/8	8	NBR	EAV-225-C15-1/8B-00	606209	o. r.
				G 1/8	8	FKM	EAV-225-C15-1/8F-00	606210	o. r.

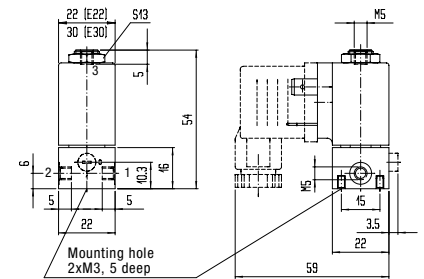
Illustration



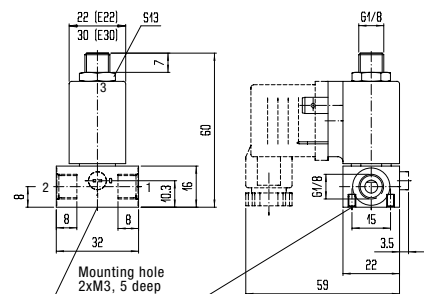
Normal position



Operational position



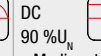
Version with M5 Ports



Version with G 1/8 Ports

Permitted Operating Pressure for 3/2-Way Solenoid Valve - Type EAV Series 200

"C" in 0-position "1" closed, "2" after "3" discharged

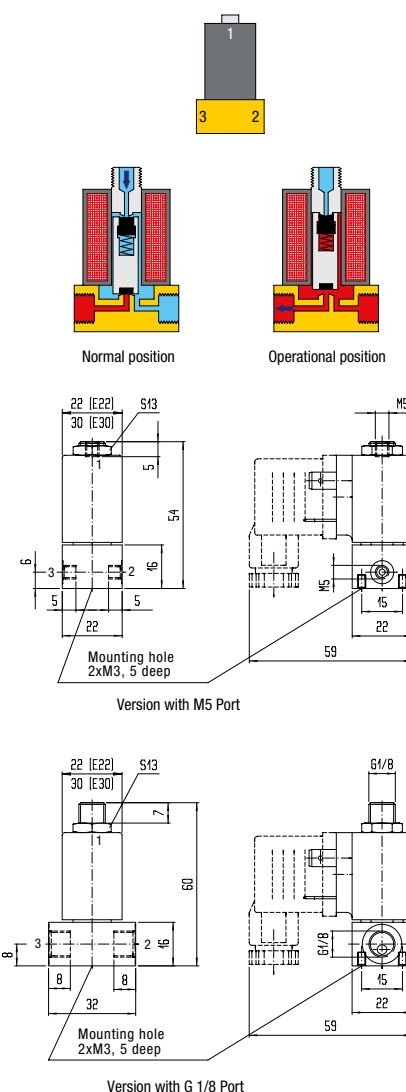
DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C																		
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature						
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C				
1.2	EAV-211-C12..	12.5	E22...M.	5.5	5	5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5				
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
			E30...P.	12	10.5	8	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5			
	EAV-215-C12..	10	E22...L.	3.5	on req.	2.5	10	-	-	-	10	-	-	-	10	10**	10**	10**	10**	10**	10	10**	10**		
			E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
	EAV-213-C12..	12.5	E22...M.	-	-	5	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5			
			E22...H.	-	-	8	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5			
			E30...P.	-	-	8	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5			
	EAV-217-C12..	10	E22...L.	-	-	2.5	-	-	-	-	-	-	10	10**	10**	10**	10**	10**	10	10**	10**				
			E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
	EAV-221-C12..	12.5	E22...M.	5.5	5	5	12.5	*	*	*	12.5	*	*	*	12.5	*	*	*	12.5	*	*	*			
			E22...H.	-	-	8	-	-	-	-	-	-	12.5	*	*	*	12.5	*	*	*	12.5	*	*		
			E30...P.	12	10.5	8	12.5	*	*	*	12.5	*	*	*	12.5	*	*	*	12.5	*	*	*	12.5	*	*
	EAV-225-C12..	10	E22...L.	3.5	on req.	2.5	10	-	-	-	10	-	-	-	10	*	*	10**	*	*	10	*	*		
			E22...M.	5.5	5	5	10	*	*	*	10	*	*	*	10	*	*	*	10	*	*	10	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	10	*	*	*	10	*	*	10	*	*	10	*	*
			E30...P.	12	10.5	8	10	*	*	*	10	*	*	*	10	*	*	*	10	*	*	10	*	*	
	1.5	EAV-211-C15..	10	E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
				E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10		
				E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
EAV-215-C15..		8	E22...L.	3.5	on req.	2.5	8	8	-	-	-	-	8	8	8**	8	8**	8**	8	8**	8**				
			E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
			E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
EAV-213-C15..		10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10				
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10			
EAV-217-C15..		8	E22...L.	-	-	2.5	-	-	-	-	-	-	8	8**	8**	8**	8**	8**	8	8**	8**				
			E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
EAV-221-C15..		10	E22...M.	5.5	5	5	10	*	*	*	10	*	*	*	10	*	*	*	10	*	*	*			
			E22...H.	-	-	8	-	*	*	*	-	*	*	*	10	*	*	*	10	*	*	*			
			E30...P.	12	10.5	8	10	*	*	*	10	*	*	*	10	*	*	*	10	*	*	*			
EAV-225-C15..		8	E22...L.	3.5	on req.	2.5	8	*	*	*	-	*	*	*	8	*	*	*	8	*	*	*			
			E22...M.	5.5	5	5	8	*	*	*	8	*	*	*	8	*	*	*	8	*	*	*			
			E22...H.	-	-	8	-	*	*	*	-	*	*	*	8	*	*	*	8	*	*	*			
			E30...P.	12	10.5	8	8	*	*	*	8	*	*	*	8	*	*	*	8	*	*	*			
1.8		EAV-211-C18..	8	E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
				E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8		
				E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
	EAV-213-C18..	10	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8				
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
	EAV-221-C18..	10	E22...M.	5.5	5	5	8	*	*	*	8	*	*	*	8	*	*	*	8	*	*	*			
			E22...H.	-	-	8	-	*	*	*	-	*	*	*	8	*	*	*	8	*	*	*			
			E30...P.	12	10.5	8	8	*	*	*	8	*	*	*	8	*	*	*	8	*	*	*			

* Solenoid valves with manual override can only be used at medium temperatures up to max. 60 °C. ** Minimum pressure of 2 bar required

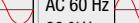
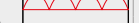
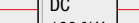
3/2-Way Solenoid Valve Type EAV Series 200

Product group	51	Switching mode "D" in 0 position "1" to "2" open, "3" closed			Permitted operating pressure Table below			Brass		
Version	DN	Kv-value water [m³/h]	QnN-value air [l/min]	G	PN	Sealing material	Type	Order number	Price	
without manual override for AC and DC not for L-coils	1.2	1 > 2 0.05 2 > 3 0.06	1 > 2 48 2 > 3 68	M5	16	NBR	EAV-211-D12-M05B-00	606301	o. r.	
				M5	16	FKM	EAV-211-D12-M05F-00	606302	o. r.	
				G 1/8	16	NBR	EAV-211-D12-1/8B-00	606303	o. r.	
				G 1/8	16	FKM	EAV-211-D12-1/8F-00	606304	o. r.	
	1.5	1 > 2 0.06 2 > 3 0.11	1 > 2 68 2 > 3 125	M5	10	NBR	EAV-211-D15-M05B-00	606307	o. r.	
				M5	10	FKM	EAV-211-D15-M05F-00	606308	o. r.	
				G 1/8	10	NBR	EAV-211-D15-1/8B-00	606309	o. r.	
				G 1/8	10	FKM	EAV-211-D15-1/8F-00	606310	o. r.	
	1.8	1 > 2 0.10 2 > 3 0.11	1 > 2 115 2 > 3 125	M5	8	NBR	EAV-211-D18-M05B-00	606313	o. r.	
				M5	8	FKM	EAV-211-D18-M05F-00	606314	o. r.	
				G 1/8	8	NBR	EAV-211-D18-1/8B-00	606315	o. r.	
				G 1/8	8	FKM	EAV-211-D18-1/8F-00	606316	o. r.	
without manual override for DC not for L-coils	1.2	1 > 2 0.05 2 > 3 0.06	1 > 2 48 2 > 3 68	M5	16	NBR	EAV-213-D12-M05B-00	606326	o. r.	
				M5	16	FKM	EAV-213-D12-M05F-00	606327	o. r.	
				G 1/8	16	NBR	EAV-213-D12-1/8B-00	606328	o. r.	
				G 1/8	16	FKM	EAV-213-D12-1/8F-00	606329	o. r.	
	1.5	1 > 2 0.06 2 > 3 0.11	1 > 2 68 2 > 3 125	M5	10	NBR	EAV-213-D15-M05B-00	606332	o. r.	
				M5	10	FKM	EAV-213-D15-M05F-00	606333	o. r.	
				G 1/8	10	NBR	EAV-213-D15-1/8B-00	606334	o. r.	
				G 1/8	10	FKM	EAV-213-D15-1/8F-00	606335	o. r.	
	1.8	1 > 2 0.10 2 > 3 0.11	1 > 2 115 2 > 3 125	M5	8	NBR	EAV-213-D18-M05B-00	606338	o. r.	
				M5	8	FKM	EAV-213-D18-M05F-00	606339	o. r.	
				G 1/8	8	NBR	EAV-213-D18-1/8B-00	606340	o. r.	
				G 1/8	8	FKM	EAV-213-D18-1/8F-00	606341	o. r.	

Illustration



Permitted Excess Operating Pressure OP for 3/2-Way Solenoid Valve - Type EAV Series 200

DN	Type	PN	Combinable solenoid coils				Permitted excess operating pressure OP [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			 AC 50 Hz 90 %U _N Medium temperature			 AC 60 Hz 90 %U _N Medium temperature			 DC 90 %U _N Medium temperature			 DC 90 %U _N Medium temperature			 DC 100 %U _N Medium temperature			
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	
1.2	EAV-211-D12.. EAV-213-D12.. 	16	E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	14	13	16	16	16	
E22...H.			-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
E30...P.			12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
16		E22...M.	-	-	5	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16		
		E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16		
		E30...P.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16		
1.5	EAV-211-D15.. EAV-213-D15.. 	10	E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	9	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
		10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	9	10	10	10
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
1.8	EAV-211-D18.. EAV-213-D18.. 	8	E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	7	7	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
		8	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	7	7	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8

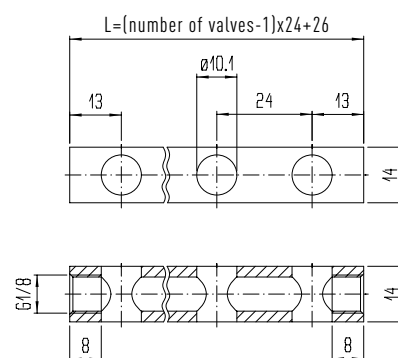
Power Bar Type ZAV Series 100 to Solenoid Valve EAV Series 200

Product group **51**

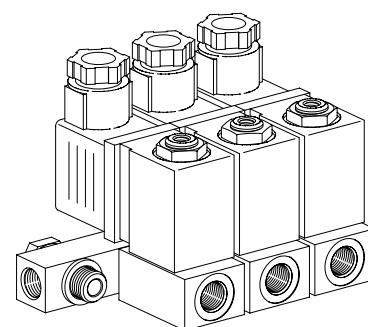
Brass

Manifold version	G	Type	order number	Price
2-fold	G 1/8	ZAV-100/02-1/8	500192	o. r.
3-fold	G 1/8	ZAV-100/03-1/8	500193	o. r.
4-fold	G 1/8	ZAV-100/04-1/8	500194	o. r.
5-fold	G 1/8	ZAV-100/05-1/8	500195	o. r.
6-fold	G 1/8	ZAV-100/06-1/8	500196	o. r.
7-fold	G 1/8	ZAV-100/07-1/8	500197	o. r.
8-fold	G 1/8	ZAV-100/08-1/8	500198	o. r.
9-fold	G 1/8	ZAV-100/09-1/8	500199	o. r.
10-fold	G 1/8	ZAV-100/10-1/8	500200	o. r.
11-fold	G 1/8	ZAV-100/11-1/8	500201	o. r.
12-fold	G 1/8	ZAV-100/12-1/8	500202	o. r.
single banjo bolt, short	G 1/8	163M-11-1/8N	304026	o. r.
Plug	G 1/8	261M-1/8	251403	o. r.
Plastic sealing ring		266N-1/8x1.5	252921	o. r.

Illustration



Example

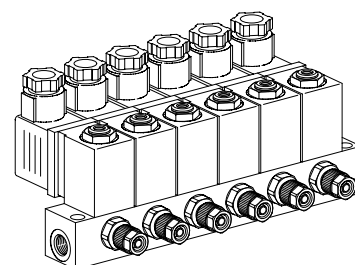


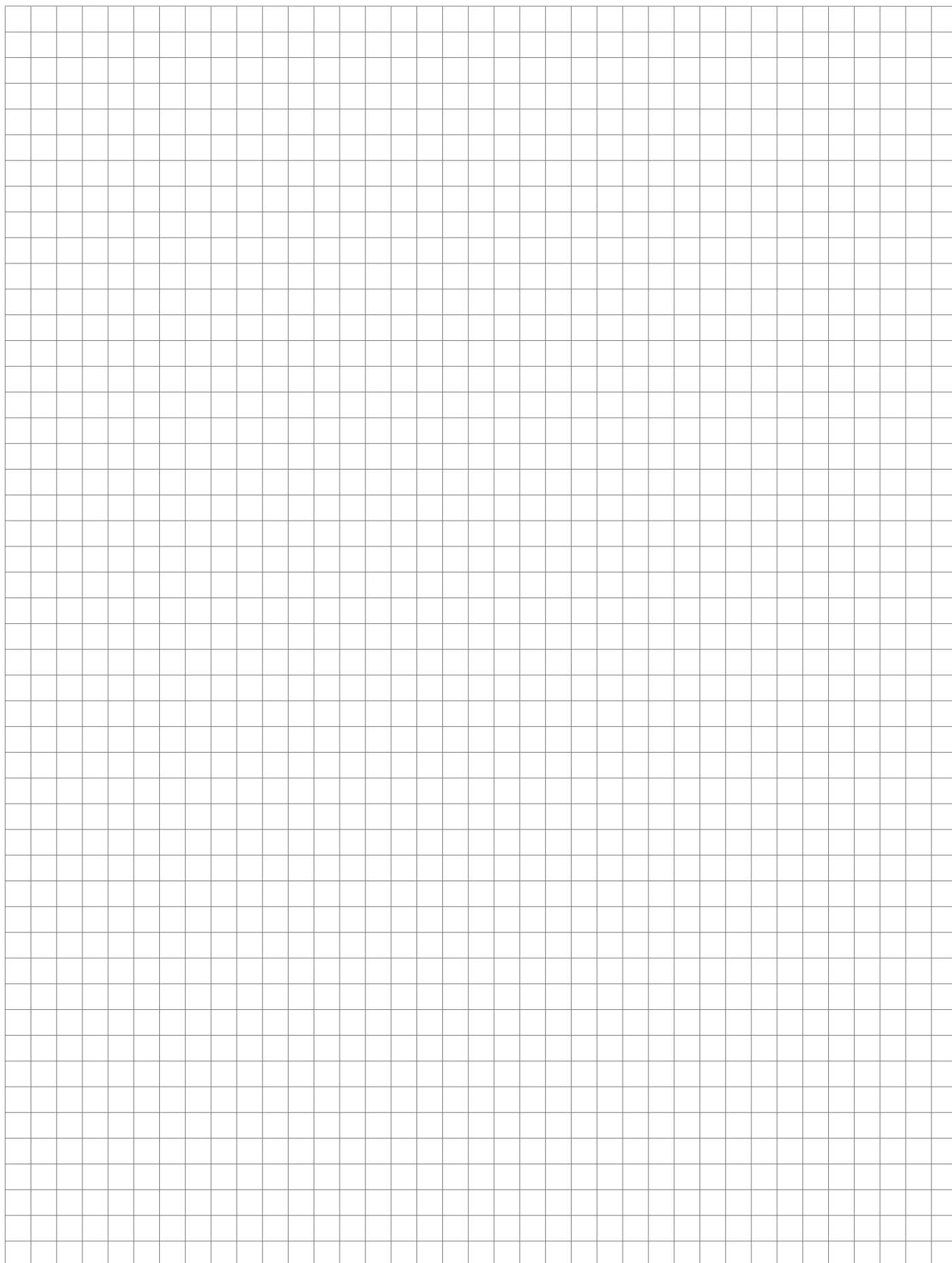
Solenoid valve battery EAV

Special Solenoid Valves

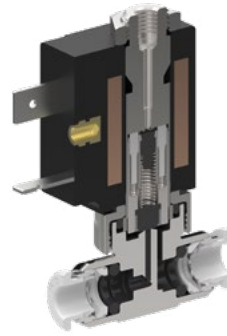
AVS-Römer also manufactures special versions according to customer requirements, e.g. multiple solenoid valves

Illustration





2/2- and 3/2-Way Solenoid Valves Type EAV Series 700



Solenoid valve series with familiar constructional design, however with significantly improved magnetic circuit. On the lower part of the guid tube a magnetic nipple is welded on, which reduces the magnetic resistance of the circuit.

This improvement enables among other things the use of solenoid valves with significantly reduced power consumption and thus lowers the self-heating of the system.

A further feature of this series is the especially strong and corrosion-resistant construction.

Solenoid coils with four graduated performance classes enable convenient adjustment to various requirements, with respect to nominal width, diameters, operating pressure, power consumption, Type of current or permitted self-heating.

Application

- Unbeatable price-performance ratio
- Individual product developments
- Extremely high material strength
- NSF certified
- Flexibility in design
- Lightweight
- Smallest dimensions
- Highest product quality
- Fail-safe and durable

CHARACTERISTICS

GENERAL

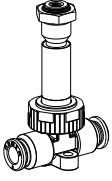
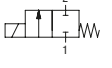
Constructional design	Seat valve, rubber seals			
Product name	2/2-way solenoid valve		3/2-way solenoid valve	
Actuation	electric, direct-acting			
Product type	EAV-7...-A..	EAV-7...-B..	EAV-7...-C..	EAV-7...-D..
Function	“A” normally closed (closing with flow)	“B” normally open (closing against current)	“C” normally closed with “1”, “2” to “3” discharged (closing against current)	“D” in 0 position “1” to “2” open, “3” closed (closing against current)
Nominal diameter	DN 1.2 to DN 3	DN 1.2 to DN 1.8		
Connection	ELSA push-in connection for tube/pipe 6			
Ambient temperature	0 °C to +60 °C			
Medium temperature	0 °C to +120 °C			
Medium viscosity	up to approx. 20 mm²/s			
Valve body material	1.4404 (AISI 316L)			
Other inner component material	Stainless steel			
Seal material	FKM (Fluor-Rubber) (others on request)			
Mounting method	2 M4 tapped holes in valve body or using rigid pipework			
Mounting position	optional, preferably upright			
Approval	NSF/ANSI 169			
PNEUMATIC - HYDRAULIC				
Nominal pressure	According to Type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure OP in bar at 60 °C ambient temperature and 60 °C medium temperature. Insofar as two values are given, the first value refers to solenoid coils with highest electrical power consumption, the second value to that with lowest power consumption.			
Pressure range	Technical vacuum up to permitted operating pressure OP. For exceptions which refer to minimum permitted operating pressure see table.			
Flow rate	Kv-value and QNn-value according to Type table			
Medium	gaseous or liquid			
Response time	opening time: 7 - 20 ms closing time: 12 - 20 ms			
Electrical	see solenoid coils			

2/2-Way Solenoid Valve - Type EAV Series 700

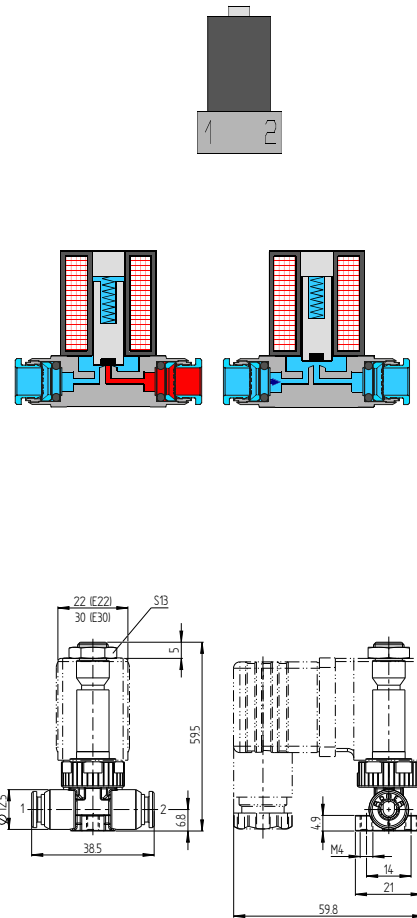
Product group **51**

"A" normally closed
(closing with flow)

Stainless
Steel

Version	DN	Kv-value water [m³/h]	Qn-value air [l/min]	For tube D	PN	Sealing material	Type	Order number	Price
 	1.2	0.05	50	6	20/12.5	FKM	EAV-713X4M-A12-6FFK-00	686300	o. r.
	1.5	0.06	68	6	20/6	FKM	EAV-713X4M-A15-6FFK-00	686301	o. r.
	2	0.12	145	6	16/4	FKM	EAV-713X4M-A20-6FFK-00	686302	o. r.
	3	0.21	210	6	10/2	FKM	EAV-713X4M-A30-6FFK-00	686303	o. r.

Illustration

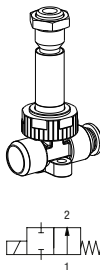


Permitted Operating Pressure for 2/2-Way Solenoid Valve - Type EAV Series 700

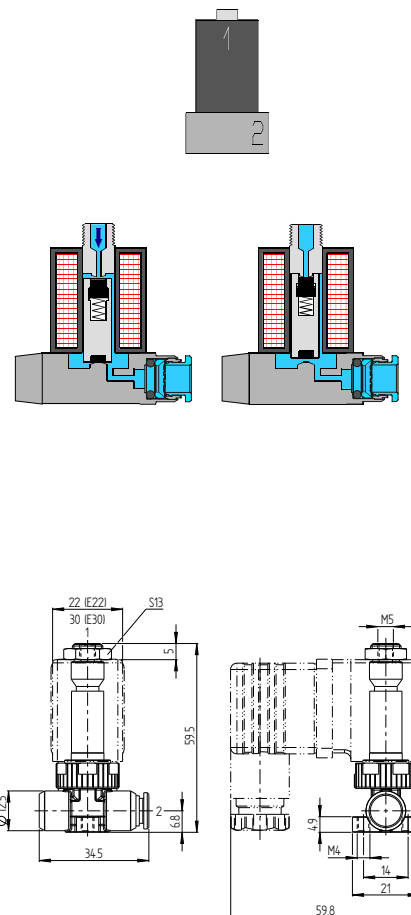
"A" normally closed
(closing with flow)

DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
1.2	EAV-713X4M-A12..	40/12,5	E22...L.	-	-	2.5	-	-	-	-	-	-	15	10	9	8	6	4	9	9	7
			E22...M.	-	-	5	-	-	-	-	-	-	30	25	20	20	18	15	25	22	20
			E22...H.	-	-	8	-	-	-	-	-	-	40	35	30	30	25	20	38	32	28
			E30...P.	-	-	8	-	-	-	-	-	-	40	35	30	40	35	30	40	35	30
1.5	EAV-713X4M-A15..	32/6	E22...L.	-	-	2.5	-	-	-	-	-	-	7	5	4	4	3	2	6	5	4
			E22...M.	-	-	5	-	-	-	-	-	-	18	16	14	12	10	8	16	14	13
			E22...H.	-	-	8	-	-	-	-	-	-	25	20	18	17	13	10	20	18	15
			E30...P.	-	-	8	-	-	-	-	-	-	35	30	25	28	25	21	30	28	26
2	EAV-713X4M-A20..	12,5/4	E22...L.	-	-	2.5	-	-	-	-	-	-	4	3	2.5	2.5	1.5	1	3	2.5	2
			E22...M.	-	-	5	-	-	-	-	-	-	11	8	7	6	5	4.5	8	7	6
			E22...H.	-	-	8	-	-	-	-	-	-	16	14	11	10	8	7	12	10	8
			E30...P.	-	-	8	-	-	-	-	-	-	18	15	13	17	15	14	20	18	16
3	EAV-713X4M-A30..	10/2	E22...L.	-	-	2.5	-	-	-	-	-	-	2	1.5	1.2	1.2	0.9	0.7	1.8	1.4	0.8
			E22...M.	-	-	5	-	-	-	-	-	-	3.5	3	2.8	2.5	2	1.5	3	2.5	2
			E22...H.	-	-	8	-	-	-	-	-	-	9	7	6	5	4	3	6	5	4
			E30...P.	-	-	8	-	-	-	-	-	-	11	9	7	9	7	6	10	9	8

2/2-Way Solenoid Valve - Type EAV Series 700

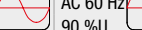
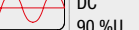
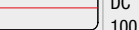
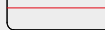
Product group	51	“B” normally open (closing against current)		Permitted operating pressure table below		 Stainless Steel			
Version	DN	Kv-value water [m³/h]	Q _{Nn} - value air [l/min]	For tube D	PN	Sealing material	Type	Order number	Price
	1.2	0.05	48	6	16	FKM	EAV-713X4M-B12-6FFK-00	686335	o. r.
	1.5	0.06	65	6	10	FKM	EAV-713X4M-B15-6FFK-00	686336	o. r.
	1.8	0.1	110	6	8	FKM	EAV-713X4M-B18-6FFK-00	686337	o. r.

Illustration



Permitted Excess Operating Pressure OP for 2/2-Way Solenoid Valve - Type EAV Series 700

"B" normally open
(closing against current)

DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 			
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N			90 %U _N			90 %U _N			90 %U _N			100 %U _N			
							Medium temperature			Medium temperature			Medium temperature			Medium temperature			Medium temperature			
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	
1.2	EAV-713-B12..	16	E22...M.	-	-	5	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	
			E30...P.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	
1.5	EAV-713-B15..	10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	9	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
2	EAV-713-B18..	8	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	7	7	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8

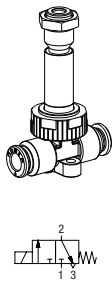
3/2-Way Solenoid Valve - Type EAV Series 700

Product group **51**

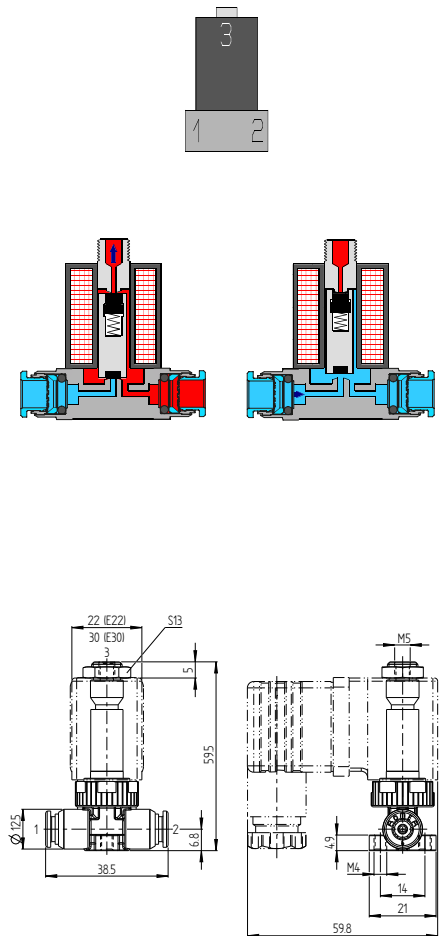
"C" normally closed with "1", "2" to "3" discharged (closing against current)



Stainless Steel

Version	DN	Kv-value Water [m³/h]	Q _{Nn} -value air [l/min]	For tube D	PN	Sealing material	Type	Order number	Price
	1.2	1 > 2 0,05 2 > 3 0,06	1 > 2 50 2 > 3 65	6	12,5	FKM	EAV-713X4M-C12-6FFK-00	686321	o. r.
	1.5	1 > 2 0,06 2 > 3 0,10	1 > 2 68 2 > 3 115	6	10	FKM	EAV-713X4M-C15-6FFK-00	686322	o. r.
	2	1 > 2 0,09 2 > 3 0,08	1 > 2 124 2 > 3 110	6	6	FKM	EAV-713X4M-C20-6FFK-00	686323	o. r.
	3	1 > 2 0,1 2 > 3 0,08	1 > 2 165 2 > 3 110	6	4	FKM	EAV-713X4M-C30-6FFK-00	686324	o. r.

Illustration



Permitted Operating Pressure for 3/2-Way Solenoid Valve - Type EAV Series 700

"C" normally closed with "1", "2" to "3" discharged (closing against current)

DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 			
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature			
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	
1.2	EAV-713-C12..	12.5	E22...M.	-	-	5	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
			E22...H.	-	-	8	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
			E30...P.	-	-	8	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.5	EAV-713-C15..	10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
1.8	EAV-713-C18..	10	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8

3/2-Way Solenoid Valve Type EAV Series 700

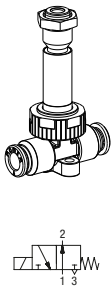
Product group **51**

"D" in 0 position "1" to "2" open, "3" closed (closing against current)

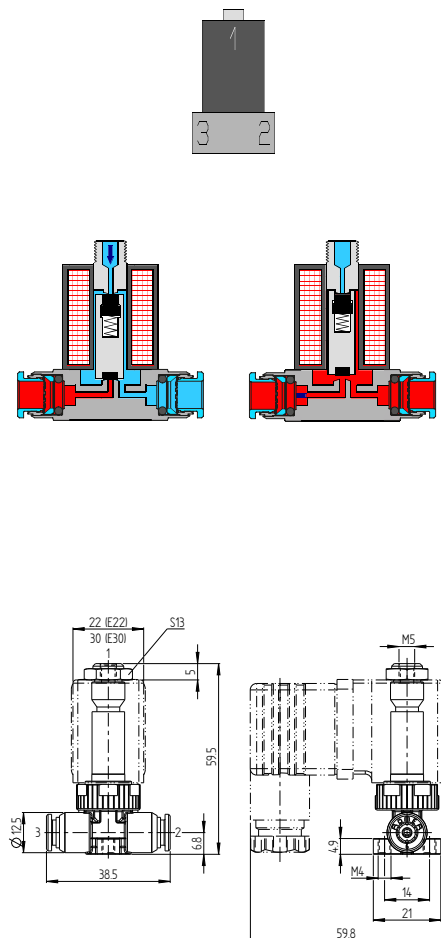
Permitted operating pressure Table below



Stainless Steel

Version	DN	Kv-value water [m³/h]	Q _{Nn} -value air [l/min]	For tube D	PN	Sealing material	Type	Order number	Price
	1.2	1 > 2 0,05 2 > 3 0,06	1 > 2 48 2 > 3 68	6	16	FKM	EAV-713X4M-D12-6FFK-00	686357	o. r.
	1.5	1 > 2 0,06 2 > 3 0,11	1 > 2 68 2 > 3 125	6	10	FKM	EAV-713X4M-D15-6FFK-00	686358	o. r.
	1.8	1 > 2 0,10 2 > 3 0,11	1 > 2 115 2 > 3 125	6	8	FKM	EAV-713X4M-D18-6FFK-00	686359	o. r.

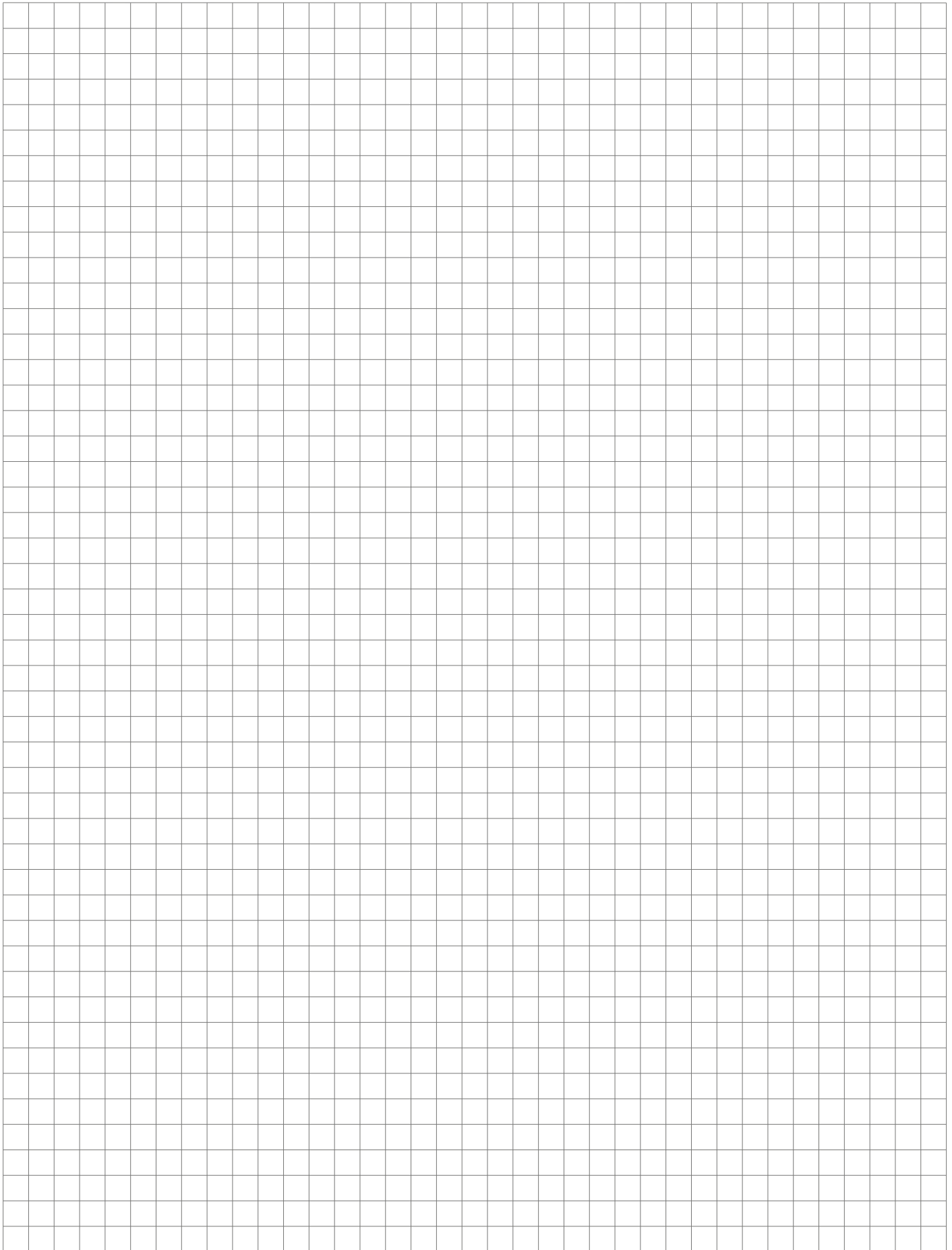
Illustration



Permitted Operating Pressure for 3/2-Way Solenoid Valve - Type EAV Series 700

"D" in 0 position "1" to "2" open, "3" closed (closing against current)

DN	Type	PN	Combinable solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 		
				AC 50 Hz	AC 60 Hz	DC	Medium temperature			Medium temperature			Medium temperature			Medium temperature			Medium temperature		
				[VA]	[VA]	[W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
1.2	EAV-713-D12..	16	E22...M.	-	-	5	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
			E30...P.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
1.5	EAV-713-D15..	10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	9	10	10	10
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10
1.8	EAV-713-D18..	8	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	7	7	8	8	8	8
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8



3/2-Way Flange-Solenoid Valves Type EAV Series 300



FEATURES

GENERAL

Constructional design	Seat valve, rubber seals
Product name	3/2-way flange solenoid valve
Actuation	electrical, direct-acting
Product type	EAV-3...-C..
Function	"C" in 0 position "1" closed, "2" after "3" discharged (closing against flow)
Nominal diameter	DN 1.2 to DN 1.8
Connections	Flange according to factory standard
Ambient temperature	-20 °C to +60 °C (others on request)
Medium temperature	for NBR: -10 °C to +90 °C for FKM: -10 °C to +130 °C (for restrictions see table)
Medium viscosity	up to approx. 20 mm ² /s
Valve body material	Brass
Manual material	PPE (Polyphenylene ether)
Seat nozzle material	Stainless steel
Other internal components material	Stainless steel and non-ferrous metal. DC version with FKM seal non-ferrous metal-free
Sealing material	NBR (nitrile rubber) or FKM (fluoride rubber) (others on request)
Mounting method	by 2 through bores in the valve body
Mounting position	optional, preferably upright

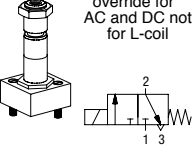
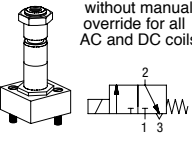
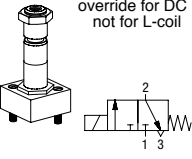
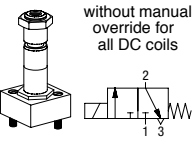
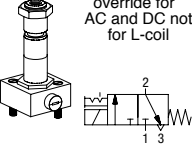
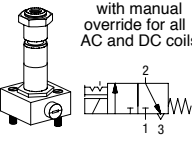
PNEUMATIC - HYDRAULIC

Nominal pressure	according to type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure PB in bar at 60 °C ambient temperature and 60 °C medium temperature.
Pressure range	technical vacuum up to permitted operating pressure PB. For exceptions which refer to minimum permitted operating pressure see table.
Flow rate	Kv-value and QNn-value according to type table
Medium	gaseous or liquid media sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases sealing material FKM: e.g. solvents, hot water, hot air
Response time	Opening time: 7 - 20 ms, closing time: 12 - 20 ms
Electric	see under solenoid coils

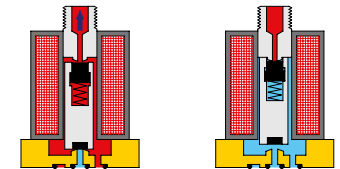
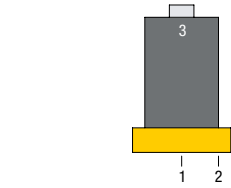
3/2-Way Solenoid Valve - Type EAV Series 300

Product group **51** "C" in 0-position "1" closed, "2" after "3" discharged

Brass

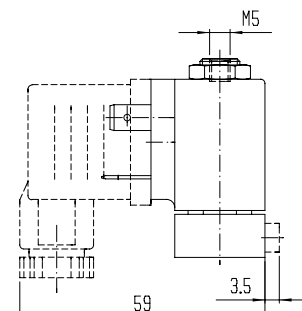
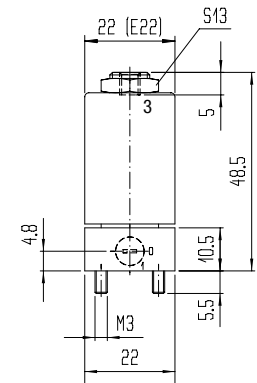
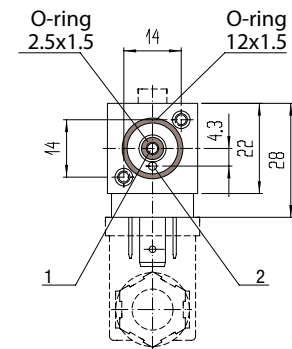
Version	DN	Kv-value water [m³/h]	Q _N -value air [l/min]	PN	Sealing material	Type	Order number	Price
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-311-C12-FL1B-00	609201	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-311-C12-FL1F-00	609202	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-311-C15-FL1B-00	609203	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-311-C15-FL1F-00	609204	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-311-C18-FL1B-00	609205	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-311-C18-FL1F-00	609206	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-315-C12-FL1B-00	609217	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-315-C12-FL1F-00	609218	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-315-C15-FL1B-00	609219	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-315-C15-FL1F-00	609220	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-315-C18-FL1B-00	609221	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-315-C18-FL1F-00	609222	o. r.
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-313-C12-FL1B-00	609209	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-313-C12-FL1F-00	609210	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-313-C15-FL1B-00	609211	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-313-C15-FL1F-00	609212	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-313-C18-FL1B-00	609213	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-313-C18-FL1F-00	609214	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-317-C12-FL1B-00	609225	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-317-C12-FL1F-00	609226	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-317-C15-FL1B-00	609227	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-317-C15-FL1F-00	609228	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-317-C18-FL1B-00	609229	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-317-C18-FL1F-00	609230	o. r.
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-321-C12-FL1B-00	609251	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-321-C12-FL1F-00	609252	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-321-C15-FL1B-00	609253	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-321-C15-FL1F-00	609254	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-321-C18-FL1B-00	609255	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-321-C18-FL1F-00	609256	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-325-C12-FL1B-00	609267	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-325-C12-FL1F-00	609268	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-325-C15-FL1B-00	609269	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-325-C15-FL1F-00	609270	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-325-C18-FL1B-00	609271	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-325-C18-FL1F-00	609272	o. r.

Illustration



Normal position

Operational position



Home



Permitted Operating Pressure for 3/2-way Flange Solenoid Valve - Type EAV Series 300

"C" in 0-position "1" closed,
"2" after "3" discharged

Home

DN	Type	PN	Combined solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C																														
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N  Medium temperature			AC 60 Hz  90 %U _N  Medium temperature			DC  90 %U _N  Medium temperature			DC  90 %U _N  Medium temperature			DC  100 %U _N  Medium temperature																		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60°C	90°C	130°C	60°C	90°C	130°C	60°C	90°C	130°C	60°C	90°C	130°C	60°C	90°C	130°C																
1.2	EAV-311-C12..	12.5	E22...M.	5.5	5	5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5		
			E30...P.	12	10.5	8	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
	EAV-315-C12..	10	E22...L.	3.5	on req.	2.5	10	-	-	-	10	-	-	-	10	10**	10**	10**	10**	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	
			E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
	EAV-313-C12..	12.5	E22...M.	-	-	5	-	-	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5		
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5		
	EAV-317-C12..	10	E22...L.	-	-	2.5	-	-	-	-	-	-	-	-	10	10**	10**	10**	10**	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	10	10**	10**	
			E22...M.	-	-	5	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
	EAV-321-C12..	12.5	E22...M.	5.5	5	5	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	
			E30...P.	12	10.5	8	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	12.5	*	*	
	EAV-325-C12..	10	E22...L.	3.5	on req.	2.5	10	-	-	10	-	-	10	*	*	10**	*	*	10**	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
			E22...M.	5.5	5	5	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
			E30...P.	12	10.5	8	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
1.5	EAV-311-C15..	10	E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
	EAV-315-C15..	8	E22...L.	3.5	on req.	2.5	8	8	-	-	-	-	-	-	8	8	8**	8	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**		
			E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
	EAV-313-C15..	10	E22...M.	-	-	5	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
	EAV-317-C15..	8	E22...L.	-	-	2.5	-	-	-	-	-	-	-	-	8	8**	8**	8**	8**	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**	8	8**	8**	
			E22...M.	-	-	5	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
	EAV-321-C15..	10	E22...M.	5.5	5	5	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
			E30...P.	12	10.5	8	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	
	EAV-325-C15..	8	E22...L.	3.5	on req.	2.5	8	*	*	-	-	-	-	-	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*		
			E22...M.	5.5	5	5	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	
E30...P.			12	10.5	8	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*		
1.8	EAV-311-C18..	8	E22...M.	5.5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E30...P.	12	10.5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
	EAV-313-C18..	8	E22...M.	-	-	5	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
	EAV-321-C18..	8	E22...M.	5.5	5	5	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*				

3/2-Way Solenoid Valve Battery - Type EAV Series 300

Product group	51
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"C" in 0 position "1" closed,
"2" after "3" discharge

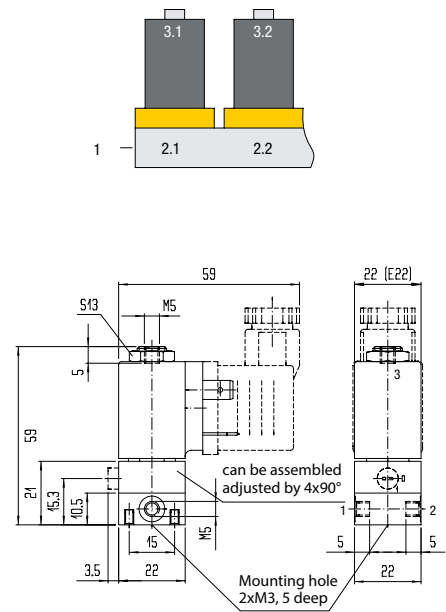
Brass

Material single manifold: Ms, multiple manifold: aluminium alloy, sealing material: NBR, solenoid valves: see type EAV series 300

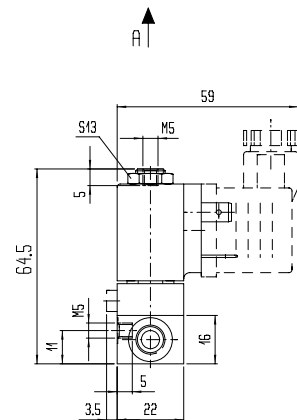
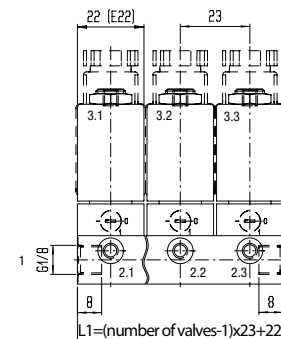
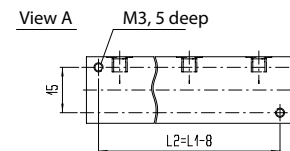
Kv-value water [m³/h], QNn-value air [l/min]
see type EAV series 300

Version		PN	Type	Order number	Price
	without manual override for AC and DC not for L-coil	10	EAV-311/01-C15-M05B	609601	o. r.
	without manual override for all AC and DC coils	8	EAV-315/01-C15-M05B	609625	o. r.
	without manual override for DC not for L-coil	10	EAV-313/01-C15-M05B	609613	o. r.
	without manual override for all DC coils	8	EAV-317/01-C15-M05B	609637	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/02-C15-M05B	609602	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/02-C15-M05B	609626	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/02-C15-M05B	609614	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/02-C15-M05B	609638	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/03-C15-M05B	609603	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/03-C15-M05B	609627	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/03-C15-M05B	609615	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/03-C15-M05B	609639	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/04-C15-M05B	609604	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/04-C15-M05B	609628	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/04-C15-M05B	609616	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/04-C15-M05B	609640	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/05-C15-M05B	609605	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/05-C15-M05B	609629	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/05-C15-M05B	609617	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/05-C15-M05B	609641	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/06-C15-M05B	609606	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/06-C15-M05B	609630	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/06-C15-M05B	609618	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/06-C15-M05B	609642	o. r.
	with manual override for AC and DC not for L-coil	10	EAV-321/01-C15-M05B	609651	o. r.
	with manual override for all AC and DC coils	8	EAV-325/01-C15-M05B	609675	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/02-C15-M05B	609652	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/02-C15-M05B	609676	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/03-C15-M05B	609653	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/03-C15-M05B	609677	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/04-C15-M05B	609654	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/04-C15-M05B	609678	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/05-C15-M05B	609655	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/05-C15-M05B	609679	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/06-C15-M05B	609656	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/06-C15-M05B	609680	o. r.

Illustration



Single valve



2-fold valve to 6-fold valve

Permitted Operating Pressure for 3/2-Way Solenoid Valve Battery - Type EAV Series 300

"C" in 0 position "1" closed,
"2" after "3" discharge

DN	Type	PN	Combined solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C									
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature		AC 60 Hz  90 %U _N Medium temperature		DC  90 %U _N Medium temperature		DC  90 %U _N Medium temperature		DC  100 %U _N Medium temperature	
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60°C	90°C	60°C	90°C	60°C	90°C	60°C	90°C	60°C	90°C
1.5	EAV-311/...-C15..	10	E22...M.	5.5	5	5	10	-	10	-	10	-	10	-	10	-
		E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-	
	EAV-315/...-C15..	8	E22...L.	3.5	on req.	2.5	8	-	8	-	8	8**	8	8**	8	8**
			E22...M.	5.5	5	5	8	8	8	8	8	-	8	-	-	-
			E22...H.	-	-	8	-	-	-	-	8	-	8	-	8	-
	EAV-313/...-C15..	10	E22...M.	-	-	5	-	-	-	-	10	-	10	-	10	-
			E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-
	EAV-317/...-C15..	8	E22...L.	-	-	2.5	-	-	-	-	8	8**	8	8**	8	8**
			E22...M.	-	-	5	-	-	-	-	8	-	8	-	8	-
			E22...H.	-	-	8	-	-	-	-	8	-	8	-	8	-
	EAV-321/...-C15..	10	E22...M.	5.5	5	5	10	-	10	-	10	-	10	-	10	-
			E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-
	EAV-325/...-C15..	8	E22...L.	3.5	on req.	2.5	8	*	8	*	8	*	8**	*	8**	*
			E22...M.	5.5	5	5	8	-	8	*	8	-	8	-	8	-
E22...H.			-	-	8	-	-	-	-	8	-	8	-	8	-	

* Solenoid valves with manual override can only be used at medium temperatures up to max. 60 °C.

Minimum pressure of 2 bar required

Collector Manifold for Solenoid Valve - Type EAV Type ZAV Series 300

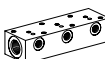
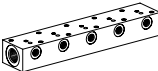
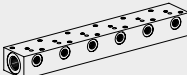
Product group	51
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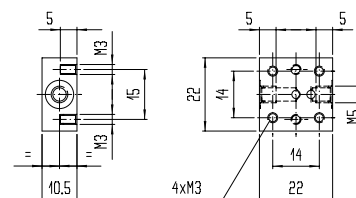
Solenoid valves type EAV series 300 can be assembled on the single and collector manifold. Single manifold made of Ms, multiple manifold made of aluminium alloy.

The collector manifold can however only be equipped with solenoid coils type E22. The permitted highest medium temperature is generally limited as follows:

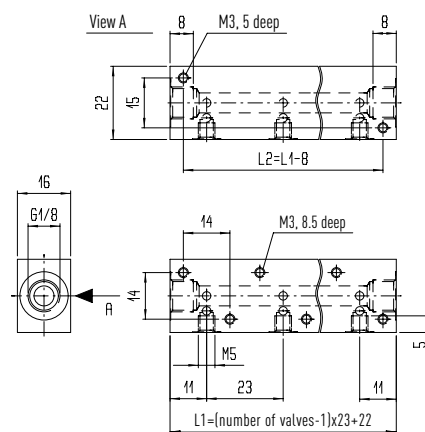
solenoid coils E22-...L. 90 °C
solenoid coils E22-...M. and E22-...-H. 60 °C

Manifold		G	Type	Order number	Price
	single manifold	M 5	ZAV-310-M05U	500269	a. A.
	collector manifold 2-fold	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/02-M05A	500302	a. A.
	collector manifold 3-fold	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/03-M05A	500303	a. A.
	collector manifold 4-fold	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/04-M05A	500304	a. A.
	collector manifold 5-fold	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/05-M05A	500305	a. A.
	collector manifold 6-fold	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/06-M05A	500306	a. A.

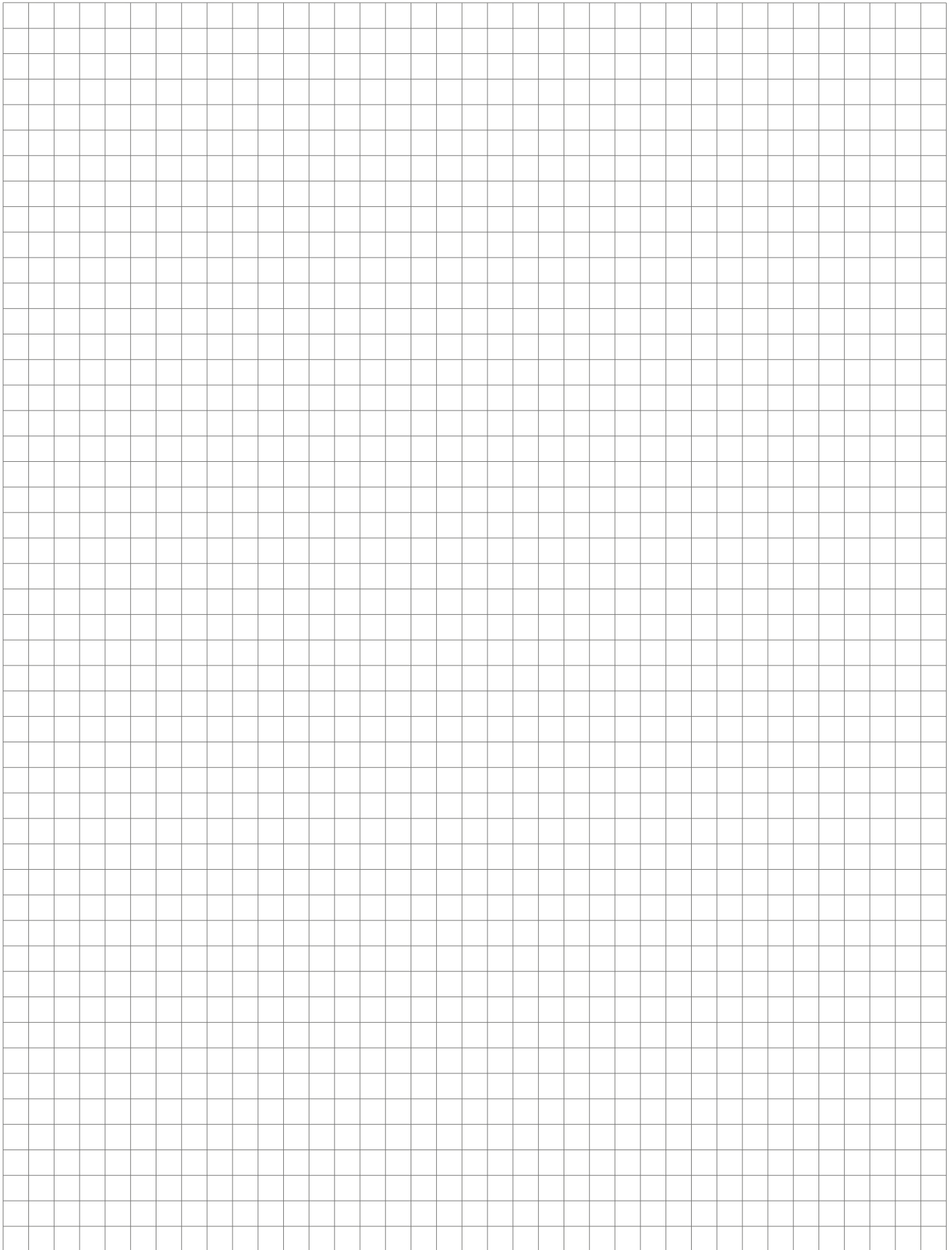
Illustration



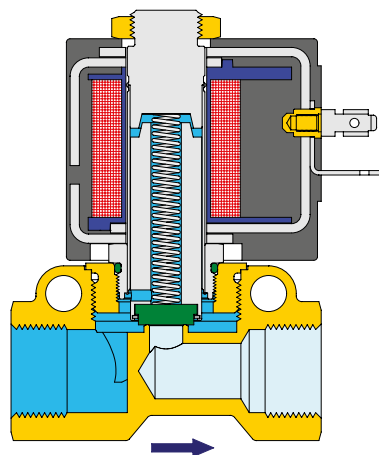
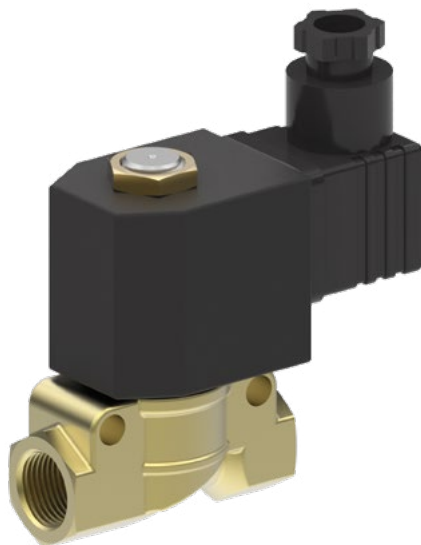
Single plate



Collector plate



2/2-Way Solenoid Valves Type EBV Series 100



Direct-acting DC solenoid valve with traditional constructional design, however with significantly improved magnetic circuit.

CHARACTERISTICS

GENERAL

Constructional design	Seat valve, elastomer seals	
Product name	2/2-way solenoid valve	
Actuation	electric, direct-acting,	
Product type	EBV-1.3-A..	EBV-153-A..
Function	"A" normally closed (closing with flow)	
Nominal diameter	DN 3, DN 4 or DN 6	
Port size	G 1/4	G 3/8
Ambient temperature	-20 °C to +60 °C (others on request)	
Medium temperature	for NBR: -10 °C to +90 °C for FKM -10 °C to +130 °C (others on request)	
Medium viscosity	up to approx. 20 mm²/s	
Valve body material	Brass	
Other internal component material	Stainless steel	
Seal material	NBR (Perbunan) or FKM (fluoride rubber)	
Solenoid housing material	plastic-moulded	
Mounting method	2 M3 tapped holes in valve body or using rigid pipework	2 mounting holes in valve body or using rigid pipework
Mounting position	optional, preferably upright	

PNEUMATIC - HYDRAULIC

Nominal pressure	up to PN 16
Pressure range	technical vacuum up to excess pressure corresponding to PN
Flow rate	Kv-value and QNn-value according to type table
Medium	gaseous or liquid media sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases sealing material FKM: e.g. solvents, hot water, hot air
Response time	Opening time: approx. 40 ms, closing time: approx. 60 ms

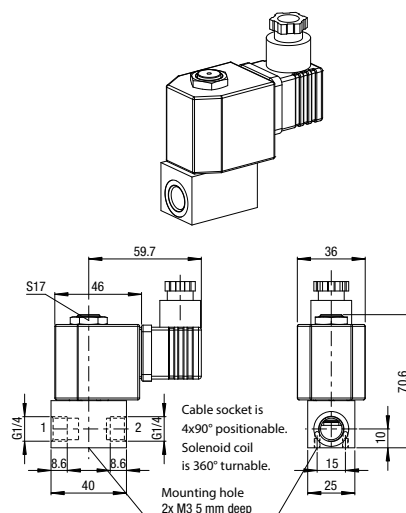
ELECTRIC

Nominal voltage	12 or 24 V DC (other DC on request)
Voltage tolerance	±10 %
Nominal power P ₂₀	16 W
Duty cycle	100 %
Protection class	IP 65 (wiring box properly assembled)

2/2-Way Solenoid Valve - Direct-acting - Type EBV Series 100

Product group	55	Port size G 1/4	Function "A" normally closed				Brass			
Version	DN	Kv-value water [m³/h]	Q _{Nn} - value air [l/min]	G	PN	Sealing material	Voltage / current	Type	Order number	Price
Solenoid valve with Solenoid coil E36 including cable socket ESG-182 Pg 9	3	0.28	285	G 1/4	16	NBR	12 V DC	EBV-113-A30-1/4B-012/=-S9	627303	o. r.
	3	0.28	285	G 1/4	16	FKM	12 V DC	EBV-113-A30-1/4F-012/=-S9	627304	o. r.
	4	0.5	520	G 1/4	10	NBR	12 V DC	EBV-113-A40-1/4B-012/=-S9	627305	o. r.
	4	0.5	520	G 1/4	10	FKM	12 V DC	EBV-113-A40-1/4F-012/=-S9	627306	o. r.
	6	0.8	850	G 1/4	5	NBR	12 V DC	EBV-113-A60-1/4B-012/=-S9	627307	o. r.
	6	0.8	850	G 1/4	5	FKM	12 V DC	EBV-113-A60-1/4F-012/=-S9	627308	o. r.
	3	0.28	285	G 1/4	16	NBR	24 V DC	EBV-113-A30-1/4B-024/=-S9	627313	o. r.
	3	0.28	285	G 1/4	16	FKM	24 V DC	EBV-113-A30-1/4F-024/=-S9	627314	o. r.
	4	0.5	520	G 1/4	10	NBR	24 V DC	EBV-113-A40-1/4B-024/=-S9	627315	o. r.
	4	0.5	520	G 1/4	10	FKM	24 V DC	EBV-113-A40-1/4F-024/=-S9	627316	o. r.
	6	0.8	850	G 1/4	5	NBR	24 V DC	EBV-113-A60-1/4B-024/=-S9	627317	o. r.
	6	0.8	850	G 1/4	5	FKM	24 V DC	EBV-113-A60-1/4F-024/=-S9	627318	o. r.

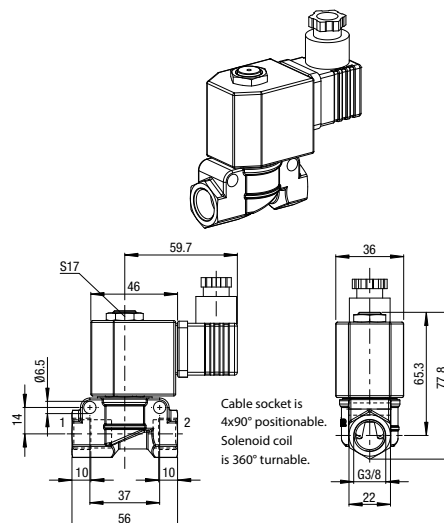
Illustration



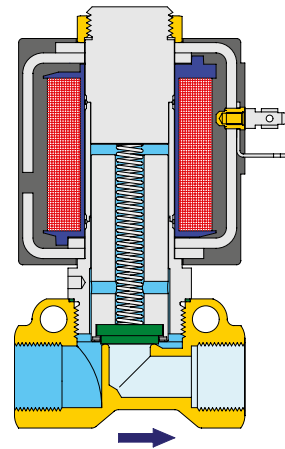
2/2-Way Solenoid Valve - Direct-acting - Type EBV Series 100

Product group		55	Port size G 3/8		Function "A" normally closed			Brass		
Version	DN	Kv-value water [m³/h]	QNN- value air [l/min]	G	PN	Sealing material	Voltage / current	Type	Order number	Price
Solenoid valve with Solenoid coil E36 including cable socket ESG-182 Pg 9 	3	0.28	285	G 3/8	16	NBR	12 V DC	EBV-153-A30-3/8B-012/=S9	627321	o. r.
	3	0.28	285	G 3/8	16	FKM	12 V DC	EBV-153-A30-3/8F-012/=S9	627322	o. r.
	4	0.5	520	G 3/8	10	NBR	12 V DC	EBV-153-A40-3/8B-012/=S9	627323	o. r.
	4	0.5	520	G 3/8	10	FKM	12 V DC	EBV-153-A40-3/8F-012/=S9	627324	o. r.
	6	0.8	850	G 3/8	5	NBR	12 V DC	EBV-153-A60-3/8B-012/=S9	627325	o. r.
	6	0.8	850	G 3/8	5	FKM	12 V DC	EBV-153-A60-3/8F-012/=S9	627326	o. r.
	3	0.28	285	G 3/8	16	NBR	24 V DC	EBV-153-A30-3/8B-024/=S9	627331	o. r.
	3	0.28	285	G 3/8	16	FKM	24 V DC	EBV-153-A30-3/8F-024/=S9	627332	o. r.
	4	0.5	520	G 3/8	10	NBR	24 V DC	EBV-153-A40-3/8B-024/=S9	627333	o. r.
	4	0.5	520	G 3/8	10	FKM	24 V DC	EBV-153-A40-3/8F-024/=S9	627334	o. r.
	6	0.8	850	G 3/8	5	NBR	24 V DC	EBV-153-A60-3/8B-024/=S9	627335	o. r.
	6	0.8	850	G 3/8	5	FKM	24 V DC	EBV-153-A60-3/8F-024/=S9	627336	o. r.

Illustration



2/2-Way Solenoid Valves Type EDV Series 100



CHARACTERISTICS

GENERAL

Constructional design	Seat valve, elastomer or high-performance plastic seals
Product name	2/2-way solenoid valve
Actuation	electric, direct-acting
Product type	EDV-113-A..
Function	"A" normally closed (closing with flow)
Nominal diameter	DN 3 to DN 10
Port sizes	G 3/8 and G 1/2
Ambient temperature	-20 °C to +60 °C (others on request)
Medium temperature	for NBR: -10 °C to +90 °C *, for PTFE: -40 °C to +130 °C *
Medium viscosity	up to ca. 20 mm²/s
Valve body material	Brass
Other internal component material	stainless steel
Seal material	NBR (nitrile rubber) or PTFE (Teflon) others on request
Guide pipe seal material	NBR (nitrile rubber) or FKM (fluoride rubber) for PTFE seat seal
Solenoid housing material	epoxy resin encapsulated
Mounting method	by 2 mounting bores in the valve body or in rigid pipe system
Mounting position	optional, preferably upright

PNEUMATIC - HYDRAULIC

Nominal pressure [bar]	up to PN 30, according to type table
Pressure range	technical vacuum up to excess pressure corresponding to PN
Flow rate	Kv-value and QNn-value according to type table
Medium	gaseous or liquid media sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases sealing material PTFE: e.g. solvents, hot water, water vapour, hot air
Response time	Opening time: 120 - 160 ms, closing time: 120 - 140 ms

ELECTRIC

Nominal power P ₂₀	DC: 16 W AC: 20 VA
Voltage tolerance	±10 % (exception: Valve with solenoid coil 230/50 at 230 Volts 50 Hz Tol. = +6 % -10 %)
Duty cycle	100 %
Protection class	IP 65 (wiring box properly assembled)

* Medium temperatures over 60 °C limit permitted ambient temperature, duty cycle and / or permitted overvoltage.
If required we can manufacture and deliver specially designed solenoid coils at short notice!

Home



2/2-Way Solenoid Valve - Type EDV Series 100

Product group	55
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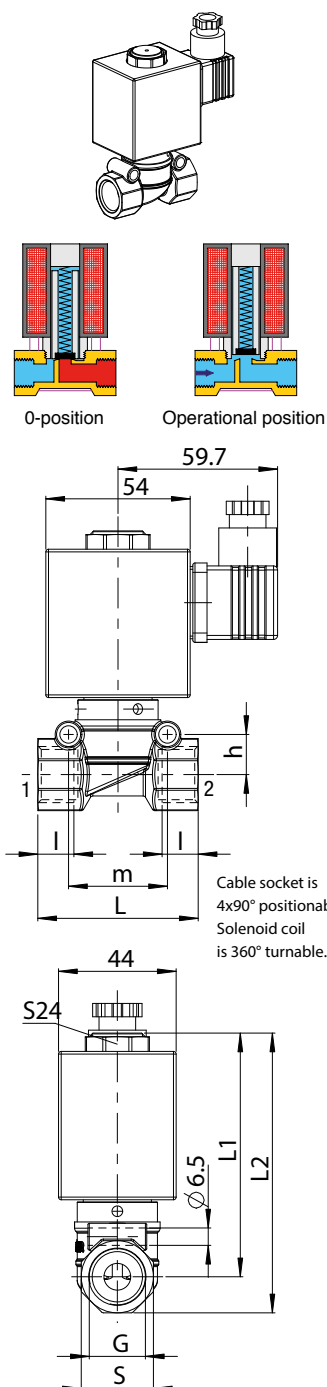
“A” normally closed

Brass

Version	DN	Kv-value water [m³/h]	Q _{Nn} - value air [l/min]	G	PN	Sealing material	Voltage/ type of current	type	Order number	Price
Solenoid valve with Solenoid coil E44 including cable socket ESG-182 Pg 9 	3	0.28	285	G 3/8	30	PTFE	24 V DC	EDV-113-A30-3/8T-024/=-D9	685464	o. r.
	4	0.5	520	G 3/8	20	PTFE	24 V DC	EDV-113-A40-3/8T-024/=-D9	685469	o. r.
	6	0.8	850	G 3/8	10	NBR	24 V DC	EDV-113-A60-3/8B-024/=-D9	685476	o. r.
	6	0.8	850	G 3/8	10	PTFE	24 V DC	EDV-113-A60-3/8T-024/=-D9	685479	o. r.
	6	0.8	850	G1/2	10	NBR	24 V DC	EDV-113-A60-1/2B-024/=-D9	686076	o. r.
	6	0.8	850	G1/2	10	PTFE	24 V DC	EDV-113-A60-1/2T-024/=-D9	686079	o. r.
	10	1.7	1670	G 3/8	2.5	NBR	24 V DC	EDV-113-A10-3/8B-024/=-D9	685481	o. r.
	10	1.7	1670	G 3/8	2.5	PTFE	24 V DC	EDV-113-A10-3/8T-024/=-D9	685484	o. r.
	10	1.7	1670	G1/2	2.5	NBR	24 V DC	EDV-113-A10-1/2B-024/=-D9	686081	o. r.
	10	1.7	1670	G1/2	2.5	PTFE	24 V DC	EDV-113-A10-1/2T-024/=-D9	686084	o. r.
Solenoid valve with Solenoid coil E44 including cable socket ESG-182 Pg 9 (bridge rectifier integrated) 	3	0.28	285	G 3/8	30	PTFE	24 V 50 Hz	EDV-113-A30-3/8T-024/50-W9	685564	o. r.
	4	0.5	520	G 3/8	20	PTFE	24 V 50 Hz	EDV-113-A40-3/8T-024/50-W9	685569	o. r.
	6	0.8	850	G 3/8	10	NBR	24 V 50 Hz	EDV-113-A60-3/8B-024/50-W9	685576	o. r.
	6	0.8	850	G 3/8	10	PTFE	24 V 50 Hz	EDV-113-A60-3/8T-024/50-W9	685579	o. r.
	6	0.8	850	G1/2	10	NBR	24 V 50 Hz	EDV-113-A60-1/2B-024/50-W9	686176	o. r.
	6	0.8	850	G1/2	10	PTFE	24 V 50 Hz	EDV-113-A60-1/2T-024/50-W9	686179	o. r.
	10	1.7	1670	G 3/8	2.5	NBR	24 V 50 Hz	EDV-113-A10-3/8B-024/50-W9	685581	o. r.
	10	1.7	1670	G 3/8	2.5	PTFE	24 V 50 Hz	EDV-113-A10-3/8T-024/50-W9	685584	o. r.
	10	1.7	1670	G1/2	2.5	NBR	24 V 50 Hz	EDV-113-A10-1/2B-024/50-W9	686181	o. r.
	10	1.7	1670	G1/2	2.5	PTFE	24 V 50 Hz	EDV-113-A10-1/2T-024/50-W9	686184	o. r.
	3	0.28	285	G 3/8	30	PTFE	230 V 50 Hz	EDV-113-A30-3/8T-230/50-W9	685614	o. r.
	4	0.5	520	G 3/8	20	PTFE	230 V 50 Hz	EDV-113-A40-3/8T-230/50-W9	685619	o. r.
	6	0.8	850	G 3/8	10	NBR	230 V 50 Hz	EDV-113-A60-3/8B-230/50-W9	685626	o. r.
	6	0.8	850	G 3/8	10	PTFE	230 V 50 Hz	EDV-113-A60-3/8T-230/50-W9	685629	o. r.
	6	0.8	850	G1/2	10	NBR	230 V 50 Hz	EDV-113-A60-1/2B-230/50-W9	686226	o. r.
	6	0.8	850	G1/2	10	PTFE	230 V 50 Hz	EDV-113-A60-1/2T-230/50-W9	686229	o. r.
	10	1.7	1670	G 3/8	2.5	NBR	230 V 50 Hz	EDV-113-A10-3/8B-230/50-W9	685631	o. r.
	10	1.7	1670	G 3/8	2.5	PTFE	230 V 50 Hz	EDV-113-A10-3/8T-230/50-W9	685634	o. r.
	10	1.7	1670	G1/2	2.5	NBR	230 V 50 Hz	EDV-113-A10-1/2B-230/50-W9	686231	o. r.
	10	1.7	1670	G1/2	2.5	PTFE	230 V 50 Hz	EDV-113-A10-1/2T-230/50-W9	686234	o. r.

G	L	I	L1	L2	m	h	S
G 3/8	56	10	89.5	102	37	14	22
G 1/2	60	13.5	91	104.5	37	15	27

Illustration

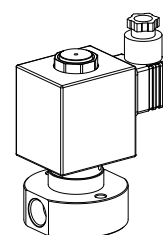


Variant 2/2-Way Solenoid Valve - Type EDV Series 100

Stainless steel

2/2-way solenoid valve with stainless steel body 1.4305

type EDV-713-A..

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GAMMA Valves Series 100

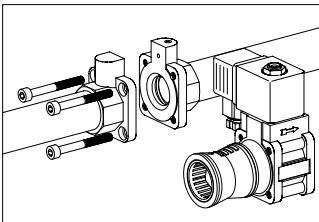


An especially universal and robust valve series from DN 15 to DN 50 (G1/2 to G2) for the most varied applications in mechanical and apparatus construction.

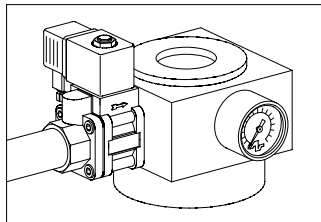
Dirt particles in the medium can lead to malfunction in the valves. It is therefore recommended to install a strainer, e.g. Type SMF-133..

The structural combination of various Types of valve, e.g. solenoid valves and pressure regulators, if required with sensors in multi function blocks, offers significant advantages:

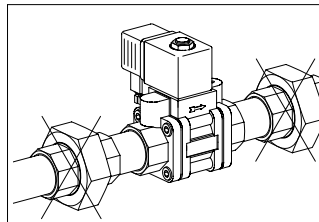
- saving of assembly time (pipework expenditure reduced by up to 85 %)
- saving of fittings
- enormous saving of construction space



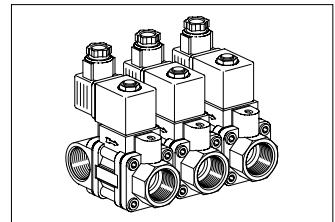
The main valve (intermediate flange valve) can be radially disassembled



Flange mount valves can be screwed onto pressure-bearing elements



Costly assembly of a detachable fitting is not required



Valve batteries up to DN 50 (G 2) with various operation Types and functional applications

CHARACTERISTICS

GENERAL

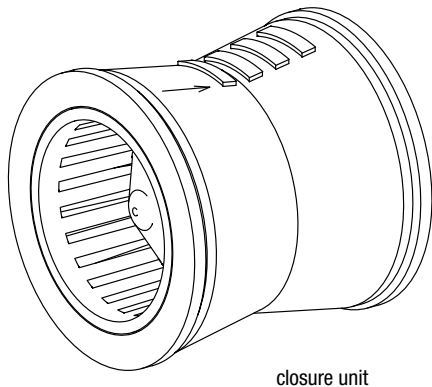
Constructional design	low noise membrane valve with coaxial flow				
Product name	2/2-way solenoid valve servo-controlled	2/2-way solenoid valve with pressure regulator servo-controlled	2/2-way valve pressure operated by external or own medium	Hand-adjustable pressure regulator valve servo controlled	Valve batteries (all variants)
Product type	EGV	EGR	PGV	RGV	all previously named
Nominal diameter	DN 15 to DN 50				
Port size	G 1/2 to G 2				
Ambient temperature	-20 °C to +60 °C (others on request)				
Medium temperature	for NBR: -10 °C to +90 °C for FKM and EPDM: -10 °C to +130 °C (for exceptions see table)				
Medium viscosity	up to ca. 20 mm²/s				
Valve body material	Ms				
Membrane support unit material	reinforced synthetic material (others on request)				
Other internal component material	Stainless steel and non-ferrous metal				
Material sealing material	NBR (nitrile rubber), EPDM (ethylene propylene) or FKM (fluoride rubber) (others on request)				
Mounting method	Installation in rigid pipe system or using mounting bracket (see accessories)				
Mounting position	optional, preferably upright				

PNEUMATIC - HYDRAULIC

Nominal pressure (bar)	according to Type table. The numerical value of the nominal pressure PN signifies the permitted operating pressure OP in bar at 60 °C ambient temperature and 60 °C medium temperature. Insofar as two values are given, the first value refers to solenoid coil with highest electrical power consumption, the second value to that with lowest power consumption.				
Pressure range	0.2 bar up to permitted operating pressure OP according to table. 0 to 16 bar version is also Possible for Type EGV function "Z" and Type PGV				
Flow rate	Kv-value according to Type table (full flow with pressure difference of 0.3 bar or higher)				
Medium	gaseous or fluids Sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases Sealing material EPDM: e.g. hot water Sealing material FKM: e.g. solvents, hot water, hot air above 90 °C				
Response time	Opening time: 20 ms to 2 s closing time: 25 ms to 5 s, according to flow medium and DN				
Electric	see solenoid coils				

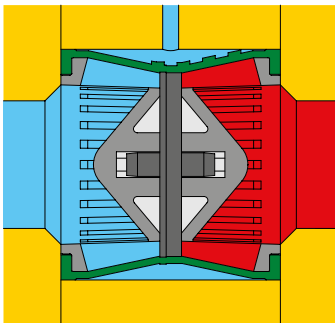
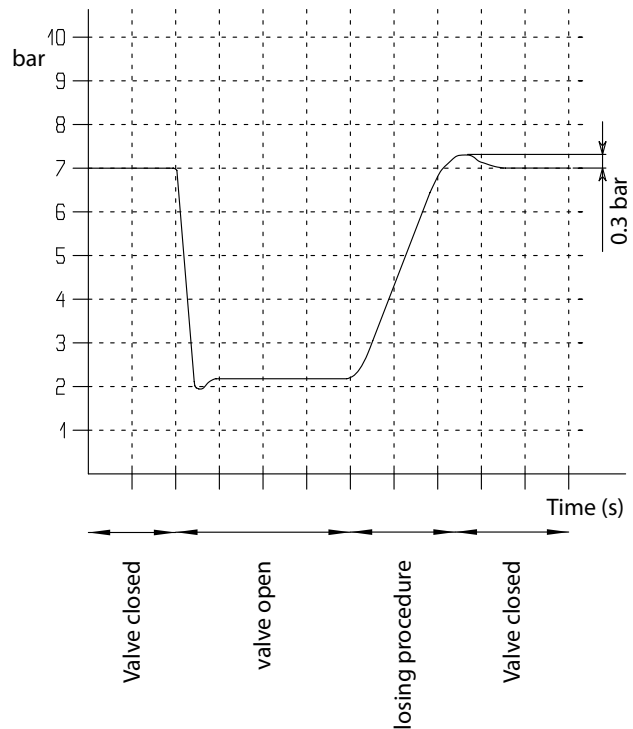
AVS GAMMA valves

Low noise automatic with membraneclosing
GAMMA the perfect valve concept from AVS-Römer

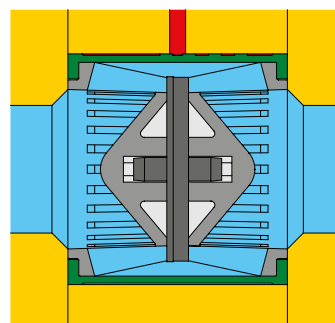


closure unit

Closing response



Closed

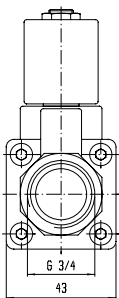
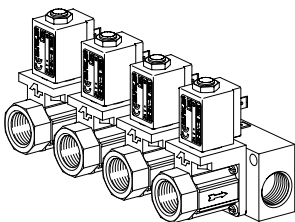


Open

The patented, coaxial constructional design enables advantageous membrane support, in both positions. The optimal heat emission of the open membrane resting on the coil reduces its thermal load. Both sets of circumstances are responsible for the extraordinarily high durability and also with pulsating compressed air. Furthermore the low masses moved enable extremely short response times, if desired.

Further advantages:

- no pressure surges of fluids, minimised flow noises
- also very suitable for compressed air and other gases
- large pressure range (application from 0 bar also Possible)
- large variety of materials (plastic and elastomer components are manufactured in-house)
- the very compact closure unit with rotational symmetry enables very easy structuring of valve coil or special valve batteries

Description	
Structural width 	The low structural width permits small pipe spacing for single valves and high installation density for valve batteries.
Valve batteries 	DN 12 to DN 50 (G 1/2 to G 2) single valve to 1normal fold battery.

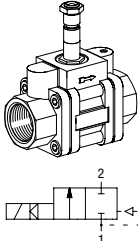
Home



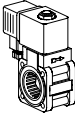
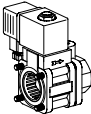
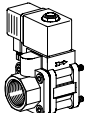
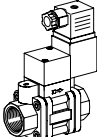
2/2-Way Solenoid Valve - Type EGV Series 100

Product group	53	Function "A" normally closed	low noise and impact-free closing, for neutral, gaseous or fluids
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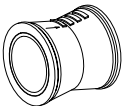
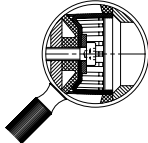
Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible Type of power	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
Valve without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below. 	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111-A78-1/2BN-00	613501	o. r.
	15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111-A78-1/2PN-00	613503	o. r.
	15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111-A78-1/2FN-00	613505	o. r.
	20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111-A78-3/4BN-00	613521	o. r.
	20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111-A78-3/4PN-00	613523	o. r.
	20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111-A78-3/4FN-00	613525	o. r.
	25	16.8	G 1	16/8	AC/DC	NBR	EGV-111-A78-1BN-00	613551	o. r.
	25	16.8	G 1	16/8	AC/DC	EPDM	EGV-111-A78-1PN-00	613553	o. r.
	25	16.8	G 1	16/8	AC/DC	FKM	EGV-111-A78-1FN-00	613555	o. r.
	32	21	G 1 1/4	16/8	AC/DC	NBR	EGV-111-A78-5/4BN-00	613571	o. r.
	32	21	G 1 1/4	16/8	AC/DC	EPDM	EGV-111-A78-5/4PN-00	613573	o. r.
	32	21	G 1 1/4	16/8	AC/DC	FKM	EGV-111-A78-5/4FN-00	613575	o. r.
	40	29.5	G 1 1/2	16/8	AC/DC	NBR	EGV-111-A78-6/4BN-00	613601	o. r.
	40	29.5	G 1 1/2	16/8	AC/DC	EPDM	EGV-111-A78-6/4PN-00	613603	o. r.
	40	29.5	G 1 1/2	16/8	AC/DC	FKM	EGV-111-A78-6/4FN-00	613605	o. r.
	50	35	G 2	16/8	AC/DC	NBR	EGV-111-A78-2BN-00	613621	o. r.
	50	35	G 2	16/8	AC/DC	EPDM	EGV-111-A78-2PN-00	613623	o. r.
	50	35	G 2	16/8	AC/DC	FKM	EGV-111-A78-2FN-00	613625	o. r.

Variations

	2/2-way intermediate flange solenoid valve Flange-side 4 through bores: Type EGV-111-AHL-...
	2/2-way flange mount solenoid valve Flange-side pressure inlet Type EGV-111-AH9-...
	2/2-way flange mount solenoid valve Thread-side pressure inlet Type EGV-111-A7L-
	2/2-way solenoid valve Rapid function version with 3/2-way servo-control especially for compressed air Type EGV-161-A96-...BP-00

Options

	Manual override Type EGV-112-... This limits: permitted operating pressure: 12.5 bar permitted Medium temperature: max. 60 °C		increases resistance to corrosion and replaces stainless steel valves cost-effectively for many flow media Type EGV-111Q-...
	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		Non-return valve integrated outlet-side in the gate unit Type EGV-111-A78-../T-.. This only blocks up to the following pressure difference: DN 15 to DN 32: 10 bar DN 40 to DN 50: 8 bar
EX protection Type EGV-1004-A.. -230/5normal EEX m II T5 or -024/ = -EEX m II T5 respectively with 3m cable A fuse (max. 3 x I _N) must be installed before the solenoid valve!			

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted operating pressure OP [bar] at ambient temperature +60 °C																	
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 					
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature					
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C			
15 to 32	EGV-111-A..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	on req.	7	on req.	on req.	6	5	4	4	3	2	6	5	4			
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	14	12	10	8	15	13	12			
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16			
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16			
40 and 50	EGV-111-A..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	on req.	7	on req.	on req.	5	4	3	3	2	2	5	4	3			
			E22...M.	5.5	5	5	16	16	16	16	16	16	12	10	8	8	7	6	12	10	9			
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	12	10	9	16	14	10			
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16			

Function

Product group **53**

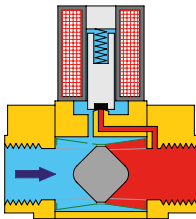
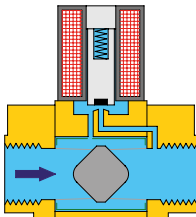
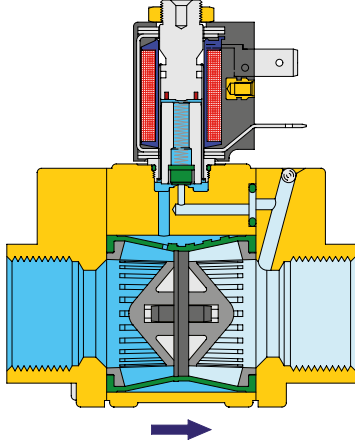
Function "A" normally closed

low noise and impact-free closing, for neutral, gaseous or fluids

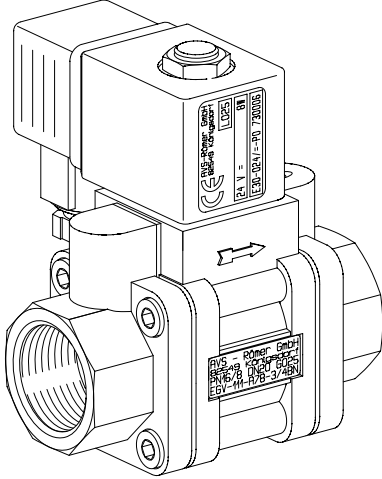
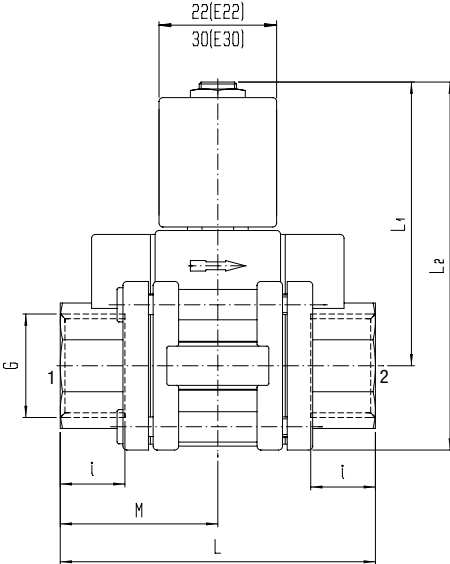
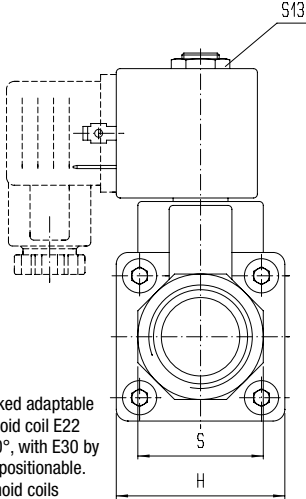
Brass

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Operating position	Description	Function
 	In normal position - magnetic system without power - its resting seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position. In operational position - magnetic system under power - its seat is open, the control chamber discharged and the membrane is held by the flow medium in the "open" position. A minimum pressure difference is required for this operation.	

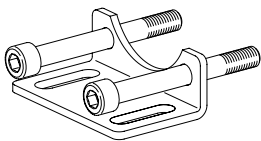
Illustration

		 Cable socked adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° turnable.
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Dimensions

DN	G	L	I	M	L1	L2	H	S
15	G 1/2	68.5	13.5	34	72	93.5	43	27
20	G 3/4	80.5	15.5	40	72	93.5	43	32
25	G 1	94	17	47	80	109.5	59	41
32	G 1 1/4	112	19	56	80	109.5	59	50
40	G 1 1/2	132	21	66	93.5	137	87	55
50	G 2	160	24.5	80	93.5	137	87	70

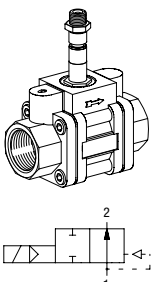
Mounting Accessories

Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

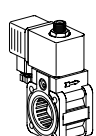
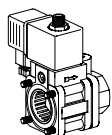
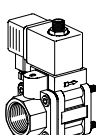
2/2-Way Solenoid Valve - Type EGV Series 100

Product group	53	Function "B" normally open	low noise and impact-free closing, for neutral, gaseous or fluids
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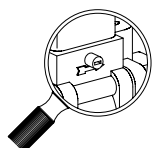
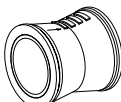
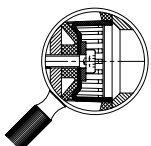
Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible Type of power	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
Valve without solenoid coil Permitted operating pressure 0.2 bar up to valve according to table below. 	15	5.6	G 1/2	16	AC/DC	NBR	EGV-111-B96-1/2BP-00	613701	o. r.
	15	5.6	G 1/2	16	AC/DC	EPDM	EGV-111-B96-1/2PP-00	613703	o. r.
	15	5.6	G 1/2	16	AC/DC	FKM	EGV-111-B96-1/2FP-00	613705	o. r.
	20	7.6	G 3/4	16	AC/DC	NBR	EGV-111-B96-3/4BP-00	613721	o. r.
	20	7.6	G 3/4	16	AC/DC	EPDM	EGV-111-B96-3/4PP-00	613723	o. r.
	20	7.6	G 3/4	16	AC/DC	FKM	EGV-111-B96-3/4FP-00	613725	o. r.
	25	16.8	G 1	16	AC/DC	NBR	EGV-111-B96-1BP-00	613751	o. r.
	25	16.8	G 1	16	AC/DC	EPDM	EGV-111-B96-1PP-00	613753	o. r.
	25	16.8	G 1	16	AC/DC	FKM	EGV-111-B96-1FP-00	613755	o. r.
	32	21	G 1 1/4	16	AC/DC	NBR	EGV-111-B96-5/4BP-00	613771	o. r.
	32	21	G 1 1/4	16	AC/DC	EPDM	EGV-111-B96-5/4PP-00	613773	o. r.
	32	21	G 1 1/4	16	AC/DC	FKM	EGV-111-B96-5/4FP-00	613775	o. r.
	40	29.5	G 1 1/2	16	AC/DC	NBR	EGV-111-B96-6/4BP-00	613801	o. r.
	40	29.5	G 1 1/2	16	AC/DC	EPDM	EGV-111-B96-6/4PP-00	613803	o. r.
	40	29.5	G 1 1/2	16	AC/DC	FKM	EGV-111-B96-6/4FP-00	613805	o. r.
	50	35	G 2	16	AC/DC	NBR	EGV-111-B96-2BP-00	613821	o. r.
	50	35	G 2	16	AC/DC	EPDM	EGV-111-B96-2PP-00	613823	o. r.
	50	35	G 2	16	AC/DC	FKM	EGV-111-B96-2FP-00	613825	o. r.

Variations

	2/2-way intermediate flange Solenoid valve Flange-side 4 through bores: Type EGV-111-BLH-...
	2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-111-BL7-...
	2/2-way flange mount Solenoid valve Thread-side pressure inlet Type EGV-111-B9H-...

Options

	Manual override Type EGV-112-... This limits: permitted operating pressure: 12.5 bar permitted Medium temperature: max. 60 °C		increases resistance to corrosion and replaces stainless steel valves cost-effectively for many fluids Type EGV-111Q-...
	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		Non-return valve integrated in the outlet-side of the closure Type EGV-111-B96-../T-.. This isolat only up to the following pressure difference: DN 15 to DN 32: 10 bar DN 40 to DN 50: 8 bar

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted operating pressure OP [bar] at ambient temperature +60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]															
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 50	EGV-111-B..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	on req.	on req.	on req.	on req.	on req.	on req.	on req.
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

Function

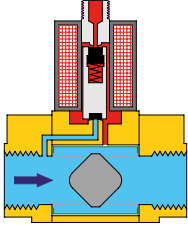
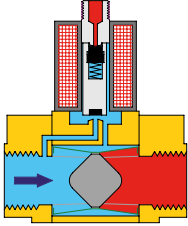
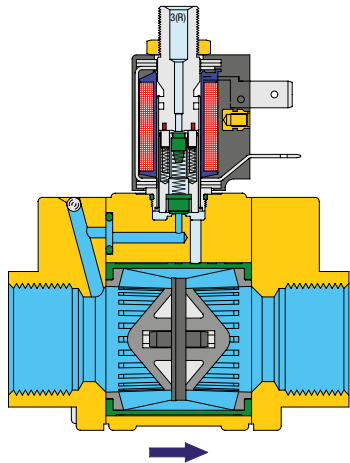
Product group **53**

Function "B"
normally open

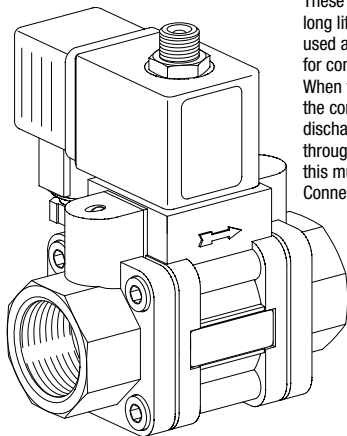
low noise and impact-free closing, for neutral, gaseous or fluids

Brass

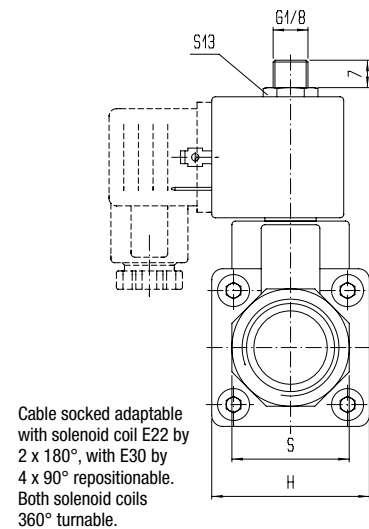
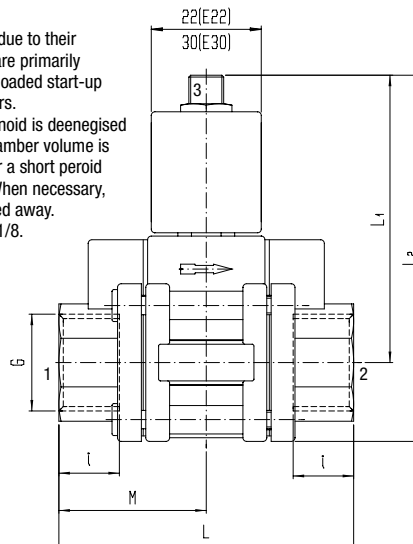
Home

Operating position	Description	Function
 	In normal position - magnetic system without power - its resting seat is closed and its operational seat open. Thereby the control chamber is discharged over "3" and the membrane held in the "open" position by the flow medium. A minimum pressure difference is required for this operation. In operational position - magnetic system under power - its seat is open and its operational seat closed. Pressure builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.	

Illustration



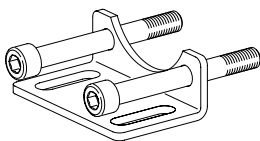
These valves, due to their long lifetime, are primarily used as an unloaded start-up for compressors. When the solenoid is deenergised the control chamber volume is discharged for a short period through "3". When necessary, this must be led away. Connection G 1/8.



Dimensions

DN	G	L	I	M	L1	L2	H	S
15	G 1/2	68.5	13.5	34	78	99.5	43	27
20	G 3/4	80.5	15.5	40	78	99.5	43	32
25	G 1	94	17	47	86	115.5	59	41
32	G 1 1/4	112	19	56	86	115.5	59	50
40	G 1 1/2	132	21	66	99.5	143	87	55
50	G 2	160	24.5	80	99.5	143	87	70

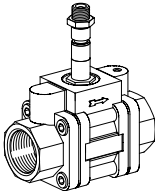
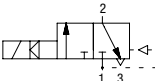
Mounting Accessories

Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

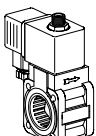
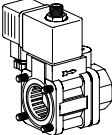
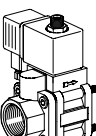
2/2-Way Solenoid Valve - Type EGV Series 100

Product group	53	"C" in 0 position "1" closed, "2" after "3" discharged	low noise and impact-free closing, for neutral, gaseous or fluids
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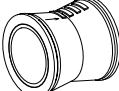
Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible Type of power	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
Valve discharge seat ND 1.8 without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.  	15	5.6	G 1/2	12.5	AC/DC	NBR	EGV-121-C78-1/2BN-00	618801	o. r.
	15	5.6	G 1/2	12.5	AC/DC	EPDM	EGV-121-C78-1/2PN-00	618803	o. r.
	15	5.6	G 1/2	12.5	AC/DC	FKM	EGV-121-C78-1/2FN-00	618805	o. r.
	20	7.6	G 3/4	12.5	AC/DC	NBR	EGV-121-C78-3/4BN-00	618821	o. r.
	20	7.6	G 3/4	12.5	AC/DC	EPDM	EGV-121-C78-3/4PN-00	618823	o. r.
	20	7.6	G 3/4	12.5	AC/DC	FKM	EGV-121-C78-3/4FN-00	618825	o. r.
	25	16.8	G 1	12.5	AC/DC	NBR	EGV-121-C78-1BN-00	618851	o. r.
	25	16.8	G 1	12.5	AC/DC	EPDM	EGV-121-C78-1PN-00	618853	o. r.
	25	16.8	G 1	12.5	AC/DC	FKM	EGV-121-C78-1FN-00	618855	o. r.
	32	21	G 1 1/4	10	AC/DC	NBR	EGV-121-C78-5/4BN-00	618871	o. r.
	32	21	G 1 1/4	10	AC/DC	EPDM	EGV-121-C78-5/4PN-00	618873	o. r.
	32	21	G 1 1/4	10	AC/DC	FKM	EGV-121-C78-5/4FN-00	618875	o. r.
	40	29.5	G 1 1/2	10	AC/DC	NBR	EGV-121-C78-6/4BN-00	618901	o. r.
	40	29.5	G 1 1/2	10	AC/DC	EPDM	EGV-121-C78-6/4PN-00	618903	o. r.
	40	29.5	G 1 1/2	10	AC/DC	FKM	EGV-121-C78-6/4FN-00	618905	o. r.
	50	35	G 2	10	AC/DC	NBR	EGV-121-C78-2BN-00	618921	o. r.
	50	35	G 2	10	AC/DC	EPDM	EGV-121-C78-2PN-00	618923	o. r.
	50	35	G 2	10	AC/DC	FKM	EGV-121-C78-2FN-00	618925	o. r.

Variations

	2/2-way intermediate flange Solenoid valve Flange-side 4 through bores: Type EGV-121-CHL-...
	2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-121-CH9-...
	2/2-way flange mount Solenoid valve Thread-side pressure inlet Type EGV-121-C7L-...

Options

	Manual override Type EGV-122-... This limits: permitted operating pressure: 12.5 bar permitted Medium temperature: max. 60 °C
	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils
	increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many flow media Type EGV-121Q-...

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted operating pressure OP [bar] at ambient temperature +60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature		
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 32	EGV-121-C..	12.5	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.
			E22...M.	5.5	5	5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
			E22...H.	-	-	8	-	-	-	-	-	-	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
			E30...P.	12	10.5	8	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
40 and 50	EGV-121-C..	10	E22...L.	3.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	
			E22...M.	5.5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	
			E30...P.	12	10.5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	

Function

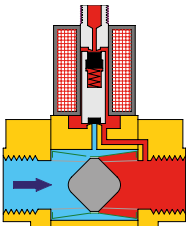
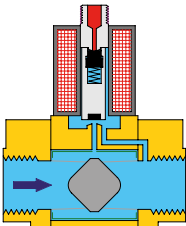
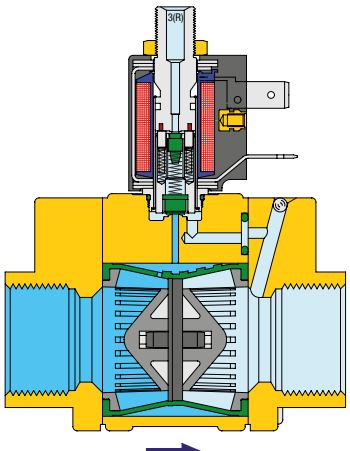
Product group **53**

"C" in 0 position "1" closed, "2" after "3" discharged

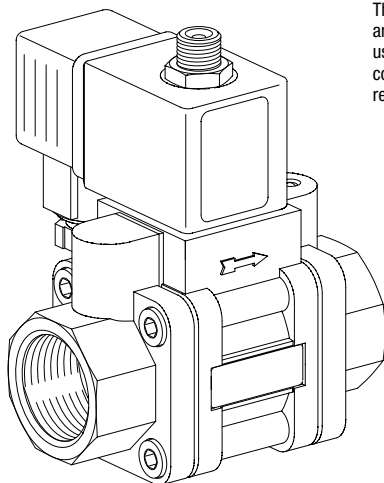
low noise and impact-free closing, for neutral, gaseous or fluids

Brass

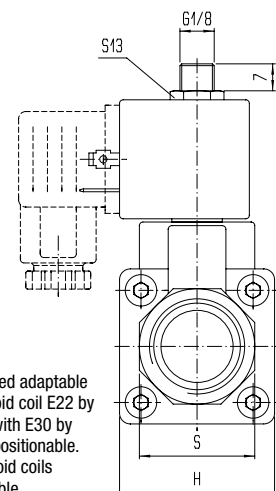
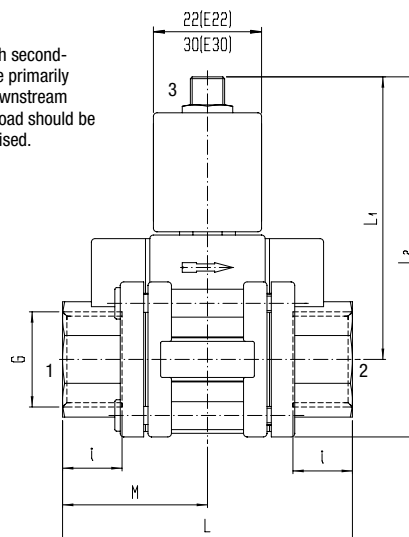
Home

Operating position	Description	Function
 	In normal position - magnetic system without power - its resting seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position. In operational position - magnetic system under power - its seat is open, the control chamber discharged and the membrane is held by the medium in "open" position. A minimum pressure difference is required for this operation.	

Illustration



These valves with secondary discharge are primarily used where a downstream compressed air load should be relieved deenergised.

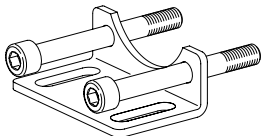


Cable socked adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° turnable.

Dimensions

DN	G	L	I	M	L1	L2	H	S
15	G 1/2	68.5	13.5	34	78	99.5	43	27
20	G 3/4	80.5	15.5	40	78	99.5	43	32
25	G 1	94	17	47	86	115.5	59	41
32	G 1 1/4	112	19	56	86	115.5	59	50
40	G 1 1/2	132	21	66	99.5	143	87	55
50	G 2	160	24.5	80	99.5	143	87	70

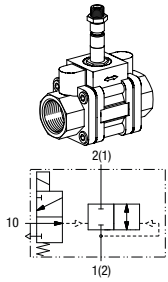
Mounting Accessories

Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

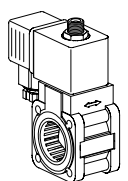
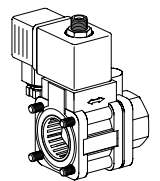
2/2-Way Solenoid Valve - Type EGV Series 100

Product group	53	Function "Z" normally closed, auxiliary pressure at X, at least 1 bar above OP.	low noise and impact-free closing, for neutral, gaseous or fluids
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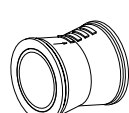
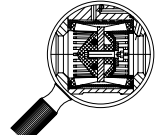
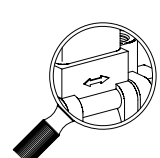
Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
Valve without solenoid coil Permitted operating pressure 0.2 bar up to valve according to table below, double-sided isolating. Permitted control pressure at "10": ≥ Operating pressure, max. 16 bar 	15	5.6	G 1/2	16	AC/DC	NBR	EGV-111-Z76-1/2BP-00	613901	o. r.
	15	5.6	G 1/2	16	AC/DC	EPDM	EGV-111-Z76-1/2PP-00	613903	o. r.
	15	5.6	G 1/2	16	AC/DC	FKM	EGV-111-Z76-1/2FP-00	613905	o. r.
	20	7.6	G 3/4	16	AC/DC	NBR	EGV-111-Z76-3/4BP-00	613911	o. r.
	20	7.6	G 3/4	16	AC/DC	EPDM	EGV-111-Z76-3/4PP-00	613913	o. r.
	20	7.6	G 3/4	16	AC/DC	FKM	EGV-111-Z76-3/4FP-00	613915	o. r.
	25	16.8	G 1	16	AC/DC	NBR	EGV-111-Z76-1BP-00	613921	o. r.
	25	16.8	G 1	16	AC/DC	EPDM	EGV-111-Z76-1PP-00	613923	o. r.
	25	16.8	G 1	16	AC/DC	FKM	EGV-111-Z76-1FP-00	613925	o. r.
	32	21	G 1 1/4	16	AC/DC	NBR	EGV-111-Z76-5/4BP-00	613931	o. r.
	32	21	G 1 1/4	16	AC/DC	EPDM	EGV-111-Z76-5/4PP-00	613933	o. r.
	32	21	G 1 1/4	16	AC/DC	FKM	EGV-111-Z76-5/4FP-00	613935	o. r.
	40	29.5	G 1 1/2	16	AC/DC	NBR	EGV-111-Z76-6/4BP-00	613941	o. r.
	40	29.5	G 1 1/2	16	AC/DC	EPDM	EGV-111-Z76-6/4PP-00	613943	o. r.
	40	29.5	G 1 1/2	16	AC/DC	FKM	EGV-111-Z76-6/4FP-00	613945	o. r.
	50	35	G 2	16	AC/DC	NBR	EGV-111-Z76-2BP-00	613961	o. r.
	50	35	G 2	16	AC/DC	EPDM	EGV-111-Z76-2PP-00	613963	o. r.
	50	35	G 2	16	AC/DC	FKM	EGV-111-Z76-2FP-00	613965	o. r.

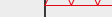
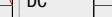
Variations

	2/2-way intermediate flange Solenoid valve Flange-side 4 through bores: Type EGV-111-ZHL-...
	2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-111-ZH7-...

Options

	Manual override Type EGV-112-... This limits: permitted operating pressure: 12.5 bar permitted Medium temperature: max. 60 °C		increases resistance to corrosion and replaces stainless steel valves cost-effectively for medium Type EGV-111Q-...
	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		normal pressure membrane requires no differential pressure to open, however to close it requires control pressure 1 bar above operating pressure Type EGV-111-Z76-../O-...
	Connector G1/8 in outlet-port flange for discharging the control medium Type EGV-111-Z74-...		

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil			Permitted operating pressure OP [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 90 %U _N 			DC 90 %U _N 			DC 100 %U _N 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature		
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 50	EGV-111-Z..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.		
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	on req.	on req.	on req.	on req.	on req.	on req.	
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	

Function

Product group **53**

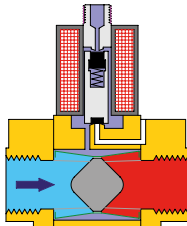
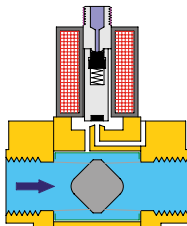
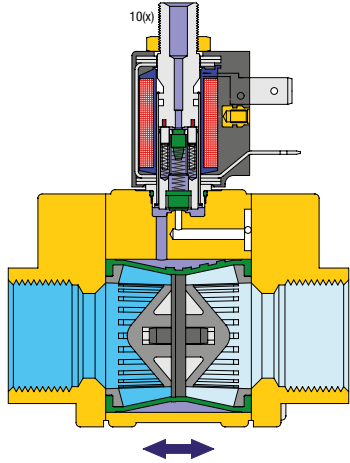
Function "Z" normally closed, auxiliary pressure at X, at least 1 bar above OP.

low noise and impact-free closing, for neutral, gaseous or fluids

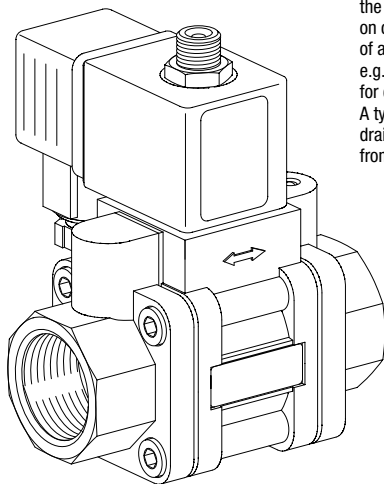
Brass

Home

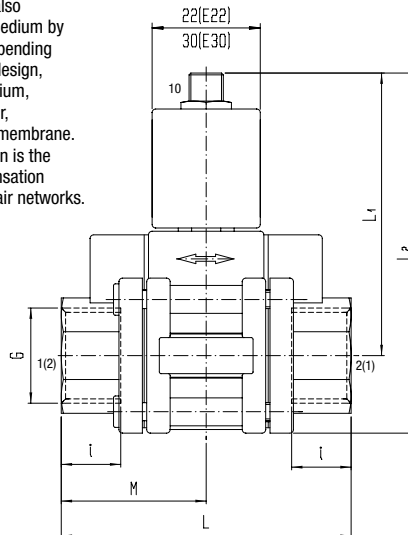


Operating position	Description	Function
 	In normal position - magnetic system without power - its seat is closed. The auxiliary pressure accumulated at "10" builds up in the control chamber and holds the membrane in "closed" position. In operational position - magnetic system under power - its seat is closed. The control chamber is discharged by the open seat and the membrane held in "open" position by the medium. A minimum pressure difference is required for this operation (except normal pressure membrane as listed under Options).	

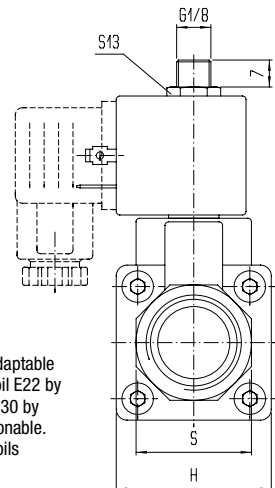
Illustration



These valves can also be used for dirty medium by the application, depending on constructional design, of an external medium, e.g. compressed air, for controlling the membrane. A typical application is the drainage of condensation from compressed air networks.



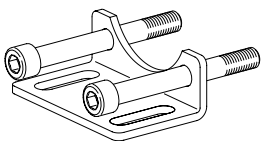
Cable socked adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° turnable.



Dimensions

DN	G	L	I	M	L1	L2	H	S
15	G 1/2	68.5	13.5	34	78	99.5	43	27
20	G 3/4	80.5	15.5	40	78	99.5	43	32
25	G 1	94	17	47	86	115.5	59	41
32	G 1 1/4	112	19	56	86	115.5	59	50
40	G 1 1/2	132	21	66	99.5	143	87	55
50	G 2	160	24.5	80	99.5	143	87	70

Mounting Accessories

Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

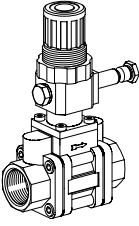
2/2-Way Solenoid Valve - Type EGR Series 100

Product group **53**

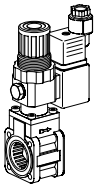
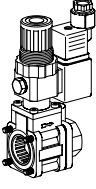
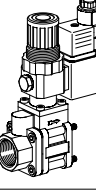
Function "C" closed in normal position, with secondary discharge

low noise and impact-free closing, for neutral, gaseous media (liquid optional)

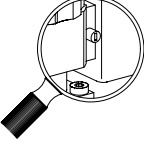
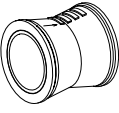
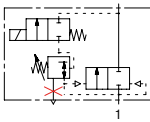
Brass

Version	Secondary pressure [bar]	DN	Flow air [l/min]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
Valve without solenoid coil without pressure gauge Permitted operating pressure 0.5 bar up to value according to table below. 	0.5 - 10	15	260 to 2,600	G 1/2	16 / 8	AC/DC	NBR	EGR-151-1C78-1/2BN-00	654201	o. r.
	0.5 - 3	15	260 to 2,600	G 1/2	16 / 8	AC/DC	NBR	EGR-151-3C78-1/2BN-00	654202	o. r.
	0.5 - 6	15	260 to 2,600	G 1/2	16 / 8	AC/DC	NBR	EGR-151-6C78-1/2BN-00	654203	o. r.
	0.5 - 10	20	360 to 3,600	G 3/4	16 / 8	AC/DC	NBR	EGR-151-1C78-3/4BN-00	654301	o. r.
	0.5 - 3	20	360 to 3,600	G 3/4	16 / 8	AC/DC	NBR	EGR-151-3C78-3/4BN-00	654302	o. r.
	0.5 - 6	20	360 to 3,600	G 3/4	16 / 8	AC/DC	NBR	EGR-151-6C78-3/4BN-00	654303	o. r.
	0.5 - 10	25	800 to 8,000	G 1	16 / 8	AC/DC	NBR	EGR-151-1C78-1BN-00	654401	o. r.
	0.5 - 3	25	800 to 8,000	G 1	16 / 8	AC/DC	NBR	EGR-151-3C78-1BN-00	654402	o. r.
	0.5 - 6	25	800 to 8,000	G 1	16 / 8	AC/DC	NBR	EGR-151-6C78-1BN-00	654403	o. r.
	0.5 - 10	32	1,000 to 10,000	G 1 1/4	16 / 8	AC/DC	NBR	EGR-151-1C78-5/4BN-00	654501	o. r.
	0.5 - 3	32	1,000 to 10,000	G 1 1/4	16 / 8	AC/DC	NBR	EGR-151-3C78-5/4BN-00	654502	o. r.
	0.5 - 6	32	1,000 to 10,000	G 1 1/4	16 / 8	AC/DC	NBR	EGR-151-6C78-5/4BN-00	654503	o. r.
	0.5 - 10	40	1,400 to 14,000	G 1 1/2	16 / 8	AC/DC	NBR	EGR-151-1C78-6/4BN-00	654601	o. r.
	0.5 - 3	40	1,400 to 14,000	G 1 1/2	16 / 8	AC/DC	NBR	EGR-151-3C78-6/4BN-00	654602	o. r.
	0.5 - 6	40	1,400 to 14,000	G 1 1/2	16 / 8	AC/DC	NBR	EGR-151-6C78-6/4BN-00	654603	o. r.
	0.5 - 10	50	1,650 to 16,500	G 2	16 / 8	AC/DC	NBR	EGR-151-1C78-2BN-00	654701	o. r.
	0.5 - 3	50	1,650 to 16,500	G 2	16 / 8	AC/DC	NBR	EGR-151-3C78-2BN-00	654702	o. r.
	0.5 - 6	50	1,650 to 16,500	G 2	16 / 8	AC/DC	NBR	EGR-151-6C78-2BN-00	654703	o. r.

Variations

	2/2-way intermediate flange solenoid valve with pressure regulator Flange-side 4 through bores: Type EGR-151-.CHL-...
	2/2-way flange mount solenoid valve with pressure regulator Flange-side pressure inlet Type EGR-151-.CH9-...
	2/2-way flange mount solenoid valve with pressure regulator Thread-side pressure inlet Type EGR-151-.C7L-...

Options

	Manual override Type EGR-152-... This limits: permitted operating pressure: 12.5 bar permitted medium temperature: max. 60 °C		increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many medium Type EGR-151Q-...
	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		without secondary discharge ventilation of the pilot pressure regulator, especially for fluids Type EGR-151-.A78-...

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted operating pressure OP [bar] at ambient temperature +60 °C									
			Type	Nominal power P ₂₀			AC 50 Hz 		AC 60 Hz 		DC 		DC 		DC 	
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature	90 %U _N Medium temperature	90 %U _N Medium temperature	90 %U _N Medium temperature	90 %U _N Medium temperature	100 %U _N Medium temperature				
				60 °C	90 °C	60 °C	90 °C	60 °C	90 °C	60 °C	90 °C	60 °C	90 °C			
15 to 32	EGR-151-C..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	7	on req.	6	5	4	3	6	5
			E22...M.	5.5	5	5	16	16	16	16	16	16	12	10	15	13
			E22...H.	-	-	8	-	-	-	-	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16
40 and 50	EGR-151-C..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	7	on req.	5	4	3	2	5	4
			E22...M.	5.5	5	5	16	16	16	16	12	10	8	7	12	10
			E22...H.	-	-	8	-	-	-	-	16	16	12	10	16	14
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16

Function - Speciality

Product group **53**

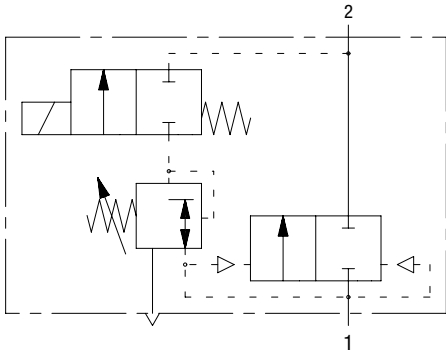
Function "C" closed in normal position, with secondary discharge

low noise and impact-free closing, for neutral, gaseous media (liquid optional)

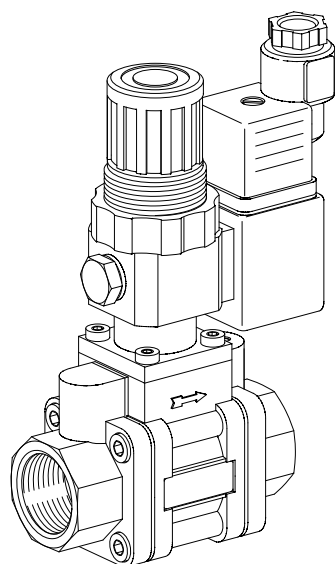
Brass

Home

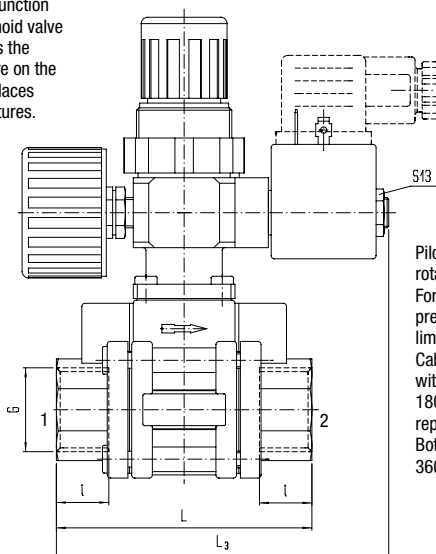


Operating position	Description
	With respect to electrical function the valve corresponds to a 2/2-way solenoid valve function "A". In operational position - magnetic system under power - the membrane is only held in "open" position by the medium until the outlet-port pressure reaches the value set on the pressure regulator. This can be set using the lockable adjuster. The pressure should preferably be measured as near to the load as possible. In case of need a pressure gauge can also be attached to the G 1/8 connection on the pilot pressure regulator, as shown in the dimension illustration. For dynamic loads or neutral fluids, a version without secondary-discharge can be supplied, as listed in the options.

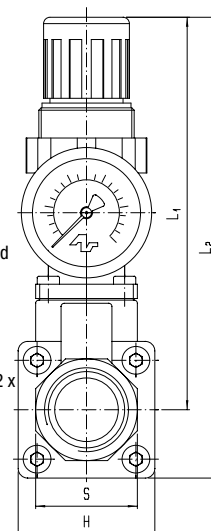
Illustration

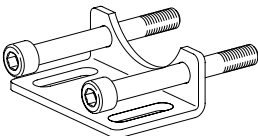


In addition to the function of a 2/2-way solenoid valve the valve regulates the secondary pressure on the set value. This replaces two traditional textures.



Pilot unit can be assembled rotated by 4x90°. For assembly as shown, pressure gauge is limited to NG 40. Cable socked adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° turnable.

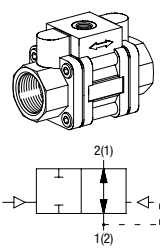


Dimensions									Accessories				
DN	G	L	I	L1	L2	L3	H	S	Illustration	Suitable for valves	Type	Order number	Price
15	G 1/2	68.5	13.5	124.5	146	97.5	43	27		G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
20	G 3/4	80.5	15.5	124.5	146	104	43	32					
25	G 1	94	17	132.5	162	111.5	59	41					
32	G 1 1/4	112	19	132.5	162	120	59	50					
40	G 1 1/2	132	21	146	189.5	130	87	55					
50	G 2	160	24.5	146	189.5	144	87	70		G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

2/2-Way Solenoid Valve Type PGV Series 100 Pressure Operated by External Medium - Double-Sided Isolating

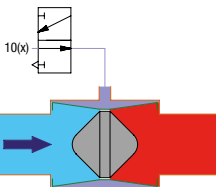
Product group	53	Function "B" normally open (without control pressure)	low noise and impact-free closing, for neutral, gaseous and fluids
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Brass

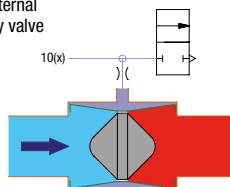
Version	Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type	Order number	Price
2/2-way valve pressure operated, isolating double-sided by external medium Permitted operating pressure 0.2 to 16 bar 	≥ operating pressure max. 16	15	5.6	G 1/2	16	NBR	PGV-131-B76-1/2BP	614201	o. r.
		15	5.6	G 1/2	16	EPDM	PGV-131-B76-1/2PP	614203	o. r.
		15	5.6	G 1/2	16	FKM	PGV-131-B76-1/2FP	614205	o. r.
		20	7.6	G 3/4	16	NBR	PGV-131-B76-3/4BP	614211	o. r.
		20	7.6	G 3/4	16	EPDM	PGV-131-B76-3/4PP	614213	o. r.
		20	7.6	G 3/4	16	FKM	PGV-131-B76-3/4FP	614215	o. r.
		25	16.8	G 1	16	NBR	PGV-131-B76-1BP	614221	o. r.
		25	16.8	G 1	16	EPDM	PGV-131-B76-1PP	614223	o. r.
		25	16.8	G 1	16	FKM	PGV-131-B76-1FP	614225	o. r.
		32	21	G 1 1/4	16	NBR	PGV-131-B76-5/4BP	614231	o. r.
		32	21	G 1 1/4	16	EPDM	PGV-131-B76-5/4PP	614233	o. r.
		32	21	G 1 1/4	16	FKM	PGV-131-B76-5/4FP	614235	o. r.
		40	29.5	G 1 1/2	16	NBR	PGV-131-B76-6/4BP	614241	o. r.
		40	29.5	G 1 1/2	16	EPDM	PGV-131-B76-6/4PP	614243	o. r.
		40	29.5	G 1 1/2	16	FKM	PGV-131-B76-6/4FP	614245	o. r.
		50	35	G 2	16	NBR	PGV-131-B76-2BP	614251	o. r.
		50	35	G 2	16	EPDM	PGV-131-B76-2PP	614253	o. r.
		50	35	G 2	16	FKM	PGV-131-B76-2FP	614255	o. r.

Version and function: 2/2-way solenoid valve Type PGV series 100 pressure operated by external medium, double-sided blocking

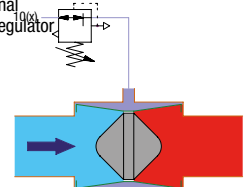
Remotely operated 2/2-way valve regulated by external medium with 3/2-way valve (positive control)



Remotely operated 2/2-way valve regulated by external medium with 2/2-way valve



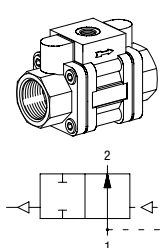
Remotely operated pressure valve regulated by external medium with pressure regulator



2/2-Way Solenoid Valve - Type PGV Series 100 Pressure Operated by own Medium

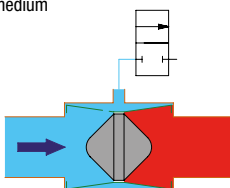
Product group	53	Function "B" normally open (without control pressure)	low noise and impact-free closing, for neutral, gaseous and fluids
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Brass

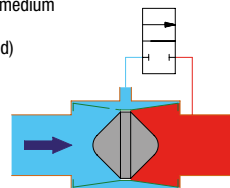
Version	Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type	Order number	Price
2/2-way valve pressure operated, by own medium Permitted operating pressure 0.2 to 16 bar 	≥ operating pressure max. 16	15	5.6	G 1/2	16	NBR	PGV-131-B76-1/2BN	614301	o. r.
		15	5.6	G 1/2	16	EPDM	PGV-131-B76-1/2PN	614303	o. r.
		15	5.6	G 1/2	16	FKM	PGV-131-B76-1/2FN	614305	o. r.
		20	7.6	G 3/4	16	NBR	PGV-131-B76-3/4BN	614311	o. r.
		20	7.6	G 3/4	16	EPDM	PGV-131-B76-3/4PN	614313	o. r.
		20	7.6	G 3/4	16	FKM	PGV-131-B76-3/4FN	614315	o. r.
		25	16.8	G 1	16	NBR	PGV-131-B76-1BN	614321	o. r.
		25	16.8	G 1	16	EPDM	PGV-131-B76-1PN	614323	o. r.
		25	16.8	G 1	16	FKM	PGV-131-B76-1FN	614325	o. r.
		32	21	G 1 1/4	16	NBR	PGV-131-B76-5/4BN	614331	o. r.
		32	21	G 1 1/4	16	EPDM	PGV-131-B76-5/4PN	614333	o. r.
		32	21	G 1 1/4	16	FKM	PGV-131-B76-5/4FN	614335	o. r.
		40	29.5	G 1 1/2	16	NBR	PGV-131-B76-6/4BN	614341	o. r.
		40	29.5	G 1 1/2	16	EPDM	PGV-131-B76-6/4PN	614343	o. r.
		40	29.5	G 1 1/2	16	FKM	PGV-131-B76-6/4FN	614345	o. r.
		50	35	G 2	16	NBR	PGV-131-B76-2BN	614351	o. r.
		50	35	G 2	16	EPDM	PGV-131-B76-2PN	614353	o. r.
		50	35	G 2	16	FKM	PGV-131-B76-2FN	614354	o. r.

Version and function: 2/2-way solenoid valve Type PGV series 100 pressure operated by own medium

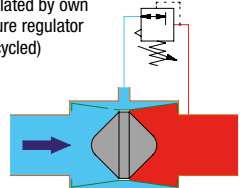
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (negative control)



Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (control medium recycled)



Remotely operated pressure regulator valve regulated by own medium with pressure regulator (control medium recycled)



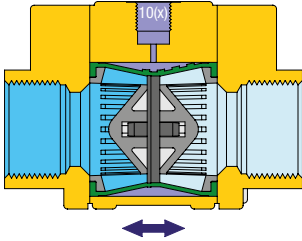
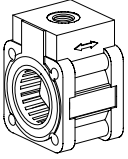
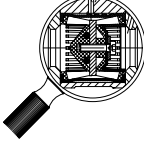
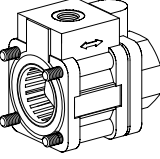
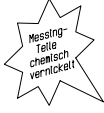
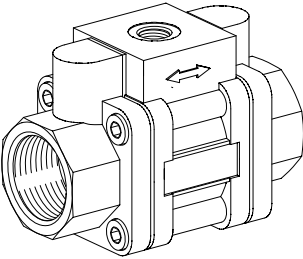
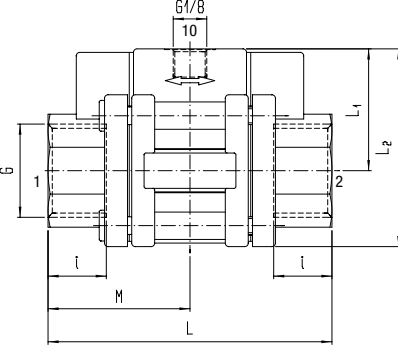
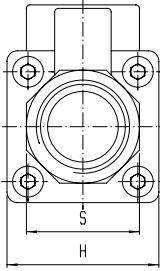
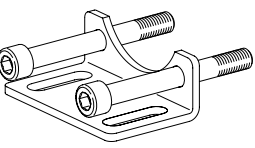
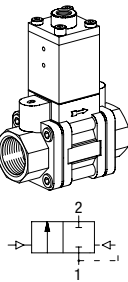
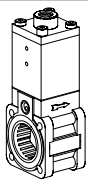
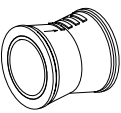
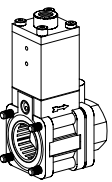
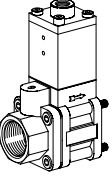
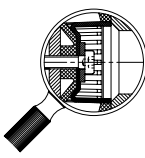
Function				
Product group	53	Function "B" normally open (without control pressure)	low noise and impact-free closing, for neutral, gaseous and fluids	Brass
Operating position		Variations	Options	
				normal pressure membrane, requires no differential pressure to open, however control pressure to close, it 1 bar above operating pressure Type PGV-131-B76-../.0
		2/2-way intermediate flange valve (both versions) Flange-side 4 through bores: Type PGV-131-.BHH-...		Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils
Type PGV in external medium version shown, control pressure present.		2/2-way flange mount valve (only external medium vers.) Flange-side or thread-side pressure inlet Type PGV-131-.BH7-...		increases resistance to corrosion and replaces stainless steel valves cost-effectively for many medium Type PGV-131Q-...

Illustration	
	
	

Dimensions									Mounting Accessories				
DN	G	L	I	M	L1	L2	H	S	Illustration	Suitable for valves	Type	Order number	Price
15	G 1/2	68.5	13.5	34	34	55.5	43	27		G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
20	G 3/4	80.5	15.5	40	34	55.5	43	32					
25	G 1	94	17	47	42	71.5	59	41					
32	G 1 1/4	112	19	56	42	71.5	59	50					
40	G 1 1/2	132	21	66	55.5	99	87	55					
50	G 2	160	24.5	80	55.5	99	87	70		G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

2/2-Way Valve - Pressure Operated - Type PGV Series 100

Product group 53	Function "A" normally closed	low noise functioning, for gaseous media, especially compressed air						Brass	
Version	Control pressure [bar]	DN	Q _{Nn} -value air [l/min]	G	PN	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
2/2-way valve pressure-operated by maintained compressed air Permitted operating pressure 0.2 to 16 bar 	4 - 7	15	6100	G 1/2	16	NBR	PGV-151-A96-1/2BP	614371	o. r.
	4 - 7	20	8300	G 3/4	16	NBR	PGV-151-A96-3/4BP	614372	o. r.
	4 - 7	25	18400	G 1	16	NBR	PGV-151-A96-1BP	614373	o. r.
	4 - 7	32	23400	G 1 1/4	16	NBR	PGV-151-A96-5/4BP	614374	o. r.
	4 - 7	40	32400	G 1 1/2	16	NBR	PGV-151-A96-6/4BP	614375	o. r.
	4 - 7	50	38400	G 2	16	NBR	PGV-151-A96-2BP	614376	o. r.

Variations		Options			
	2/2-way intermediate flange valve Flange-side 4 through bores: Type PGV-151-ALH-...		Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many medium Type PGV-151Q-...
	2/2-way flange mount valve Flange-side pressure inlet Type PGV-151-AL7-...				
	2/2-way flange mount valve Thread-sided pressure inlet Type PGV-151-A9H-...		Non-return valve integrated outlet-side of the closure-unit Type PGV-151-A96-/.T		

Home



Function - Speciality

Product group **53**

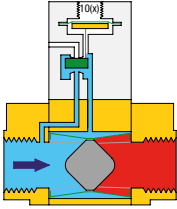
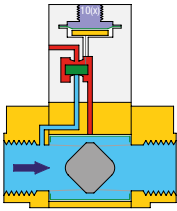
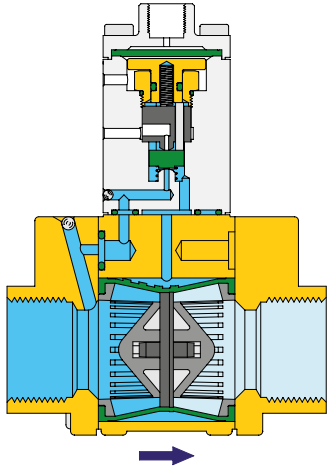
Function "A" normally closed

low noise functioning, for gaseous media, especially compressed air

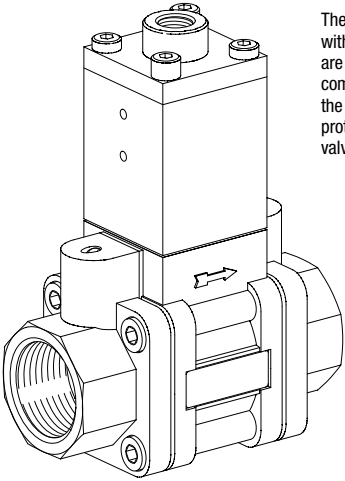
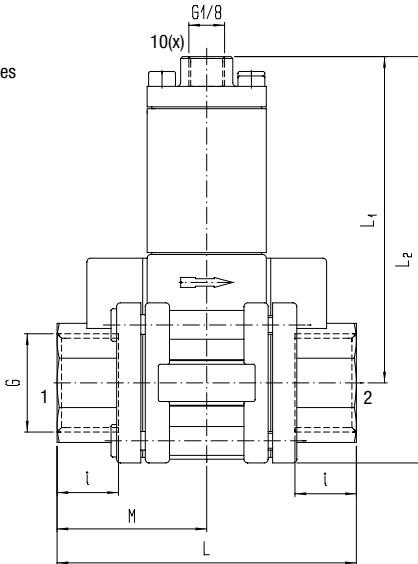
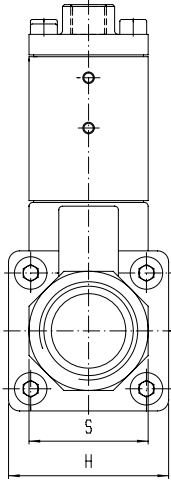
Brass

Home



Operating position	Description	Function
 	In normal position - pre-control valve not pressurised - its seat is closed. Pressure builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position. In operational position - pre-control valve pressurised - its operational seat is closed. The control chamber is discharged by the open seat and the membrane held in "open" position by the medium. A minimum pressure difference is required for this operation.	

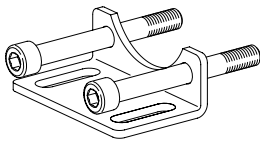
Illustration

	These servo-controlled valves with pneumatic operation are used in the control of compressed air, e.g. for the purposes of explosion protection, where solenoid valves are not desirable.		
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Dimensions

DN	G	L	I	M	L1	L2	H	S
15	G 1/2	68.5	13.5	34	86	107.5	43	27
20	G 3/4	80.5	15.5	40	86	107.5	43	32
25	G 1	94	17	47	94	123.5	59	41
32	G 1 1/4	112	19	56	94	123.5	59	50
40	G 1 1/2	132	21	66	107.5	151	87	55
50	G 2	160	24.5	80	107.5	151	87	70

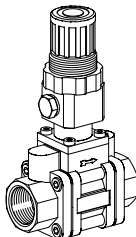
Mounting Accessories

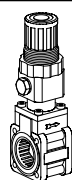
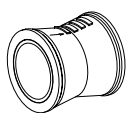
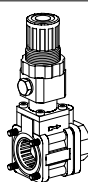
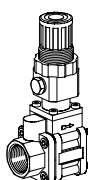
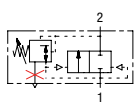
Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

Pressure Regulator Valve - Type RGV Series 100 with Secondary Discharge

Product group **53** Low noise and impact-free control, for neutral, gaseous media (optional liquids)

Brass

Version	Secondary pressure [bar]	DN	Flow air [l/min]	G	PN	Sealing material	Type	Order number	Price
Pressure regulator valve without pressure gauge Permitted operating pressure 0.5 to 16 bar 	0.5 - 10	15	260 to 2,600	G 1/2	16	NBR	RGV-151-1C78-1/2BN	653201	o. r.
	0.5 - 3	15	260 to 2,600	G 1/2	16	NBR	RGV-151-3C78-1/2BN	653202	o. r.
	0.5 - 6	15	260 to 2,600	G 1/2	16	NBR	RGV-151-6C78-1/2BN	653203	o. r.
	0.5 - 10	20	360 to 3,600	G 3/4	16	NBR	RGV-151-1C78-3/4BN	653301	o. r.
	0.5 - 3	20	360 to 3,600	G 3/4	16	NBR	RGV-151-3C78-3/4BN	653302	o. r.
	0.5 - 6	20	360 to 3,600	G 3/4	16	NBR	RGV-151-6C78-3/4BN	653303	o. r.
	0.5 - 10	25	800 to 8,000	G 1	16	NBR	RGV-151-1C78-1BN	653401	o. r.
	0.5 - 3	25	800 to 8,000	G 1	16	NBR	RGV-151-3C78-1BN	653402	o. r.
	0.5 - 6	25	800 to 8,000	G 1	16	NBR	RGV-151-6C78-1BN	653403	o. r.
	0.5 - 10	32	1,000 to 10,000	G 1 1/4	16	NBR	RGV-151-1C78-5/4BN	653501	o. r.
	0.5 - 3	32	1,000 to 10,000	G 1 1/4	16	NBR	RGV-151-3C78-5/4BN	653502	o. r.
	0.5 - 6	32	1,000 to 10,000	G 1 1/4	16	NBR	RGV-151-6C78-5/4BN	653503	o. r.
	0.5 - 10	40	1,400 to 14,000	G 1 1/2	16	NBR	RGV-151-1C78-6/4BN	653601	o. r.
	0.5 - 3	40	1,400 to 14,000	G 1 1/2	16	NBR	RGV-151-3C78-6/4BN	653602	o. r.
	0.5 - 6	40	1,400 to 14,000	G 1 1/2	16	NBR	RGV-151-6C78-6/4BN	653603	o. r.
	0.5 - 10	50	1,650 to 16,500	G 2	16	NBR	RGV-151-1C78-2BN	653701	o. r.
	0.5 - 3	50	1,650 to 16,500	G 2	16	NBR	RGV-151-3C78-2BN	653702	o. r.
	0.5 - 6	50	1,650 to 16,500	G 2	16	NBR	RGV-151-6C78-2BN	653703	o. r.

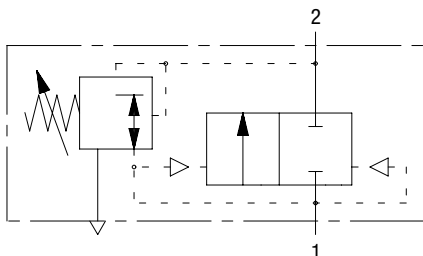
Variations	Options
 Intermediate flange pressure regulator valve Flange-side 4 through bores: Type RGV-151-.CHL-...	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils
 Flange mount Pressure regulator valve Flange-side pressure inlet: Type RGV-151-.CH9-...	 increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many medium Type RGV-151Q-...
 Flange mount Pressure regulator valve Thread-side pressure inlet: Type RGV-151-.C7L-...	 without secondary side discharge of the pilot pressure regulator, especially for fluids Type RGV-151-.A78-...

Function

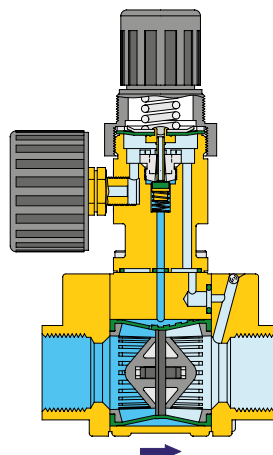
Product group **53** low noise and impact-free control, for neutral, gaseous media (optional liquids)

Brass

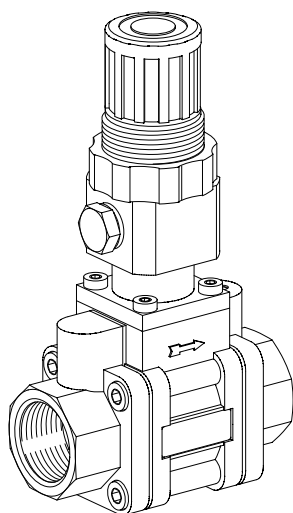
Operating position



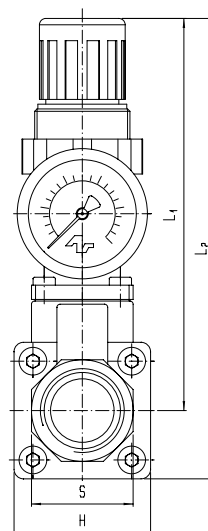
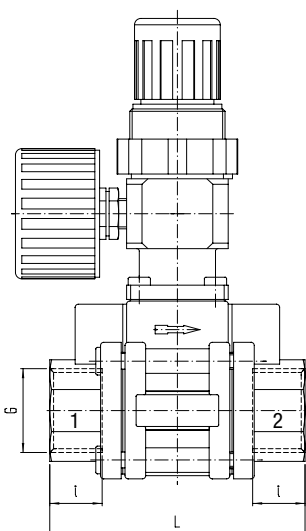
Description



Illustration



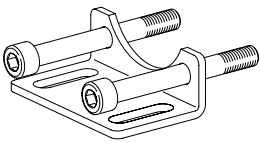
Pilot unit can be assembled rotated by 4x90°. For assembly as shown, pressure gauge is limited to NG 40 mm Ø.



Dimensions

DN	G	L	I	L1	L2	H	S
15	G 1/2	68.5	13.5	124.5	146	43	27
20	G 3/4	80.5	15.5	124.5	146	43	32
25	G 1	94	17	132.5	162	59	41
32	G 1 1/4	112	19	132.5	162	59	50
40	G 1 1/2	132	21	146	189.5	87	55
50	G 2	160	24.5	146	189.5	87	70

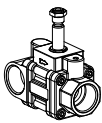
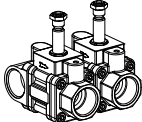
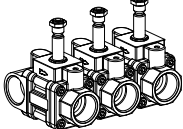
Mounting Accessories

Illustration	Suitable for valves	Type	Order number	Price
	G 1/2 + G 3/4 DN 15 and DN 20	ZGV-10normal D2normal 52	616252	o. r.
	G 1 + G 1 1/4 DN 25 and DN 32	ZGV-10normal D32-62	616262	o. r.

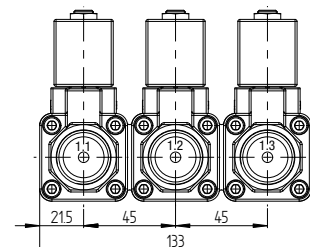
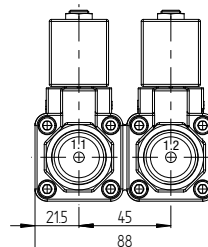
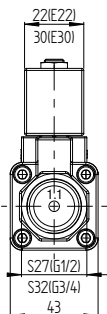
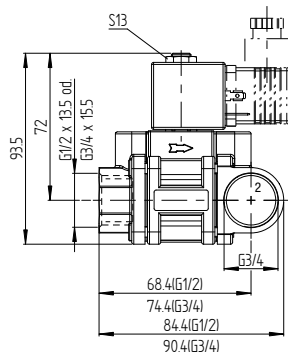
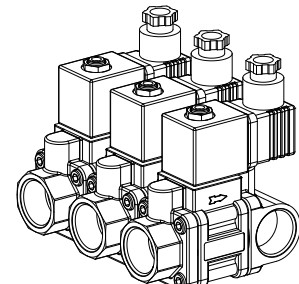
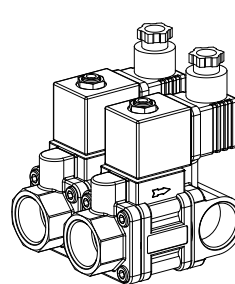
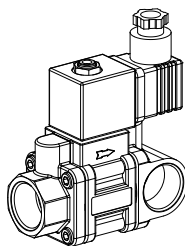
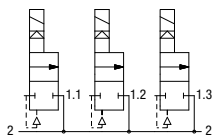
2/2-Way Solenoid Valve Battery - Type EGV Series 100

Product group	53	Function "A" normally closed, distributor version	low noise and impact-free closing, for neutral, gaseous or fluids
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Brass

Version		DN	Kv-value water [m³/h]	G	PN	Possible Type of power	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
	Valve without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/V1-AH9-1/2BN-00	616901	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/V1-AH9-1/2PN-00	616951	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/V1-AH9-1/2FN-00	617001	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/V1-AH9-3/4BN-00	616911	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/V1-AH9-3/4PN-00	616961	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/V1-AH9-3/4FN-00	617011	o. r.
	Valve without solenoid coil, 2-fold battery or solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/V2-AH9-1/2BN-00	616902	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/V2-AH9-1/2PN-00	616952	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/V2-AH9-1/2FN-00	617002	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/V2-AH9-3/4BN-00	616912	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/V2-AH9-3/4PN-00	616962	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/V2-AH9-3/4FN-00	617012	o. r.
	Valve without solenoid coil, 3-fold battery or solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/V3-AH9-1/2BN-00	616903	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/V3-AH9-1/2PN-00	616953	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/V3-AH9-1/2FN-00	617003	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/V3-AH9-3/4BN-00	616913	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/V3-AH9-3/4PN-00	616963	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/V3-AH9-3/4FN-00	617013	o. r.

Illustration



Valve batteries series 100 can also be constructed mixed, with all valve Types, for all listed functions and with various options according to customer requirements. This is also possible up to DN 50 (G 2) in special version.

The number of valves is only limited by the efficiently manufactured overall length of the battery collector plate. Depending on DN this is 600 to 800 mm.

Solenoid valves, with pressure regulator, pressure operated valves or pressure regulator valves, can thus be flange-mounted on a collector plate according to requirement, or also opposite laterally reversed. Likewise the flow direction of the flange valves can be freely selected to a large extent. (Distributor or mixer version)

AVS-Römer furthermore manufactures so-called multi-functional blocks, with integrated injectors, pressure sensors and similar.

Permitted operating pressure OP

DN	Type	PN	Combinable solenoid coil			Permitted operating pressure OP [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz						AC 60 Hz						DC 90 %U _N		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature						90 %U _N Medium temperature						90 %U _N Medium temperature		
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 20	EGV-111/V.-A..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	6	5	4	4	3	2
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

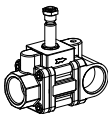
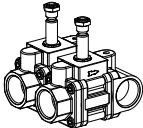
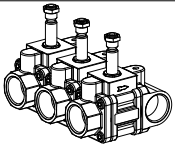
2/2-Way Solenoid Valve Battery - Type EGV Series 100

Product group **53**

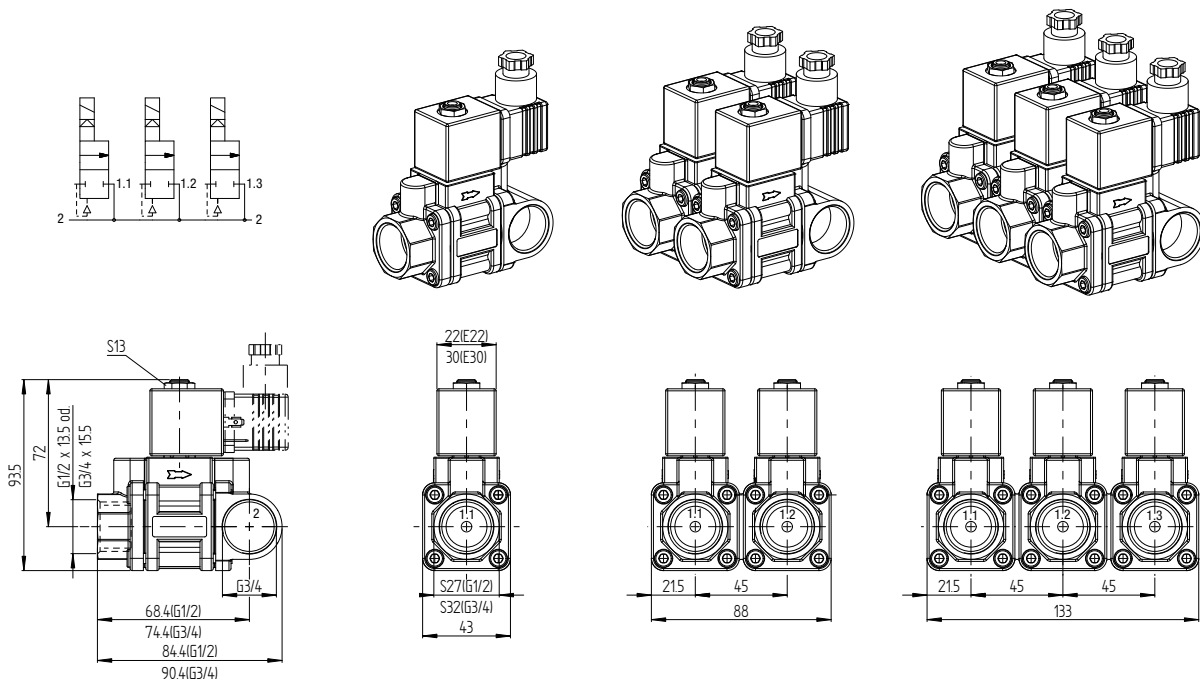
Function "A" normally closed, mixer version

low noise and impact-free closing, for neutral, gaseous or fluids

Brass

Version		DN	Kv-value water [m³/h]	G	PN	Possible Type of power	Sealing material	Type (Partial solenoid valve without solenoid coil)	Order number	Price
	Valve without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/M1-A7L-1/2BN-00	616921	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/M1-A7L-1/2PN-00	616971	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/M1-A7L-1/2FN-00	617021	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/M1-A7L-3/4BN-00	616931	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/M1-A7L-3/4PN-00	616981	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/M1-A7L-3/4FN-00	617031	o. r.
	Valve without solenoid coil, 2-fold battery or solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/M2-A7L-1/2BN-00	616922	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/M2-A7L-1/2PN-00	616972	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/M2-A7L-1/2FN-00	617022	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/M2-A7L-3/4BN-00	616932	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/M2-A7L-3/4PN-00	616982	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/M2-A7L-3/4FN-00	617032	o. r.
	Valve without solenoid coil, 3-fold battery or solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.	15	5.6	G 1/2	16/8	AC/DC	NBR	EGV-111/M3-A7L-1/2BN-00	616923	o. r.
		15	5.6	G 1/2	16/8	AC/DC	EPDM	EGV-111/M3-A7L-1/2PN-00	616973	o. r.
		15	5.6	G 1/2	16/8	AC/DC	FKM	EGV-111/M3-A7L-1/2FN-00	617023	o. r.
		20	7.6	G 3/4	16/8	AC/DC	NBR	EGV-111/M3-A7L-3/4BN-00	616933	o. r.
		20	7.6	G 3/4	16/8	AC/DC	EPDM	EGV-111/M3-A7L-3/4PN-00	616983	o. r.
		20	7.6	G 3/4	16/8	AC/DC	FKM	EGV-111/M3-A7L-3/4FN-00	617033	o. r.

Illustration



The pressure value at port "2" may not exceed the values at inlets "1.1", "1.2" or "1.3", otherwise the version with integrated non-return valves should be selected. These isolate up to a pressure difference of 10 bar. Please do not hesitate to ask us if you have any questions.

Valve batteries series 100 can also be constructed combined, with all valve Types, for all listed functions and with various options according to customer requirements.

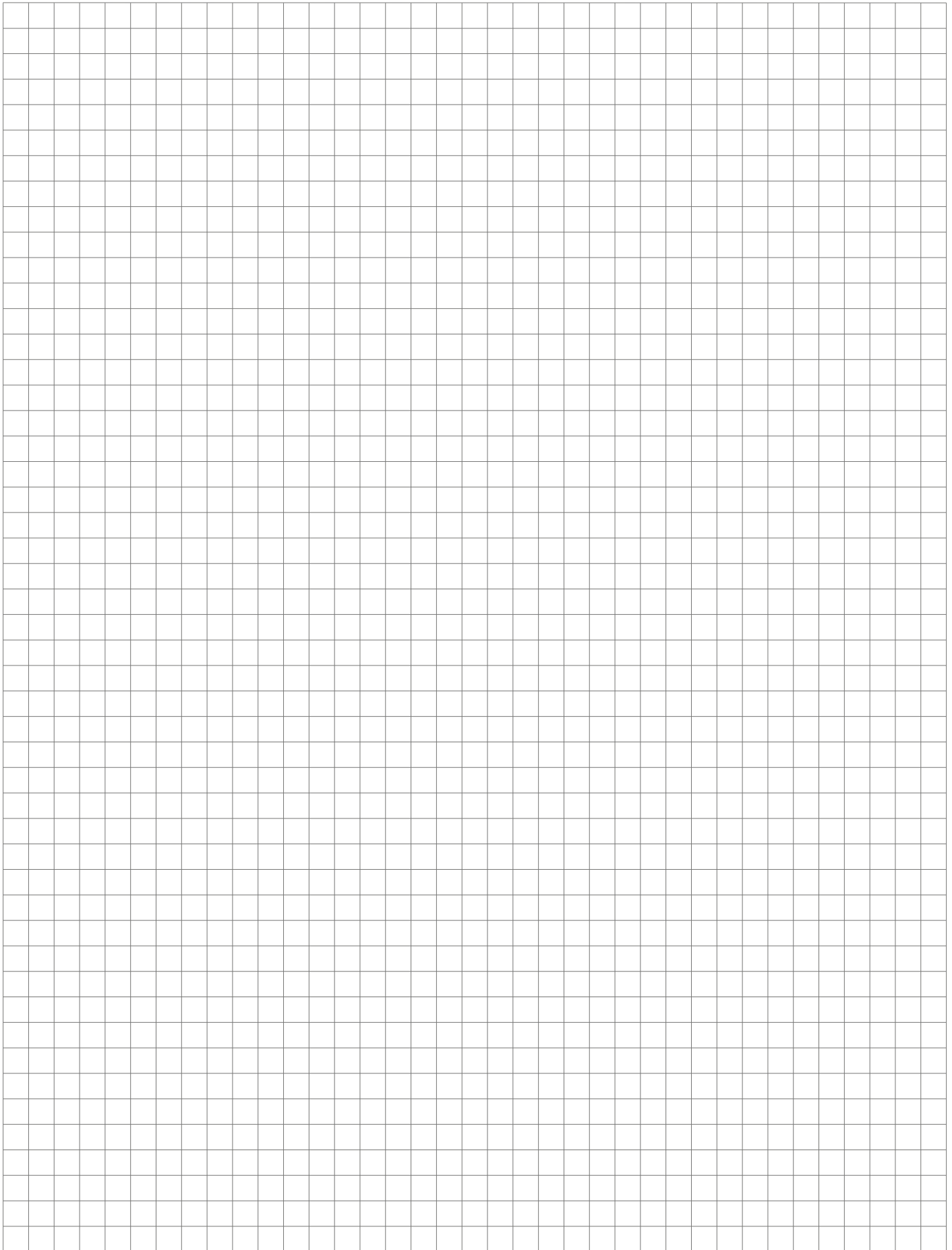
This is also Possible up to DN 50 (G 2) in special version. The number of valves is only limited by the efficiently manufactured overall length of the battery collector plate. Depending on DN this is 600 to 800 mm.

Solenoid valves, with pressure regulator, pressure operated valves or pressure regulator valves, can thus be flange-mounted on a collector plate according to requirement, or also opposite laterally reversed. Likewise the flow direction of the flange valves can be freely selected to a large extent. (Distributor or mixer version)

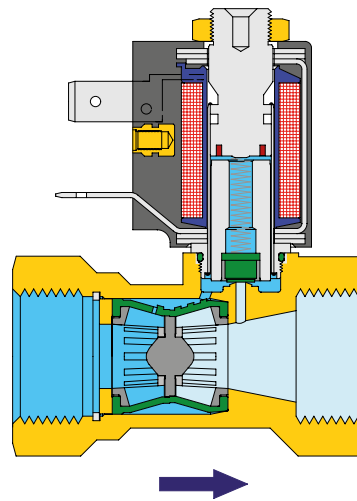
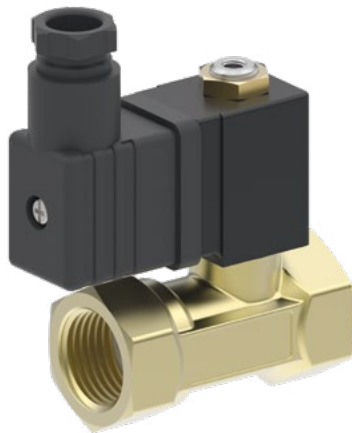
AVS-Römer furthermore manufactures so-called multi-functional blocks, with integrated injectors, pressure sensors and similar.

Permitted operating pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted operating pressure OP [bar] at ambient temperature +60 °C																	
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 					
				AC 50 Hz	AC 60 Hz	DC	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature					
				[VA]	[VA]	[W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C			
15 to 20	EGV-111M.-A..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	6	5	4	4	3	2	6	5	4			
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	14	12	10	8	15	13	12	
			E22...H.	-	-	8	-	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16	16
			E30 P	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16



GAMMA Valves Serie 200



Especially economical valve series DN 10 (G 3/8) and DN 12 (G 1/2) for the most varied of applications in mechanical and apparatus construction.

The minimal space requirement of this socket valve series is especially of advantage in small apparatus construction (representations G1/2 in scale 1:1)

Dirt particles in the medium can lead to malfunction in the solenoid valves. The installation of a strainer is thus to be recommended, e.g. type SMF-133..

CHARACTERISTICS

GENERAL

Constructional design	Low noise membrane valve with coaxial flow			
Product name	2/2-way Solenoid valve servo controlled	2/2-way Solenoid valve servo controlled	2/2-way Solenoid valve pressure operated	2/2-way valve, pressure operated by external or own medium
Product type	EGV	EGV	EGV	PGV
Function	"A" normally closed	"B" normally open	"Z" normally closed	"B" normally open
Nominal diameter	DN 10 and DN 12			
Port size	Thread (ISO 228) G 3/8 and G 1/2			
Ambient temperature	-20 °C to +60 °C (others on request)			
Medium temperature	for NBR: -10 °C to +90 °C for FKM and EPDM: -10 °C to +130 °C (for exceptions see table)			
Medium viscosity	up to ca. 20 mm ² /s			
Valve body material	Brass			
Membrane support unit material	reinforced synthetic material (others on request)			
Other internal component	Stainless steel and non-ferrous metal			
Material	NBR (nitrile rubber), EPDM (ethylene propylene) or FKM (fluoride rubber) (others on request)			
Mounting method	Installation in rigid pipe system			
Mounting position	optional, preferably upright			

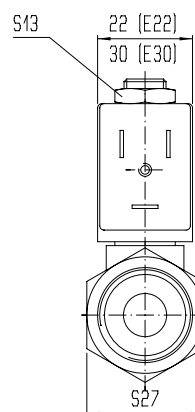
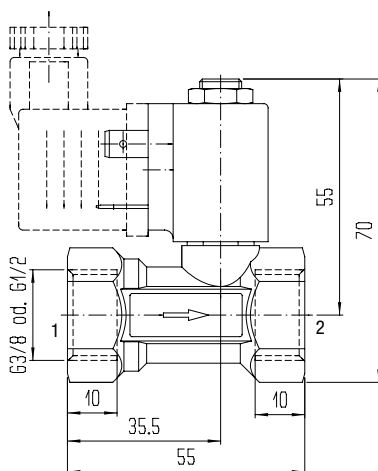
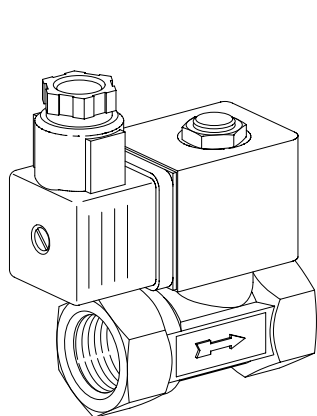
PNEUMATIC - HYDRAULIC

Nominal pressure (bar)	according to type table. The numerical value of the nominal pressure PN signifies the Permitted Operating Pressure OP in bar at 60°C ambient temperature and 60°C medium temperature. Insofar as two values are given, the first value refers to solenoid coil with highest electrical current consumption, the second value to that with lowest current consumption.			
Pressure range	0.3 bar up to permitted operating pressure OP according to table.			
Rate	Kv-value according to type table (full passage with pressure difference of 0.5 bar or higher)			
Medium	gaseous or fluids Sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases Sealing material EPDM: e.g. hot water Sealing material FKM: e.g. solvents, hot water, hot air above 90 °C			
Response time	Opening time: 20 ms to 1 s; closing time: 25 ms to 3 s, according to medium			
Electric	see solenoid coils			

2/2-Way Solenoid Valve - Type EGV Series 200

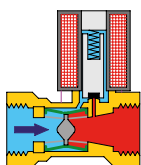
Product group	53	Function "A" normally closed	low noise and impact-free closing, for neutral, gaseous or fluids									Brass
Version			DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type	Order number	Price	
 Valve without solenoid coils Permitted operating pressure 0.3 bar up to valve according to table below.			10	2	G 3/8	16/8	AC/DC	NBR	EGV-211-A79-3/8BN-00	613041	o. r.	
			10	2	G 3/8	16/8	AC/DC	EPDM	EGV-211-A79-3/8PN-00	613043	o. r.	
			10	2	G 3/8	16/8	AC/DC	FKM	EGV-211-A79-3/8FN-00	613045	o. r.	
			12	2.2	G 1/2	16/8	AC/DC	NBR	EGV-211-A79-1/2BN-00	613051	o. r.	
			12	2.2	G 1/2	16/8	AC/DC	EPDM	EGV-211-A79-1/2PN-00	613053	o. r.	
			12	2.2	G 1/2	16/8	AC/DC	FKM	EGV-211-A79-1/2FN-00	613055	o. r.	

Illustration

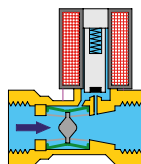


Cable sockets adaptable with solenoid coils E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

Function

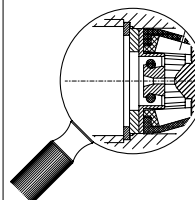


In 0-position - magnetic system not under current - its seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.



In override position - magnetic system under current - its seat is open, the control chamber discharged and the membrane is held by the medium in "open" position. A minimum pressure difference is required for this.

Options



integrated volume regulator
6, 10 or 12 l/min
For pressure between 1 and 10 bar the is held
constant with a tolerance of $\pm 15\%$.
Please do not hesitate to ask us if you have
any questions!



increases resistance to corrosion
and replaces stainless steel valves
cost-effectively for many medium
Type EGV-211Q-...

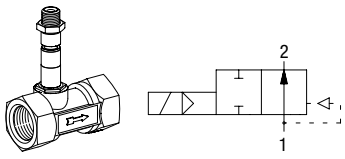
Permitted Operating Pressure OP

[illegible]

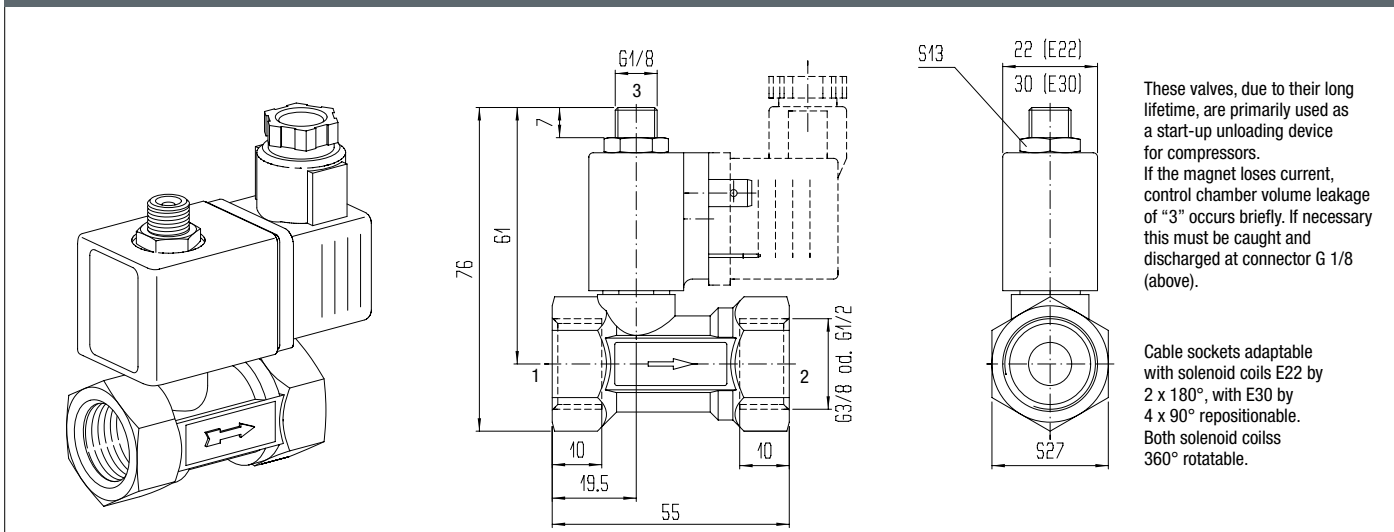
2/2-Way Solenoid Valve - Type EGV Series 200

Product group	53	Function "B" normally open	Low noise and impact-free closing, for neutral, gaseous or fluids
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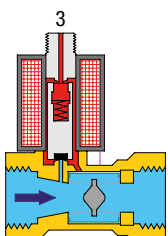
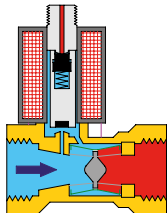
Brass

Version		DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Partial solenoid valve without solenoid coils)	Order number	Price
 Valve without solenoid coils Permitted operating pressure 0.3 bar up to valve according to table below.		10	2	G 3/8	16/8	AC/DC	NBR	EGV-211-B97-3/8 BP-00	613291	o. r.
		10	2	G 3/8	16/8	AC/DC	EPDM	EGV-211-B97-3/8 PP-00	613293	o. r.
		10	2	G 3/8	16/8	AC/DC	FKM	EGV-211-B97-3/8 FP-00	613295	o. r.
		12	2.2	G 1/2	16/8	AC/DC	NBR	EGV-211-B97-1/2 BP-00	613301	o. r.
		12	2.2	G 1/2	16/8	AC/DC	EPDM	EGV-211-B97-1/2 PP-00	613303	o. r.
		12	2.2	G 1/2	16/8	AC/DC	FKM	EGV-211-B97-1/2 FP-00	613305	o. r.

Illustration



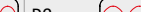
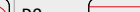
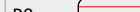
Function

	In 0-position - magnetic system not under current - its seat is closed and its override seat open. Thereby the control chamber is discharged by port "3" and the membrane held in "open" position by the medium. A minimum pressure difference is required for this operation.
	In override position - magnetic system under current - its seat is open and its override seat closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.

Options

	increases resistance to corrosion and replaces stainless steel valves cost-effectively for many medium Type EGV-211Q-...
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Permitted Operating Pressure OP

DN	type	PN	Combinable solenoid coils				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C														
			type	Nominal current P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
10 and 12	EGV-212-B..	16/8	E22...L. E22...M. E22...H. E30...P.	3.5 5.5 - 12	on req. 5 - 10.5	on req. 5 8 8	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16	on req. 16 16 16		

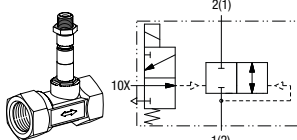
2/2-Way Solenoid Valve - Type EGV Series 200

Product group **53**

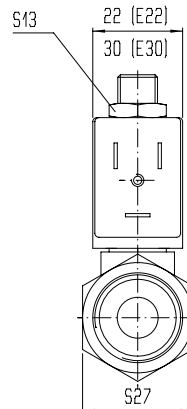
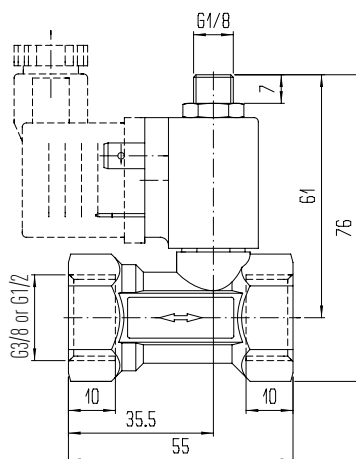
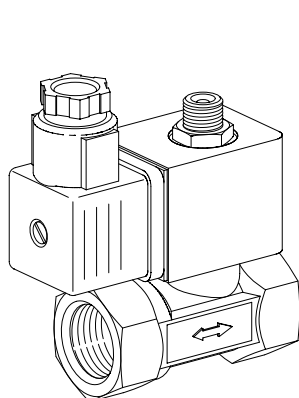
Function "Z" normally closed with existing auxiliary pressure at "10"

low noise and impact-free closing, for neutral, gaseous or fluids

Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Partial solenoid valve without solenoid coils)	Order number	Price
 Valve without solenoid coils Permitted operating pressure 0.3 bar up to valve according to table below, double-sided blocking.	10	2	G 3/8	16	AC/DC	NBR	EGV-211-Z77-3/8BP-00	613341	o. r.
	10	2	G 3/8	16	AC/DC	EPDM	EGV-211-Z77-3/8PP-00	613343	o. r.
	10	2	G 3/8	16	AC/DC	FKM	EGV-211-Z77-3/8FP-00	613345	o. r.
	12	2.2	G 1/2	16	AC/DC	NBR	EGV-211-Z77-1/2BP-00	613351	o. r.
	12	2.2	G 1/2	16	AC/DC	EPDM	EGV-211-Z77-1/2PP-00	613353	o. r.
	12	2.2	G 1/2	16	AC/DC	FKM	EGV-211-Z77-1/2FP-00	613355	o. r.

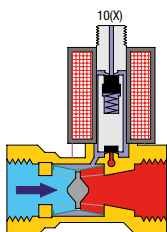
Illustration



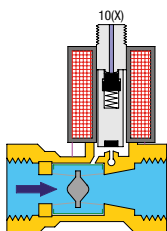
These valves can also be used for dirty media by the application, depending on constructional design, of an external medium, e.g. compressed air, for controlling the membrane.

Cable sockets adaptable with solenoid coils E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

Function

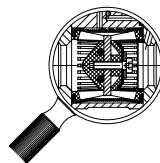


In 0-position - magnetic system not under current - its seat is closed. The auxiliary pressure accumulated at "10" thus builds up in the control chamber and holds the membrane in "closed" position.



In override position - magnetic system under current - its override seat is closed. The control chamber is discharged by the open seat and the membrane held in "open" position by the medium. A minimum pressure difference is required for this.

Options



0-pressure membrane requires no differential pressure to open, however to close control pressure 1 bar above operating pressure
TYPE EGV-211-Z77-...-0-00



increases resistance to corrosion and replaces stainless steel valves cost-effectively for many medium
Type EGV-211Q-...

Permitted Operating Pressure OP

DN	type	PN	Combinable solenoid coils				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C														
			type	Nominal current P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]															
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
10 and 12	EGV-211-Z..	16/8	E22...L.	3.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			E30...P	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

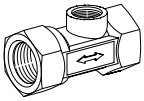
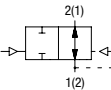
2/2-Way Valve - Type PGV Series 200 - Pressure Operated (Volume Booster) by External Medium

Product group **53**

Function "B" normally open

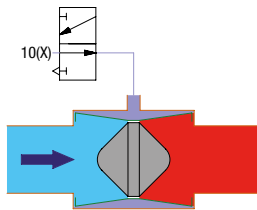
low noise and impact-free closing,
for neutral, gaseous and fluids

Brass

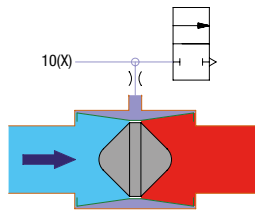
Version	Con- trolpres- sure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Partial solenoid valve without solenoid coils)	Order number	Price
  2/2-way valve pressure operated, double-sided blocking by external medium Permitted operating pressure 0.3 to 16 bar Further features Page <AE>	$\geq$ excess operating pressure max. 16	10	2	G 3/8	16	NBR	PGV-231 -B77-3/8BP	614041	o. r.
		10	2	G 3/8	16	EPDM	PGV-231 -B77-3/8PP	614043	o. r.
		10	2	G 3/8	16	FKM	PGV-231 -B77-3/8FP	614045	o. r.
		12	2.2	G 1/2	16	NBR	PGV-231 -B77-1/2BP	614051	o. r.
		12	2.2	G 1/2	16	EPDM	PGV-231 -B77-1/2PP	614053	o. r.
		12	2.2	G 1/2	16	FKM	PGV-231 -B77-1/2FP	614055	o. r.

Illustration

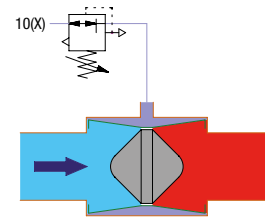
Remotely operated 2/2-way valve regulated by external medium with 3/2-way valve (positive control)



Remotely operated 2/2-way valve regulated by external medium with 2/2-way valve



Remotely operated excess pressure valve regulated by external medium with pressure regulator



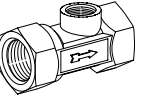
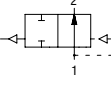
2/2-Way Valve - Type PGV Series 200 - Pressure Operated (Volume Booster) by Own Medium

Product group **53**

Function "B" normally open
(without control pressure)

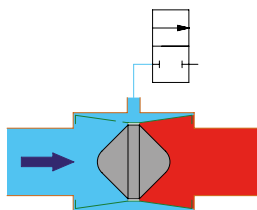
low noise and impact-free closing,
for neutral, gaseous and fluids

Brass

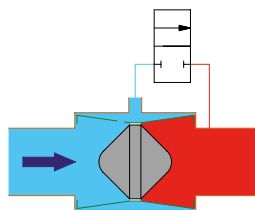
Version	Con- trolpres- sure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Partial solenoid valve without solenoid coils)	Order number	Price
  2/2-way valve pressure operated, by own medium Permitted operating pressure 0.3 to 16 bar Further characteristics Page <AE>	$\geq$ excess operating pressure max. 16	10	2	G 3/8	16	NBR	PGV-231-B77-3/8BN	614095	o. r.
		10	2	G 3/8	16	EPDM	PGV-231-B77-3/8PN	614073	o. r.
		10	2	G 3/8	16	FKM	PGV-231-B77-3/8FN	614075	o. r.
		12	2.2	G 1/2	16	NBR	PGV-231-B77-1/2BN	614081	o. r.
		12	2.2	G 1/2	16	EPDM	PGV-231-B77-1/2PN	614083	o. r.
		12	2.2	G 1/2	16	FKM	PGV-231-B77-1/2FN	614085	o. r.

Illustration

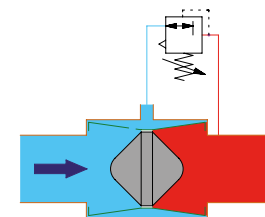
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (negative control)



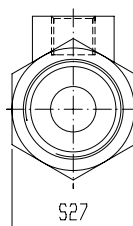
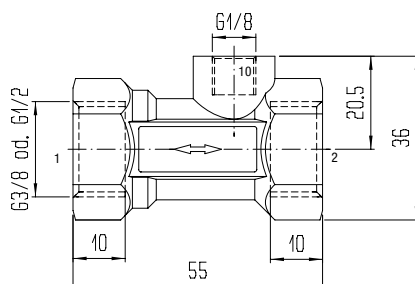
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (control medium recycled)



Remotely operated pressure regulator valve regulated by own medium with pressure regulator (control medium recycled)



Illustration



Options


increases resistance to corrosion and replaces stainless steel valves cost-effectively for many flow media
Type PGV-231Q-...

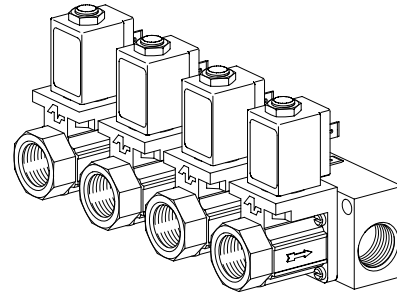
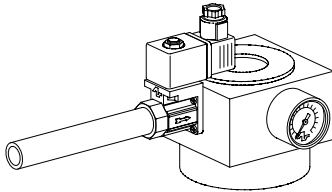


GAMMA Valves Series 300



Especially small-construction valve series DN 13 (G 1/2), 32 mm wide, for the most varied of applications in mechanical and apparatus construction. The narrow constructional design enables extremely high pack density.

Dirt particles in the medium can lead to malfunction in the valves. The installation of a strainer is thus to be recommended, e.g. Type SMF-133...



Valve batteries up to 10-fold with various override and functional applications as standard. The structural combination especially of various Types of valve, sensors and such like in multi-functional blocks creates significant advantages:

- saving of assembly time (pipework expenditure reduced by up to 85 %)
- saving of fittings
- enormous saving of construction space

Intermediumte flange and flange-mount valves are directly flange-mounted on pressure-bearing mechanical and apparatus components.

CHARACTERISTICS

GENERAL

Constructional design	low noise membrane valve with coaxial flow				
Product name	2/2-way solenoid valve servo controlled	2/2-way solenoid valve with pressure regulator servo controlled	2/2-way valve pressure operated by external or own medium	Hand-adjustable pressure regulator valve servo controlled	Valve batteries (all variants)
Product type	EGV	EGR	PGV	RGV	all previously named
Nominal diameter	DN 13				
Port size	Thread (ISO 228) G 1/2				
Ambient temperature	-20 °C to +60 °C (others on request)				
Medium temperature	for NBR: -10 °C to +90 °C for FKM and EPDM: -10 °C to +130 °C (for exceptions see table)				
Medium viscosity	up to ca. 20 mm ² /s				
Valve body material	Ms				
Membrane support unit material	reinforced synthetic material (others on request)				
Other internal component material	Stainless steel and non-ferrous metal				
Seal material	NBR (nitrile rubber), EPDM (ethylene propylene) or FKM (fluoride rubber) (others on request)				
Mounting method	Installation in rigid pipe system				
Mounting position	optional, preferably upright				

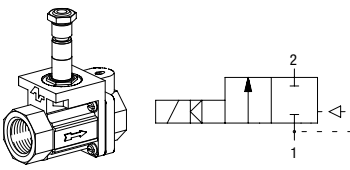
PNEUMATIC - HYDRAULIC

Nominal pressure (bar)	according to Type table. The numerical value of the nominal pressure PN signifies the Permitted Operating Pressure OP in bar at 60°C ambient temperature and 60°C medium temperature. Insofar as two values are given, the first value refers to solenoid coil with highest electrical power consumption, the second value to that with lowest power consumption.				
Pressure range	0.3 bar up to permitted operating pressure OP according to table. 0 to 16 bar version is also possible for Type EGV function "Z" and Type PGV				
Flow rate	Kv-value according to Type table (full flow with pressure difference of 0.5 bar or higher)				
Medium	gaseous or fluids Sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases Sealing material EPDM: e.g. hot water Sealing material FKM: e.g. solvents, hot water, hot air above 90°C				
Response time	Opening time: 20 ms to 1 s; closing time: 25 ms to 3 s, according to flow medium				
Electric	see solenoid coils				

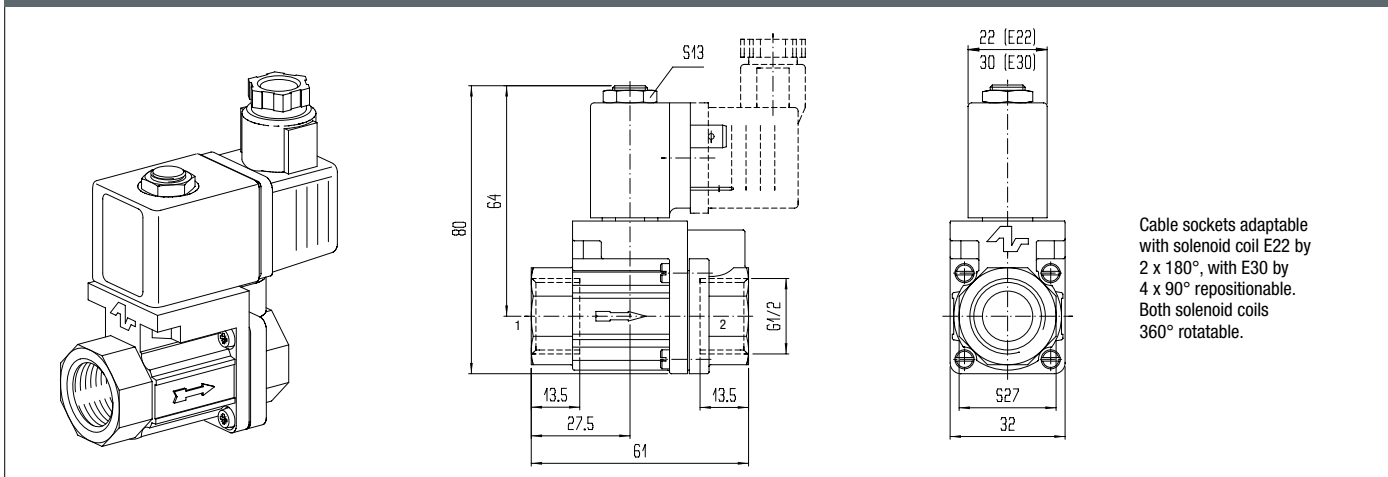
2/2-Way Solenoid Valve - Type EGV Series 300

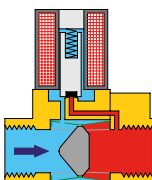
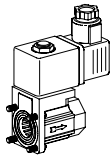
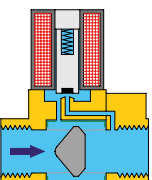
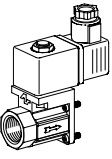
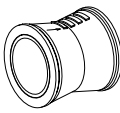
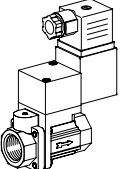
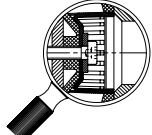
Product group	53	Function "A" normally closed	Low noise and impact-free closing, for neutral, gaseous or fluids
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Brass

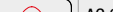
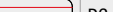
Version	DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
 Valve without solenoid coil Permitted operating pressure 0.3 bar up to valve according to table below.	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311-A78-1/2BN-00	613401	o. r.
	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311-A78-1/2PN-00	613403	o. r.
	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311-A78-1/2FN-00	613405	o. r.

Illustration



Function	Variations	Options
 In 0-position - magnetic system not under power - its seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.	 2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-311-AH9-...	 Stepwise manual override Type EGV-312-... This limits: permitted excess operating pressure: 12.5 bar permitted Medium temperature: max. 60°C
 In override position - magnetic system under power - its seat is open, the control chamber released and the membrane is held by the flow medium in "open" position. A minimum pressure difference is required for this.	 2/2-way flange mount Solenoid valve Thread-side pressure inlet Type EGV-311-A7L-...	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils
	 2/2-way solenoid valve Rapid function version with 3/2-way servo-override especially for compressed air Type EGV-361-A87-... BP-00	 increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many flow medium Type EGV-311Q-...
		 Non-return valve integrated outlet-side in the gate unit Type EGV-311-A78-../R-... This only blocks up to a pressure difference of 10 bar

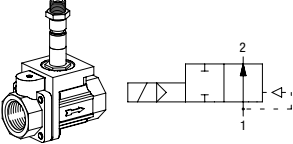
Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 			
				AC 50 Hz	AC 60 Hz	DC	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	90 %U _N	
				50 Hz [VA]	60 Hz [VA]	DC [W]	Medium temperature			Medium temperature			Medium temperature			Medium temperature			Medium temperature			
			60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C		
13	EGV-311-A..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	on req.	7	on req.	on req.	6	5	4	4	3	2	6	5	4	
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	14	12	10	8	15	13	12
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

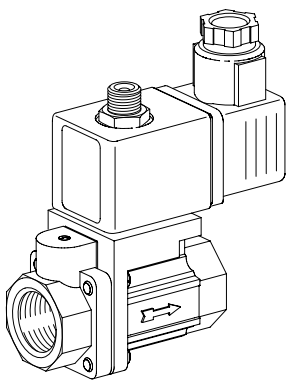
2/2-Way Solenoid Valve - Type EGV Series 300

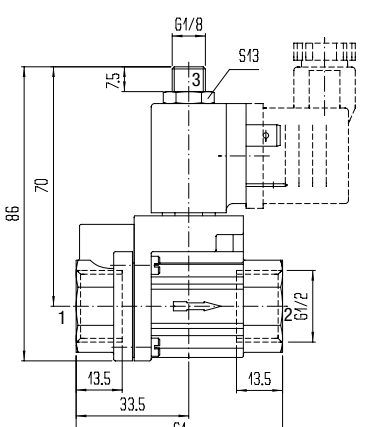
Product group	53	Function "B" normally open	Low noise and impact-free closing, for neutral, gaseous or fluids
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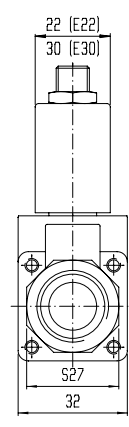
Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
 Valve without solenoid coil Permitted operating pressure 0.3 bar up to valve according to table below.	13	3.2	G 1/2	16	AC / DC	NBR	EGV-311-B87-1/2BP-00	613411	o. r.
	13	3.2	G 1/2	16	AC / DC	EPDM	EGV-311-B87-1/2PP-00	613413	o. r.
	13	3.2	G 1/2	16	AC / DC	FKM	EGV-311-B87-1/2FP-00	613415	o. r.

Illustration



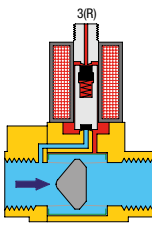
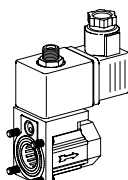
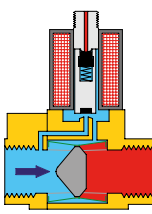
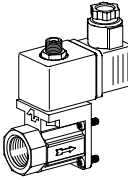
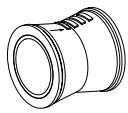
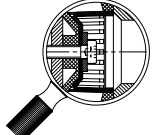




These valves, due to their long lifetime, are primarily used as a start-up unloading device for compressors.

If the magnet loses power, control chamber volume leakage of "3" occurs briefly. If necessary this must be caught and discharged at connector G 1/8 (above).

Cable sockets adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

Function	Variations	Options
 In 0-position - magnetic system not under power - its seat is closed and its override seat open. Thereby the control chamber is released by "3" and the membrane held in "open" position by the flow medium. A minimum pressure difference is required for this.	 2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-311-BL7-.....	 Stepwise manual override Type EGV-312-... This limits: permitted excess operating pressure: 12.5 bar permitted Medium temperature: max. 60°C
 In override position - magnetic system under power - its seat is open and its override seat closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in closed position.	 2/2-way flange mount Solenoid valve Thread-side pressure inlet Type EGV-311-B9H-.....	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils
		 increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many flow medium Type EGV-311Q-...
		 Non-return valve integrated outlet-side in the gate unit Type EGV-311-B87-/-, T-.. This only blocks up to a pressure difference of 10 bar

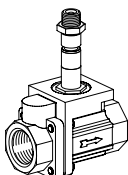
Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil			Permitted Operating Pressure OP [bar] at ambient temperature + 60°C															
			Type	Nominal power P ₂₀			AC 50 Hz						AC 60 Hz						DC		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 % U _N Medium temperature						90 % U _N Medium temperature						90 % U _N Medium temperature		
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
13	EGV-311-B..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

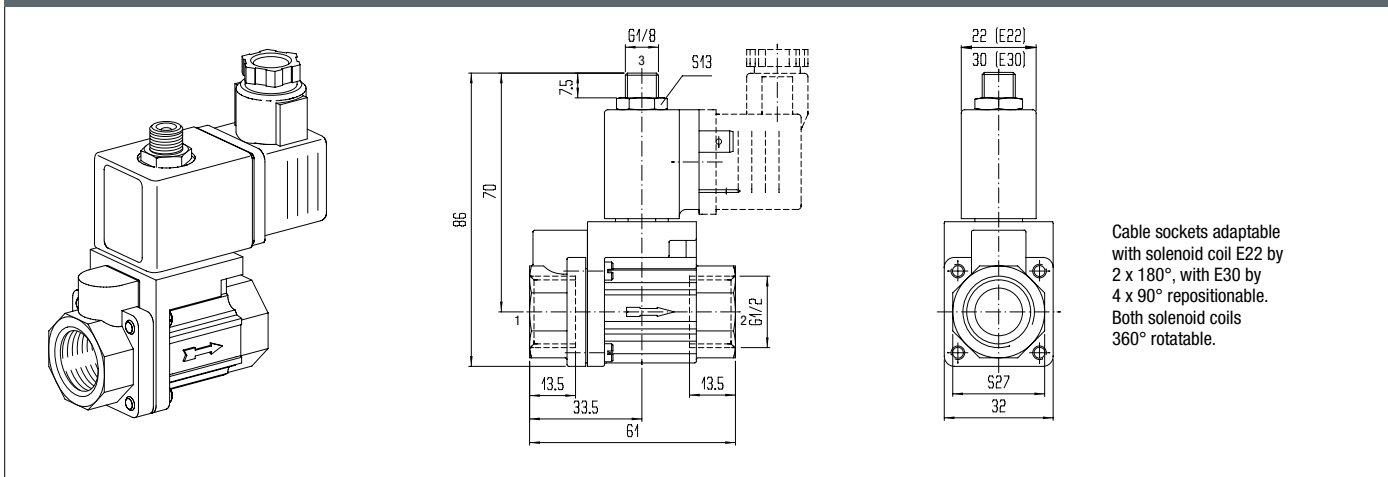
2/2-Way Solenoid Valve - Type EGV Series 300

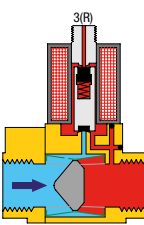
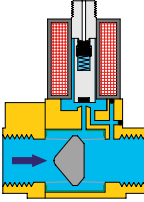
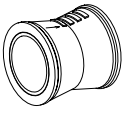
Product group **53** "C" in 0 position "1" closed, "2" after "3" discharged low noise and impact-free closing, for neutral, gaseous or fluids

Brass

Version	DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
 Valve port 3: 1.8DV without solenoid coil Permitted operating pressure 0.3 bar up to valve according to table below.	13	3.2	G 1/2	12.5	AC/DC	NBR	EGV-321-C69-1/2BN-00	613421	o. r.
	13	3.2	G 1/2	12.5	AC/DC	EPDM	EGV-321-C69-1/2PN-00	613423	o. r.
	13	3.2	G 1/2	12.5	AC/DC	FKM	EGV-321-C69-1/2FN-00	613425	o. r.

Illustration

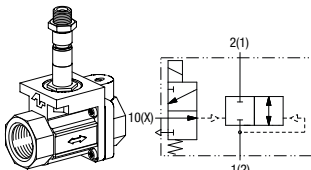


Function	Variations	Options
 In 0-position - magnetic system not under power - its seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position. Simultaneously the secondary side is ventilated via "3".	 In override position - magnetic system under power - its seat is open, the control chamber released and the membrane is held by the flow medium in "open" position. A minimum pressure difference is required for this.	2/2-way flange mount Solenoid valve Flange-side pressure inlet Type EGV-321-CH9-...
 Stepwise manual override Type EGV-322-... This limits: permitted excess operating pressure: 12.5 bar permitted Medium temperature: max. 60°C	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils	 increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many flow medium Type EGV-321Q-...

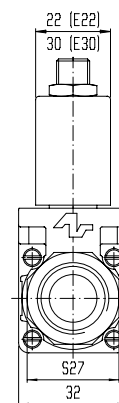
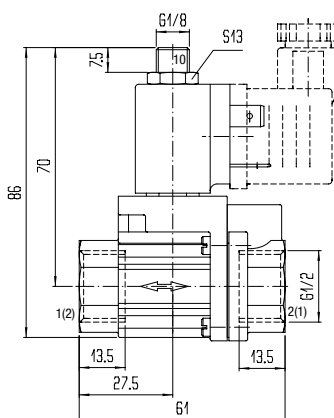
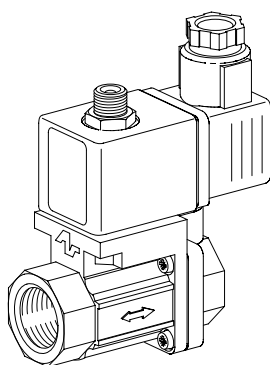
Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C																														
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature																		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.															
																							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
13	EGV-321-C..	12.5	E22...L. E22...M. E22...H. E30...P.	3.5 5.5 - 12	on req. 5 - 10.5	2.5 5 8 8	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5	on req. 12.5 - 12.5																	

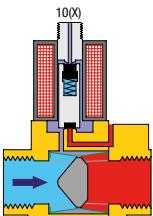
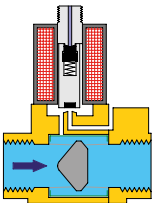
2/2-Way Solenoid Valve - Type EGV Series 300

Product group	53	Function "Z" normally closed with existing auxiliary pressure at port "10"	Low noise and impact-free closing, for neutral, gaseous or fluids					Brass			
Version			DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
		Valve without solenoid coil Permitted operating pressure 0.3 bar up to value according to table below, double-sided blocking. Permitted control pressure at "10" ≥ Operating pressure, max. 16 bar	13	3.2	G 1/2	16	AC/DC	NBR	EGV-311-Z76-1/2BP-00	613431	o. r.
			13	3.2	G 1/2	16	AC/DC	EPDM	EGV-311-Z76-1/2PP-00	613433	o. r.
				13	3.2	G 1/2	16	AC/DC	FKM	EGV-311-Z76-1/2FP-00	613435

Illustration



Cable sockets adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

Function	Variations	Options
 In 0-position - magnetic system not under power - its seat is closed. The auxiliary pressure accumulated at "10" thus builds up in the control chamber and holds the membrane in "closed" position.	 In override position - magnetic system under power - its override seat is closed. The control chamber is released by the open seat and the membrane held in "open" position by the flow medium. A minimum pressure difference is required for this.	Stepwise manual override Type EGV-312-... This limits: permitted excess operating pressure: 12.5 bar permitted Medium temperature: max. 60°C Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils increases resistance to corrosion, and replaces stainless steel valves cost-effectively for many flow medium Type EGV-311Q-... 0-pressure membrane requires no differential pressure to open, however to close requires control pressure 1 bar above operating pressure Type EGV-311-Z76-../..0-...

Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 90 %U _N 			DC 90 %U _N 			DC 100 %U _N 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	Medium temperature			Medium temperature			Medium temperature			Medium temperature			Medium temperature		
				60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
13	EGV-311-Z..	16	E22...L. E22...M. E22...H. E30...P.	3.5 5.5 - 12	on req. 5 - 10.5	2.5 5 8 8	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. on req. 16	on req. on req. 16	on req. on req. 16	on req. on req. 16	on req. on req. 16	on req. on req. 16	on req. on req. 16	

2/2-Way Solenoid Valve with Pressure Regulator - Type EGR Series 300

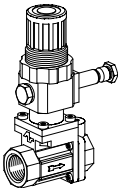
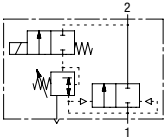
Product group **53**

Function "C" normally closed, with secondary side discharged

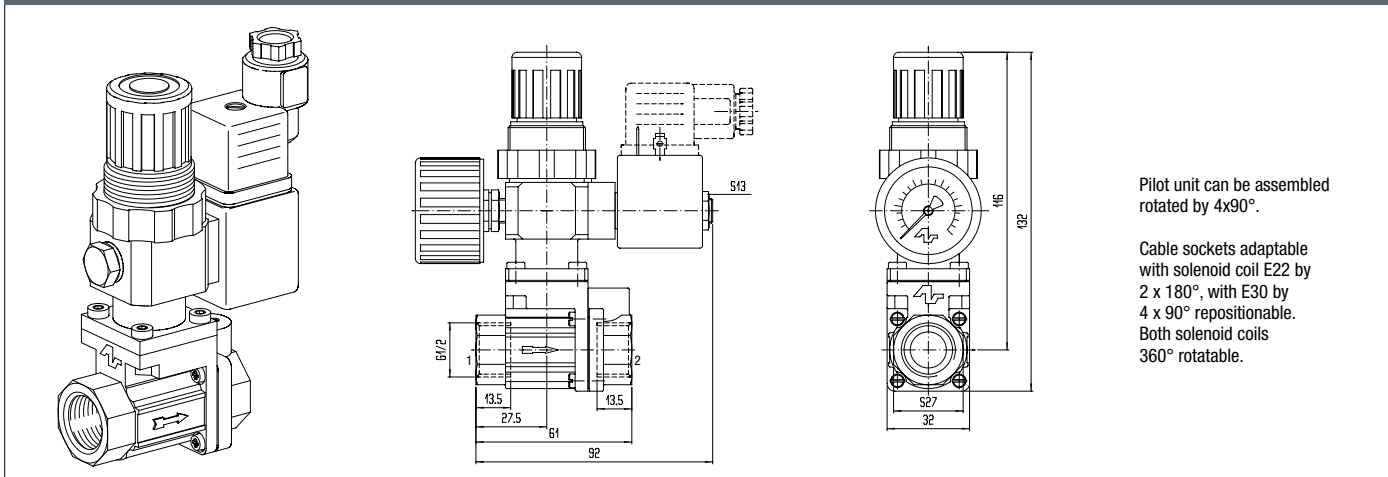
low noise and impact-free closing, for neutral, gaseous medium (fluid optional)

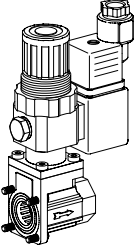
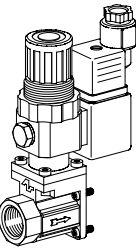
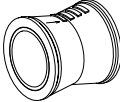
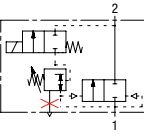
Brass

Home

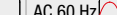
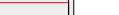
Version		Secondary pressure [bar]	DN	Flow air [l/min]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
 	Valve without solenoid coil without pressure gauge	0.5 - 10	13	150 to 1,500	G 1/2	16/8	AC/DC	NBR	EGR-351-1C78-1/2BN-00	654001	o. r.
	Permitted operating pressure 0.5 bar up to value according to table below.	0.5 - 3	13	150 to 1,500	G 1/2	16/8	AC/DC	NBR	EGR-351-3C78-1/2BN-00	654002	o. r.
		0.5 - 6	13	150 to 1,500	G 1/2	16/8	AC/DC	NBR	EGR-351-6C78-1/2BN-00	654003	o. r.

Illustration

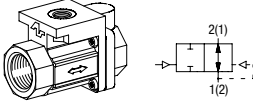


Function	Variations	Options
With respect to electrical function the valve corresponds to a 2/2-way solenoid valve function "A". In override position - magnetic system under power - the membrane is only held in "open" position by the flow medium until the outlet-side pressure reaches the value set on the pressure regulator. This can be set using the lockable adjustment button. The pressure should preferably be measured as near to the load as possible. In case of need a pressure gauge can also be attached to the pilot pressure regulator. For dynamic loads or neutral fluids, a version without secondary-side ventilation can be supplied.	 2/2-way flange mount Solenoid valve with Pressure regulator Flange-side pressure inlet Type EGR-351-.CH9-.  2/2-way flange mount Solenoid valve with Pressure regulator Thread-side pressure inlet Type EGR-351-.C7L-.....	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils  increases resistance to corrosion and replaces stainless steel valves cost-effectively for many flow medium Type EGV-321Q-...  without secondary side ventilation of the pilot pressure regulator, especially for fluids Type EGR-351-.A78-...

Permitted Operating Pressure OP

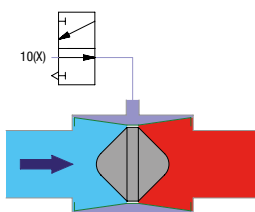
DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C											
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 		DC 		DC 		DC 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature		90 %U _N Medium temperature		90 %U _N Medium temperature		100 %U _N Medium temperature		
							60 °C	90 °C	130 °C	60 °C	90 °C	60 °C	90 °C	60 °C	90 °C	60 °C	90 °C	
13	EGV-351-C..	16/8	E22...L.	3.5	on req.	2.5	8	on req.	-	7	on req.	6	5	4	3	6	5	
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	12	10	15	13	
			E22...H.	-	-	8	-	-	-	-	-	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16

2/2-Way Valve - Type PGV Series 300 - Pressure Operated (Volume Booster) by External Medium

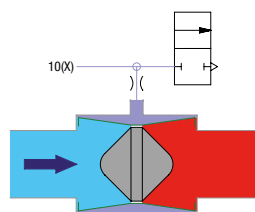
Product group	53	Function "B" normally open (without control pressure)	low noise and impact-free closing, for neutral, gaseous and fluids						Brass		
Version			Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type	Order number	Price
	2/2-way valve pressure operated, double-sided blocking by external medium	≥ excess operating pressure max. 16 bar	13	3.2	G 1/2	16	NBR	PGV-331-B76-1/2BP	614101	o. r.	
	Permitted operating pressure 0.3 to 16 bar		13	3.2	G 1/2	16	EPDM	PGV-331-B76-1/2PP	614103	o. r.	
			13	3.2	G 1/2	16	FKM	PGV-331-B76-1/2FP	614105	o. r.	

Illustration

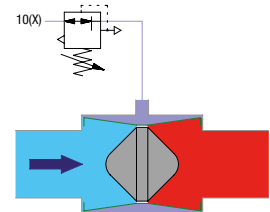
Remotely operated 2/2-way valve regulated by external medium with 3/2-way valve (positive control)



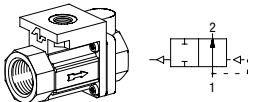
Remotely operated 2/2-way valve regulated by external medium with 2/2-way valve



Remotely operated excess pressure valve regulated by external medium with pressure regulator

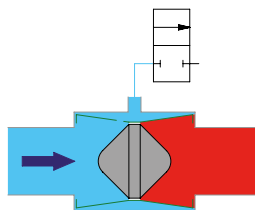


2/2-Way Valve - Type PGV Series 300 - Pressure Operated (Volume Booster) by own Medium

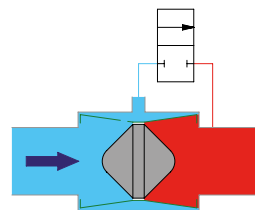
Product group	53	Function "B" normally open (without control pressure)	low noise and impact-free closing, for neutral, gaseous and fluids						Brass		
Version			Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type	Order number	Price
	2/2-way valve pressure operated by own medium	≥ excess operating pressure max. 16 bar		13	3.2	G 1/2	16	NBR	PGV-331-B76-1/2BN	614151	o. r.
	Permitted operating pressure 0.3 to 16 bar			13	3.2	G 1/2	16	EPDM	PGV-331-B76-1/2PN	614153	o. r.
				13	3.2	G 1/2	16	FKM	PGV-331-B76-1/2FN	614155	o. r.

Illustration

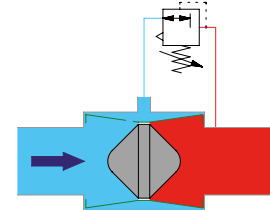
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (negative control)



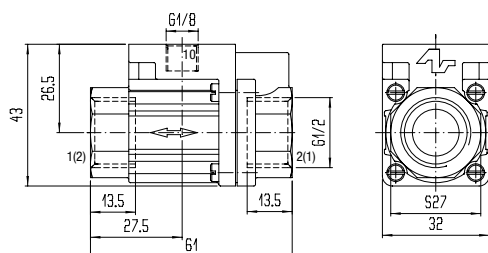
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (control medium recycled)



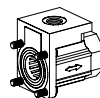
Remotely operated pressure regulator valve regulated by own medium with pressure regulator (control medium recycled)



Illustration

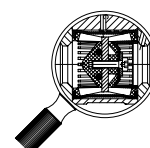


Variations



2/2-way flange mount valve (only external medium vers.)
Flange-side or thread-side pressure inlet
Type PGV-331-BH7-.....

Options

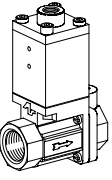
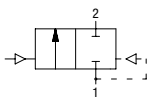


0-pressure membrane, requires no differential pressure to open, however control pressure to close 1 bar above operating pressure
Type PGV-331-B76-../.0

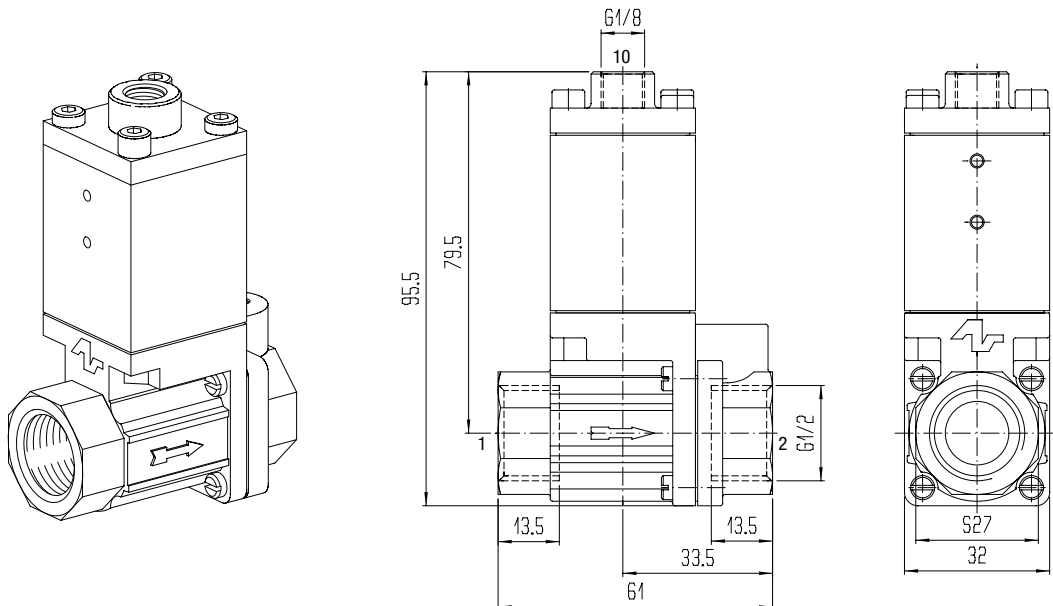
2/2-Way Valve - Type PGV Series 300 - Pressure Operated

Product group	53	Function "A" normally closed	low noise functioning, for gaseous medium, especially compressed air
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Brass

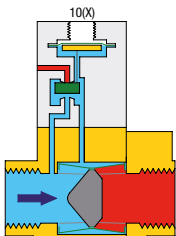
Version		Control pressure [bar]	DN	Flow air [Nm³/h]	G	PN	Sealing material	Type	Order number	Price
		4-7	13	3.2	G 1/2	16	NBR	PGV-351-A96-1/2BP	614181	o. r.
2/2-way valve pressure-operated by maintained compressed air Permitted operating pressure 0.3 to 16 bar										

Illustration

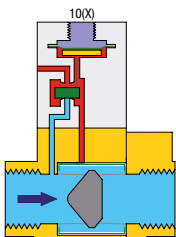


These servo controlled valves with pneumatic override are used in the control of compressed air, e.g. for the purposes of explosion protection, where solenoid valves are not desirable.

Function

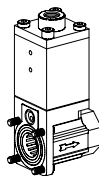


In 0-position - pre-control valve not pressurised - its seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.

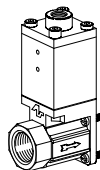


In override position - pre-control valve pressurised - its override seat is closed. The control chamber is released by the open seat, and the membrane is held in "open" position by the flow medium. A minimum pressure difference is required for this.

Variations



2/2-way flange mount valve
Flange-side pressure inlet
Type PGV-351-.AL7-1/2BP



2/2-way flange mount valve
Thread-side pressure inlet
Type PGV-351-.A9H-1/2BP

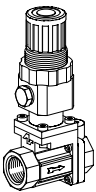
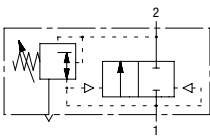
Pressure Regulator Valve - Type RGV Series 300

Product group **53**

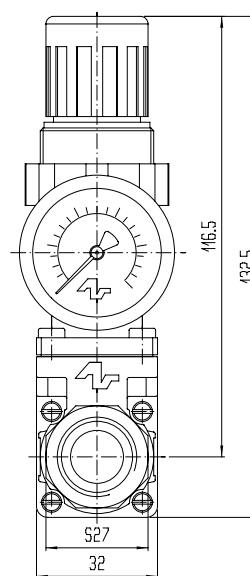
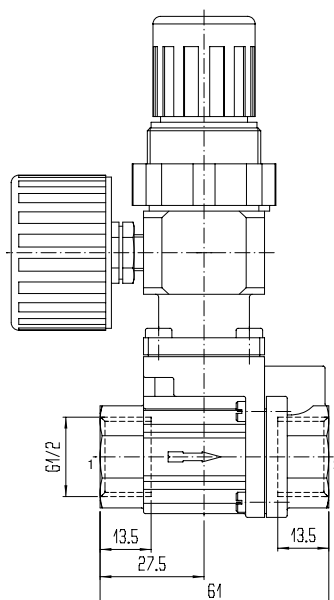
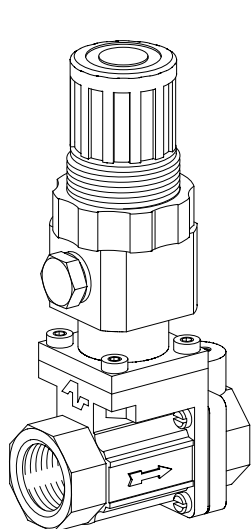
with secondary side ventilation

low noise and impact-free control, for neutral, gaseous medium (optional fluids)

Brass

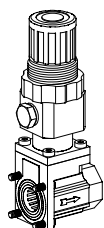
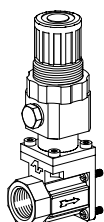
Version		Secondary pressure [bar]	DN	Flow air [l/min]	G	PN	Sealing material	Type	Order number	Price
 	Pressure regulator valve without pressure gauge Permitted operating pressure 0.5 bar up to 16 bar	0.5 - 10	13	150 to 1,500	G 1/2	16	NBR	RGV-351-1C78-1/2BN	653001	o. r.
		0.5 - 3	13	150 to 1,500	G 1/2	16	NBR	RGV-351-3C78-1/2BN	653002	o. r.
		0.5 - 6	13	150 to 1,500	G 1/2	16	NBR	RGV-351-6C78-1/2BN	653003	o. r.

Illustration



Pilot unit can be assembled rotated by 4x90°.

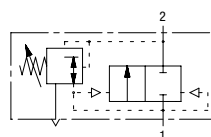
Variations


Flange mount
Pressure regulator valve
Flange-side pressure inlet
Type RGV-351-.CH9-....

Flange mount
Pressure regulator valve
Thread-side pressure inlet
Type RGV-351-.C7L-....

Options



increases resistance to corrosion, and replaces stainless steel valves cost-effectively stainless steel pressure regulator Type RGV-351Q-...


without secondary side ventilation of the pilot pressure regulator, especially for fluids
Type RGV-351-.A78-...

2/2-Way Solenoid Valve Battery - Type EGV Series 300

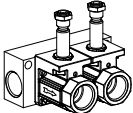
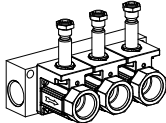
Product group **53**

Function "A" normally closed, distributor version

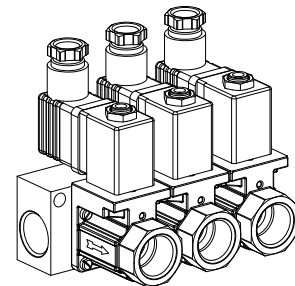
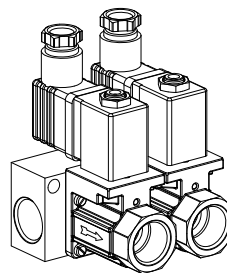
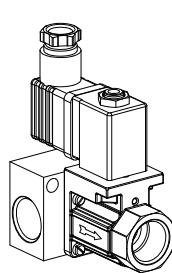
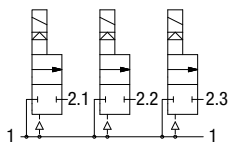
low noise and impact-free closing, for neutral, gaseous or fluids

Brass

Home

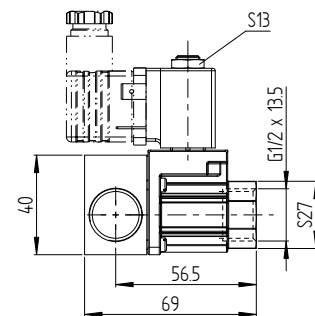
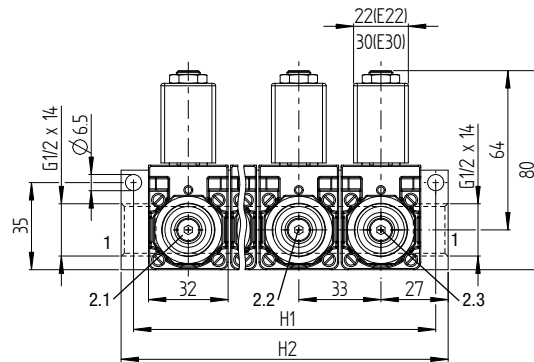
Version		DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
	Valve without solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/V1-AH9-1/2BN-00	616801	o. r.
		13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/V1-AH9-1/2PN-00	616831	o. r.
		13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/V1-AH9-1/2FN-00	616861	o. r.
	Valve, 2-fold Battery or solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/V2-AH9-1/2BN-00	616802	o. r.
		13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/V2-AH9-1/2PN-00	616832	o. r.
		13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/V2-AH9-1/2FN-00	616862	o. r.
	Valve, 3-fold Battery or solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/V3-AH9-1/2BN-00	616803	o. r.
		13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/V3-AH9-1/2PN-00	616833	o. r.
		13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/V3-AH9-1/2FN-00	616863	o. r.

Illustration



Valve Version

Description	H1	H2
Single valve	44	54
2-fold battery	77	87
3-fold battery	110	120
4-fold battery	143	153
5-fold battery	176	186
6-fold battery	209	219
7-fold battery	242	252
8-fold battery	275	285
9-fold battery	308	318
10-fold battery	341	351



Valve batteries series 300 can also be delivered at short notice in 4- to 10-fold version

Valve batteries series 100 can also be constructed combined, with all valve Types, for all listed functions and with various options according to customer requirements.

Solenoid valves, with pressure regulator, pressure operated valves or pressure regulator valves, can thus be flange-mounted on a collector plate according to requirement, or also opposite laterally reversed. Likewise the flow direction of the flange valves can be freely selected to a large extent. (Distributor or mixer version)

AVS-Römer furthermore manufactures so-called multi-functional blocks, with integrated injectors, pressure sensors and such like.

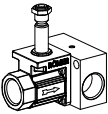
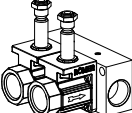
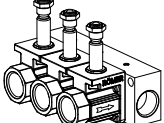
Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature + 60 °C														
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature		
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
13	EGV-311/V.-A..	16/8	E22...L. E22...M. E22...H. F30 P	3.5 5.5 - 12	on req. 5 - 10.5	2.5 5 8 8	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	on req. 16 - 16	6 16 16 16	5 16 16 16	4 14 16 16	4 12 16 16	3 10 16 16	2 8 16 16	6 15 16 16	5 13 16 16	4 12 16 16	

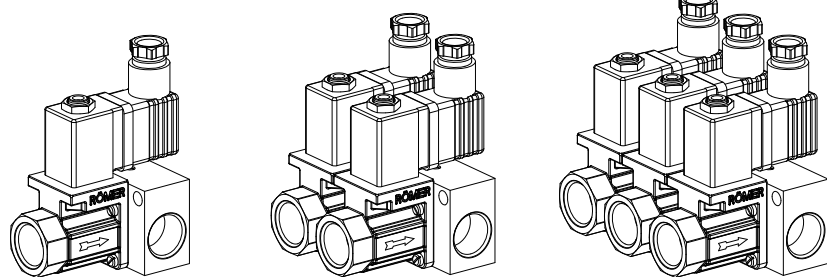
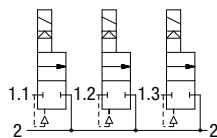
2/2-Way Solenoid Valve Battery - Type EGV Series 300

Product group	53	Function "A" normally closed, mixer version	low noise and impact-free closing, for neutral, gaseous or fluids
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Brass

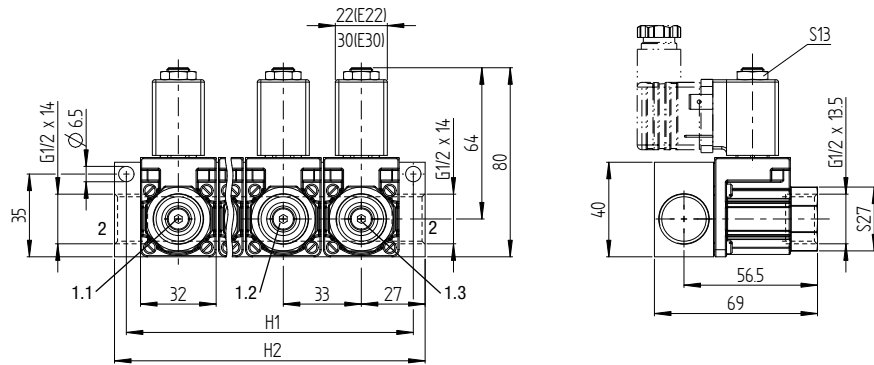
Version		Non-return valve	DN	Kv-value water [m³/h]	G	PN	Possible type of power	Sealing material	Type	Order number	Price
	Valve without solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	without	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M1-A7L-1/2BN-00	616811	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M1-A7L-1/2BR-00	616821	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M1-A7L-1/2PN-00	616841	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M1-A7L-1/2PR-00	616851	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M1-A7L-1/2FN-00	616871	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M1-A7L-1/2FR-00	616881	o. r.
	Valve, 2-fold Battery or solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	without	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M2-A7L-1/2BN-00	616812	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M2-A7L-1/2BR-00	616822	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M2-A7L-1/2PN-00	616842	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M2-A7L-1/2PR-00	616852	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M2-A7L-1/2FN-00	616872	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M2-A7L-1/2FR-00	616882	o. r.
	Valve, 3-fold Battery or solenoid coil Permitted operating pressure 0.3 bar up to value according to table below.	without	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M3-A7L-1/2BN-00	616813	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	NBR	EGV-311/M3-A7L-1/2BR-00	616823	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M3-A7L-1/2PN-00	616843	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	EPDM	EGV-311/M3-A7L-1/2PR-00	616853	o. r.
		without	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M3-A7L-1/2FN-00	616873	o. r.
		with	13	3.2	G 1/2	16/8	AC/DC	FKM	EGV-311/M3-A7L-1/2FR-00	616883	o. r.

Illustration



Valve Version

Description	H1	H2
Single valve	44	54
2-fold battery	77	87
3-fold battery	110	120
4-fold battery	143	153
5-fold battery	176	186
6-fold battery	209	219
7-fold battery	242	252
8-fold battery	275	285
9-fold battery	308	318
10-fold battery	341	351



The pressure value at outlet "2" may not exceed the values at inlets 1.1, 1.2 or 1.3, otherwise the version with integrated non-return valves should be selected. These block up to a pressure difference of 10 bar.

Valve batteries series 300 can also be delivered at short notice in 4- to 10-fold version.

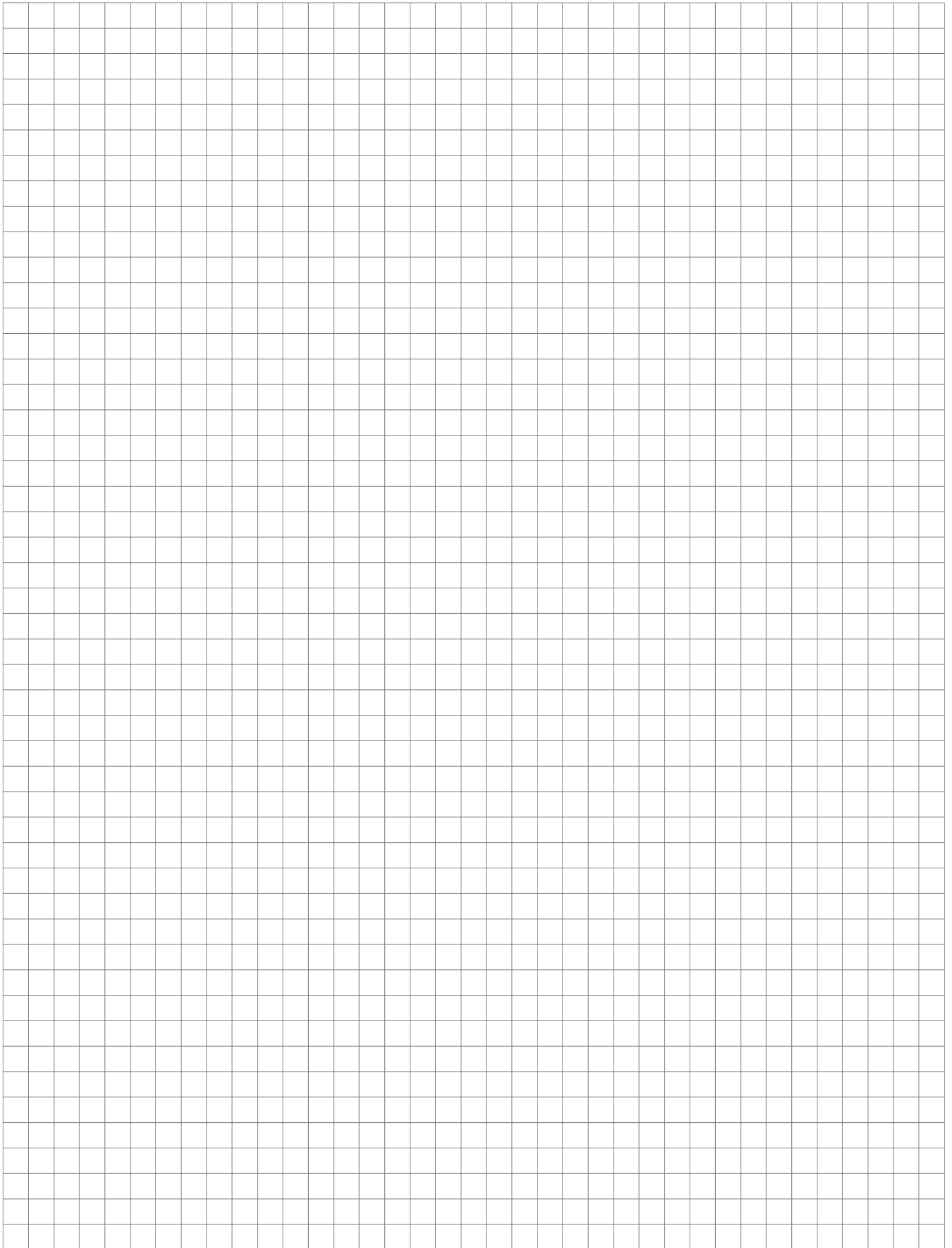
Valve batteries series 100 can also be constructed combined, with all valve Types, for all listed functions and with various options according to customer requirements.

Solenoid valves, with pressure regulator, pressure operated valves or pressure regulator valves, can thus be flange-mounted on a collector plate according to requirement, or also opposite laterally reversed. Likewise the flow direction

of the flange valves can be freely selected to a large extent. (Distributor or mixer version) AVS-Römer furthermore manufactures so-called multi-functional blocks, with integrated injectors, pressure sensors and such like.

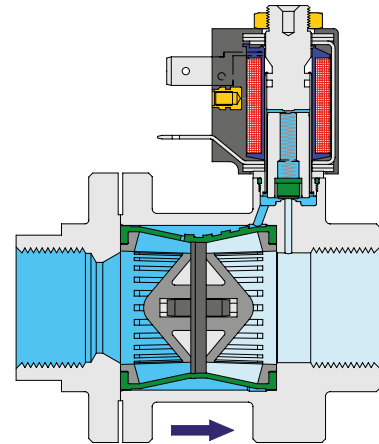
Permitted Operating Pressure OP

DN	Type	PN	Combinable solenoid coil				Permitted Operating Pressure OP [bar] at ambient temperature +60 °C																
			Type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 				
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature				
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C		
13	EGV-311/M.-A.	16/8	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	6	5	4	4	3	2	6	5	4		
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	14	12	10	8	15	13	12	
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16



GAMMA Valves Series 700 Stainless Steel AISI 303 (1.4305)

Robust valve series DN 15 (G 1/2) to DN 50 (G 2) for various aggressive flow media



Rapid technological development in mechanical and apparatus construction requires ever more stainless steel valves made from the most varied of materials and connectors. The coaxial gate unit, the centrepiece of AVS Römer GAMMA valves, also permits cost reduction here. In material and form various valve bodies and connector

components can be manufactured very economically using rods with relatively low material expenditure. Dirt particles in the flow medium can lead to malfunction in the solenoid valves. The installation of a strainer with mesh width 0.25 mm is thus to be recommended.

CHARACTERISTICS

GENERAL

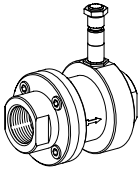
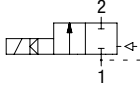
Constructional design	low noise membrane valve with coaxial flow		
Product name	2/2-way solenoid valve servo controlled	2/2-way solenoid valve pressure operated	2/2-way valve pressure operated by external or own medium
Product type	EGV	EGV	PGV
Function	"A" normally closed	"Z" normally closed	"B" normally open
Nominal diameter	DN 15 to DN 50		
Connection	Thread (ISO 228) G 1/2 to G 2 (other connectors on request)		
Ambient temperature	-20 °C to +60 °C (others on request)		
Medium temperature	for NBR: -10 °C to +90 °C for FKM and EPDM: -10 °C to +130 °C (for exceptions see table)		
Medium viscosity	up to ca. 20 mm ² /s		
Valve body material	Stainless steel 1,4305 (others on request)		
Membrane support unit material	reinforced plastic		
Other internal component material	Stainless steel		
Seal material	NBR (nitrile rubber), EPDM (ethylene propylene) or FKM (fluoride rubber) (others on request)		
Mounting method	Installation in rigid pipe system		
Mounting position	optional, preferably upright		

PNEUMATIC - HYDRAULIC

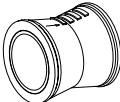
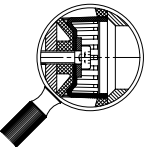
Nominal pressure (bar)	according to type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure OP in bar at 60 °C ambient temperature and 60 °C medium temperature. Insofar as two values are given, the first value refers to solenoid coil with highest electrical power consumption, the second value to that with lowest power consumption.
Pressure range	0.2 bar up to permitted operating pressure OP according to table. 0 to 16 bar version is also possible for type EGV function "Z" and type PGV
Flow rate	Kv-value according to type table (full flow with pressure difference of 0.5 bar or higher)
Medium	gaseous or fluids which do not corrode the materials specified
Response time	Opening time: 20 ms to 1 s; closing time: 25 ms to 3 s, according to flow medium
Electric	see under solenoid coils

2/2-Way Solenoid Valve - Type EGV Series 700

Product group	53	Function "A" normally closed	Low noise and impact-free closing, for gaseous or fluids	Stainless steel 1.4305
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Version	DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Valve without solenoid coil)	Order number	Price
Valve without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below.  	15	5.6	G 1/2	16/8	DC	NBR	EGV-713-A79-1/2BN-00	623502	o. r.
	15	5.6	G 1/2	16/8	DC	EPDM	EGV-713-A79-1/2PN-00	623504	o. r.
	15	5.6	G 1/2	16/8	DC	FKM	EGV-713-A79-1/2FN-00	623506	o. r.
	20	7.6	G 3/4	16/8	DC	NBR	EGV-713-A79-3/4BN-00	623552	o. r.
	20	7.6	G 3/4	16/8	DC	EPDM	EGV-713-A79-3/4PN-00	623554	o. r.
	20	7.6	G 3/4	16/8	DC	FKM	EGV-713-A79-3/4FN-00	623556	o. r.
	25	16.8	G 1	16/8	DC	NBR	EGV-713-A79-1BN-00	623602	o. r.
	25	16.8	G 1	16/8	DC	EPDM	EGV-713-A79-1PN-00	623604	o. r.
	25	16.8	G 1	16/8	DC	FKM	EGV-713-A79-1FN-00	623606	o. r.
	32	21	G 1 1/4	16/8	DC	NBR	EGV-713-A79-5/4BN-00	623652	o. r.
	32	21	G 1 1/4	16/8	DC	EPDM	EGV-713-A79-5/4PN-00	623654	o. r.
	32	21	G 1 1/4	16/8	DC	FKM	EGV-713-A79-5/4FN-00	623656	o. r.
	40	29.5	G 1 1/2	16/8	DC	NBR	EGV-713-A79-6/4BN-00	623702	o. r.
	40	29.5	G 1 1/2	16/8	DC	EPDM	EGV-713-A79-6/4PN-00	623704	o. r.
	40	29.5	G 1 1/2	16/8	DC	FKM	EGV-713-A79-6/4FN-00	623706	o. r.
	50	35	G 2	16/8	DC	NBR	EGV-713-A79-2BN-00	623752	o. r.
	50	35	G 2	16/8	DC	EPDM	EGV-713-A79-2PN-00	623754	o. r.
	50	35	G 2	16/8	DC	FKM	EGV-713-A79-2FN-00	623756	o. r.

Options

	Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		Non-return valve integrated outlet-side in the gate unit Type EGV-713-A79-../R-.. This blocks only up to the following pressure difference: DN 15 to DN 32: 10 bar DN 40 to DN 50: 8 bar	Explosion protection	Type EGV-7004-A.. -230/50-EEX m II T5 or -024/ = -EEX m II T5 respectively with 3m cable A fuse (max. 3 x INenn) must be pre-installed with the solenoid valve!
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Permitted Operating Pressure OP

DN	type	PN	Combinable solenoid coil			Permitted excess operating pressure OP [bar] at ambient temperature +60 °C															
			type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature		
							60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 32	EGV-713-A..	16/8	E22...L.	-	-	2,5	-	-	-	-	-	-	-	-	-	4	3	2	6	5	4
			E22...M.	-	-	5	-	-	-	-	-	-	-	-	-	12	10	8	15	13	12
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16
40 and 50	EGV-713-A..	16/8	E22...L.	3,5	on.req.	2,5	8	on.req.	on.req.	7	on.req.	on.req.	5	4	3	3	2	2	5	4	3
			E22...M.	-	-	5	-	-	-	-	-	-	-	-	-	8	7	6	12	10	9
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	12	10	9	16	14	10
			E30...P.	-	-	8	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16

Function

Product group **53**

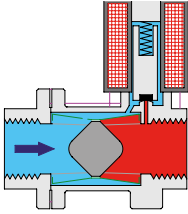
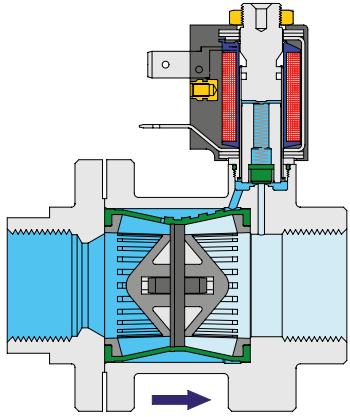
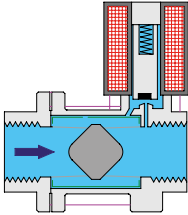
Function "A" normally closed

low noise and impact-free closing, for neutral, gaseous or fluids

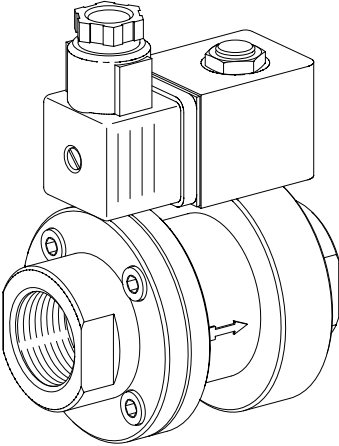
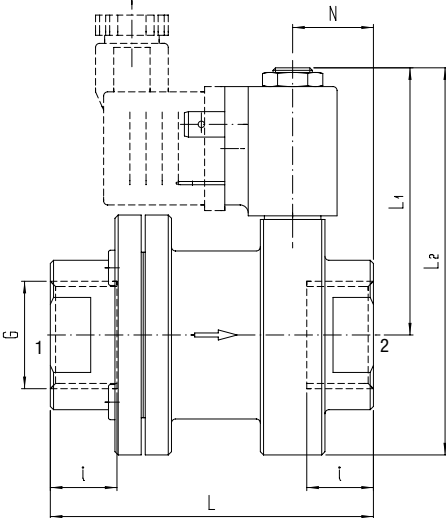
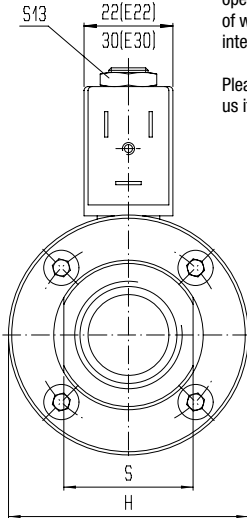
Stainless steel 1.4305

Home



Operating position	Description	Function
	In 0-position - magnetic system not under current - its resting seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.	
	In operational position - magnetic system under current - its resting seat is open, the control chamber released and the membrane is held by the flow medium in "open" position. A minimum pressure difference is required for this.	

Illustration

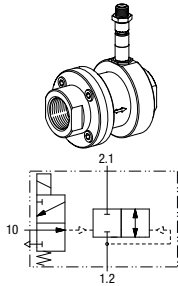
			Alternating current (AC) operation is possible with use of wiring box type ESG with integrated bridge rectifier. Please do not hesitate to ask us if you have any questions.
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Dimensions

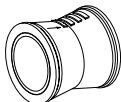
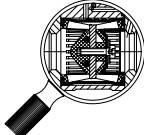
DN	G	L	I	N	L1	L2	H	S
15	G 1/2	68	13	14	66.5	96.5	60	27
20	G 3/4	80	15	20	66.5	96.5	60	32
25	G 1	94	17	41.5	82.5	126.5	88	41
32	G 1 1/4	112	19	50.5	82.5	126.5	88	50
40	G 1 1/2	132	21	48	96	153	114	55
50	G 2	160	24.5	62	96	153	114	70

2/2-Way Solenoid Valve - Type EGV Series 700

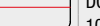
Product group	53	Function "Z" normally closed with existing auxiliary pressure at "10"	Low noise and impact-free closing, for gaseous or fluids				Stainless steel 1.4305		
Version	DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Valve without solenoid coil)	Order number	Price
Valve without solenoid coil Permitted operating pressure 0.2 bar up to value according to table below, double-sided blocking. Permitted control pressure at "10": ≥ Operating pressure, max. 16 bar	15	5.6	G 1/2	16	AC/DC	NBR	EGV-711-Z77-1/2BP-00	624501	o. r.
	15	5.6	G 1/2	16	AC/DC	EPDM	EGV-711-Z77-1/2PP-00	624503	o. r.
	15	5.6	G 1/2	16	AC/DC	FKM	EGV-711-Z77-1/2FP-00	624505	o. r.
	20	7.6	G 3/4	16	AC/DC	NBR	EGV-711-Z77-3/4BP-00	624511	o. r.
	20	7.6	G 3/4	16	AC/DC	EPDM	EGV-711-Z77-3/4PP-00	624513	o. r.
	20	7.6	G 3/4	16	AC/DC	FKM	EGV-711-Z77-3/4FP-00	624515	o. r.
	25	16.8	G 1	16	AC/DC	NBR	EGV-711-Z77-1BP-00	624521	o. r.
	25	16.8	G 1	16	AC/DC	EPDM	EGV-711-Z77-1PP-00	624523	o. r.
	25	16.8	G 1	16	AC/DC	FKM	EGV-711-Z77-1FP-00	624525	o. r.
	32	21	G 1 1/4	16	AC/DC	NBR	EGV-711-Z77-5/4BP-00	624531	o. r.
	32	21	G 1 1/4	16	AC/DC	EPDM	EGV-711-Z77-5/4PP-00	624533	o. r.
	32	21	G 1 1/4	16	AC/DC	FKM	EGV-711-Z77-5/4FP-00	624535	o. r.
	40	29.5	G 1 1/2	16	AC/DC	NBR	EGV-711-Z77-6/4BP-00	624541	o. r.
	40	29.5	G 1 1/2	16	AC/DC	EPDM	EGV-711-Z77-6/4PP-00	624543	o. r.
	40	29.5	G 1 1/2	16	AC/DC	FKM	EGV-711-Z77-6/4FP-00	624545	o. r.
	50	35	G 2	16	AC/DC	NBR	EGV-711-Z77-2BP-00	624551	o. r.
	50	35	G 2	16	AC/DC	EPDM	EGV-711-Z77-2PP-00	624553	o. r.
	50	35	G 2	16	AC/DC	FKM	EGV-711-Z77-2FP-00	624555	o. r.



Options

		Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils		0-pressure membrane requires no differential pressure to open, however to close requires control pressure 1 bar above operating pressure Type EGV-711-Z77-/.0-..
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Permitted Operating Pressure OP

DN	type	PN	Combinable solenoid coil				Permitted excess operating pressure OP [bar] at ambient temperature +60 °C														
			type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 		
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature		
						[W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C
15 to 50	EGV-711-Z..	16	E22...L.	3.5	on req.	2.5	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	on req.	
			E22...M.	5.5	5	5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
			E22...H.	-	-	8	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16
			E30...P.	12	10.5	8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

Function

Product group **53**

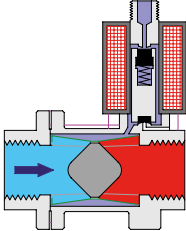
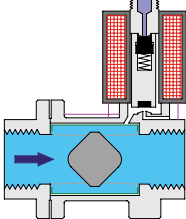
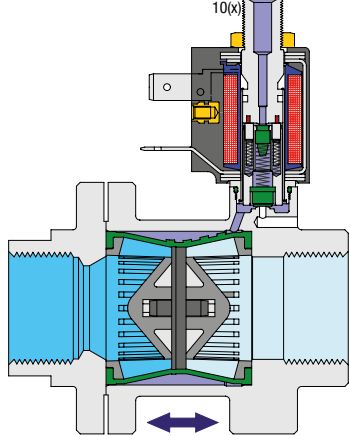
Function "Z" normally closed with existing auxiliary pressure at "10"

Low noise and impact-free closing, for gaseous or fluids

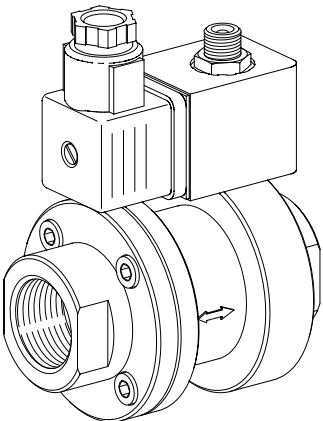
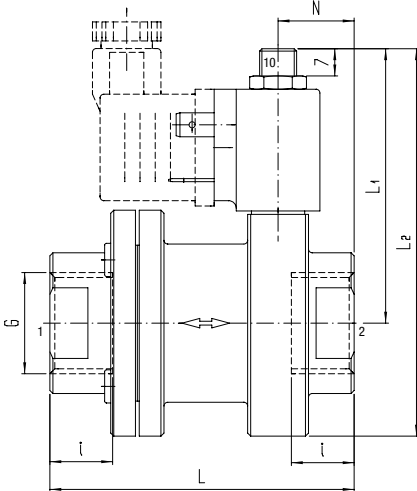
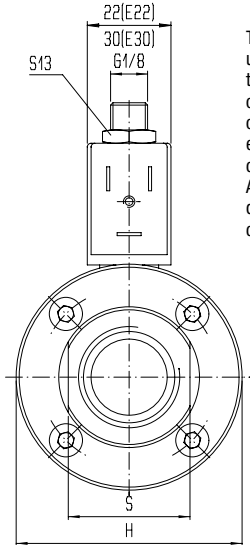
Stainless steel 1.4305

Home



Operating position	Description	Function
 	In 0-position - magnetic system not under current - its resting seat is closed. The auxiliary pressure accumulated at "10" thus builds up in the control chamber and holds the membrane in "closed" position. In operational position - magnetic system under current - its operational seat is closed. The control chamber is released by the open resting seat and the membrane held in "open" position by the flow medium. A minimum pressure difference is required for this (except 0-pressure membrane as listed under Options)	

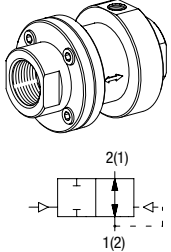
Illustration

			These valves can also be used for dirty media by the application, depending on constructional design, of an external medium, e.g. compressed air, for controlling the membrane. A typical application is the drainage of condensation from compressed air networks.
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Dimensions

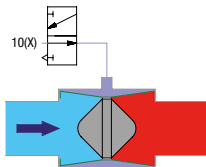
DN	G	L	I	N	L1	L2	H	S
15	G 1/2	68	13	14	72.5	102.5	60	27
20	G 3/4	80	15	20	72.5	102.5	60	32
25	G 1	94	17	41.5	88.5	132.5	88	41
32	G 1 1/4	112	19	50.5	88.5	132.5	88	50
40	G 1 1/2	132	21	48	102	159	114	55
50	G 2	160	24.5	62	102	159	114	70

2/2-Way Solenoid Valve - Type PGV Series 700 Pressure Operated by External Medium - Double-Sided Blocking

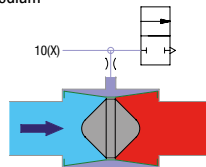
Product group 53	Function "B" - open in 0-position without control pressure	low noise and impact-free closing, for neutral, gaseous and fluids						Stainless steel 1.4305	
Version	Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Valve without solenoid coil)	Order number	Price
2/2-way valve pressure operated, blocking double-sided by external medium Permitted operating pressure 0.2 to 16 bar 	≥ Excess operating pressure max. 16	15	5.6	G 1/2	16	NBR	PGV-731-B77-1/2BP	624801	o. r.
		15	5.6	G 1/2	16	EPDM	PGV-731-B77-1/2PP	624802	o. r.
		15	5.6	G 1/2	16	FKM	PGV-731-B77-1/2FP	624803	o. r.
		20	7.6	G 3/4	16	NBR	PGV-731-B77-3/4BP	624811	o. r.
		20	7.6	G 3/4	16	EPDM	PGV-731-B77-3/4PP	624812	o. r.
		20	7.6	G 3/4	16	FKM	PGV-731-B77-3/4FP	624813	o. r.
		25	16.8	G 1	16	NBR	PGV-731-B77-1BP	624821	o. r.
		25	16.8	G 1	16	EPDM	PGV-731-B77-1PP	624822	o. r.
		25	16.8	G 1	16	FKM	PGV-731-B77-1FP	624823	o. r.
		32	21	G 1 1/4	16	NBR	PGV-731-B77-5/4BP	624831	o. r.
		32	21	G 1 1/4	16	EPDM	PGV-731-B77-5/4PP	624832	o. r.
		32	21	G 1 1/4	16	FKM	PGV-731-B77-5/4FP	624833	o. r.
		40	29.5	G 1 1/2	16	NBR	PGV-731-B77-6/4BP	624841	o. r.
		40	29.5	G 1 1/2	16	EPDM	PGV-731-B77-6/4PP	624842	o. r.
		40	29.5	G 1 1/2	16	FKM	PGV-731-B77-6/4FP	624843	o. r.
		50	35	G 2	16	NBR	PGV-731-B77-2BP	624851	o. r.
		50	35	G 2	16	EPDM	PGV-731-B77-2PP	624852	o. r.
		50	35	G 2	16	FKM	PGV-731-B77-2FP	624853	o. r.

Version and function: 2/2-way solenoid valve type PGV series 700 pressure operated by external medium, double-sided blocking

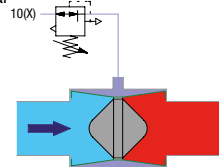
Remotely operated 2/2-way valve regulated by external medium with 3/2-way valve (positive control)



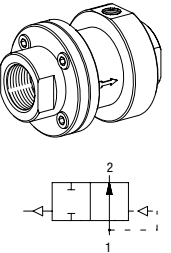
Remotely operated 2/2-way valve regulated by external medium with 2/2-way valve



Remotely operated excess pressure valve regulated by external medium with pressure regulator

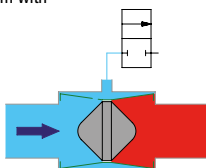


2/2-Way Solenoid Valve - Type PGV Series 700 Pressure Operated by own Medium

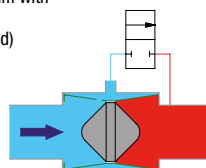
Product group 53	Function "B" - open in 0-position without control pressure	low noise and impact-free closing, for neutral, gaseous and fluids						Stainless steel 1.4305	
Version	Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Valve without solenoid coil)	Order number	Price
2/2-way valve pressure operated by own medium Permitted operating pressure 0.2 to 16 bar 	≥ Excess operating pressure max. 16	15	5.6	G 1/2	16	NBR	PGV-731-B77-1/2BN	624901	o. r.
		15	5.6	G 1/2	16	EPDM	PGV-731-B77-1/2PN	624902	o. r.
		15	5.6	G 1/2	16	FKM	PGV-731-B77-1/2FN	624903	o. r.
		20	7.6	G 3/4	16	NBR	PGV-731-B77-3/4BN	624911	o. r.
		20	7.6	G 3/4	16	EPDM	PGV-731-B77-3/4PN	624912	o. r.
		20	7.6	G 3/4	16	FKM	PGV-731-B77-3/4FN	624913	o. r.
		25	16.8	G 1	16	NBR	PGV-731-B77-1BN	624921	o. r.
		25	16.8	G 1	16	EPDM	PGV-731-B77-1PN	624922	o. r.
		25	16.8	G 1	16	FKM	PGV-731-B77-1FN	624923	o. r.
		32	21	G 1 1/4	16	NBR	PGV-731-B77-5/4BN	624931	o. r.
		32	21	G 1 1/4	16	EPDM	PGV-731-B77-5/4PN	624932	o. r.
		32	21	G 1 1/4	16	FKM	PGV-731-B77-5/4FN	624933	o. r.
		40	29.5	G 1 1/2	16	NBR	PGV-731-B77-6/4BN	624941	o. r.
		40	29.5	G 1 1/2	16	EPDM	PGV-731-B77-6/4PN	624942	o. r.
		40	29.5	G 1 1/2	16	FKM	PGV-731-B77-6/4FN	624943	o. r.
		50	35	G 2	16	NBR	PGV-731-B77-2BN	624951	o. r.
		50	35	G 2	16	EPDM	PGV-731-B77-2PN	624952	o. r.
		50	35	G 2	16	FKM	PGV-731-B77-2FN	624953	o. r.

Version and function: 2/2-way solenoid valve type PGV series 700 pressure operated by own medium

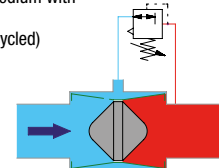
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (negative control)



Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (control medium recycled)



Remotely operated pressure regulator valve regulated by own medium with pressure regulator (control medium recycled)



Function - Illustrations Versions

Product group **53**

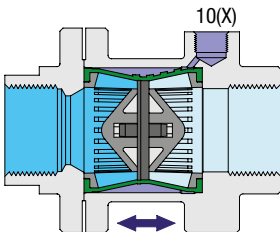
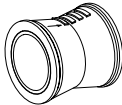
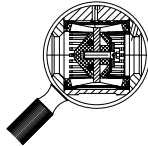
Function "B" - open in 0-position without control pressure

low noise and impact-free closing, for neutral, gaseous and fluids

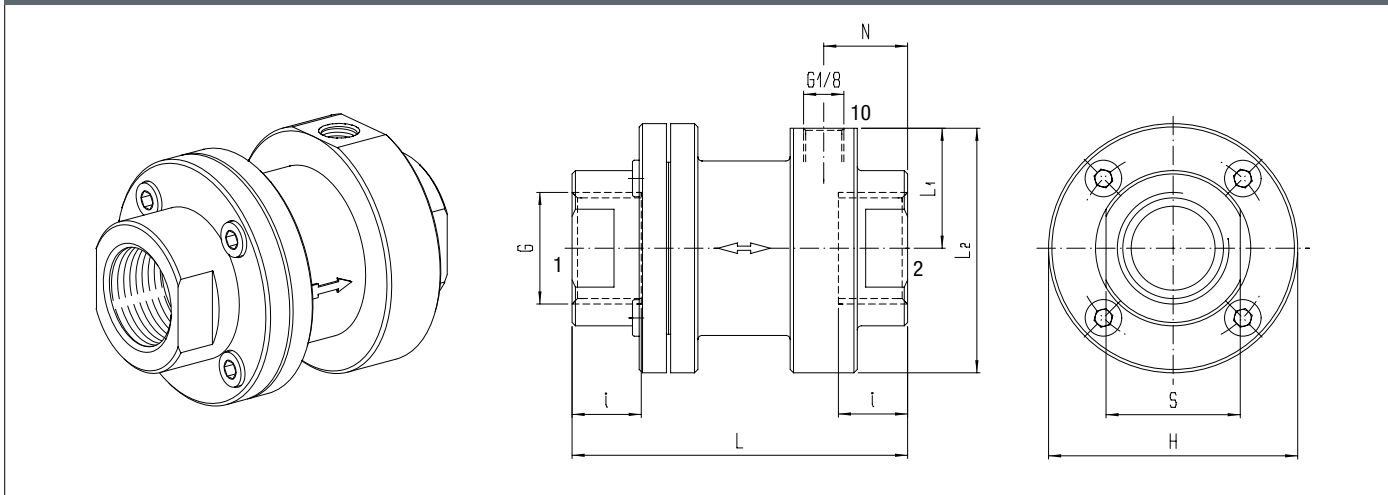
Stainless steel 1.4305

Home



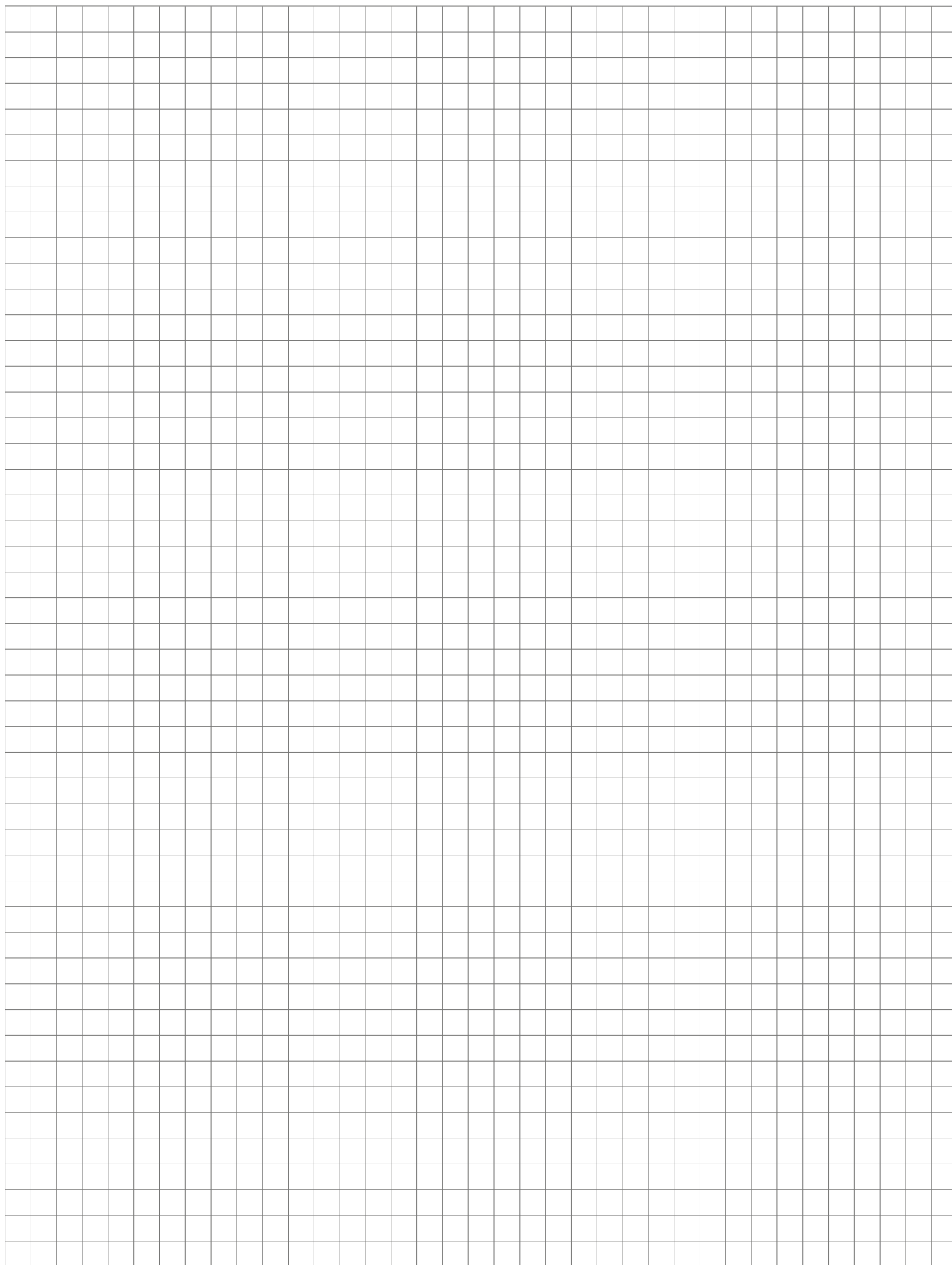
Function	Options		
 Shown: Type PGV in external medium version shown, control pressure present.	 Membrane made of other material: CR (chloroprene) optimal for compressed air HNBR (NBR with higher nitrile content) specially for certain synthetic oils	 0-pressure membrane requires no differential pressure to open, however to close requires control pressure 1 bar above operating pressure Type EGV-731-B77-../.0-..	

Illustration



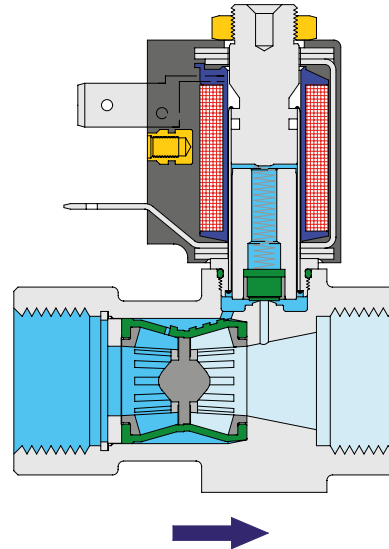
Dimensions

DN	G	L	I	N	L1	L2	H	S
15	G 1/2	68	13	14	28.5	58.5	60	27
20	G 3/4	80	15	20	28.5	58.5	60	32
25	G 1	94	17	47	41.5	85.5	88	41
32	G 1 1/4	112	19	56	41.5	85.5	88	50
40	G 1 1/2	132	21	53.5	55	112	114	55
50	G 2	160	24.5	67.5	55	112	114	70



GAMMA Valves Series 800 Stainless Steel AISI 303 (1.4305)

Especially economical valve series DN 12 (G 1/2) with reduced flow for aggressive flow media



The minimal space requirement of this socket valve series is especially of advantage in small apparatus construction (representation in scale 1:1!)
Valve body manufactured as turned component made of bar material.

Dirt particles in the flow medium can lead to malfunction in the solenoid valves. The installation of a strainer with mesh width 0.25 mm is thus to be recommended.

CHARACTERISTICS

GENERAL

Constructional design	low noise membrane valve with coaxial flow		
Product name	2/2-way solenoid valve servo-operated	2/2-way solenoid valve pressure operated	2/2-way valve pressure operated by external or own medium
Product type	EGV	EGV	PGV
Function	“A” normally closed	“Z” normally closed	“B” normally open
Nominal diameter	DN 12	DN 12	DN 12
Port size	Pipe thread (ISO 228) G 1/2 (other connectors on request)		
Ambient temperature	-20 °C to +60 °C (others on request)		
Medium temperature	for NBR: -10 °C to +90 °C for FKM and EPDM: -10 °C to +130 °C (for exceptions see table)		
Medium viscosity	up to ca. 20 mm²/s		
Valve body material	Stainless steel AISI 303 (1.4305) (others on request)		
Membrane support unit material	reinforced plastic		
Other internal component	stainless steel		
Seal material	NBR (nitrile rubber), EPDM (ethylene propylene) or FKM (fluoride rubber) (others on request)		
Mounting method	Installation in rigid pipe system		
Mounting position	optional, preferably upright		
PNEUMATIC - HYDRAULIC			
Nominal pressure (bar)	according to type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure PB in bar at 60 °C ambient temperature and 60 °C medium temperature. Insofar as two values are given, the first value refers to solenoid coil with highest electrical power consumption, the second value to that with lowest power consumption.		
Pressure range	0.3 bar up to permitted operating pressure PB according to table. 0 to 16 bar version is also Possible for type EGV function “Z” and type PGV		
Flow rate	Kv-value according to type table (full flow with pressure difference of 0.5 bar or higher)		
Medium	gaseous or liquid media which do not corrode the materials specified		
Response time	Opening time: 20 ms to 1 s; closing time: 25 ms to 3 s, according to flow medium		
Electric	see under solenoid coils		

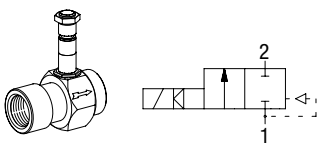
2/2-Way Solenoid Valve - Type EGV Series 800

Product group **53**

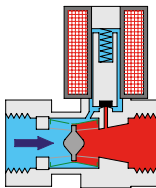
Function "A" normally closed

Low noise and impact-free closing, for neutral, gaseous or medium

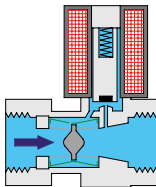
Stainless steel 1.4305

Version	DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Valve without solenoid coil)	Order number	Price
 Valve without solenoid coil Permitted operating pressure 0.3 bar up to valve according to table below.	12	2.2	G 1/2	16/8	DC	NBR	EGV-813-A79-1/2BN-00	623052	o. r.
	12	2.2	G 1/2	16/8	DC	EPDM	EGV-813-A79-1/2PN-00	623054	o. r.
	12	2.2	G 1/2	16/8	DC	FKM	EGV-813-A79-1/2FN-00	623056	o. r.

Function

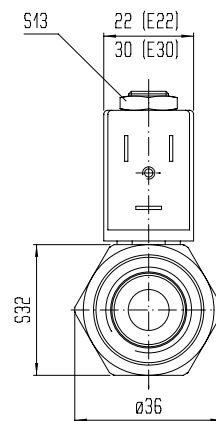
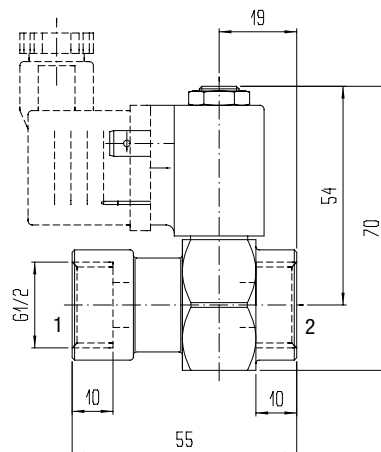
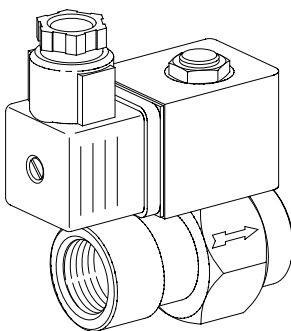


In 0-position - magnetic system not under current - its resting seat is closed. Pressure thus builds up in the control chamber, which due to the larger effective membrane surface holds the membrane in "closed" position.



In operational position - magnetic system under current - its resting seat is open, the control chamber released and the membrane is held by the flow medium in "open" position. A minimum pressure difference is required for this.

Illustration



Alternating current (AC) operation is possible with use of cable socket type ESG with integrated bridge rectifier.

Cable socket adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

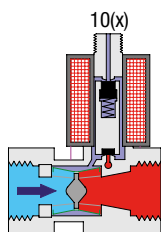
Permitted Excess Operating Pressure PB

DN	type	PN	Combinable solenoid coil			Permitted excess operating pressure PB [bar] at ambient temperature +60 °C																
			type	Nominal power P ₂₀			AC 50 Hz 			AC 60 Hz 			DC 			DC 			DC 			
				AC 50 Hz	AC 60 Hz	DC	90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			90 %U _N Medium temperature			100 %U _N Medium temperature			
				[VA]	[VA]	[W]	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	60 °C	90 °C	130 °C	
12	EGV-813-A..	16/8	E22...L.	-	-	2.5	-	-	-	-	-	-	-	-	-	8	6	4	9	8	7	
			E22...M.	-	-	5	-	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16
			E22...H.	-	-	8	-	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16
			E30 P	-	-	8	-	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16

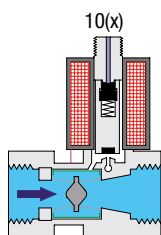
2/2-Way Solenoid Valve - Type EGV Series 800

Product group	53	Function "Z" closed in 0-position with existing auxiliary pressure at "10"	Low noise and impact-free closing, for neutral, gaseous or medium					Stainless steel 1.4305			
Version			DN	Kv-value water [m³/h]	G	PN	Possible type of current	Sealing material	Type (Valve without solenoid coil)	Order number	Price
			12	2.2	G 1/2	16	AC/DC	NBR	EGV-811-Z77-1/2BP-00	623351	o. r.
			12	2.2	G 1/2	16	AC/DC	EPDM	EGV-811-Z77-1/2PP-00	623353	o. r.
			12	2.2	G 1/2	16	AC/DC	FKM	EGV-811-Z77-1/2FP-00	623355	o. r.

Function

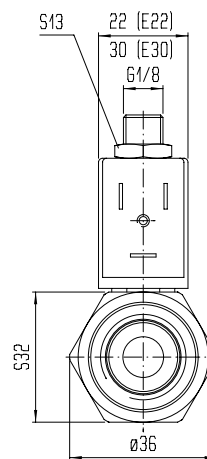
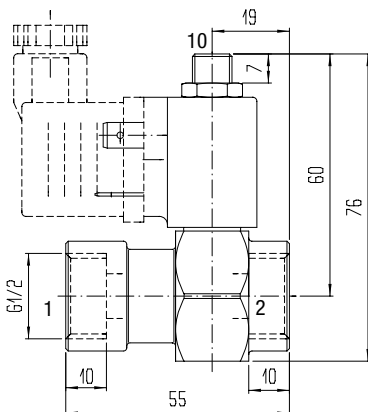
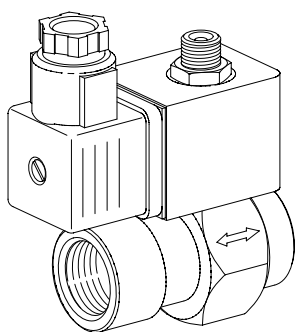


In 0-position - magnetic system not under current - its resting seat is closed. The auxiliary pressure accumulated at "10" thus builds up in the control chamber and holds the membrane in "closed" position.



In operational position - magnetic system under current - its operational seat is closed.
The control chamber is released by the open resting seat and the membrane held in "open" position by the flow medium. A minimum pressure difference is required for this (except 0-pressure membrane as listed under Options)

Illustration



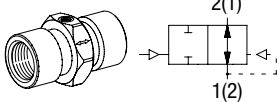
These valves can also be used for dirty media by the application, depending on constructional design, of an external medium, e.g. compressed air, for controlling the membrane. A typical application is the drainage of condensation from compressed air networks.

Cable socket adaptable with solenoid coil E22 by 2 x 180°, with E30 by 4 x 90° repositionable. Both solenoid coils 360° rotatable.

Permitted Excess Operating Pressure PB

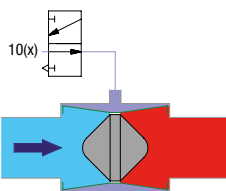
[illegible]

2/2-Way Valve - Type PGV Series 800 - Pressure Operated by External Medium

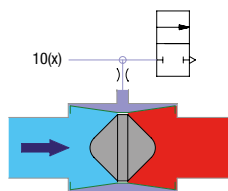
Product group	53	Function "B" open in 0-position (without control pressure)	low noise and impact-free closing, for neutral, gaseous and liquid media					Stainless steel 1.4305		
Version		Control pressure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Valve without solenoid coil)	Order number	Price
	2/2-way valve pressure operated, blocking double-sided by external medium Permitted operating pressure 0.3 to 16 bar	≥ excess operating pressure max. 16	12	2.2	G 1/2	16	NBR	PGV-831-B77-1/2BP	624451	o. r.
			12	2.2	G 1/2	16	EPDM	PGV-831-B77-1/2PP	624452	o. r.
			12	2.2	G 1/2	16	FKM	PGV-831-B77-1/2FP	624453	o. r.

Illustration

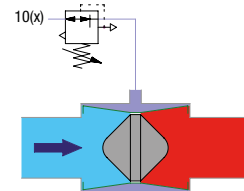
Remotely operated 2/2-way valve regulated by external medium with 3/2-way valve (positive control)



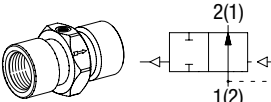
Remotely operated 2/2-way valve regulated by external medium with 2/2-way valve



Remotely operated excess pressure valve regulated by external medium with pressure regulator

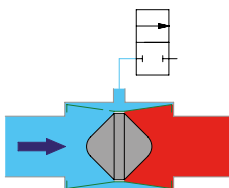


2/2-Way Valve - Type PGV Series 800 - Pressure Operated by own Medium

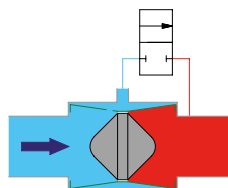
Product group	53	Function "B" open in 0-position (without control pressure)	low noise and impact-free closing, for neutral, gaseous and liquid media					Stainless steel 1.4305		
Version		Controlpres- sure [bar]	DN	Kv-value water [m³/h]	G	PN	Sealing material	Type (Valve without solenoid coil)	Order number	Price
	2/2-way valve pressure operated, by own medium Permitted operating pressure 0.3 to 16 bar	≥ excess operating pressure max. 16	12	2.2	G 1/2	16	NBR	PGV-831-B77-1/2BN	624471	o. r.
			12	2.2	G 1/2	16	EPDM	PGV-831-B77-1/2PN	624472	o. r.
			12	2.2	G 1/2	16	FKM	PGV-831-B77-1/2FN	624473	o. r.

Illustration

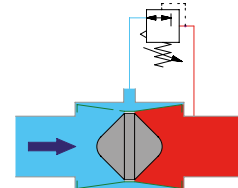
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (negative control)



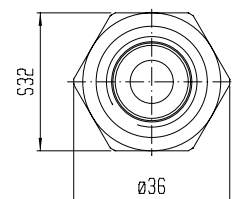
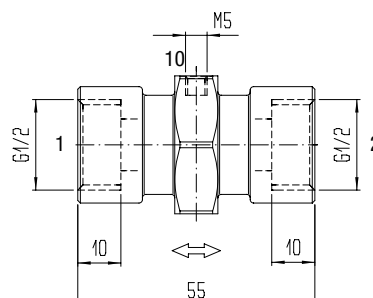
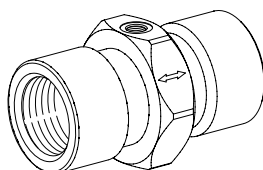
Remotely operated 2/2-way valve regulated by own medium with 2/2-way valve (control medium recycled)



Remotely operated pressure regulator valve regulated by own medium with pressure regulator (control medium recycled)



Illustration

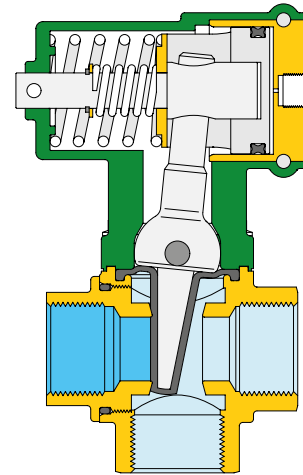


SIGMA Valves

SIGMA the valve concept
from AVS-Römer



shown
3/2-way version



Especially economical valve series with coaxial flow or corner flow, in 2/2- and 3/2-way version with pneumatically operated piston.

The pivoting lever with the membrane placed on it, results in very low-friction force transfer with high sealing capacity. This constructional design also permits a small-dimensioned pneumo-drive due to the "lever effect" and thus very low space requirement

for the valve. An additional spring limits the force with which the membrane is pressed against the working seat.

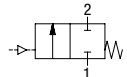
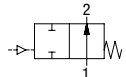
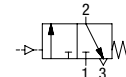
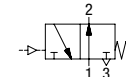
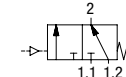
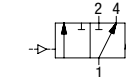
Other features:

- Series encompasses all possible functions of 2/2- and 3/2-way valves
- large variety of membrane materials (in-house production!)

- variety of versions avoiding liquid pressure surges
- suitable for dirty media
- easily dismantled, e.g. for cleaning
- high flow performance
- Medium only comes into contact with body material (brass) and membrane material
- optical position display as standard

CHARACTERISTICS

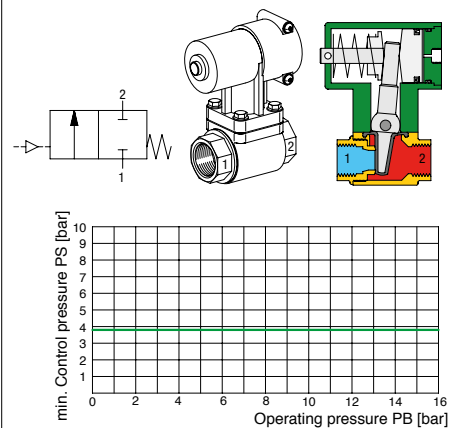
GENERAL

Constructional design	Piston actuated valve with membrane seal					
Product name	2/2-way Piston actuated valve		3/2-way Piston actuated valve			
Product Type	PKV-13.-A..	PKV-13.-B..	PKV-137-C..	PKV-137-D..	PKV-137-E..	PKV-137-F..
Function	A 	B 	C 	D 	E 	F 
Nominal diameter DN	DN 15 and DN 20					
Port size	Thread (ISO 228) G 1/2 and G 3/4					
Ambient temperature	-10 °C to +60 °C (others on request)					
Medium temperature	NBR: 0 °C to +70 °C, HNBR: +10 °C to +90 °C, EPDM: -10 °C to +120 °C, FKM: +10 °C to +120 °C					
Medium viscosity	up to approx. 400 mm²/s					
Valve body material	Brass					
Membrane material	NBR (nitrile rubber) HNBR (hydrogenated nitrile rubber) EPDM (ethylene propylene diene rubber) FKM (fluoride rubber)					
Drive material	shape-retaining plastic (PA)					
Mounting method	Installation in rigid pipe system					
Mounting position	optional, preferably drive above					
PNEUMATIC - HYDRAULIC						
Nominal pressure (bar)	up to PN 16 [bar] (observe permitted operating pressure OP!)					
Pressure range	0 up to permitted operating pressure OP in bar according to table (vacuum on request)					
Flow rate	Kv-value according to table					
Medium (examples)	gaseous or fluids Sealing material NBR: Compressed air, neutral gases, water, oils and grease without additives Sealing material HNBR: Compressed air, neutral gases, alloyed oils Sealing material EPDM: Hot water, alkaline detergent solutions, oil- and grease-free media, steam Sealing material FKM: Solvents, hot water, hot air above 90 °C					
Control medium	Compressed air and neutral gases					
Control medium temperature	-10 °C to +60 °C					
Control pressure	min. Control pressure according to table up to max. 10 bar					
Response time	Open and closing time: 50 ms to 900 ms respectively, according to media and control pressure					

2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

Product group	59	"A" in 0-position closed (closing against the flow)			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.8	G 1/2	0 - 16	3.8 - 10	NBR	PKV-131-A11-1/2B	626201	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-131-A11-1/2H	626202	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-131-A11-1/2P	626203	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	FKM	PKV-131-A11-1/2F	626205	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	NBR	PKV-131-A11-3/4B	626206	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-131-A11-3/4H	626207	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-131-A11-3/4P	626208	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	FKM	PKV-131-A11-3/4F	626210	o. r.

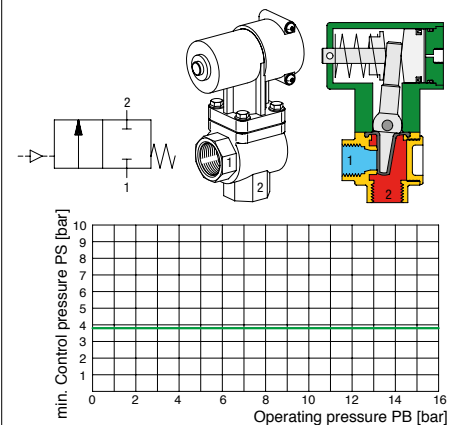
Illustration



2/2-Way 90° Piston Actuated Valve - Type PKV Series 100

Product group	59	"A" in 0-position closed (closing against the flow)			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5.8	G 1/2	0 - 16	3.8 - 10	NBR	PKV-134-A12-1/2B	626301	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-134-A12-1/2H	626302	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-134-A12-1/2P	626303	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	FKM	PKV-134-A12-1/2F	626305	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	NBR	PKV-134-A12-3/4B	626306	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-134-A12-3/4H	626307	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-134-A12-3/4P	626308	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	FKM	PKV-134-A12-3/4F	626310	o. r.

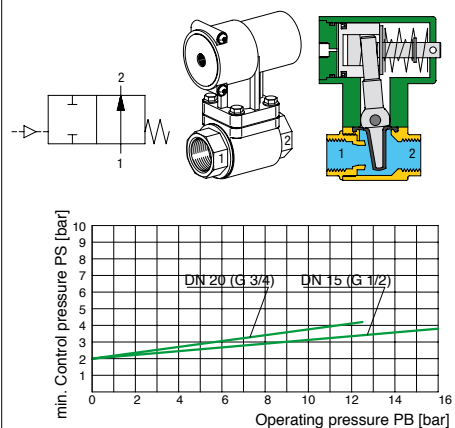
Illustration



2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

Product group	59	"B" in 0-position open (closing against the flow)			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.8	G 1/2	0 - 16	2 - 10	NBR	PKV-131-B82-1/2B	626401	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	HNBR	PKV-131-B82-1/2H	626402	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	EPDM	PKV-131-B82-1/2P	626403	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	FKM	PKV-131-B82-1/2F	626405	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	NBR	PKV-131-B82-3/4B	626406	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-131-B82-3/4H	626407	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-131-B82-3/4P	626408	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	FKM	PKV-131-B82-3/4F	626410	o. r.

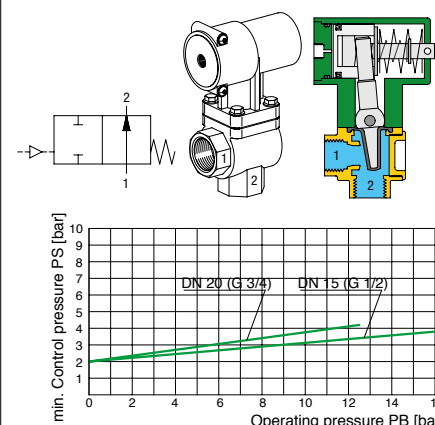
Illustration



2/2-Way 90° Piston Actuated Valve Type PKV Series 100

Product group	59	"B" in 0-position open (closing against the flow)			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5.8	G 1/2	0 - 16	2 - 10	NBR	PKV-134-B81-1/2 B	626501	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	HNBR	PKV-134-B81-1/2 H	626502	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	EPDM	PKV-134-B81-1/2 P	626503	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	FKM	PKV-134-B81-1/2 F	626505	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	NBR	PKV-134-B81-3/4 B	626506	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-134-B81-3/4 H	626507	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-134-B81-3/4 P	626508	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	FKM	PKV-134-B81-3/4 F	626510	o. r.

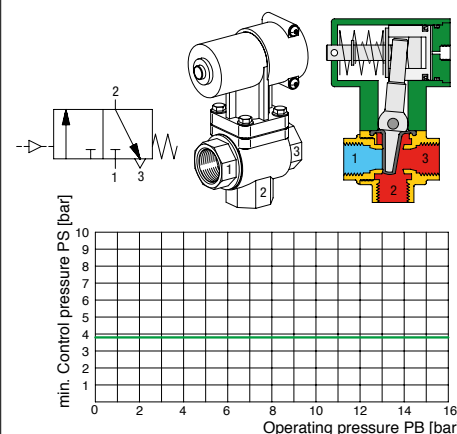
Illustration



3/2-Way Piston Actuated Valve - Type PKV Series 100

Product group	59	"C" in 0-position "1" closed, "2" to "3" discharged			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	3.8 - 10	NBR	PKV-137-C61-1/2B	626601	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-137-C61-1/2H	626602	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-137-C61-1/2P	626603	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	FKM	PKV-137-C61-1/2F	626605	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	NBR	PKV-137-C61-3/4B	626606	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-137-C61-3/4H	626607	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-137-C61-3/4P	626608	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	FKM	PKV-137-C61-3/4F	626610	o. r.

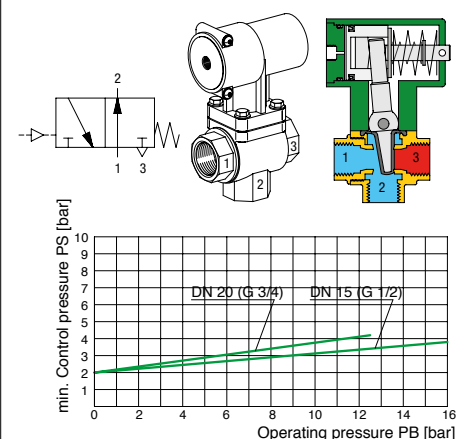
Illustration



3/2-Way Piston Actuated Valve - Type PKV Series 100

Product group	59	"D" in 0-position "1" to "2" open, "3" closed			For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass	
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	2 - 10	NBR	PKV-137-D82-1/2B	626651	o. r.
15	5	G 1/2	0 - 16	2 - 10	HNBR	PKV-137-D82-1/2H	626652	o. r.
15	5	G 1/2	0 - 16	2 - 10	EPDM	PKV-137-D82-1/2P	626653	o. r.
15	5	G 1/2	0 - 16	2 - 10	FKM	PKV-137-D82-1/2F	626655	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	NBR	PKV-137-D82-3/4B	626656	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-137-D82-3/4H	626657	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-137-D82-3/4P	626658	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	FKM	PKV-137-D82-3/4F	626660	o. r.

Illustration

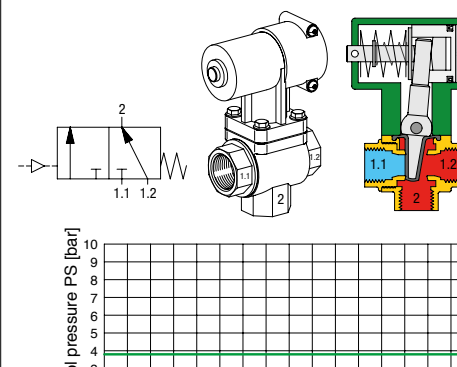


3/2-Way Piston Actuated Valve - Type PKV Series 100

Product group	59	"E" in 0-position "1.1" to "2" closed, "1.2" to "2" open	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
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DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	3.8 - 10	NBR	PKV-137-E61-1/2B	626701	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-137-E61-1/2H	626702	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-137-E61-1/2P	626703	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	FKM	PKV-137-E61-1/2F	626705	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	NBR	PKV-137-E61-3/4B	626706	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-137-E61-3/4H	626707	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-137-E61-3/4P	626708	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	FKM	PKV-137-E61-3/4F	626710	o. r.

Illustration

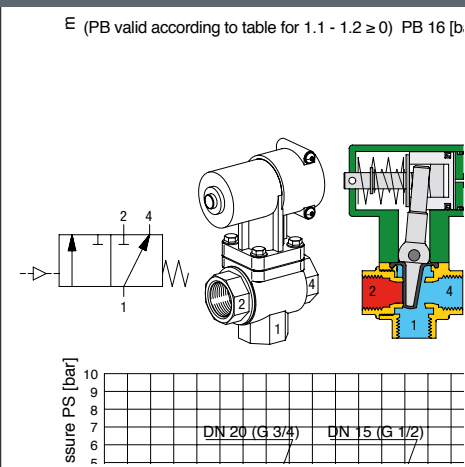


3/2-Way Piston Actuated Valve - Type PKV Series 100

Product group	59	"F" in 0-position "1" to "2" closed, "1" to "4" open	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
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DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.5	G 1/2	0 - 16	3 - 10	NBR	PKV-137-F71-1/2B	626751	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	HNBR	PKV-137-F71-1/2H	626752	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	EPDM	PKV-137-F71-1/2P	626753	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	FKM	PKV-137-F71-1/2F	626755	o. r.
20	8	G 3/4	0 - 10	3 - 10	NBR	PKV-137-F71-3/4B	626756	o. r.
20	8	G 3/4	0 - 10	3 - 10	HNBR	PKV-137-F71-3/4H	626757	o. r.
20	8	G 3/4	0 - 10	3 - 10	EPDM	PKV-137-F71-3/4P	626758	o. r.
20	8	G 3/4	0 - 10	3 - 10	FKM	PKV-137-F71-3/4F	626760	o. r.

Illustration



Home

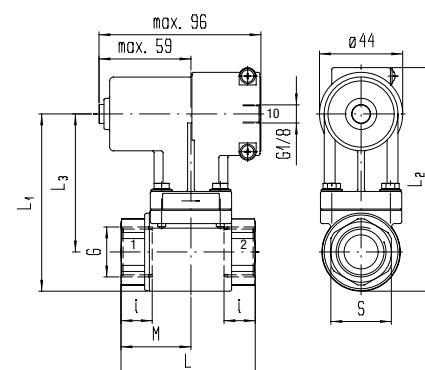


Dimension tables and drawings for SIGMA valves

2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

Product group	59	DN 15 (G 1/2) and DN 20 (G 3/4)							Brass
DN	G	L	i	L1	L2	L3	M	S	
15	G 1/2	61	13.5	85	109.5	69	32	27	
20	G 3/4	71	15.5	94	118.5	73	37	32	

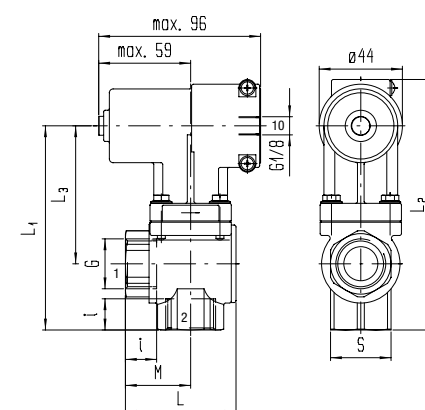
Illustration



2/2-Way 90° Piston Actuated Valve - Type PKV Series 100

Product group	59	DN 15 (G 1/2) and DN 20 (G 3/4)							Brass
DN	G	L	i	L1	L2	L3	M	S	
15	G 1/2	53.5	13.5	99	123.5	69	29	27	
20	G 3/4	58.5	15.5	108	132.5	73	37	32	

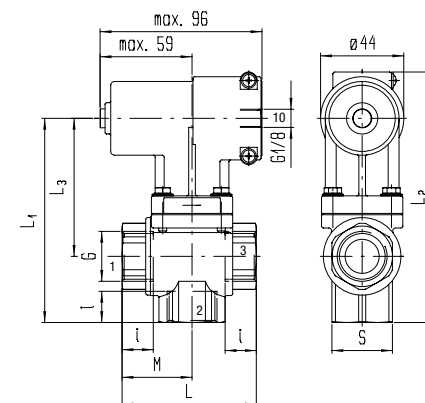
Illustration



3/2-Way Piston actuated valve - Type PKV Series 100

Product group	59	DN 15 (G 1/2) and DN 20 (G 3/4)							Brass
DN	G	L	i	L1	L2	L3	M	S	
15	G 1/2	61	13.5	99	123.5	69	32	27	
20	G 3/4	71	15.5	108	132.5	73	37	32	

Illustration



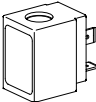
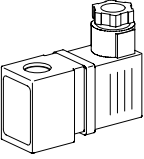
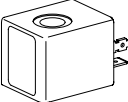
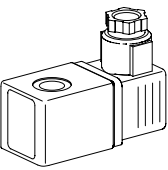


Solenoid Coils

Product group 53	Special voltage: 12 V to 230 V, AC 50 to 60 Hz or DC	Duty cycle: 100 %, when installed on solenoid valve	Housing components epoxy resin encapsulated	* Value applies to use with 4/2-way solenoid valve type EWV	Epoxy resin encapsulated
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Irrespective of the information in the solenoid valve tables a housing temperature of +155 °C may not be exceeded.
The value is limited to +120 °C with use of a cable socket. In case of doubt we are pleased to advise you.

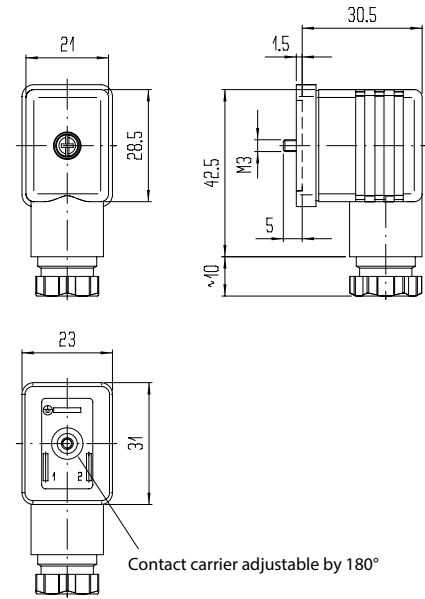
Thermal class H

Version	Cable socket	Protection class	Nominal power P ₂₀		Nominal voltage [V]	Operational voltage [V]			Type	Order number	Price
			AC [VA]	DC [W]		AC 50 Hz	AC 60 Hz	DC			
 Solenoid housing E22 (22 mm wide)	without	IP 00	-	approx. 5	12 =	-	-	10.8 - 13.2	E22-012 / = -M0	720015	o. r.
	without	IP 00	-	approx. 8	12 =	-	-	10.8 - 13.2	E22-012 / = -H0	720005	o. r.
	without	IP 00	-	approx. 2.5	12 =	-	-	10.8 - 13.2	E22-012 / = -L0	720065	o. r.
	without	IP 00	-	approx. 5	24 =	-	-	21.6 - 26.4	E22-024 / = -M0	720016	o. r.
	without	IP 00	-	approx. 8	24 =	-	-	21.6 - 26.4	E22-024 / = -H0	720006	o. r.
	without	IP 00	-	approx. 2.5	24 =	-	-	21.6 - 26.4	E22-024 / = -L0	720066	o. r.
	without	IP 00	approx. 5.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-M0	720012	o. r.
	without	IP 00	approx. 3.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-L0	720062	o. r.
	without	IP 00	approx. 5.5 or 7.3*	-	42/50	37.6 - 46.4	on req.	-	E22-042/50-M0	720013	o. r.
	without	IP 00	approx. 5.5 or 7.3*	-	110/50	99 - 121	on req.	-	E22-110/50-M0	720014	o. r.
	without	IP 00	approx. 5.5 or 7.3*	-	230/50	198 - 244	on req.	-	E22-230/50-M0	720011	o. r.
	without	IP 00	approx. 3.5	-	230/50	198 - 244	on req.	-	E22-230/50-L0	720061	o. r.
 Solenoid housing E22 (22 mm wide)	PG 7	IP 65	-	approx. 5	12 =	-	-	10.8 - 13.2	E22-012 / = -M7	720115	o. r.
	PG 7	IP 65	-	approx. 8	12 =	-	-	10.8 - 13.2	E22-012 / = -H7	720105	o. r.
	PG 7	IP 65	-	approx. 2.5	12 =	-	-	10.8 - 13.2	E22-012 / = -L7	720165	o. r.
	PG 7	IP 65	-	approx. 5	24 =	-	-	21.6 - 26.4	E22-024 / = -M7	720116	o. r.
	PG 7	IP 65	-	approx. 8	24 =	-	-	21.6 - 26.4	E22-024 / = -H7	720106	o. r.
	PG 7	IP 65	-	approx. 2.5	24 =	-	-	21.6 - 26.4	E22-024 / = -L7	720166	o. r.
	PG 7	IP 65	approx. 5.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-M7	720112	o. r.
	PG 7	IP 65	approx. 3.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-L7	720162	o. r.
	PG 7	IP 65	approx. 5.5 or 7.3*	-	42/50	37.6 - 46.4	on req.	-	E22-042/50-M7	720113	o. r.
	PG 7	IP 65	approx. 5.5 or 7.3*	-	110/50	99 - 121	on req.	-	E22-110/50-M7	720114	o. r.
	PG 7	IP 65	approx. 5.5 or 7.3*	-	230/50	198 - 244	on req.	-	E22-230/50-M7	720111	o. r.
	PG 7	IP 65	approx. 3.5	-	230/50	198 - 244	on req.	-	E22-230/50-L7	720161	o. r.
	PG 9	IP 65	-	approx. 5	12 =	-	-	10.8 - 13.2	E22-012 / = -M9	720215	o. r.
	Pg 9	IP 65	-	approx. 8	12 =	-	-	10.8 - 13.2	E22-012 / = -H9	720205	o. r.
	Pg 9	IP 65	-	approx. 2.5	12 =	-	-	10.8 - 13.2	E22-012 / = -L9	720265	o. r.
	Pg 9	IP 65	-	approx. 5	24 =	-	-	21.6 - 26.4	E22-024 / = -M9	720216	o. r.
	Pg 9	IP 65	-	approx. 8	24 =	-	-	21.6 - 26.4	E22-024 / = -H9	720206	o. r.
	Pg 9	IP 65	-	approx. 2.5	24 =	-	-	21.6 - 26.4	E22-024 / = -L9	720266	o. r.
	Pg 9	IP 65	approx. 5.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-M9	720212	o. r.
	Pg 9	IP 65	approx. 3.5	-	24/50	21.6 - 26.4	on req.	-	E22-024/50-L9	720262	o. r.
	Pg 9	IP 65	approx. 5.5 or 7.3*	-	42/50	37.6 - 46.4	on req.	-	E22-042/50-M9	720213	o. r.
	Pg 9	IP 65	approx. 5.5 or 7.3*	-	110/50	99 - 121	on req.	-	E22-110/50-M9	720214	o. r.
	Pg 9	IP 65	approx. 5.5 or 7.3*	-	230/50	198 - 244	on req.	-	E22-230/50-M9	720211	o. r.
	Pg 9	IP 65	approx. 3.5	-	230/50	198 - 244	on req.	-	E22-230/50-L9	720261	o. r.
 Solenoid housing E30 (30 mm wide)	without	IP 00	-	approx. 8	12 =	-	-	10.8 - 13.2	E30-012 / = -P0	730005	o. r.
	without	IP 00	-	approx. 8	24 =	-	-	21.6 - 26.4	E30-024 / = -P0	730006	o. r.
	without	IP 00	approx. 12	-	24/50	21.6 - 26.4	on req.	-	E30-024/50-P0	730002	o. r.
	without	IP 00	approx. 12	-	42/50	37.6 - 46.4	on req.	-	E30-042/50-P0	730003	o. r.
	without	IP 00	approx. 12	-	110/50	99 - 121	on req.	-	E30-110/50-P0	730004	o. r.
	without	IP 00	approx. 12	-	230/50	198 - 244	on req.	-	E30-230/50-P0	730001	o. r.
 Solenoid housing E30 (30 mm wide)	Pg 9	IP 65	-	approx. 8	12 =	198 - 244	-	10.8 - 13.2	E30-012 / = -P9	730105	o. r.
	Pg 9	IP 65	-	approx. 8	24 =	198 - 244	-	21.6 - 26.4	E30-024 / = -P9	730106	o. r.
	Pg 9	IP 65	approx. 12	-	24/50	21.6 - 26.4	on req.	-	E30-024/50-P9	730102	o. r.
	Pg 9	IP 65	approx. 12	-	42/50	37.6 - 46.4	on req.	-	E30-042/50-P9	730103	o. r.
	Pg 9	IP 65	approx. 12	-	110/50	99 - 121	on req.	-	E30-110/50-P9	730104	o. r.
	Pg 9	IP 65	approx. 12	-	230/50	198 - 244	on req.	-	E30-230/50-P9	730101	o. r.
	Pg 11	IP 65	-	approx. 8	12 =	-	-	10.8 - 13.2	E30-012 / = -P1	730205	o. r.
	Pg 11	IP 65	-	approx. 8	24 =	-	-	21.6 - 26.4	E30-024 / = -P1	730206	o. r.
	Pg 11	IP 65	approx. 12	-	24/50	21.6 - 26.4	on req.	-	E30-024/50-P1	730202	o. r.
	Pg 11	IP 65	approx. 12	-	42/50	37.6 - 46.4	on req.	-	E30-042/50-P1	730203	o. r.
	Pg 11	IP 65	approx. 12	-	110/50	99 - 121	on req.	-	E30-110/50-P1	730204	o. r.
	Pg 11	IP 65	approx. 12	-	230/50	198 - 244	on req.	-	E30-230/50-P1	730201	o. r.

Cable Socket - Type ESG-122

Product group	71	2-pole + PE contact	(preferred type bold print)					
Cable gland	for cable ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 7	4 - 6	black	10	7	100	ESG-122-07-N-G13	702521	o. r.
Pg 9	6 - 8	black	10	7	100	ESG-122-09-N-G13	702523	o. r.
Characteristics								
Constructional design			11 mm - industry standard suitable for AVS Römer solenoid housing type E22					
Nominal voltage			250 V AC, 300 V DC					
Nominal current 1 mm ² and 1.5 mm ²			16 A					
Nominal current 0.75 mm ²			13 A					
Temp. range with profile seal G13			-40 °C to +90 °C					
Temp. range with flat seal G12S			-40 °C to +125 °C					
Protection class			IP 65 EN 60529					
Isolation			Group C according to VDE 0110					
Connection			max. 1.5 mm ²					
Housing material			PA (polyamide)					
Profile seal G13 material			NBR (nitrile rubber)					
Scope of delivery:			Cable socket, profile seal G 13, installation screw M3					

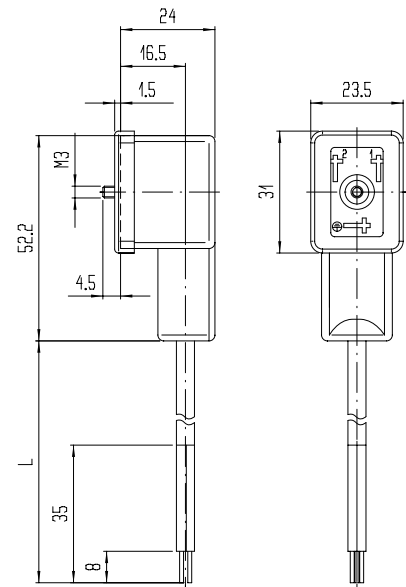
Illustration



Cable Socket - Type ESG-162

Product group	71	2-pole + PE contact	(preferred type bold print)					
Cable length [cm]	Cable	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
50	PVC 3 x 0.75 H05VVF	black	5	3	100	ESG-162-N-050-06h-G13	702851	o. r.
150	PVC 3 x 0.75 H05VVF	black	5	3	100	ESG-162-N-150-06h-G13	702853	o. r.
Characteristics								
Constructional design			11 mm - industry standard suitable for AVS Römer solenoid Housing Type E22					
Nominal voltage			250 V AC, 300 V DC					
Nominal current			10 A					
Temp. range			-15 °C to +90 °C					
Protection class			IP 65 EN 60529					
Isolation			Group C according to VDE 0110					
Housing material			PA (polyamide)					
Profile seal G13 material			NBR (nitrile rubber)					
Scope of delivery:			Cable socket, profile seal G 13, installation screw M3					

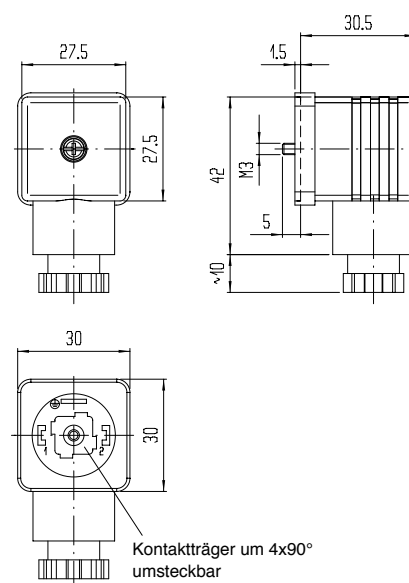
Illustration



Cable Socket - Type ESG-182

Product group 71		2-pole + PE contact	(preferred types bold print)					
Cable gland	for cable Ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	black	10	7	100	ESG-182-09-N-G11	701021	o. r.
Pg 11	8 - 10	black	10	7	100	ESG-182-11-N-G11	701023	o. r.
Characteristics								
Constructional design			DIN 43650 construction A suitable for AVS Römer solenoid housings type E30 and E44					
Nominal voltage			250 V AC, 300 V DC					
Nominal current 1 mm² and 1.5 mm²:			16 A					
Nominal current 0.75 mm²			13 A					
Temp. range with profile seal G13			-40 °C to +90 °C					
Protection class			IP 65 EN 60529					
Isolation			Group C according to VDE 0110					
Connection			max. 1.5 mm²					
Housing material			PA (polyamide)					
Profile seal G11 material			NBR (nitrile rubber)					
Scope of delivery:			Cable socket, profile seal G 11, installation screw M3					

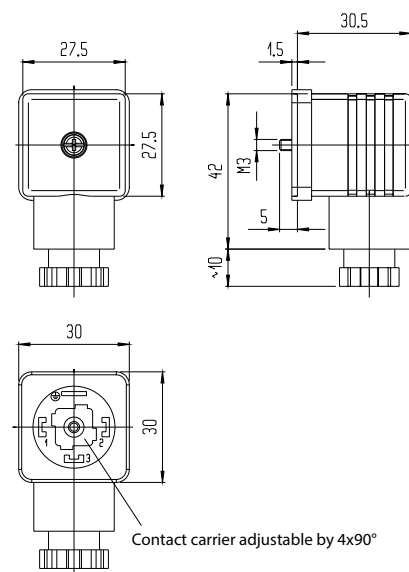
Illustration



Cable Socket - Type ESG-183

Product group 71		3-pole + PE contact	(preferred type bold print)					
Cable gland	for cable Ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	black	10	7	100	ESG-183-09-N-G11	701071	o. r.
Pg 11	8 - 10	black	10	7	100	ESG-183-11-N-G11	701073	o. r.
Characteristics								
Constructional design			DIN 43650 construction A suitable for AVS Römer electro-ball valve type EKH					
Nominal voltage			250 V AC, 300 V DC					
Nominal current 1 mm² and 1.5 mm²:			16 A					
Nominal current 0.75 mm²			13 A					
Temp. range with profile seal G13			-40 °C to +90 °C					
Protection class			IP 65 EN 60529					
Isolation			Group C according to VDE 0110					
Connection			max. 1.5 mm²					
Housing material			PA (polyamide)					
Profile seal G11 material			NBR (nitrile rubber)					
Scope of delivery:			Cable socket, profile seal G 11, installation screw M3					

Illustration



Cable Socket - Type ESG-572

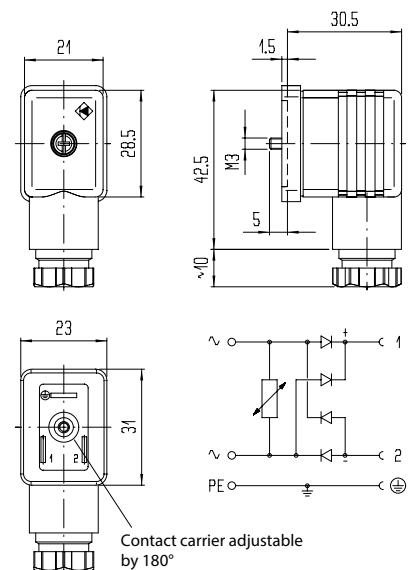
Product group **71** with bridge rectifier, 2-pole + PE contact

Cable gland	for cable Ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	black	0.8	0.6	100	ESG-572-09-N-220VAC-G13	702755	o. r.

Characteristics

Constructional design	11 mm - industry standard suitable for AVS Römer solenoid housing type E22
Connection voltage	220 V AC
Outlet voltage	198 V DC (others on request)
Temp. range	-15 °C to +90 °C
Protection class	IP 65 EN 60529
Isolation	Group C according to VDE 0110
Connection	max. 1.5 mm ²
Housing material	PA (polyamide)
Profile seal G13 material	NBR (nitrile rubber)
Scope of delivery	Cable socket, profile seal G13, installation screw M3

Illustration



Cable Socket - Type ESG-542

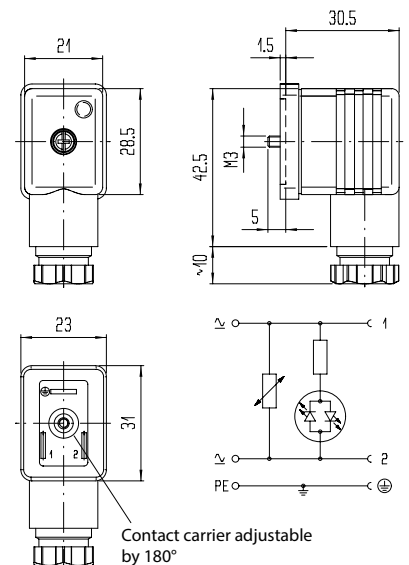
Product group **71** with suppressor circuit, 2-pole + PE contact

Cable gland	for cable Ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	transp.	2.5	2	100	ESG-542-09-T-C4-024VDC-G13	702806	o. r.

Characteristics

Constructional design	11 mm - industry standard suitable for AVS Römer solenoid housing type E22
Connection voltage	24 V DC suppressor circuit polarity reversal protected red LED in transparent Housing
Temp. range	-15 °C to +90 °C
Protection class	IP 65 EN 60529
Isolation	Group C according to VDE 0110
Connection	max. 1.5 mm ²
Housing material	PA (polyamide, transparent)
Profile seal G13 material	NBR (nitrile rubber)
Scope of delivery	Cable socket, profile seal G13, installation screw M3

Illustration



Cable Socket - Type ESG-132

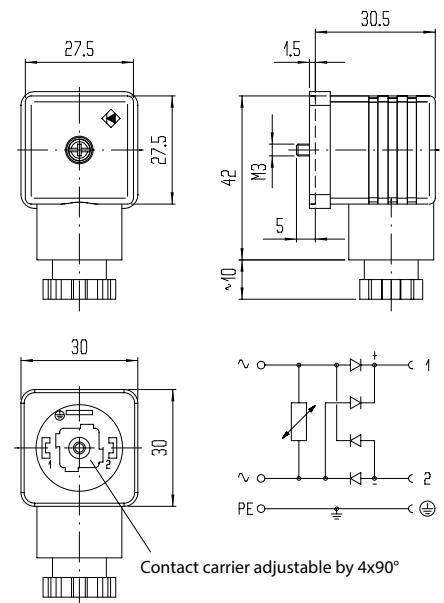
Product group **71** with bridge rectifier, 2-pole + PE contact

Cable gland	for cable ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	black	1.5	1.4	100	ESG-132-09-N-220VAC-G11	701505	o. r.

Characteristics

Constructional design	DIN 43650 construction A suitable for AVS Römer solenoid housings type E30/E44
Connection voltage	220 V AC
Outlet voltage	198 V DC (others on request)
Temp. range	-15 °C to +90 °C
Protection class	IP 65 EN 60529
Isolation	Group C according to VDE 0110
Connection	max. 1.5 mm ²
Housing material	PA (polyamide)
Profile seal G11 material	NBR (nitrile rubber)
Scope of delivery	Cable socket, profile seal G11, installation screw M3

Illustration



Cable Socket - Type ESG-532

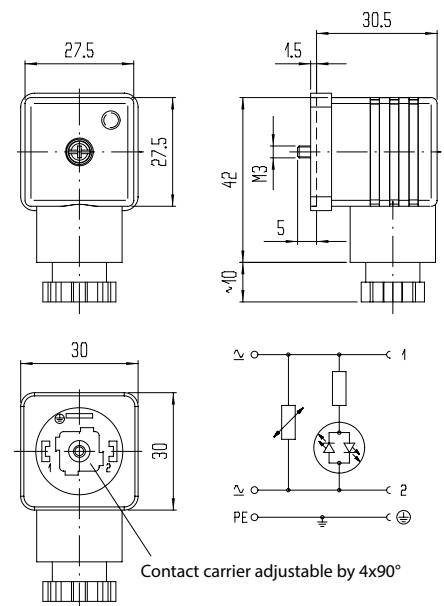
Product group **71** with suppressor circuit, 2-pole + PE contact

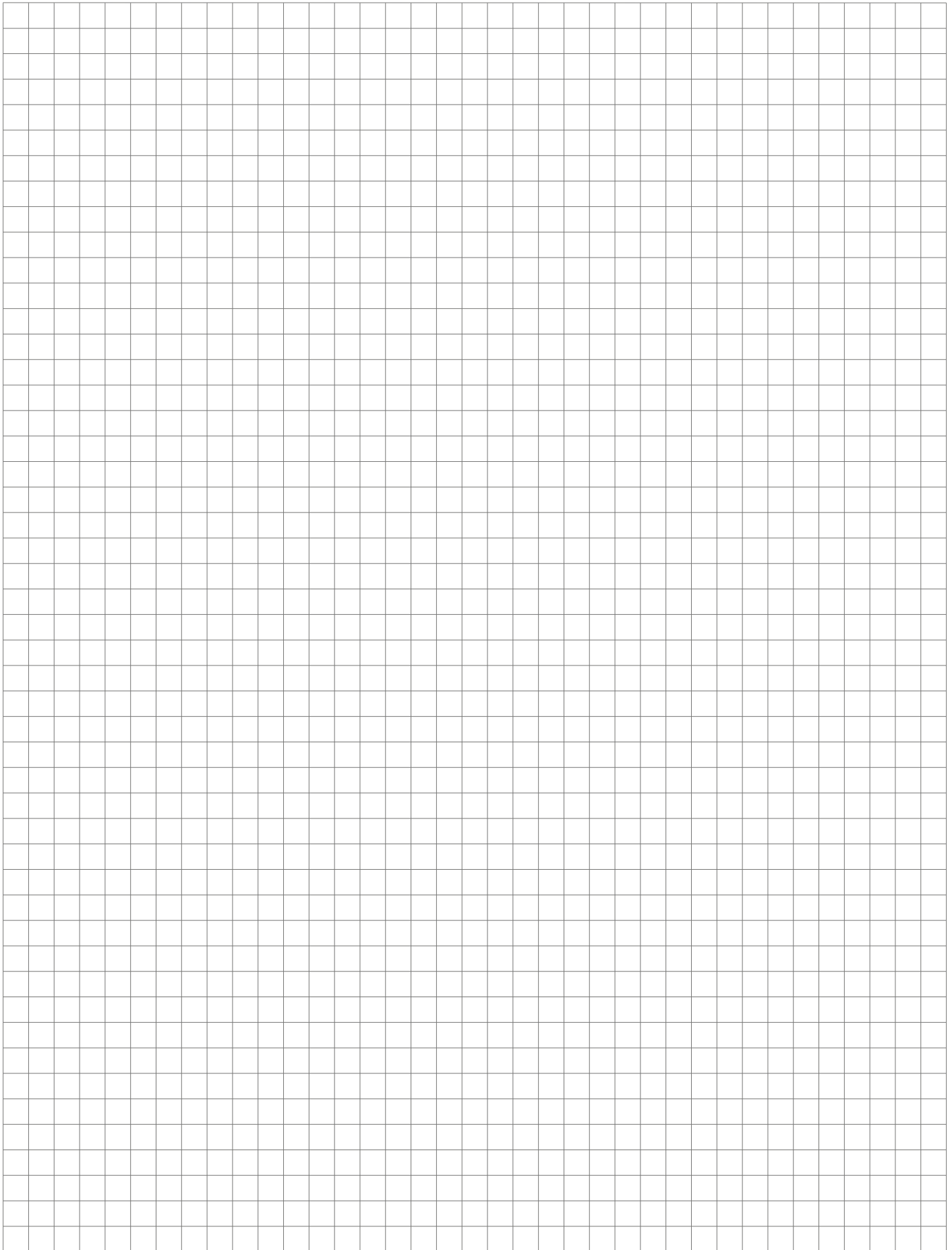
Cable gland	for cable ø	Housing colour	Operating current [A] at ambient temperature up to		Pack unit	Type	Order number	Price
			75 °C	90 °C				
Pg 9	6 - 8	transp.	2.5	2	100	ESG-532-09-T-C4-024VDC-G11	701705	o. r.

Characteristics

Constructional design	DIN 43650 construction A suitable for AVS Römer solenoid housings type E30/E44
Connection voltage	24 V DC suppressor circuit polarity reversal protected red LED in transparent Housing
Temp. range	-15 °C to +90 °C
Protection class	IP 65 EN 60529
Isolation	Group C according to VDE 0110
Connection	max. 1.5 mm ²
Housing material	PA (polyamide, transparent)
Profile seal G11 material	NBR (nitrile rubber)
Scope of delivery	Cable socket, profile seal G11, installation screw M3

Illustration





Temperature Sensors Type ITS POM

Inline Temperature Sensor

ITS the new inline temperature sensor from AVS-Römer



Inline temperature sensor for measuring temperature of fluids and gaseous medium.

The temperature sensor made of stainless steel combined with the proven ELSA push-in connections made of POM.

Other features:

- fast response time
- minimal dead space

Variations / options:

- other hose connections
- other materials for seal

CHARACTERISTICS

GENERAL

Constructional design	Stainless steel temperature measuring cell
Product name	Temperature sensor
Product type	ITS-958P-...
Nominal diameter	2.5 DN or DN 4
Connection	ELSA push-in connectors for pipe/tube OD 4 or OD 6
Ambient temperature	0 °C to +60 °C
Medium temperature	0 °C to +80 °C
Medium viscosity	up to approx. 35 mm ² /s
Thermal time constant	<2 s (water)
Body material	POM
Sensor housing material	1.4301
O-ring material	FKM / EPDM

PNEUMATIC - HYDRAULIC

Nominal pressure	PN 16
Pressure range	Technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or fluidss which do not corrode the materials specified

ELECTRIC

Electrical Connection	2-pin PVC ribbon cable AWG 30, 0.20 m, 300 V, 105 °C, strand ends pre-tinned
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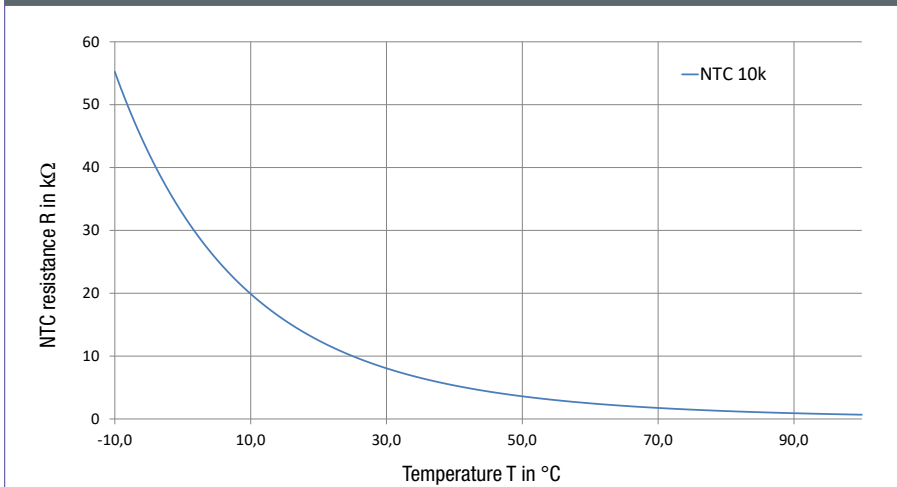
Temperature Sensor - Type ITS POM

Product group **721** PN 16 Max. Allow. OP at ambient temp.
 T_{min} 0 °C, T_{max} +60 °C

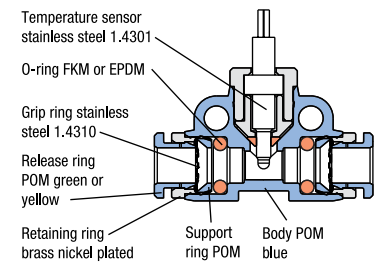
Plastic
POM

for tube OD	DN	Allow. OP [bar] at medium temp.			Kv-value water [l/min]	L6	Sen- sor- type	Nominal resistance NTC at 25 °C	R Toler- ance	B value R25/85	B Toler- ance	Sealant material	Type	Order number
		20 °C	60 °C	80 °C										
4	2.5	16	16	12	2.4	37	NTC	10 kOhm	±3 %	3984 K	±0.5 %	FKM	ITS-958P-4F- X01-NTC10	390538
4	2.5	16	16	12	2.4	37	NTC	10 kOhm	±3 %	3984 K	±0.5 %	EPDM	ITS-958P-4P- X01-NTC10	390540
6	4.0	16	12	10	8.1	38	NTC	10 kOhm	±3 %	3984 K	±0.5 %	FKM	ITS-958P-6F- X01-NTC10	390539
6	4.0	16	12	10	8.1	38	NTC	10 kOhm	±3 %	3984 K	±0.5 %	EPDM	ITS-958P-6P- X01-NTC10	390541

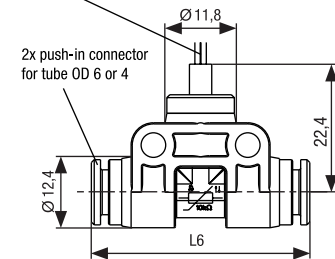
Characteristic Curve -10 to +100 °C 0-60 kΩ



Illustration



Cable length approx. 0.2m
 strand ends stripped,
 tinned



Home



Temperature Sensors Type ITS PVDF

Inline Temperature Sensor

ITS the new inline temperature sensor from AVS-Römer

ELSA
Push-in Fittings

NSF
COMPONENT



Inline temperature sensor for measuring temperature of fluids and gaseous medium.

The temperature sensor made of stainless steel combined with the proven ELSA push-in connections made of PVDF.

Other features:

- fast response time
- minimal dead space

Variations / options:

- other hose connections
- other materials for seal

CHARACTERISTICS

GENERAL

Constructional design	Stainless steel temperature measuring cell
Product name	Temperature sensor
Product type	ITS-958V-...
Nominal diameter	2.5 DN or DN 4
Connection	ELSA push-in connectors for pipe/tube OD 4 or OD 6
Ambient temperature	0 °C to +60 °C
Medium temperature	0 °C to +100 °C
Medium viscosity	up to approx. 35 mm ² /s
Thermal time constant	<2 s (water)
Body material	PVDF (FDA-complaint, KTW-approved)
Sensor housing material	1.4301
O-ring material	FKM (FDA-compliant) or EPDM (FDA compliant, KTW authorized, NSF certified)
Approval	NSF/ANSI 169

PNEUMATIC - HYDRAULIC

Nominal pressure	PN 16
Pressure range	Technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or fluidss which do not corrode the materials specified

ELECTRIC

Electrical Connection	2-pin PVC ribbon cable AWG 30, 0.20 m, 300 V, 105 °C, strand ends pre-tinned
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Temperature Sensor - Type ITS PVDF

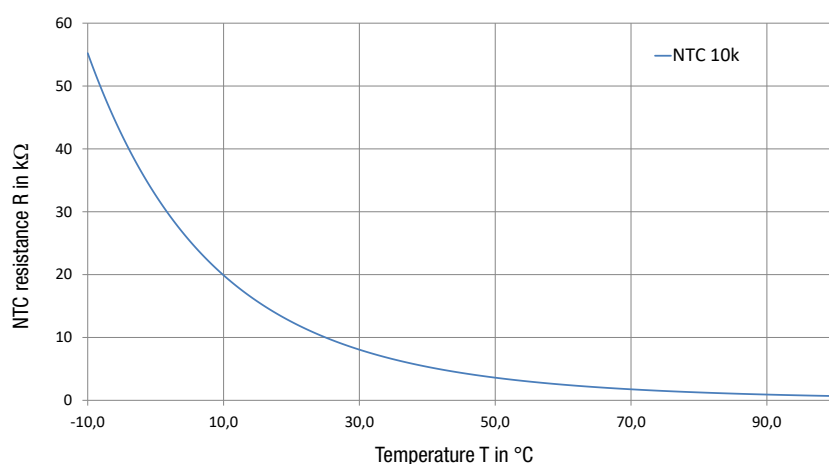
Product group **721** PN 16 Max. Allow. OP at ambient temp.
 T_{min} 0 °C, T_{max} +60 °C



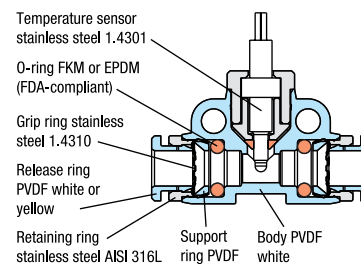
Plastic
PVDF

for tube OD	DN	Allow. OP [bar] at medium temp.			Kv-value water [l/min]	L6	Sensor-type	Nominal resistance NTC at 25 °C	R Tolerance	B value R25/85	B Tolerance	Sealant material	Type	Order number
		20 °C	60 °C	100 °C										
4	2.5	16	10	3	2.4	37	NTC	10 kOhm	±3%	3984 K	±0.5%	FKM (FDA compliant)	ITS-958V-4FF-X01-NTC10	390542
4	2.5	16	10	3	2.4	37	NTC	10 kOhm	±3%	3984 K	±0.5%	EPDM (FDA compliant)	ITS-958V-4PF-X01-NTC10	390544
6	4.0	16	10	3	8.1	38	NTC	10 kOhm	±3%	3984 K	±0.5%	FKM (FDA compliant)	ITS-958V-6FF-X01-NTC10	390543
6	4.0	16	10	3	8.1	38	NTC	10 kOhm	±3%	3984 K	±0.5%	EPDM (FDA compliant)	ITS-958V-6PF-X01-NTC10	390545

Characteristic Curve -10 to +100 °C 0-60 kΩ

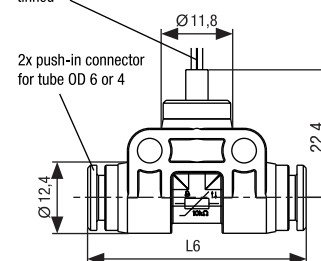


Illustration



Cable length approx. 0.2m
strand ends stripped,
tinned

2x push-in connector
for tube OD 6 or 4



Temperature Sensors Type ITS PPSU

Inline Temperature Sensor

ITS the new inline temperature sensor from AVS-Römer

ELSA
Push-in Fittings

NSF
COMPONENT



Inline temperature sensor for measuring temperature of fluids and gaseous medium.

The ceramic temperature sensor combined with the proven ELSA push-in connector made from PPSU is mainly used in the food industries.

Other features:

- fast response time
- minimal dead space
- materials and constructional design especially optimised for food applications

Variations / options:

- other hose connections
- other materials for seal

CHARACTERISTICS

GENERAL

Constructional design	Ceramic temperature measuring cell
Product name	Temperature sensor
Product type	ITS-958P3-...
Nominal diameter	2.5 DN or DN 4
Connection	ELSA push-in connectors for pipe/tube OD 4 or OD 6
Ambient temperature	0 °C to +60 °C
Medium temperature	0 °C to +130 °C
Medium viscosity	up to approx. 35 mm ² /s
Thermal time constant	<2 s (water)
Body material	PPSU (KTW-approved, NSF-certified)
Sensor housing material	Al ₂ O ₃
O-ring material	FKM (FDA-compliant) or EPDM (FDA compliant, KTW authorized, NSF certified)
Approval	NSF/ANSI 169

PNEUMATIC - HYDRAULIC

Nominal pressure	PN 20
Pressure range	Technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or fluidss which do not corrode the materials specified

ELECTRIC

Electrical Connection	2-pin PVC ribbon cable AWG 24, 0.75 m, UL AWM style 2651, 300 V, 105 °C, strand ends pre-tinned
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Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

Temperature Sensor, Type ITS

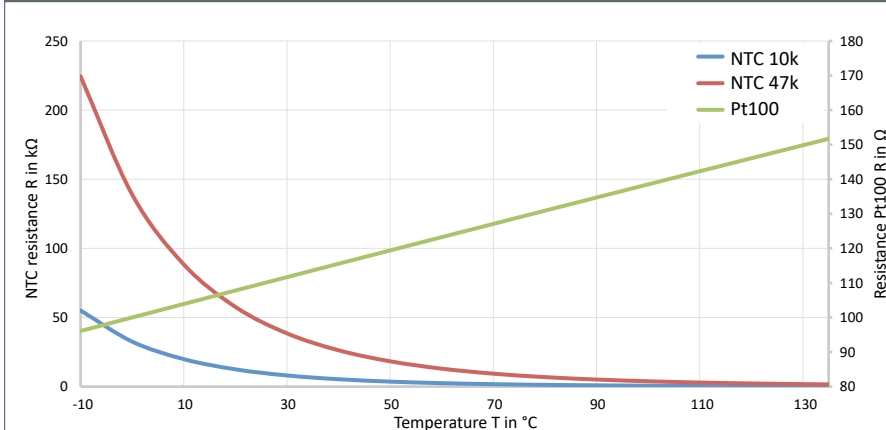
Product group **720** PN 20 Max. Allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



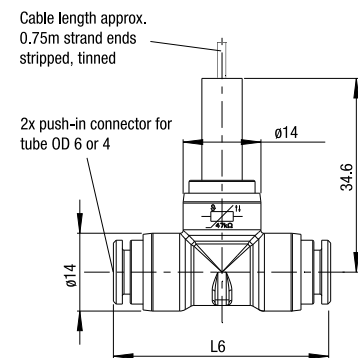
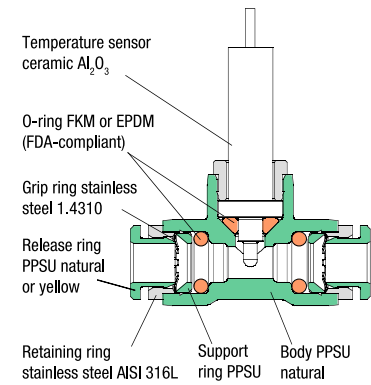
Plastic
PPSU

for tube OD	DN	Allow. OP [bar] at medium temp.			Kv-value water [l/min]	L6	Sensor-type	Nominal resistance NTC at 25 °C Pt100 at 0 °C	R Tolerance	B value R25/85	B Tolerance	Sealant material	Type	Order number
		20 °C	100 °C	135 °C										
4	2.5	20	16	10	2.4	38	NTC	10 kOhm	±1 %	3977 K	±1 %	FKM (FDA-compliant)	ITS-958P3-4FF-NTC10	390517
4	2.5	20	16	10	2.4	38	NTC	10 kOhm	±1 %	3977 K	±1 %	EPDM (FDA-compliant)	ITS-958P3-4PF-NTC10	390521
6	4.0	20	16	10	8.1	39	NTC	10 kOhm	±1 %	3977 K	±1 %	FKM (FDA-compliant)	ITS-958P3-6FF-NTC10	390518
6	4.0	20	16	10	8.1	39	NTC	10 kOhm	±1 %	3977 K	±1 %	EPDM (FDA-compliant)	ITS 958P3-6PF-NTC10	390522
4	2.5	20	16	10	2.4	38	NTC	47 kOhm	±1 %	3690 K	±1 %	FKM (FDA-compliant)	ITS-958P3-4FF-NTC47	390508
4	2.5	20	16	10	2.4	38	NTC	47 kOhm	±1 %	3690 K	±1 %	EPDM (FDA-compliant)	ITS-958P3-4PF-NTC47	390509
6	4.0	20	16	10	8.1	39	NTC	47 kOhm	±1 %	3690 K	±1 %	FKM (FDA-compliant)	ITS-958P3-6FF-NTC47	390510
6	4.0	20	16	10	8.1	39	NTC	47 kOhm	±1 %	3690 K	±1 %	EPDM (FDA-compliant)	ITS 958P3-6PF-NTC47	390511
4	2.5	20	16	10	2.4	38	Pt100	100 Ohm	Kl. B	-	-	FKM (FDA-compliant)	ITS-958P3-4FF-PT100	390519
4	2.5	20	16	10	2.4	38	Pt100	100 Ohm	Kl. B	-	-	EPDM (FDA-compliant)	ITS-958P3-4PF-PT100	390523
6	4.0	20	16	10	8.1	39	Pt100	100 Ohm	Kl. B	-	-	FKM (FDA-compliant)	ITS-958P3-6FF-PT100	390520
6	4.0	20	16	10	8.1	39	Pt100	100 Ohm	Kl. B	-	-	EPDM (FDA-compliant)	ITS-958P3-6PF-PT100	390524

Characteristic Curve -10 °C to +135 °C 0-250 kΩ



Illustration



Pressure Sensors Type IPS PPSU

Inline Pressure Sensor

IPS the new inline pressure sensor from AVS-Römer

ELSA
Push-in Fittings

NSF
COMPONENT



Inline pressure sensor for measuring pressure of liquid and gaseous media.

The ceramic pressure measuring cell combined with the proven ELSA push-in connector made from PPSU is mainly used in the food industries.

Other features:

- minimal dead space
- temperature-compensated evaluation electronics
- materials and constructional design especially optimised for food applications

Variations / options:

- other tube connections
- other material for seal
- other pressure range

CHARACTERISTICS

GENERAL

Constructional design	Ceramic pressure measuring cell
Product name	Inline pressure sensor
Product type	IPS-958P3-...
Nominal diameter	DN 2.5 up to DN 6
Connection	ELSA plug fittings for pipe/tube OD 4 to OD 8
Ambient temperature	0 °C to +60 °C
Medium temperature	0 °C to +140 °C
Medium viscosity	up to approx. 35 mm ² /s
Body material	PPSU (KTW approved, NSF certified)
Measuring cell material	Al ₂ O ₃
O-ring material	FKM (FDA-compliant) or EPDM (FDA compliant, KTW authorized, NSF certified)
Mounting method	by spring clip, internal width Ø18-22 mm (not included in scope of supply)
Mounting position	Preferably upright
Approval	NSF/ANSI 169

PNEUMATIC - HYDRAULIC

Nominal pressure	up to PN 16 in accordance with the specification table
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or liquids which do not corrode the materials specified

ELECTRIC

Supply voltage	5 V DC (24 V DC on request)
Voltage tolerance	±10 %
Output voltage	0.5-4.5 V DC (ratiometric) (0-5 V DC, 0-10 V DC on request)
Electrical connection	0.75 m 3-pole screened cable (LiYCY 3 x AWG 26), strand ends pre-tinned.
Protection class	IP65

ACCURACY

Total error	±1.5 % FS
Temperature error zero point	<±0.02 % FS/K
Temperature margin of error	-0.012 % FS/K
Response time	<2 ms

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

Pressure Sensor - Type IPS

Product group **730**

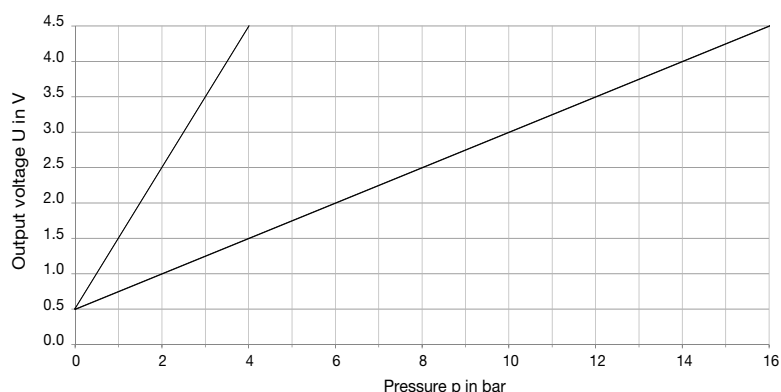
Max. Allow. OP at ambient temp.
 T_{min} 0 °C, T_{max} +60 °C

Plastic
PPSU

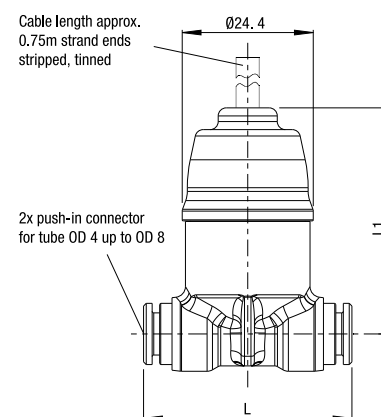
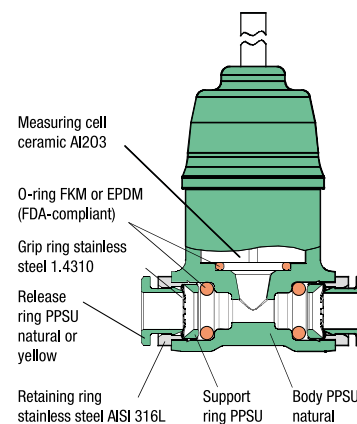
LiCYC 3xAWG26	yellow	Cable screen
	black	+5 V Supply
	red	0.5-4.5 V Output signal
	brown	GND Earth

for tube OD	DN	Kv-value water [l/min]	PN	Allow. OP [bar] at medium temp.			L	L1	Seal material	Type	Order number	Price
				20 °C	100 °C	140 °C						
4	2.5	2.4	4	4	4	4	38	42	FKM (FDA-compliant)	IPS-958P3-4FF-04	390564	o. r.
4	2.5	2.4	4	4	4	4	38	42	EPDM (FDA-compliant)	IPS-958P3-4PF-04	390565	o. r.
4	2.5	2.4	16	16	12	6	38	42	FKM (FDA-compliant)	IPS-958P3-4FF-16	390553	o. r.
4	2.5	2.4	16	16	12	6	38	42	EPDM (FDA-compliant)	IPS-958P3-4PF-16	390554	o. r.
6	4	8.1	4	4	4	4	39	42	FKM (FDA-compliant)	IPS-958P3-6FF-04	390562	o. r.
6	4	8.1	4	4	4	4	39	42	EPDM (FDA-compliant)	IPS-958P3-6PF-04	390563	o. r.
6	4	8.1	16	16	12	6	39	42	FKM (FDA-compliant)	IPS-958P3-6FF-16	390551	o. r.
6	4	8.1	16	16	12	6	39	42	EPDM (FDA-compliant)	IPS-958P3-6PF-16	390552	o. r.
8	6	24	4	4	4	4	45	43	FKM (FDA-compliant)	IPS-958P3-8FF-04	390576	o. r.
8	6	24	4	4	4	4	45	43	EPDM (FDA-compliant)	IPS-958P3-8PF-04	390577	o. r.
8	6	24	16	16	12	6	45	43	FKM (FDA-compliant)	IPS-958P3-8FF-16	390572	o. r.
8	6	24	16	16	12	6	45	43	EPDM (FDA-compliant)	IPS-958P3-8PF-16	390573	o. r.

Characteristic Curve 0-4 bar or 0-16 bar 0.5-4.5 V (ratiometric)



Illustration



Home



Dispensing Valves Type EFC PPSU

Electronic Flow Control Valve

EFC the new electronic dispensing valve from AVS-Römer

Motorised dispensing valve for regulating the flow volume of liquids and gases.

The position of the precision throttle, which is connected directly to a linear motor, determines the flow rate.

In conjunction with the proven ELSA push-in connectors made from PPSU, this valve is also used in the food industries.

The control electronics integrated in the valve housing allow the setting of the motor via an analog voltage signal, whereby the flow rate can be adjusted almost continuously.

A set position can also be maintained unpowered due to the stepper motor technology.

Other features:

- less dead space
- materials and constructional design especially optimised for food applications
- low hysteresis
- simple control
- easy connection using ELSA plug-in connector

Variations / options:

- other seal materials
- other nominal diameters
- other voltage ranges
- other characteristics of the valve by variation of the stem tip or A/D converter characteristics

ELSA
Push-in Fittings

NSF
COMPONENT



CHARACTERISTICS

GENERAL

Constructional design	Motorised precision tapered throttle
Product name	Electronic flow control valve
Product type	EFC-958-P3...-024-10, EFC-955-P3...-024-10
Nominal diameter	DN 0,5 / DN 1 / DN 1,5 / DN 2 / DN 3 / DN 4 / DN 5
Connection	ELSA push-in connectors for pipe/tube OD 4, OD 6 or AD 8
Ambient temperature	0 °C to +60 °C
Medium temperature	0 °C to +80 °C
Medium viscosity	up to approx. 25 mm²/s
Body material	PPSU (KTW approved, NSF certified)
Spindle material	1.4404
O-ring material	FKM (FDA compliant) or EPDM (FDA complaint, KTW approved, NSF certified)
Housing material	PPS GF40 (UL94-V0)
Mounting method	via M3 DIN 931 hexagonal bolts in the groove or spring clips with inside diameter 18-22 mm (not included)
Mounting position	Preferably upright
Approval	NSF/ANSI 169

PNEUMATIC - HYDRAULIC

Nominal pressure	PN 8 (DN 0,5-3), PN 6 (DN 4-5)
Pressure range	0-8 bar (DN 0,5-3), 0-6 bar (DN 4-5)
Flow rate	KV value, Q _{nn} value according to the table
Medium	Gases or liquids which do not corrode the materials specified.
Contamination	The upstream connection of a filter with a mesh size of 0.1 mm is recommended (e.g. SMF-958-P3-...-100)
Cycle duration	700 ms at 30 % (completely open to completely closed or vice versa)
Response time	< 150 ms
Time delay	After adjustment the valve does not respond until after a 400 ms time delay (shorter on request)

ELECTRIC

Nominal voltage	24 V DC ±10 %
Control signal	Voltage: 0-10 V sampling rate: 100 ms
Power consumption P _{max}	Approx. 15 W during adjustment, <1 W during standing time
Duty cycle	30 % (corresponds to the proportion of active adjustment time in the overall process time)
Electrical connection	0.75 m, 4-pin screened cable (LiYCY 4 x AWG 24), strand ends pre-tinned.
Protection class	IP65

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

Home

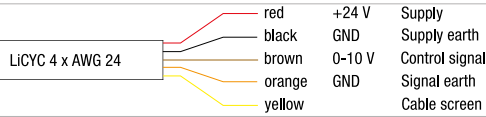


Dispensing Valve - Type EFC

Product group **630** PN 8
 Amb. temp. $T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$
 Med. temp. $T_{min} 0^{\circ}C, T_{max} +80^{\circ}C$

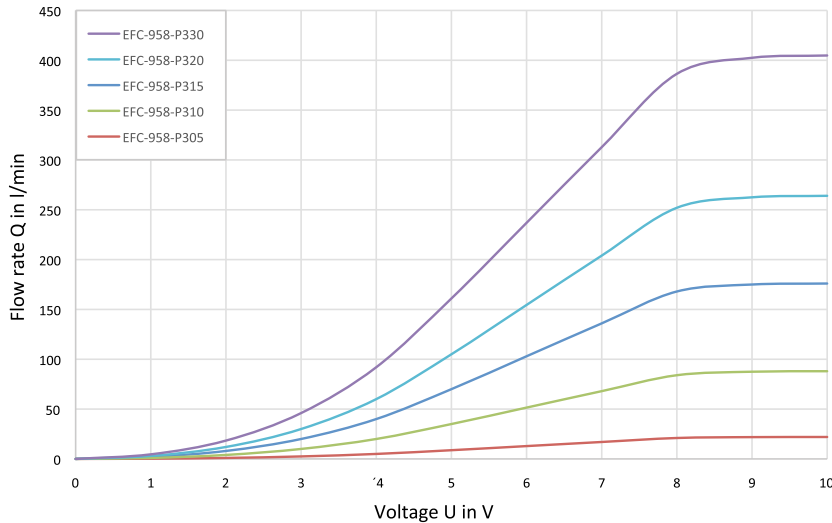


Plastic
PPSU

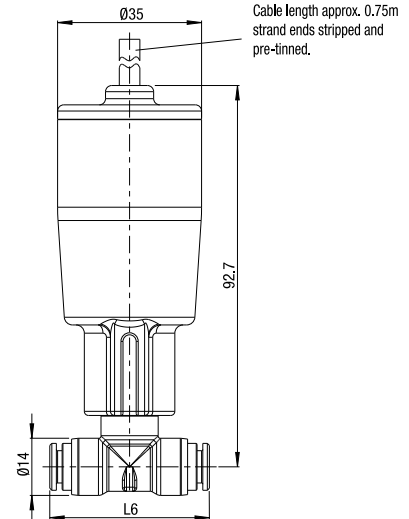
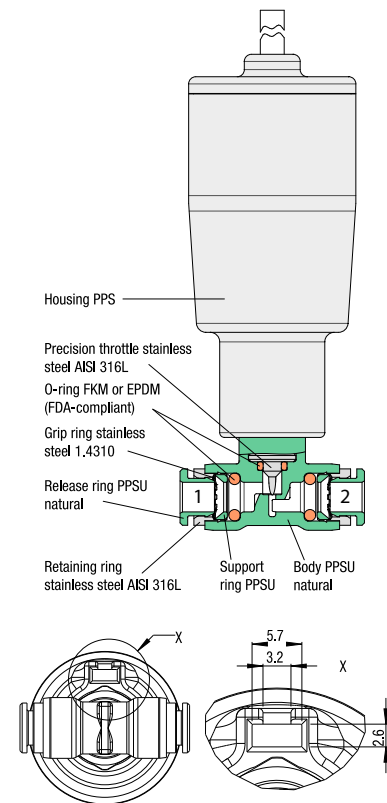


for tube OD	DN	Kv-value water [l/min]	Qnn value 0-x [l/min]	L6	Sealant material	Type	Order number	Price
4	0.5	0 - 0.25	0-15	38	FKM	EFC-958-P305-4FF-024-10	690531	o. r.
4	0.5	0 - 0.25	0-15	38	EP DM	EFC-958-P305-4PF-024-10	690529	o. r.
6	0.5	0 - 0.25	0-15	39	FKM	EFC-958-P305-6FF-024-10	690527	o. r.
6	0.5	0 - 0.25	0-15	39	EPDM	EFC-958-P305-6PF-024-10	690525	o. r.
4	1	0 - 0.75	0-50	38	FKM	EFC-958-P310-4FF-024-10	690532	o. r.
4	1	0 - 0.75	0-50	38	EPDM	EFC-958-P310-4PF-024-10	690530	o. r.
6	1	0 - 0.75	0-50	39	FKM	EFC-958-P310-6FF-024-10	690528	o. r.
6	1	0 - 0.75	0-50	39	EPDM	EFC-958-P310-6PF-024-10	690526	o. r.
4	1.5	0 - 1.35	0-85	38	FKM	EFC-958-P315-4FF-024-10	690510	o. r.
4	1.5	0 - 1.35	0-85	38	EPDM	EFC-958-P315-4PF-024-10	690507	o. r.
6	1.5	0 - 1.35	0-85	39	FKM	EFC-958-P315-6FF-024-10	690504	o. r.
6	1.5	0 - 1.35	0-85	39	EPDM	EFC-958-P315-6PF-024-10	690501	o. r.
4	2	0 - 1.8	0-120	38	FKM	EFC-958-P320-4FF-024-10	690511	o. r.
4	2	0 - 1.8	0-120	38	EPDM	EFC-958-P320-4PF-024-10	690508	o. r.
6	2	0 - 1.8	0-120	39	FKM	EFC-958-P320-6FF-024-10	690505	o. r.
6	2	0 - 1.8	0-120	39	EPDM	EFC-958-P320-6PF-024-10	690502	o. r.
6	3	0 - 2.4	0-190	39	FKM	EFC-958-P330-6FF-024-10	690506	o. r.
6	3	0 - 2.4	0-190	39	EPDM	EFC-958-P330-6PF-024-10	690503	o. r.

Characteristic Curve: Input Pressure 8 bar, 0-10 V, Medium: Air (open discharge)



Illustration



Home



Dispensing Valve - Type EFC

Product group **630** PN 6 Amb. temp. $T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$ Med. temp. $T_{min} 0^{\circ}C, T_{max} +80^{\circ}C$

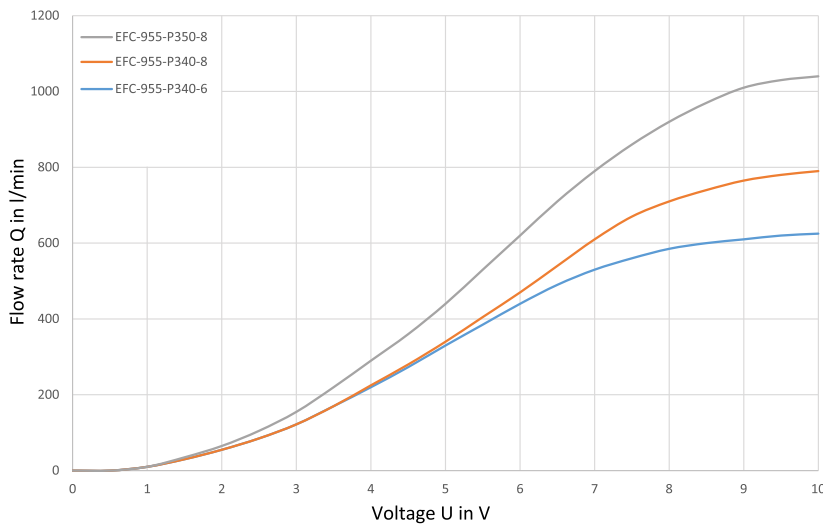


Plastic PPSU

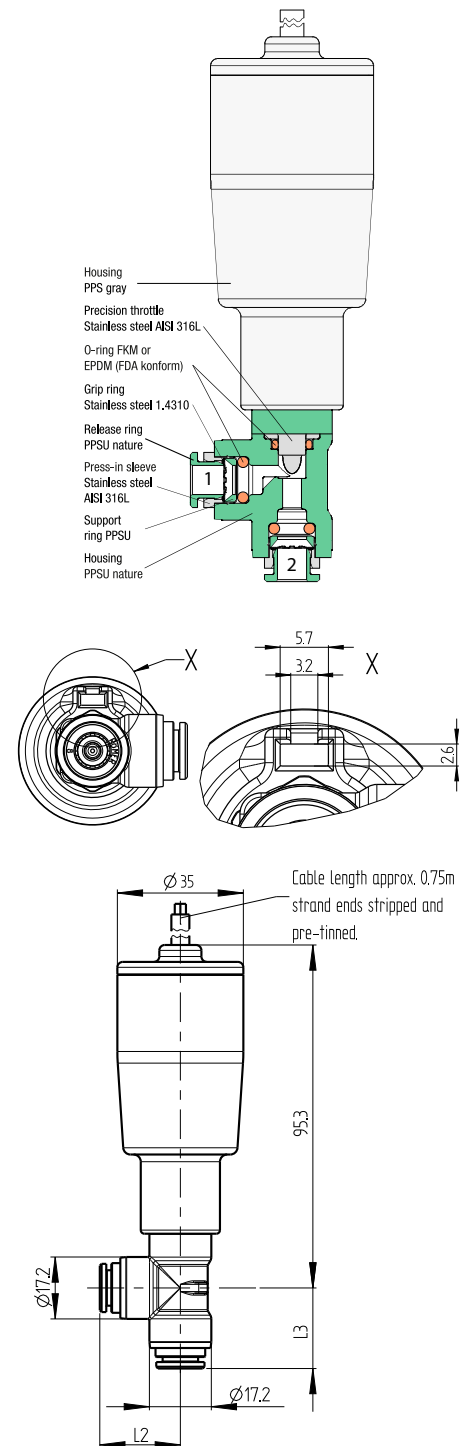
LICYC 4 x AWG 24	red	+24 V	Supply
	black	GND	Supply earth
	brown	0-10 V	Control signal
	orange	GND	Signal earth
	yellow		Cable screen

for tube OD	DN	Kv-value water [l/min]	Qnn value 0-x [l/min]	L2	L3	Sealant material	Type	Order number	Price
6	4	0 - 5	0 - 400	22	22	FKM	EFC-955-P340-6FF-024-10	690548	o. r.
6	4	0 - 5	0 - 400	22	22	EPDM	EFC-955-P340-6PF-024-10	690545	o. r.
8	4	0 - 7	0 - 520	22,5	22,5	FKM	EFC-955-P340-8FF-024-10	690549	o. r.
8	4	0 - 7	0 - 520	22,5	22,5	EPDM	EFC-955-P340-8PF-024-10	690546	o. r.
8	5	0 - 9.3	0 - 750	22,5	22,5	FKM	EFC-955-P350-8FF-024-10	690550	o. r.
8	5	0 - 9.3	0 - 750	22,5	22,5	EPDM	EFC-955-P350-8PF-024-10	690547	o. r.

Characteristic Curve: Input Pressure 6 bar, 0-10 V, Medium: Air (open discharge)

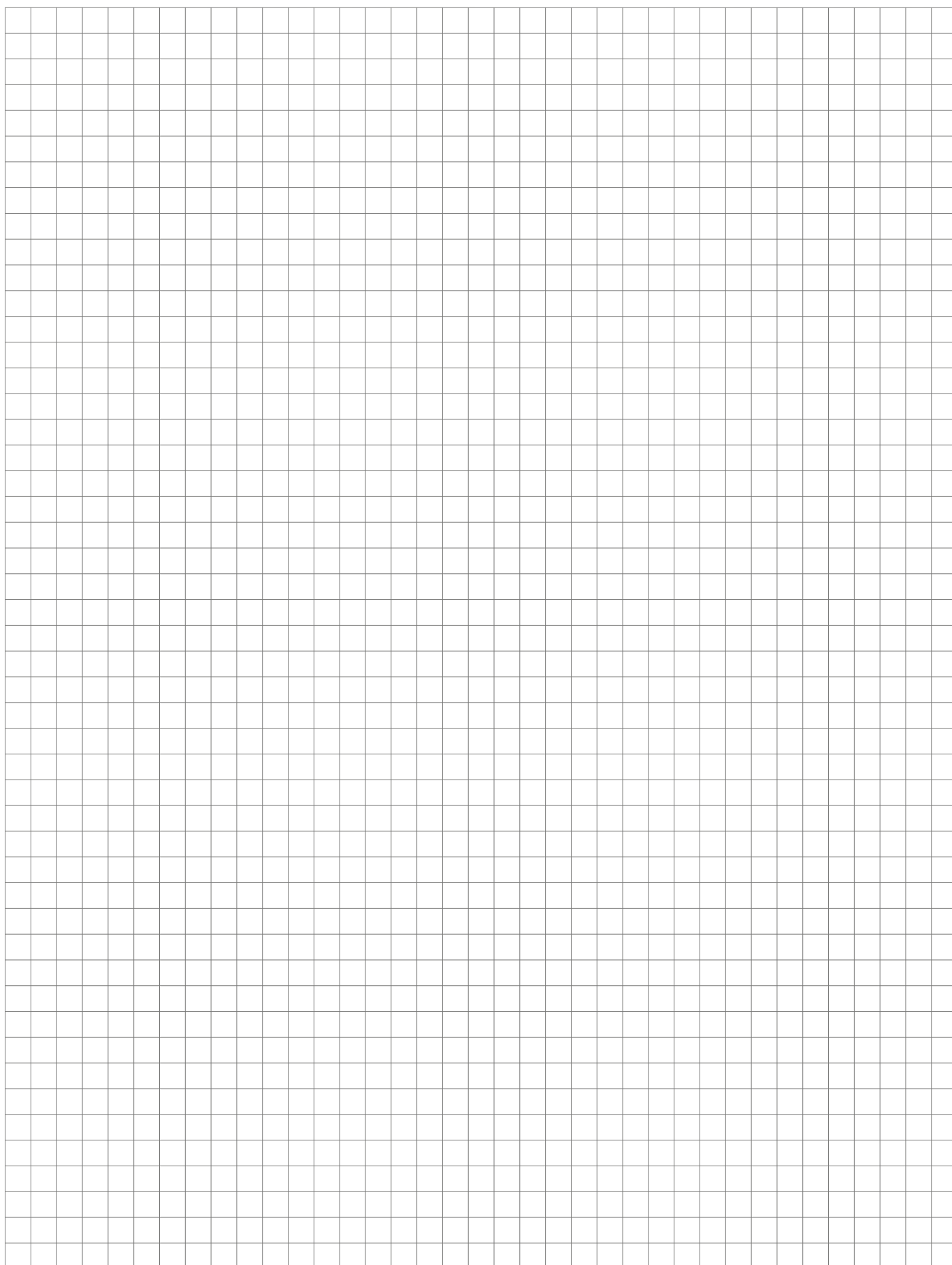


Illustration



Home





Shut-off Valves POM



Home



CHARACTERISTICS

GENERAL

Constructional design	Shut-off valve
Application	Neutral gaseous or fluids
Product name	2-way Shut-off Valve
Product type	ASH-958P
Shaft thread	M22x1,5
Nominal diameter	8 - 10
Ambient temperature	-20 °C to +60 °C
Media temperature	-10 °C to +80 °C
Body material	POM blue
Seal material	NBR
Release ring	POM grey
Grip ring	Stainless steel 1.4310
Retaining ring	Nickel-plated brass

PNEUMATIK - HYDRAULISCH

Nominal pressure	PN 10
Pressure range	Rough vacuum up to 10 bar
Medium	Gases or liquids which do not corrode the materials specified.

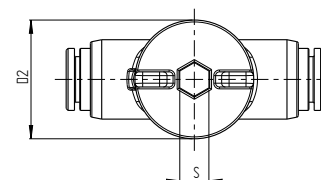
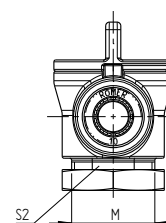
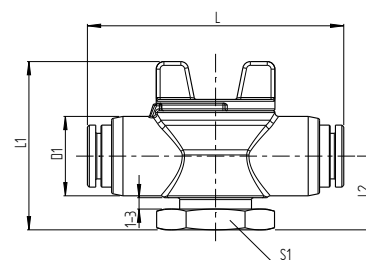
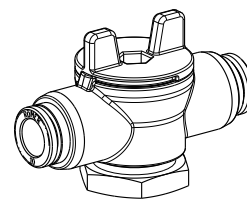
2-Way Shut-off Valve

Product group **34** PN 10 Ambient-Temp. $T_{min} -20^{\circ}\text{C}$, $T_{max} +60^{\circ}\text{C}$
Med.-Temp. $T_{min} -10^{\circ}\text{C}$, $T_{max} +80^{\circ}\text{C}$

Plastic
POM

for tube OD	L	L1	L2	D1	D2	M	S	S1	S2	Weight in [g]	Type	Order nummer	Price
10	68	44,5	19,5	21	31,5	M22x1,5	8	27	19	55,0	ASH-958P-10	637779	o. r.
12	68	44,5	19,5	21	31,5	M22x1,5	8	27	19	57,4	ASH-958P-12	637780	o. r.

Illustration

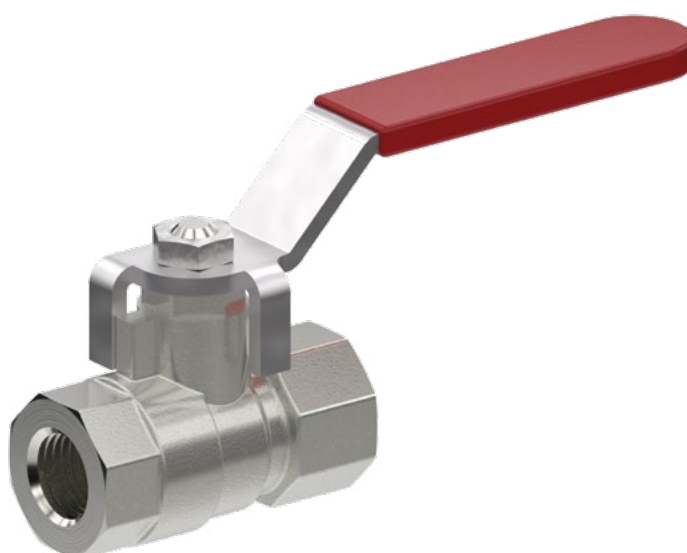


Home



Ball Valves Brass

Home



CHARACTERISTICS

GENERAL

Constructional design	Ball valve with float-mounted precision ball				Ball and shaft one-piece
Application	Neutral gaseous or fluids				
Product name	2-way ball valve			3-way ball valve	
Product type	LKH-177/178	LKH-321/322/324	LKH-100	LKH-333/334	GKH-234/236
	GKH-175/176	GKH-321/322	GKH-100		OKH-234/236
Thread connector	G 1/4 - G 1/2	G 1/4 - G 4	RP 3/8 - RP 2	G 1/4 - G 2	G 1/4
Clear span (cs)	8 - 10	10 - 95	10 - 50	9.5 - 40.7	3.2 - 6
Temperature range	-20 °C to +140 °C	-10 °C to +180 °C	-10 °C to +110 °C	-10 °C to +180 °C	-10 °C to +130 °C
Body material	CW617N, chromium-plated	CW617N, outer nickel-plated			CW614N, nickel-plated
Ball material	CW617N, chromium-plated	CW617N, chromium-plated			CW614N
Ball seal material	PTFE (Teflon)	PTFE (Teflon)			PTFE (Teflon)
Shaft seal material	FKM	FKM			FKM
O-ring material	FKM				
Hand lever material	plastic	Steel, plastic-sheathed, red	Steel, plastic-sheathed, yellow	Steel, plastic-sheathed, red	-
Handle material	plastic	Aluminium, powder-coated, red	Aluminium, powder-coated, yellow	-	plastic
PNEUMATIC - HYDRAULIC					
Nominal pressure	10	40 / 32	1 (gas) / 25	50 / 40 / 32 / 25	10
Pressure range	Rough vacuum up to permitted excess operating pressure PB according to table				

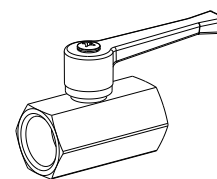
2-Way Ball Valve - Small Series

Product group **31** PN 10

Chromium-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length inner thread	Type	Order number	Price
				90 °C	140 °C					
8	8	G 1/4	10	10	-	41.5	10	LKH-177-1/4	637502	o. r.
8	8	G 1/4	10	10	6	41.5	10	LKH-177-1/4-S	637504	o. r.
10	8	G 3/8	10	10	-	41.5	10	LKH-177-3/8	637507	o. r.
10	8	G 3/8	10	10	6	41.5	10	LKH-177-3/8-S	637509	o. r.
15	10	G 1/2	10	8	-	49	10.5	LKH-177-1/2	637512	o. r.
15	10	G 1/2	10	8	6	49	10.5	LKH-177-1/2-S	637514	o. r.

Illustration



Home

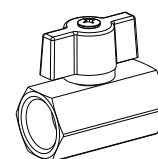
2-Way Ball Valve - Small Series

Product group **31** PN 10

Chromium-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length inner thread	Type	Order number	Price
				90 °C	140 °C					
8	8	G 1/4	10	10	-	41.5	10	GKH-175-1/4	637503	o. r.
8	8	G 1/4	10	10	6	41.5	10	GKH-175-1/4-S	637505	o. r.
10	8	G 3/8	10	10	-	41.5	10	GKH-175-3/8	637508	o. r.
10	8	G 3/8	10	10	6	41.5	10	GKH-175-3/8-S	637510	o. r.
15	10	G 1/2	10	8	-	49	10.5	GKH-175-1/2	637513	o. r.
15	10	G 1/2	10	8	6	49	10.5	GKH-175-1/2-S	637515	o. r.

Illustration



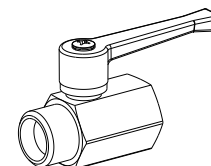
2-Way Ball Valve - Small Series

Product group **31** PN 10

Chromium-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length outer thread	Length inner thread	Type	Order number	Price
				90 °C	140 °C						
8	8	G 1/4	10	10	-	41.5	9.5	10	LKH-178-1/4	637517	o. r.
8	8	G 1/4	10	10	6	41.5	9.5	10	LKH-178-1/4-S	637519	o. r.
10	8	G 3/8	10	10	-	41.5	9.5	10	LKH-178-3/8	637522	o. r.
10	8	G 3/8	10	10	6	41.5	9.5	10	LKH-178-3/8-S	637524	o. r.
15	10	G 1/2	10	8	-	49	13	10.5	LKH-178-1/2	637527	o. r.
15	10	G 1/2	10	8	6	49	13	10.5	LKH-178-1/2-S	637529	o. r.

Illustration



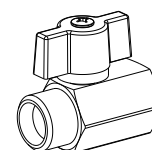
2-Way Ball Valve - Small Series

Product group **31** PN 10

Chromium-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length outer thread	Length inner thread	Type	Order number	Price
				90 °C	140 °C						
8	8	G 1/4	10	10	-	41.5	9.5	10	GKH-176-1/4	637518	o. r.
8	8	G 1/4	10	10	6	41.5	9.5	10	GKH-176-1/4-S	637520	o. r.
10	8	G 3/8	10	10	-	41.5	9.5	10	GKH-176-3/8	637523	o. r.
10	8	G 3/8	10	10	6	41.5	9.5	10	GKH-176-3/8-S	637525	o. r.
15	10	G 1/2	10	8	-	49	13	10.5	GKH-176-1/2	637528	o. r.
15	10	G 1/2	10	8	6	49	13	10.5	GKH-176-1/2-S	637530	o. r.

Illustration



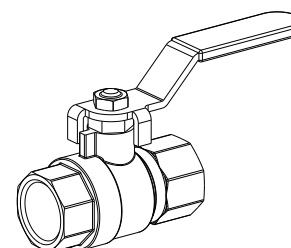
2-Way Ball Valve - Full Flow - however DN 65 to 100 slightly reduced

Product group **31** PN 40/25

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length inner thread	Type	Order number	Price
				90 °C	140 °C	180 °C					
8	10	G 1/4	40	36	22	12	45	10	LKH-321-1/4	637902	o. r.
10	10	G 3/8	40	36	22	12	45	10	LKH-321-3/8	637906	o. r.
15	15	G 1/2	40	36	22	12	63	12	LKH-321-1/2	637910	o. r.
20	20	G 3/4	40	29	18	10	71	16	LKH-321-3/4	637914	o. r.
25	25	G 1	40	29	18	10	83	18	LKH-321-1	637918	o. r.
32	32	G 1 1/4	32	23	16	8	92	20	LKH-321-1 1/4	637922	o. r.
40	40	G 1 1/2	32	19	12	6	104	21	LKH-321-1 1/2	637926	o. r.
50	50	G 2	32	19	12	6	124	24	LKH-321-2	637930	o. r.
65	61	G 2 1/2	25	12	8	4	140	24	LKH-324-2 1/2	638034	o. r.
80	74	G 3	25	12	8	4	159	26	LKH-324-3	638038	o. r.
100	95	G 4	25	12	8	4	195	30	LKH-324-4	638042	o. r.

Illustration



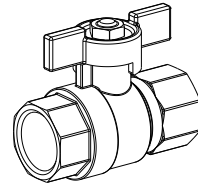
2-Way Ball Valve

Product group **31** PN 40

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length inner thread	Type	Order number	Price
				90 °C	140 °C	180 °C					
8	10	G 1/4	40	36	22	12	45	10	GKH-321-1/4	637903	o. r.
10	10	G 3/8	40	36	22	12	45	10	GKH-321-3/8	637907	o. r.
15	15	G 1/2	40	36	22	12	63	12	GKH-321-1/2	637911	o. r.
20	20	G 3/4	40	29	18	10	71	16	GKH-321-3/4	637915	o. r.
25	25	G 1	40	29	18	10	83	18	GKH-321-1	637919	o. r.

Illustration



Home

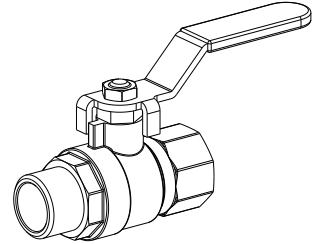
2-Way Ball Valve

Product group **31** PN 40/32

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length outer thread	Length inner thread	Type	Order number	Price
				90 °C	140 °C	180 °C						
10	10	G 3/8	40	36	22	12	54	12	10	LKH-322-3/8	637956	o. r.
15	15	G 1/2	40	36	22	12	70	15	12	LKH-322-1/2	637960	o. r.
20	20	G 3/4	40	29	18	10	80	16	16	LKH-322-3/4	637964	o. r.
25	25	G 1	40	29	18	10	92	19	18	LKH-322-1	637968	o. r.
32	32	G 1 1/4	32	23	16	8	102	20.5	20	LKH-322-1 1/4	637972	o. r.
40	40	G 1 1/2	32	19	12	6	117	21.5	21	LKH-322-1 1/2	637976	o. r.
50	50	G 2	32	19	12	6	137	24.5	24	LKH-322-2	637980	o. r.

Illustration



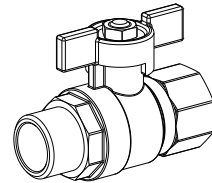
2-Way Ball Valve

Product group **31** PN 40

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length outer thread	Length inner thread	Type	Order number	Price
				90 °C	140 °C	180 °C						
10	10	G 3/8	40	36	22	12	54	12	10	GKH-322-3/8	637957	o. r.
15	15	G 1/2	40	36	22	12	70	15	12	GKH-322-1/2	637961	o. r.
20	20	G 3/4	40	29	18	10	80	16	16	GKH-322-3/4	637965	o. r.
25	25	G 1	40	29	18	10	92	19	18	GKH-322-1	637969	o. r.

Illustration



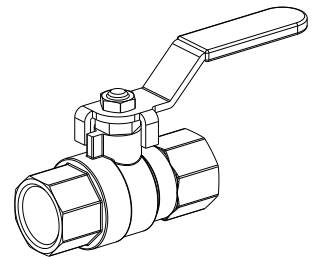
2-Way Ball Valve - DIN-DVGW Reg. No. 92.01 e 770 (full flow)

Product group **31** PN 20 PN with gas: Also gases according to DVGW worksheet G260/1 nominal pressure level PN1

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length inner thread	Type	Order number	Price
				80 °C	110 °C					
10	10	Rp 3/8	1 / 20	18	16	60	14	LKH-100-3/8	637806	o. r.
15	15	Rp 1/2	1 / 20	18	16	75	18	LKH-100-1/2	637811	o. r.
20	20	Rp 3/4	1 / 20	18	16	80	18	LKH-100-3/4	637814	o. r.
25	25	Rp 1	1 / 20	18	16	90	19	LKH-100-1	637818	o. r.
32	32	Rp 1 1/4	1 / 20	18	16	110	22	LKH-100-1 1/4	637822	o. r.
40	40	Rp 1 1/2	1 / 20	18	16	120	25	LKH-100-1 1/2	637826	o. r.
50	50	Rp 2	1 / 20	18	16	140	25	LKH-100-2	637830	o. r.

Illustration



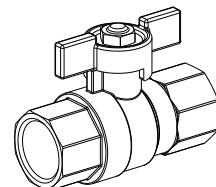
2-Way Ball Valve, DIN-DVGW Reg. No. 92.01 e 770 (full flow)

Product group **31** PN 20 PN with gas: Also gases according to DVGW worksheet G260/1 Nominal pressure level PN1

Nickel-plated brass

DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature		Total length	Length inner thread	Type	Order number	Price
				80 °C	110 °C					
10	10	Rp 3/8	1 / 20	18	16	60	14	GKH-100-3/8	637807	o. r.
15	15	Rp 1/2	1 / 20	18	16	75	18	GKH-100-1/2	637812	o. r.
20	20	Rp 3/4	1 / 20	18	16	80	18	GKH-100-3/4	637815	o. r.
25	25	Rp 1	1 / 20	18	16	90	19	GKH-100-1	637819	o. r.

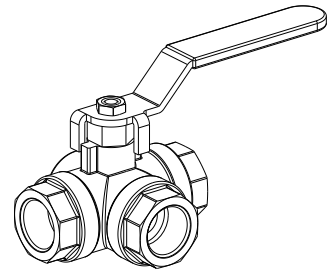
Illustration



3-Way Ball Valve with T-bore - Reduced Flow

Product group		33	PN	32/25	Ball bore: T-bore				Nickel-plated brass		
DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length inner thread	Type	Order number	Price
				80 °C	130 °C	180 °C					
8	10	G 1/4	32	32	22	10	74	12	LKH-333-1/4	639102	o. r.
10	10	G 3/8	32	32	22	10	74	12	LKH-333-3/8	639106	o. r.
15	12	G 1/2	32	32	22	10	80	14	LKH-333-1/2	639110	o. r.
20	15.5	G 3/4	32	32	22	10	90	16	LKH-333-3/4	639114	o. r.
25	20	G 1	32	32	22	10	105	19	LKH-333-1	639118	o. r.
32	25	G 1 1/4	25	25	16	7	115	21	LKH-333-1 1/4	639122	o. r.
40	32	G 1 1/2	25	25	16	7	138	23	LKH-333-1 1/2	639126	o. r.
50	40	G 2	25	25	16	7	161	26	LKH-333-2	639130	o. r.

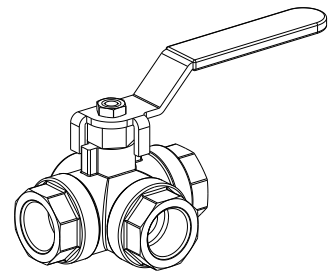
Illustration



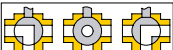
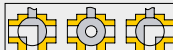
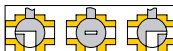
3-Way Ball Valve with Side T-bore - Reduced Flow

Product group		33	PN 32/25	Ball bore: Side T-bore									Nickel-plated brass	
DN	CS	G	PN	Permitted excess operating pressure [bar] at temperature			Total length	Length inner thread	Type	Order number	Price			
				80 °C	130 °C	180 °C								
8	10	G 1/4	32	32	22	10	74	12	LKH-334-1/4	639152	o. r.			
10	10	G 3/8	32	32	22	10	74	12	LKH-334-3/8	639156	o. r.			
15	12	G 1/2	32	32	22	10	80	14	LKH-334-1/2	639160	o. r.			
20	15.5	G 3/4	32	32	22	10	90	16	LKH-334-3/4	639164	o. r.			
25	20	G 1	32	32	22	10	105	19	LKH-334-1	639168	o. r.			
32	25	G 1 1/4	25	25	16	7	115	21	LKH-334-1 1/4	639172	o. r.			
40	32	G 1 1/2	25	25	16	7	138	23	LKH-334-1 1/2	639176	o. r.			
50	40	G 2	25	25	16	7	161	26	LKH-334-2	639180	o. r.			

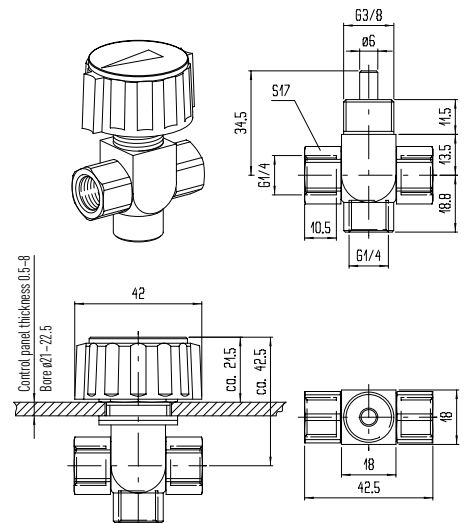
Illustration



3-Way Small Ball Valve

Product group		32	PN 10	T _{min} -10 °C T _{max} +130 °C		Nickel-plated brass		
Version		DN	CS	G	PN PB	Type	Order number	Price
3/3-way ball valve with Side T-bore, without toggle and accessories								
		6	6	G 1/4	10	OKH-234-M60-1/4F	638902	o. r.
a b c Position (locking)								
3/3-way ball valve with Side T-bore, with toggle and accessories								
		6	6	G 1/4	10	GKH-234-M60-1/4F	638910	o. r.
a b c Position (locking)								
3/3-way dispensing ball valve, without toggle and accessories								
		6	3.2	G 1/4	10	OKH-236-M32-1/4F	638922	o. r.
a b c Position (locking)								
3/3-way dispensing ball valve, with toggle and accessories								
		6	3.2	G 1/4	10	GKH-236-M32-1/4F	638930	o. r.
a b c Position (locking)								

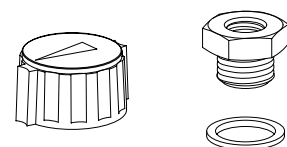
Illustration



3-Way Small Ball Valve Accessories

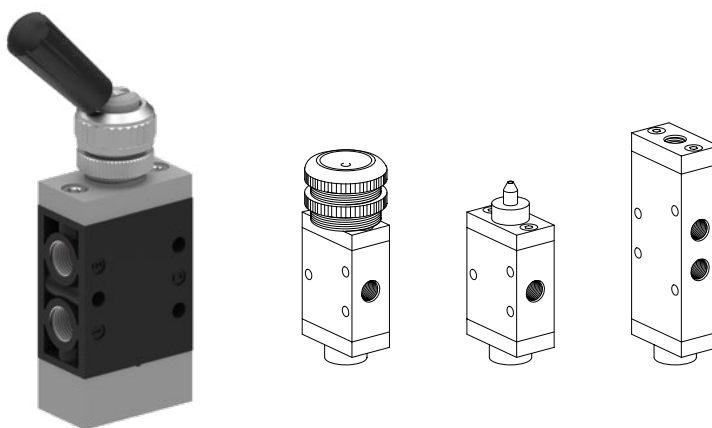
Product group		PN				
32		10				
Product name		Scope of delivery for Type GKH		Type	Order number	Price
Toggle		1 piece		ZKH-130-G-6x42	617517	o. r.
Cover (black)		1 piece		ZKH-130-A-black	617518	o. r.
Cover (red)				ZKH-130-A-red	617519	o. r.
Cover (blue)				ZKH-130-A-blue	617520	o. r.
Cover (yellow)				ZKH-130-A-yellow	617521	o. r.
Reducer nipple		1 piece		253M-1/2-3/8-S2	250900	o. r.
Sealing ring		5 pieces		265A-1/2x1.5	252886	o. r.

Illustration



3/2, 5/2 and 5/3-Way Spool Valves and Pedal Valves

Series 300 and 400 thread connector
G 1/8 or G 1/4



CHARACTERISTICS

GENERAL

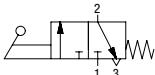
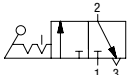
Constructional design	Spool valve with elastic seal	Spool valve with elastic seal	Poppet valve with elastic seal	Poppet valve with elastic seal
Product name	3/2-way Spool valve	5/2 and 5/3-way Spool valve	3/2-way poppet valve	5/2-way poppet valve
Actuation	Hand, mechanical or pneumatic	Hand, mechanical or pneumatic	by foot	by foot
Function	Normally open or closed	according to specification table	Normally closed	according to specification table
Thread connector	Thread (ISO 228) G 1/8 or G 1/4		Thread (ISO 228) G 1/4	Thread (ISO 228) G 1/4
Nominal width DN	DN 5 or DN 8	DN 5 or DN 8	DN 8	DN 8
Ambient temperature	-15 °C to +50 °C	-15 °C to +50 °C	-10 °C to +50 °C	-10 °C to +50 °C
Medium temperature	-10 °C to +50 °C	-10 °C to +50 °C	-10 °C to +50 °C	-10 °C to +50 °C
Valve body material	Zinc die casting, painted / plastic	Zinc die casting, painted / plastic	Aluminium die casting	Aluminium die casting
Protective housing material			Plastic (polycarbonate) yellow	Plastic (polycarbonate) yellow
Base plate material			Plastic (IXEF)	Plastic (IXEF)
Seal material	NBR (nitrile rubber)	NBR (nitrile rubber)	NBR (nitrile rubber)	NBR (nitrile rubber)
Mounting position	optional	optional	optional	optional

PNEUMATIC - HYDRAULIC

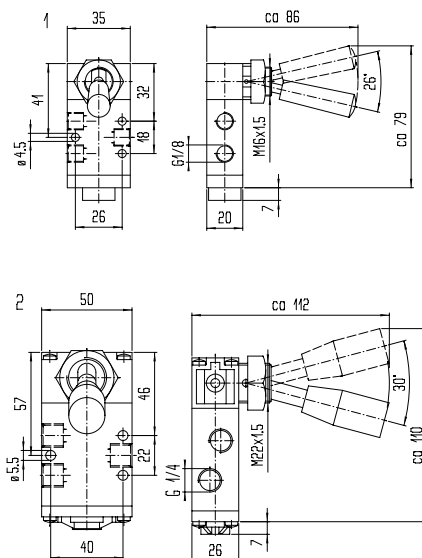
Nominal pressure	PN 10
Pressure range	according to table
Medium	maintained compressed air (filtered and oiled)

3/2-Way Spool Valve - Type MSV

Product group	43	PN 10
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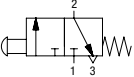
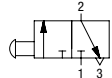
Symbol	Description	Dimension drawing	DN	Q _{Nn} -value air [l/min]	G	Type	Order number	Price
	Hand lever with spring reset	1	5	600	G 1/8	MSV-311-C50-1/8	695101	o. r.
	Hand lever with spring reset	2	8	800	G 1/4	MSV-311-C80-1/4	695103	o. r.
	Hand lever with rest	1	5	600	G 1/8	MSV-321-C50-1/8	695104	o. r.
	Hand lever with rest	2	8	800	G 1/4	MSV-321-C80-1/4	695106	o. r.

Illustration

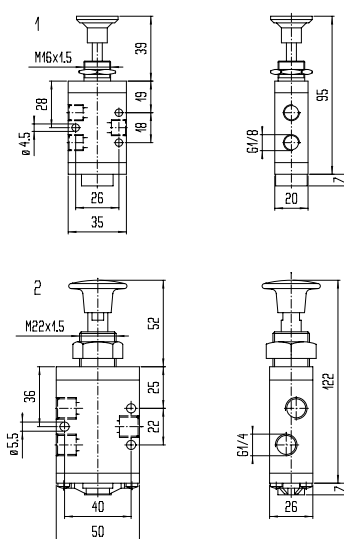


3/2-Way Spool Valve - Type TSV

Product group **43** PN 10

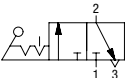
Symbol	Description	Dimension drawing	DN	QnN-value air [l/min]	G	Type	Order number	Price
	Button with spring reset	1	5	600	G 1/8	TSV-311-C50-1/8	695111	o. r.
	Button with spring reset	2	8	800	G 1/4	TSV-311-C80-1/4	695113	o. r.
	Button with rest	1	5	600	G 1/8	TSV-321-C50-1/8	695114	o. r.
	Button with rest	2	8	800	G 1/4	TSV-321-C80-1/4	695116	o. r.

Illustration

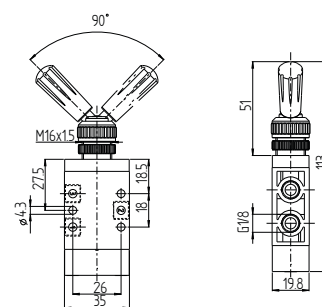


3/2-Way Spool Valve - Type USV

Product group **43** PN 10

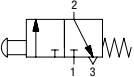
Symbol	Description	DN	QnN-value air [l/min]	G	Type	Order number	Price
	Rocker lever with rest	5	600	G 1/8	USV-321-C50-1/8	695124	o. r.

Illustration

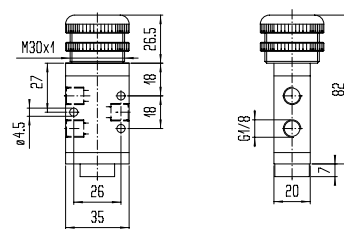


3/2-Way Spool Valve - Type DSV

Product group **43** PN 10

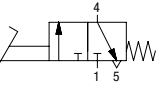
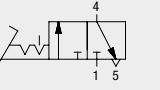
Symbol	Description	Push button colour	DN	QnN-value air [l/min]	G	Type	Order number	Price
	Push button with spring reset	black	5	600	G 1/8	DSV-311-C50-1/8	695131	o. r.
	Push button with spring reset	green	5	600	G 1/8	DSV-312-C50-1/8	695132	o. r.
	Push button with spring reset	red	5	600	G 1/8	DSV-313-C50-1/8	695133	o. r.

Illustration

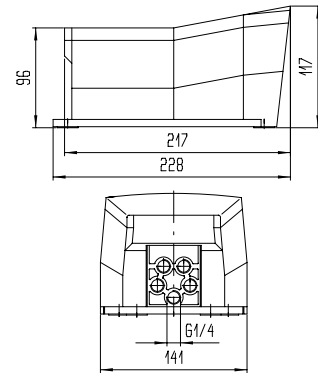


3/2-Way Poppet Valve - Type FSV

 Product group **43** PN 10

Symbol	Description	DN	Q _N -value air [l/min]	G	Type	Order number	Price
	Pedal with spring reset	8	1,200	G 1/4	FSV-411-C90-1/4	695161	o. r.
	Pedal with lock and release catch	8	1,200	G 1/4	FSV-421-C90-1/4	695164	o. r.

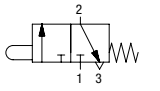
Illustration



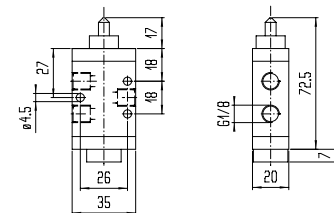
Home

3/2-Way Spool Valve - Type NSV

 Product group **43** PN 10

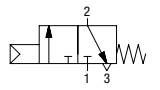
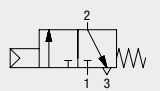
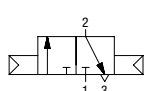
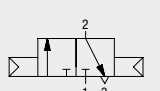
Symbol	Description	DN	Q _N -value air [l/min]	G	Type	Order number	Price
	Plunger with spring reset	5	600	G 1/8	NSV-311-C50-1/8	695201	o. r.

Illustration

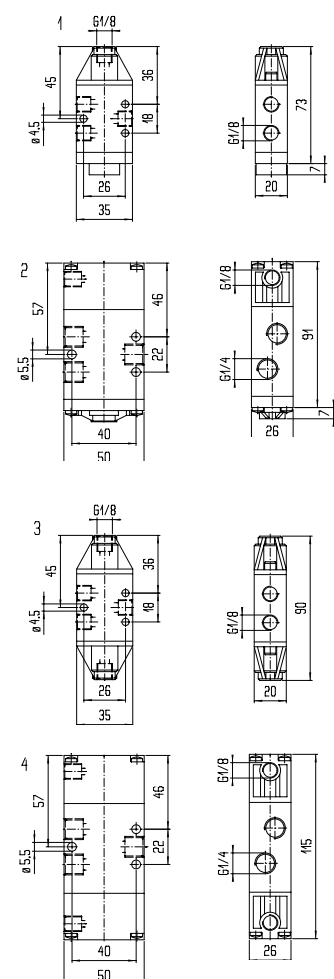


3/2-Way Spool Valve - Type PSV

 Product group **43** PN 10

Symbol	Description	Dimension drawing	DN	Q _N -value air [l/min]	G	Operating pressure [bar]	Type	Order number	Price
	Pneumatic with spring reset	1	5	600	G 1/8	3.5- 10	PSV-311-C50-1/8	695301	o. r.
	Pneumatic with spring reset	2	8	800	G 1/4	3.5- 10	PSV-311-C80-1/4	695303	o. r.
	Pneumatic with pneumatic reset (impulse valve)	3	5	600	G 1/8	2.5- 10	PSV-331-C50-1/8	695307	o. r.
	Pneumatic with pneumatic reset (impulse valve)	4	8	800	G 1/4	2.5- 10	PSV-331-C80-1/4	695309	o. r.

Illustration

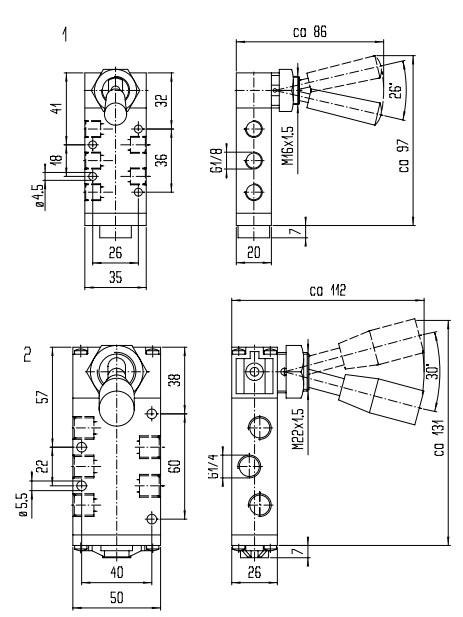


5/2-Way Spool Valve - Type MSV

Product group **43** PN 10

Symbol	Description	Dimension drawing	DN	QNN-value air [l/min]	G	Type	Order number	Price
	Hand lever with rest	1	5	600	G 1/8	MSV-321-H50-1/8	695504	o. r.
	Hand lever with rest	2	8	800	G 1/4	MSV-321-H80-1/4	695506	o. r.

Illustration

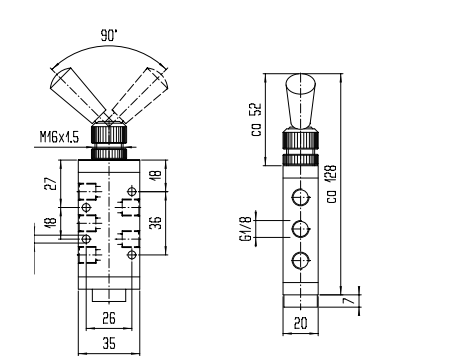


5/2-Way Spool Valve - Type USV

Product group **43** PN 10

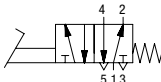
Symbol	Description	DN	QNN-value air [l/min]	G	Type	Order number	Price
	Rocker lever with rest	5	600	G 1/8	USV-321-H50-1/8	695524	o. r.

Illustration

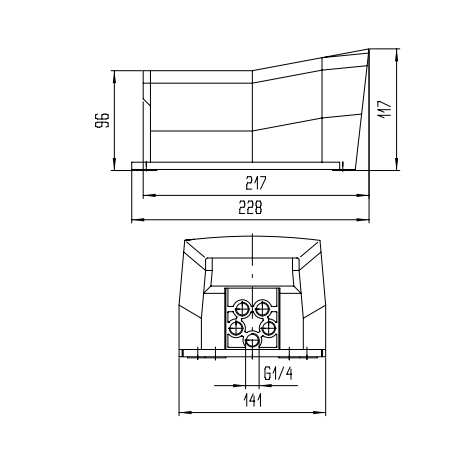


5/2-Way Poppet Valve - Type FSV

Product group **43** PN 10

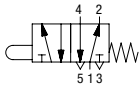
Symbol	Product name	DN	QNN-value air [l/min]	G	Type	Order number	Price
	Pedal with spring reset	8	1,200	G 1/4	FSV-411-H90-1/4	695561	o. r.
	Pedal with lock and release catch	8	1,200	G 1/4	FSV-421-H90-1/4	695564	o. r.

Illustration

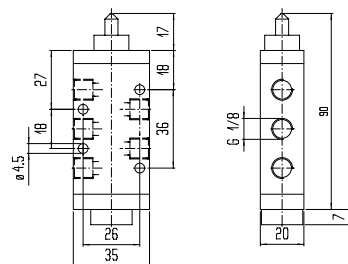


5/2-Way Spool Valve - Type NSV

Product group **43** PN 10

Symbol	Description	DN	QNN-value air [l/min]	G	Type	Order number	Price
	Plunger with spring reset	5	600	G 1/8	NSV-311-H50-1/8	695601	o. r.

Illustration

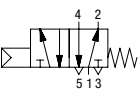
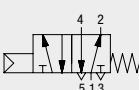
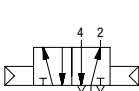
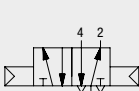


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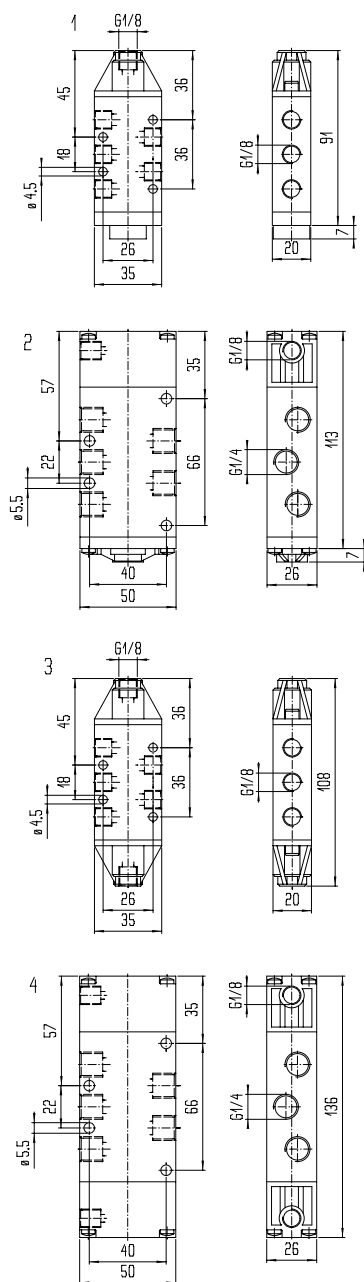


5/2-Way Spool Valve Type PSV

Product group **43** PN 10

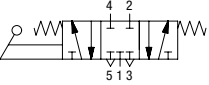
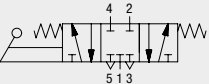
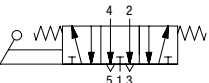
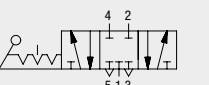
Symbol	Description	Dimension drawing	DN	QNN-value air [l/min]	G	Operating pressure [bar]	Type	Order number	Price
	Pneumatic with spring reset	1	5	600	G 1/8	3.5- 10	PSV-311-H50-1/8	695701	o. r.
	Pneumatic with spring reset	2	8	800	G 1/4	3.5- 10	PSV-311-H80-1/4	695703	o. r.
	Pneumatic with pneumatic reset (impulse valve)	3	5	600	G 1/8	2.5- 10	PSV-331-H50-1/8	695707	o. r.
	Pneumatic with pneumatic reset (impulse valve)	4	8	800	G 1/4	2.5- 10	PSV-331-H80-1/4	695709	o. r.

Illustration

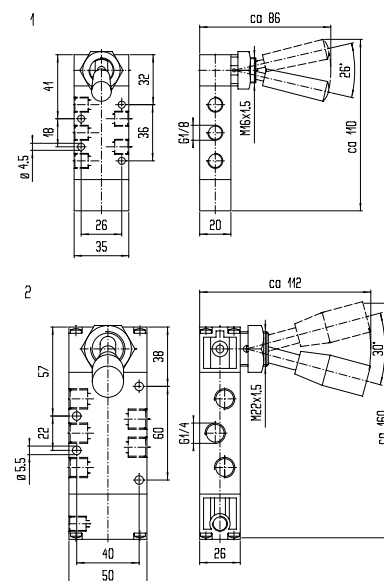


5/3-Way Spool Valve - Type MSV

Product group	43	PN 10
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Symbol	Description	Dimension drawing	DN	QnN-value air [l/min]	G	Type	Order number	Price
	Hand lever with spring reset	1	5	600	G 1/8	MSV-311-050-1/8	695901	o. r.
	Hand lever with spring reset	2	8	800	G 1/4	MSV-311-080-1/4	695903	o. r.
	Hand lever with spring reset	1	5	600	G 1/8	MSV-311-P50-1/8	695951	o. r.
	Hand lever with rest	1	5	600	G 1/8	MSV-321-050-1/8	695904	o. r.

Illustration

[Home](#)

3/2-Way Hand Spool Valve

Product group	41	PN 16
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T _{min}	-10 °C
T	+80 °C

Constructional design:
Sleeve Spool

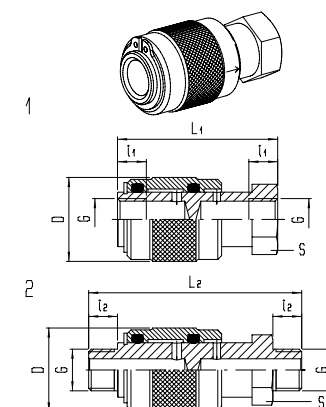
Application:
Compressed air

Pressure range:
Rough vacuum up to 16 bar

Material: Body: Brass (chromium-plated), Spool sleeve: Aluminium (black anodised)
Seals: NBR (nitrile rubber)

Symbol		Dimension drawing	DN	Qn-value air [l/min]	G	Thread	Type	Order number	Price
		1	4	700	G 1/8	inner /inner	HSV-133-1/8-04	695002	o. r.
		1	7	1,500	G 1/4	inner /inner	HSV-133-1/4-07	695003	o. r.
		1	10	2,200	G 3/8	inner /inner	HSV-133-3/8-10	695004	o. r.
		1	14	3,400	G 1/2	inner /inner	HSV-133-1/2-14	695005	o. r.
		2	7	1,500	G 1/4	outer / outer	HSV-131-1/4-07	695013	o. r.
DN	G	L1	i1	L2	i2	D	S		
4	G 1/8	43	10	-	-	22	14		
7	G 1/4	50	12	66.5	9	26	19		
10	G 3/8	60	12	-	-	32	22		
14	G 1/2	65.5	15	-	-	36	27		

Illustration



2/2- and 3/2-Way Toggle Valve

Product group	42	PN 12
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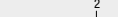
T _{min}	-10 °C
T	+80 °C

Constructional design:
Poppet valve, elastic seal

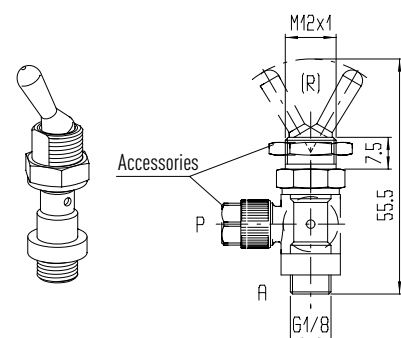
Application:
Compressed air

Pressure range:
Rough vacuum up to 12 bar

Material: Body: Brass (nickel-plated), lever: Brass (nickel-plated)
Seals: NBR (nitrile rubber)

Symbol	DN	QNN-value air [l/min]	G	Type	Order number	Price
	3	300	G 1/8	UTV-111-A30-1/8B	695052	o. r.
	3	200	G 1/8	UTV-111-C30-1/8B	695062	o. r.

Illustration



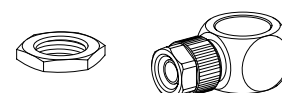
Accessories for 2/2- and 3/2-Way Rocker Lever Valve

Product group	42	PN 12
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For banjo ring pieces, see push-in and push-on fittings

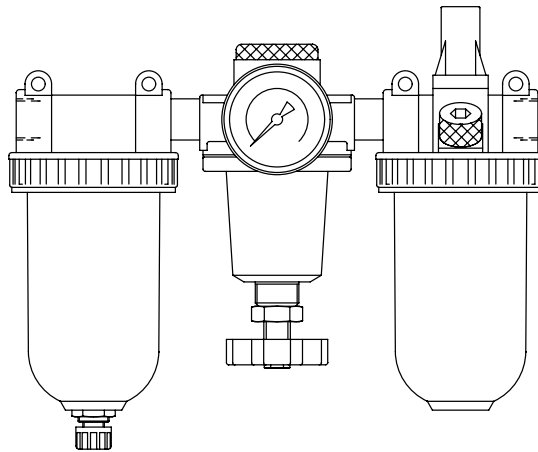
Product name	Note	Type	Order number	Price
Lock nut		256M-M12x1	251703	0. r.

Illustration



Air Preparation: Filters, Lubricators and Regulators

Home



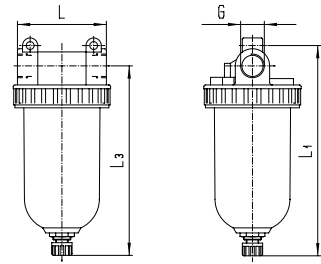
Air Filter Standard Series 100 Plastic Vessel

Product group 21	Vessel material Polycarbonate	Filter pore size 5 or 40 µm	Pressure range: 0 bar to PB-value table	T_{min} 0 °C T_{max} +50 °C	Non-ferrous metal
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Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop	Options: Protection basket, metal vessel, other filter pore sizes, autom. Condensation separation
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G	Max. recommended flow quantity [Nl/min]	Vessel contents approx. cm³	PB [bar]	L	L1	L3	Installation Page 245	Type	Order number	Price
G 1/8	400	40	10	40	112	102	-	FIL-111-1/8	450001	o. r.
G 1/4	500	40	10	40	112	102	-	FIL-111-1/4	450011	o. r.
G 1/4	800	80	16	57	152	138	3	FIL-121-1/4	450031	o. r.
G 3/8	1,300	80	16	57	152	138	3	FIL-121-3/8	450041	o. r.
G 1/2	2,700	200	16	70	166	150	4	FIL-131-1/2	450071	o. r.
G 1/2	3,500	300	16	79	193	175	4	FIL-141-1/2	450101	o. r.
G 3/4	5,000	300	16	90	203	176	4	FIL-151-3/4	450111	o. r.
G 1	6,000	300	16	90	203	176	4	FIL-151-1	450121	o. r.
G 1	8,900	550	16	105	268	241	-	FIL-161-1	450141	o. r.

Illustration



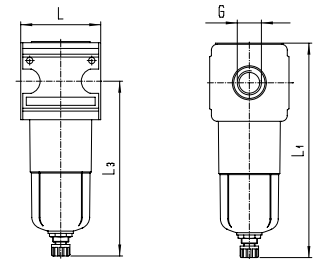
Air Filter Modular Series 200 Plastic Vessel

Product group 21	Vessel material Polycarbonate	Filter pore size 5 µm	Pressure range: 0 bar to PB-value table	T_{min} 0 °C T_{max} +50 °C	Zinc die casting
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Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop	Options: Protection basket, metal vessel, other filter pore sizes, autom. Condensation separation
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G	Max. recommended flow quantity [Nl/min]	Vessel contents approx. cm³	PB [bar]	L	L1	L3	Installation Page 245	Type	Order number	Price
G 1/4	500	60	16	48	152	125	10	FIL-211-1/4	450511	o. r.
G 3/8	1,300	60	16	48	152	125	10	FIL-211-3/8	450521	o. r.
G 1/2	2,700	160	16	69	182	147	13	FIL-221-1/2	450541	o. r.
G 3/4	4,500	160	16	69	182	147	13	FIL-221-3/4	450551	o. r.

Illustration



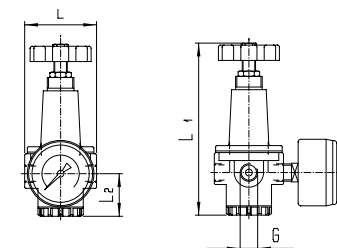
Pressure Regulator Standard Series 100 with Pressure Gauge

Product group 21	Pressure range: primary 0.5 to 25 bar secondary 0.5 to 10 bar	T_{min} 0 °C T_{max} +60 °C	Non-ferrous metal
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Flow value according to table, valid for 8 bar primary pressure and 1 bar pressure drop	Options: without pressure gauge, for mounting panel mounting, Secondary range 0-3 bar, 0-6 bar or 0-16 bar
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G	Max. recommended flow quantity [Nl/min]	Pressure gauge NG	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/8	330	40	40	76	15	1+2	REG-114-1/8	451006	o. r.
G 1/4	330	40	40	76	15	1+2	REG-114-1/4	451026	o. r.
G 1/4	1,000	50	54	130	32	5	REG-125-1/4	451071	o. r.
G 3/8	1,000	50	54	130	32	5	REG-125-3/8	451091	o. r.
G 1/2	2,200	50	70	146	34	6	REG-135-1/2	451151	o. r.
G 1/2	5,000	63	82	163	33	7	REG-146-1/2	451216	o. r.
G 3/4	5,000	63	90	163	31	7	REG-156-3/4	451236	o. r.
G 1	5,000	63	90	163	31	7	REG-156-1	451256	o. r.
G 1	11,000	63	117	238	48	8	REG-166-1	451296	o. r.

Illustration



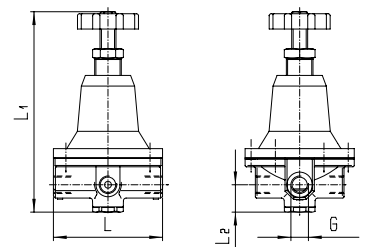
Precision Pressure Regulator Series 300 without Pressure Gauge

Product group 21	Pressure range: primary 0 to 20 bar secondary see table	T_{min} 0 °C T_{max} +80 °C	Non-ferrous metal
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Speciality: Excellent consistency of secondary pressure, also with low flow quantity	Options: with pressure gauge, for mounting panel mounting, secondary range 0-6 bar or 0-10 bar
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G	Max. recommended flow quantity [Nl/min]	Pressure secondary [bar]	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/4	on request	0-1	82	148	20	7	REG-340-1/4-0/1	479202	o. r.
G 3/8	on request	0-3	82	170	33	7	REG-340-3/8-0/3	479212	o. r.
G 1/2	on request	0-3	82	170	33	7	REG-340-1/2-0/3	479215	o. r.

Illustration



Pressure Regulator Modular Series 200 with Pressure Gauge

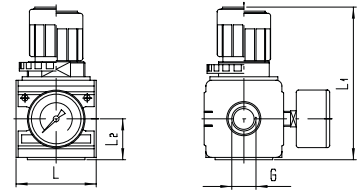
Product group	21	Pressure range: primary secondary	0.5 - 16 bar 0.5 - 10 bar	T_{min} 0 °C T_{max} +60 °C	Zinc die casting
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Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop

Options: without pressure gauge, for mounting panel mounting, Secondary range 0-3 bar, 0-6 bar or 0-16 bar

G	Max. recommended flow quantity [Nl/min]	Pressure gauge NG	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/4	500	50	48	96	27	1+9 or 10	REG-215-1/4	451531	o. r.
G 3/8	1,300	50	48	96	27	1+9 or 10	REG-215-3/8	451551	o. r.
G 1/2	2,700	50	69	136	35	11+12 or 13	REG-225-1/2	451591	o. r.
G 3/4	4,000	50	69	136	35	11+12 or 13	REG-225-3/4	451611	o. r.

Illustration



Lubricator Standard Series 100 Plastic Vessel

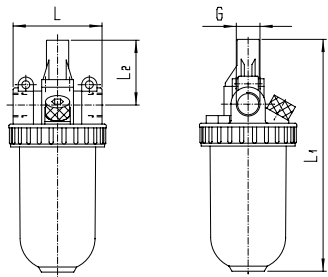
Product group	21	Vessel material Polycarbonate	Pressure range: 0 bar to PB-value table	T_{min} 0 °C T_{max} +50 °C	Non-ferrous metal
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Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop

Options: Protection basket

G	Max. recommended flow quantity [Nl/min]	Vessel contents approx. cm³	PB [bar]	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/8	400	40	10	40	145	49.5	-	LUB-111-1/8	453001	o. r.
G 1/4	500	40	10	40	145	49.5	-	LUB-111-1/4	453011	o. r.
G 1/4	1,100	80	16	50	169	51	3	LUB-121-1/4	453031	o. r.
G 3/8	1,300	80	16	50	169	51	3	LUB-121-3/8	453041	o. r.
G 1/2	2,700	200	16	70	183	51	4	LUB-131-1/2	453071	o. r.
G 1/2	3,500	300	16	79	203	55	4	LUB-141-1/2	453101	o. r.
G 3/4	5,200	300	16	90	224	63.5	4	LUB-151-3/4	453111	o. r.
G 1	6,200	300	16	90	224	63.5	4	LUB-151-1	453121	o. r.
G 1	8,900	550	16	105	283	60.5	-	LUB-161-1	453141	o. r.

Illustration



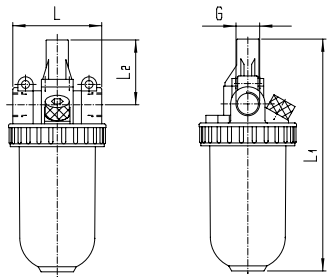
Lubricator Standard Series 100 Metal Vessel

Product group	21	Vessel material Metal, corrosion-protected	Pressure range: 0 bar to PB-value table	T_{min} 0 °C T_{max} +80 °C	Non-ferrous metal
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Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop

G	Max. recommended flow quantity [Nl/min]	Vessel contents approx. cm³	PB [bar]	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/8	400	40	25	40	145	49.5	-	LUB-111-M-1/8	453005	o. r.
G 1/4	500	40	25	40	145	49.5	-	LUB-111-M-1/4	453015	o. r.
G 1/4	1,100	80	25	50	169	51	3	LUB-121-M-1/4	453035	o. r.
G 3/8	1,300	80	25	50	169	51	3	LUB-121-M-3/8	453045	o. r.
G 1/2	2,700	200	25	70	183	51	4	LUB-131-M-1/2	453075	o. r.
G 1/2	3,500	300	25	79	203	55	4	LUB-141-M-1/2	453105	o. r.
G 3/4	5,200	300	25	90	224	63.5	4	LUB-151-M-3/4	453115	o. r.
G 1	6,200	300	25	90	224	63.5	4	LUB-151-M-1	453125	o. r.
G 1	8,900	550	25	105	283	60.5	-	LUB-161-M-1	453145	o. r.

Illustration



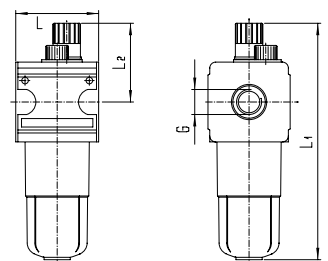
Lubricator Modular Series 200 Plastic Vessel

Product group	21	Vessel material Polycarbonate	Pressure range: 0 bar to PB-value table	T_{min} 0 °C T_{max} +50 °C	Zinc die casting
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Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop

G	Max. recommended flow quantity [Nl/min]	Vessel contents approx. cm³	PB [bar]	L	L1	L2	Installation Page 245	Type	Order number	Price
G 1/4	500	60	16	48	168	58	10	LUB-211-1/4	453511	o. r.
G 3/8	1300	60	16	48	168	58	10	LUB-211-3/8	453521	o. r.
G 1/2	2,700	160	16	69	198	66	13	LUB-221-1/2	453541	o. r.
G 3/4	4,500	160	16	69	198	66	13	LUB-221-3/4	453551	o. r.

Illustration



Filter Regulator Standard Series 100 - Plastic Vessel with Pressure Gauge

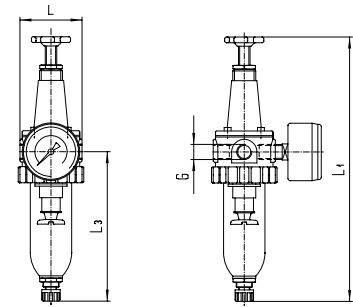
Product group 21	Vessel material Polycarbonate	Pressure range: primary 0.5 - 16 bar secondary 0.5 - 10 bar	Filter pore size 5 or 40 µm	T _{min} 0 °C T _{max} +50 °C	Non-ferrous metal
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Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop
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Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, for mounting panel mounting, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar

G	Max. recommended flow quantity [Nl/min]	Pressure gauge NG	L	L1	L3	Installation Page 245	Type	Order number	Price
G 1/8	400	40	40	167	102	1+2	KFR-114-1/8	454006	o. r.
G 1/4	550	40	40	167	102	1+2	KFR-114-1/4	454026	o. r.
G 1/4	1,150	50	54	239	139	5	KFR-125-1/4	454071	o. r.
G 3/8	1,300	50	54	239	139	5	KFR-125-3/8	454091	o. r.
G 3/8	1,300	50	70	270	152	6	KFR-135-3/8	454131	o. r.
G 1/2	2,400	50	70	270	152	6	KFR-135-1/2	454151	o. r.
G 1/2	3,500	63	82	298	168	7	KFR-146-1/2	454171	o. r.

Illustration



Filter Regulator Modular Series 200 - Plastic Vessel with Pressure Gauge

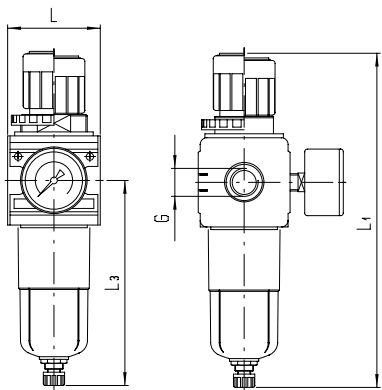
Product group 21	Vessel material Polycarbonate	Pressure range: primary 0.5 - 16 bar secondary 0.5 - 10 bar	Filter pore size 5 µm	T _{min} 0 °C T _{max} +50 °C	Zinc die casting
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Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop
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Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, for mounting panel mounting, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar

G	Max. recommended flow quantity [Nl/min]	Pressure gauge NG	L	L1	L3	Installation Page 245	Type	Order number	Price
G 1/4	900	50	48	194	125	1+9 or 10	KFR-215-1/4	454531	o. r.
G 3/8	1300	50	48	194	125	1+9 or 10	KFR-215-3/8	454551	o. r.
G 1/2	2,700	50	69	248	147	11+12 or 13	KFR-225-1/2	454591	o. r.
G 3/4	4,000	50	69	248	147	11+12 or 13	KFR-225-3/4	454611	o. r.

Illustration



Combination Unit Standard Series 100 - Plastic Vessel with Pressure Gauge

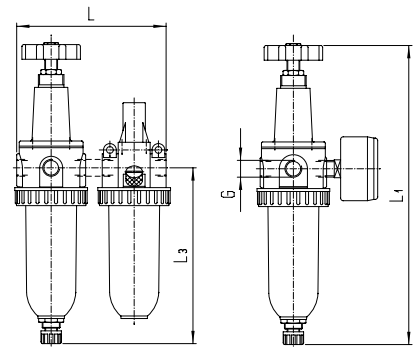
Product group 21	Vessel material Polycarbonate	Filter pore size 5 or 40 µm	Pressure range: primary 0.5 - PB-value secondary 0.5 - 10 bar	T _{min} 0 °C T _{max} +50 °C	Non-ferrous metal
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Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop
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Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, Metal vessel, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar

G	Pressure gauge NG	PB [bar]	L	L1	L3	Installation Page 245	Consisting of 1 piece each	Type	Order number	Price
G 1/8	40	10	85	167	102	1+2	KFR-114-1/8 LUB-111-1/8 nipple 250M-1/8K	KWE-114-1/8	455006	o. r.
G 1/4	40	10	85	167	102	1+2	KFR-114-1/4 LUB-111-1/4 nipple 250M-1/4K	KWE-114-1/4	455026	o. r.
G 1/4	50	16	117	236	138	5 and/or 3	KFR-125-1/4 LUB-121-1/4 nipple 250M-1/4K	KWE-125-1/4	455071	o. r.
G 3/8	50	16	117	236	138	5 and/or 3	KFR-125-3/8 LUB-121-3/8 nipple 250M-3/8K	KWE-125-3/8	455091	o. r.
G 1/2	50	16	150	270	152	6 and/or 4	KFR-135-1/2 LUB-131-1/2 nipple 250M-1/2K	KWE-135-1/2	455151	o. r.

Illustration



Combination Unit Modular Series 200 - Plastic Vessel with Pressure Gauge

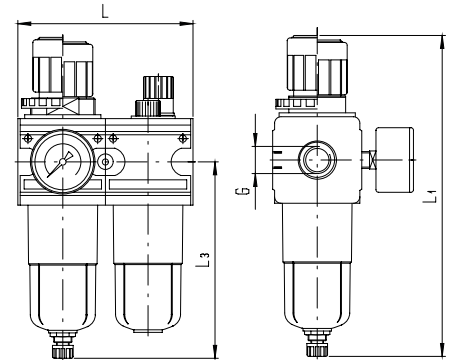
Product group	21	Vessel material	Polycarbonate	Filter pore size	5 µm	Pressure range: primary	0.5 - PB-value	T_{min}	0 °C	Zinc die casting
						secondary	0.5 - 10 bar	T_{max}	+50 °C	

Condensation discharge manual	Flow value according to table, valid for 7 bar primary pressure and 0.35 bar pressure drop
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Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, Metal vessel with sight glass, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar

G	Pressure gauge NG	PB [bar]	L	L1	L3	Installation Page 245	Consisting of 1 piece each	Type	Order number	Price
G 1/4	50	16	93	194	125	10	KFR-215-1/4 LUB-211-1/4 ZWE-210-MONT	KWE-215-1/4	455531	o. r.
G 3/8	50	16	93	194	125	10	KFR-215-3/8 LUB-211-3/8 ZWE-210-MONT	KWE-215-3/8	455551	o. r.
G 1/2	50	16	135	248	147	13	KFR-225-1/2 LUB-221-1/2 ZWE-220-MONT	KWE-225-1/2	455591	o. r.
G 3/4	50	16	135	248	147	13	KFR-225-3/4 LUB-221-3/4 ZWE-220-MONT	KWE-225-3/4	455611	o. r.

Illustration



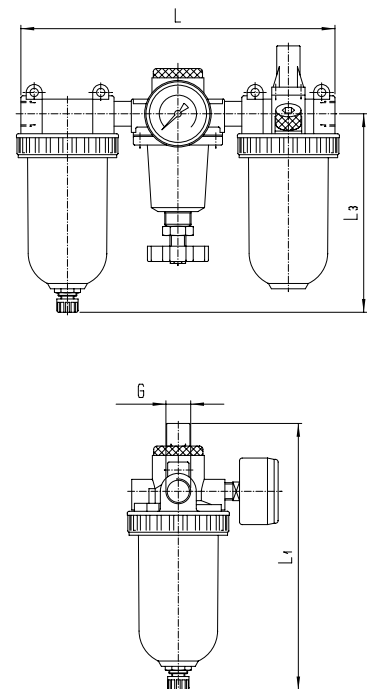
Combination Unit Standard Series 100 - Plastic Vessel with Pressure Gauge

Product group	21	Vessel material	Polycarbonate	Filter pore size	5 or 40 µm	Pressure range: primary	0.5 - PB-value	T_{min}	0 °C	Non-ferrous metal
						secondary	0.5 - 10 bar	T_{max}	+50 °C	

Condensation discharge manual	Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, Metal vessel, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar
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G	Pressure gauge NG	PB [bar]	L	L1	L3	Installation Page 245	Consisting each of 1 piece device and 2 pieces nipple	Type	Order number	Price
G 1/8	40	10	128	136	86	1+2	FIL-111-1/8 REG-114-1/8 LUB-111-1/8 Nipple 250M-1/8K	DWE-114-1/8	456006	o. r.
G 1/4	40	10	128	136	86	1+2	FIL-111-1/4 REG-114-1/4 LUB-111-1/4 Nipple 250M-1/4K	DWE-114-1/4	456026	o. r.
G 1/4	50	16	172	189	138	5 and/or 3	FIL-121-1/4 REG-125-1/4 LUB-121-1/4 Nipple 250M-1/4K	DWE-125-1/4	456071	o. r.
G 3/8	50	16	172	189	138	5 and/or 3	FIL-121-3/8 REG-125-3/8 LUB-121-3/8 Nipple 250M-3/8K	DWE-125-3/8	456091	o. r.
G 1/2	50	16	236	201	150	6 and/or 4	FIL-131-1/2 REG-135-1/2 LUB-131-1/2 Nipple 250M-1/2K	DWE-135-1/2	456151	o. r.
G 1/2	63	16	250	229	175	6 and/or 4	FIL-141-1/2 REG-146-1/2 LUB-141-1/2 Nipple 250M-1/2K	DWE-146-1/2	456216	o. r.
G 3/4	63	16	302	235	176	6 and/or 4	FIL-151-3/4 REG-156-3/4 LUB-151-3/4 Nipple 250M-3/4K	DWE-156-3/4	456236	o. r.
G 1	63	16	302	235	176	6 and/or 4	FIL-151-1 REG-156-1 LUB-151-1 Nipple 250S- 1K	DWE-156-1	456256	o. r.

Illustration



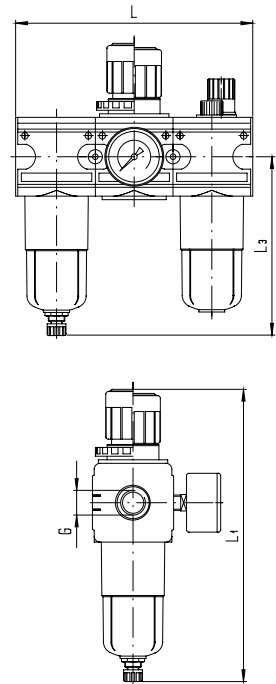
Maintenance Unit Modular Series 200 - Plastic Vessel with Pressure Gauge

Product group 21	Vessel material Polycarbonate	Filter pore size 5 µm	Pressure range: primary 0.5 - PB-value secondary 0.5 - 10 bar	T _{min} 0 °C T _{max} +50 °C	Zinc die casting
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Condensation discharge manual Options: Protection basket, other filter pore size, without pressure gauge, automatic condensation separation, Metal vessel, secondary range 0.5-3 bar or 0.5-6 bar or 0.5-16 bar

G	Pressure gauge NG	PB [bar]	L	L1	L3	Installation Page 245	Consisting each of 1 piece device and 2 pieces nipple	Type	Order number	Price
G 1/4	50	16	138	194	125	10	FIL-211-1/4 REG-215-1/4 LUB-211-1/4 ZWE-210-Mont	DWE-215-1/4	456531	o. r.
G 3/8	50	16	138	194	125	10	FIL-211-3/8 REG-215-3/8 LUB-211-3/8 ZWE-210-Mont	DWE-215-3/8	456551	o. r.
G 1/2	50	16	201	248	147	13	FIL-221-1/2 REG-225-1/2 LUB-221-1/2 ZWE-220-Mont	DWE-225-1/2	456591	o. r.
G 3/4	50	16	201	248	147	13	FIL-221-3/4 REG-225-3/4 LUB-221-3/4 ZWE-220-Mont	DWE-225-3/4	456611	o. r.

Illustration



Home

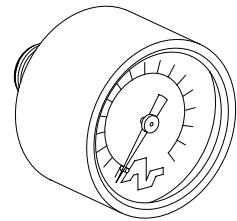


Pressure Gauge Series 100

Product group 22	Application: air, other media on request	Application: according to table briefly resilient up to scale value	Scales: bar and psi	T _{min} -0 °C T _{max} +60 °C	Option: other display ranges
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Nominal size NG [Ø in mm]	Display range [bar]	Operating range [bar]	Class	Thread connector	Type	Order number	Price
40	0-10	0-6	2.5	R1/8 conical	MAN-114-1/8K-0/10	459001	o. r.
40	0-4	0-3	2.5	R1/8 conical	MAN-114-1/8K-0/4	459006	o. r.
40	0-16	0-10	2.5	R1/8 conical	MAN-114-1/8K-0/16	459008	o. r.
50	0-10	0-6	2.5	R1/4 conical	MAN-115-1/4K-0/10	459031	o. r.
50	0-4	0-3	2.5	R1/4 conical	MAN-115-1/4K-0/4	459036	o. r.
50	0-16	0-10	2.5	R1/4 conical	MAN-115-1/4K-0/16	459038	o. r.
63	0-10	0-6	2.5	R1/4 conical	MAN-116-1/4K-0/10	459051	o. r.
63	0-4	0-3	2.5	R1/4 conical	MAN-116-1/4K-0/4	459056	o. r.
63	0-16	0-10	2.5	R1/4 conical	MAN-116-1/4K-0/16	459058	o. r.

Illustration

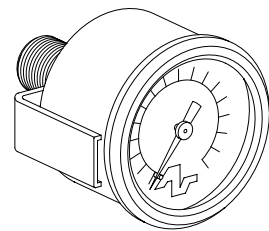


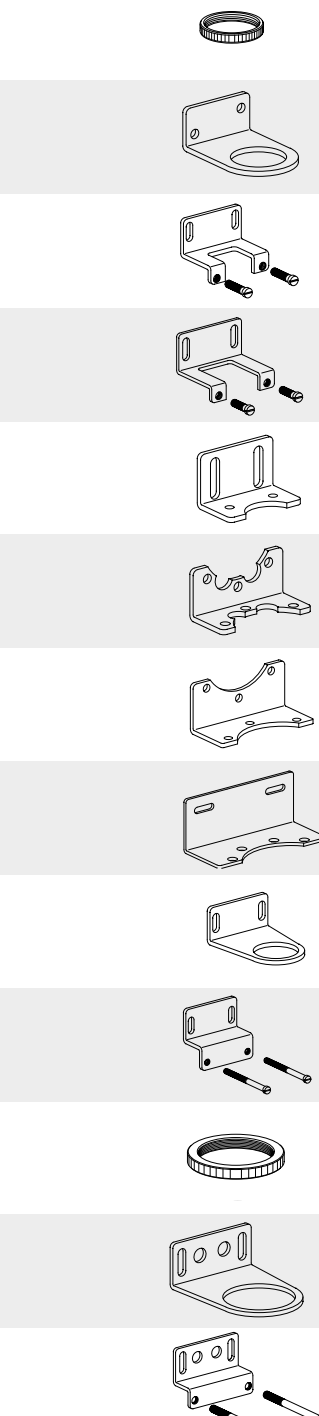
Pressure Gauge for Mounting Panel Mounting Series 300

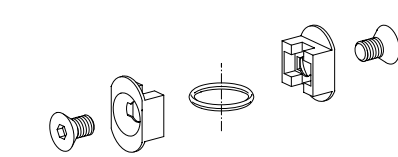
Product group 22	Application: air, other media on request	Application: according to table briefly resilient up to scale value	Scales: bar and psi	T _{min} -0 °C T _{max} +60 °C	Option: other display ranges
-------------------------	--	---	---------------------	---	------------------------------

Nominal size NG [Ø in mm]	Display range [bar]	Operating range [bar]	Class	Thread connector	Type	Order number	Price
40	0-10	0-6	1.6	G 1/4	MAN-314-1/4-0/10	459411	o. r.

Illustration



Installation Elements					Illustration
Product group 21					
No.	Product name	Type	Order number	Price	
1	Securing nut for mounting panel	ZEG-110-M-M30x1.5	400001	o. r.	
2	Mounting bracket	ZEG-110-WR30	400011	o. r.	
3	Mounting bracket (including screws)	ZWE-120-WF38	459901	o. r.	
4	Mounting bracket (including screws)	ZWE-130-WF50	459902	o. r.	
5	Mounting bracket	ZEG-120-WR32	400012	o. r.	
6	Mounting bracket	ZEG-130-WR48	400015	o. r.	
7	Mounting bracket	ZEG-140-WR59	400016	o. r.	
8	Mounting bracket	ZEG-160-WR172	400017	o. r.	
9	Mounting bracket	ZEG-210-WR30	400061	o. r.	
10	Mounting bracket (including screws)	ZWE-210-WF	459962	o. r.	
11	Securing nut for mounting panel	ZEG-220-M-M50x1.5	400052	o. r.	
12	Mounting bracket	ZEG-220-WR50	400063	o. r.	
13	Mounting bracket (including screws)	ZWE-220-WF	459963	o. r.	

Accessories Modular Series 200: Assembly Kit			Illustration
Product group 21			
Type	Order number	Price	
ZWE-210-MONT	459951	o. r.	
ZWE-220-MONT	459952	o. r.	

”AVS RÖMER-PRODUCTS FOR THE FOOD INDUSTRY ARE NSF CERTIFIED! “

Our NSF certified fittings, sensors and solenoid valves are especially used in the food and pharmaceutical sector. 100 % cleanliness, special constructions and material selections are key elements within the NSF guidelines and are required to meet the expectations. Thanks to the expertise of AVS Römer a large number of products are successfully certified.





COMPONENT



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RAPID Fittings (Push-on)
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ELSA Fittings Nickel-Plated Brass (Push-in)

CuZn39Pb3. galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring.

Nickel-plated brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		positionable (no rotating or oscil. move)	for tube outside diameter (mm)								Thread			Page	Link
			4	6	8	10	12	14	16	22	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“		
	Straight Adaptor - Male	-	•	•	•	•	•	•	•	•	M 5 - M 7	G 1/8 - G 3/4	-	8	
	Straight Adaptor - Male	-	•	•	•	•	•	•	•	•	-	-	R 1/8 - R 3/4	8	
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	90° Elbow Adaptor - Male - Positionable	•	•	•	•	•	•	-	-	-	-	-	R 1/8 - R 3/8	10	
	90° Elbow Adaptor - Female	-	•	•	-	-	-	-	-	-	-	G 1/4	-	11	
	T-Adaptor - Male	-	•	•	•	•	•	-	-	-	-	-	R 1/8 - R 1/2	11	
	T-Adaptor - Male - Positionable	•	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	11	
	Straight Connector	-	•	•	•	•	-	-	-	-	-	-	-	12	
	90° Elbow Connector	-	•	•	•	•	•	-	-	-	-	-	-	12	
	T-Connector	-	•	•	•	•	-	-	-	-	-	-	-	12	
	Straight Stem Adaptor	-	•	•	•	•	•	•	•	-	-	G 1/8 - G 1/2	-	13	
	Straight Bulkhead Connector	-	•	•	•	•	•	•	•	•	M 12x1 - M 24x1.5	-	-	13	
	Straight Bulkhead Connector	-	•	•	•	•	-	-	-	•	M 12x1 - M 33x1.5	G 1/8 - G 3/4	-	14	
	Banjo Fitting	-	•	•	•	-	-	-	-	-	M 5	G 1/8 - G 1/4	-	14	

ELSA Fittings POM (Push-in)

Polyoxymethylene. UV-resistant. Suitable for neutral gaseous and liquid media, especially compressed air, water etc.

Plastic
POM

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

15



Overview		positionable (no rotating or oscil. move)	for tube outside diameter (mm)										Thread			Page	Link
			4	6	8	10	12	14	16	20	22	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“			
	Push-in Plug	-	●	●	●	●	●	●	●	-	-	-	-	-	16		
	Tube Cap	-		●	●	●	●	-	●	-	-	-	-	-	16		
	Straight Stem Connector	-	●	●	●	●	-	-	-	-	-	-	-	-	16		
	90° Elbow Adaptor - Male - Positionable	●	●	●	●	●	●	●	●	-	●	M 5	G 1/8 - G 3/4	-	16		
	90° Elbow Adaptor - Male - Positionable	●	●	●	●	●	-	-	-	-	-	-	G 1/8 - G 3/8	-	17		
	90° Elbow Stem Connector	-	●	●	●	●	-	-	-	-	-	-	-	-	17		
	90° Elbow Adaptor - Female - Positionable	●	●	●	●	●	-	-	-	-	-	-	G 1/8 - G 3/8	-	17		
	T-Adaptor - Male - Positionable	●	●	●	●	●	●	●		●	-	-	G 1/8 - G 3/4	-	18		
	T-Stem Connector	-	●	●	●	●	-	-	-	-	-	-	-	-	18		
	T-Adaptor - Female - Positionable	●	●	●	●	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	18		
	Side T-Adaptor - Male - Positionable	●	●	●	●	●	●	●	●	-	●	-	G 1/8 - G 3/4	-	19		
	Y-Adaptor - Male - Positionable	●	●	●	●	●	●	-	-	-	-	-	G 1/8 - G 1/2	-	19		
	Straight Connector	-	●	●	●	●	●	●	●	●	●	-	-	-	20		
	90° Elbow Connector	-	●	●	●	●	●	●	●	-	●	-	-	-	20		
	T-Connector	-	●	●	●	●	●	●	●	-	●	-	-	-	20		
	Y-Connector	-	●	●	●	●	●	●	-	-	-	-	-	-	21		
	Double Y-Connector	-	-	●	●	-	-	-	-	-	-	-	-	-	21		
	Straight Bulkhead Connector	-	●	●	●	●	-	-	-	-	-	-	-	-	22		
	Banjo Fitting	-	●	●	●	●	●	●	●	-	-	M 5	G 1/8 - G 1/2	-	22		

ELSA Fittings PVDF (Push-in)

Polyvinylidene fluoride. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Kunststoff
PVDF

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

23



Overview			positionable (no rotating or oscil. move)	for tube outside diameter (mm)								Thread			Page	Link
				4	6	8	10	12	14	16	22	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“		
	Push-in Plug		-	•	•	•	•	-	-	-	-	-	-	-	24	
	90° Elbow Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	M 5	G 1/8 - G 3/8	-	24	
	90° Elbow Connector with Stem		-	•	•	•	•	-	-	-	-	-	-	-	24	
	90° Elbow Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	25	
	T-Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	25	
	T-Stem Connector		-	•	•	•	•	-	-	-	-	-	-	-	25	
	T-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	26	
	Side T-Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	26	
	Side T-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	27	
	Y-Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	27	
	Y-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	28	
	Straight Adaptor		-	•	•	•	•	•	-	-	-	-	-	-	28	
	90° Elbow Connector		-	•	•	•	•	•	-	-	-	-	-	-	28	
	T-Connector		-	•	•	•	•	•	-	-	-	-	-	-	29	
	Y-Connector		-	•	•	•	•	•	-	-	-	-	-	-	29	
	Straight Bulkhead Connector		-	•	•	•	•	-	-	-	-	-	-	-	29	

ELSA Fittings PPSU (Push-in)

Polyphenylsulfone. Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Plastic
PPSU

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

31



Overview			positionable (no rotating or oscil. move)	for tube outside diameter (mm)								Thread			Page	Link
				4	6	8	10	12	14	16	22	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“		
	Push-in Plug		-	•	•	•	-	-	-	-	-	-	-	-	32	
	Straight Stem Connector with Hose Tail		-	•	•	-	-	-	-	-	-	-	-	-	32	
	Straight Adaptor - Male		-	•	•	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	32	
	90° Elbow Adaptor - Male - Positionable		•	•	•	•	-	-	-	-	-	M 5	G 1/8 - G 3/8	-	32	
	90° Elbow Connector with Stem		-	•	•	-	-	-	-	-	-	-	-	-	33	
	90° Elbow Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	33	
	T-Adaptor - Male - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 3/8	-	33	
	T-Stem Connector		-	•	•	-	-	-	-	-	-	-	-	-	34	
	T-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	34	
	Side T-Adaptor - Male - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 3/8	-	34	
	Side T-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	35	
	Y-Adaptor - Male - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 3/8	-	35	
	Y-Adaptor - Female - Positionable		•	•	•	•	-	-	-	-	-	-	G 1/8 - G 1/4	-	36	
	Straight Connector		-	•	•	•	-	-	-	-	-	-	-	-	36	
	90° Elbow Connector		-	•	•	•	-	-	-	-	-	-	-	-	36	
	T-Connector		-	•	•	•	-	-	-	-	-	-	-	-	37	
	Y-Connector		-	•	•	•	-	-	-	-	-	-	-	-	37	
	Double Y-Connector		-	•	•	•	-	-	-	-	-	-	-	-	37	
	Straight Bulkhead Connector		-	•	•	•	-	-	-	-	-	M 14x1 M 16x1	-	-	38	

ELSA Fittings Stainless Steel AISI 316L (1.4404) (Push-in)

Corresponds to **1.4404 stainless steel**. Suitable for many aggressive media, in particular at higher pressures. The FKM seal is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless steel
AISI 316L

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview			positionable (no rotating or oscil. move)	for tube outside diameter (mm)								Thread			Page	Link
				4	6	8	10	12	14	16	22	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“		
	Straight Adaptor - Male		-	•	•	•	•	•	-	-	-	M 5	G 1/8 - G 3/8	-	40	
	Straight Adaptor - Male		-	•	•	•	•	•	-	-	-	-	-	R 1/8 - R 1/2	40	
	Straight Stem Reducer		-	•	•	-	-	-	-	-	-	-	-	-	40	
	Straight Adaptor - Female		-	•	•	•	•	-	-	-	-	-	G 1/8 - G 1/2	-	41	
	90° Elbow Adaptor - Male		-	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	41	
	90° Elbow Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	M 5	G 1/8 - G 3/8	-	41	
	T-Adaptor - Male		-	•	•	•	•	•	-	-	-	-	-	R 1/8 - R 3/8	42	
	T-Adaptor - Male - Positionable		•	•	•	•	•	•	-	-	-	M 5	G 1/8 - G 3/8	-	42	
	Straight Connector		-	•	•	•	-	-	-	-	-	-	-	-	42	
	90° Elbow Connector		-	•	•	•	•	•	-	-	-	-	-	-	43	
	T-Connector		-	•	•	•	•	•	-	-	-	-	-	-	43	
	Straight Stem Adaptor		-	•	•	•	•	•	-	-	-	-	G 1/8 - G 3/8	-	43	
	Straight Double Stem Connector		-	•	•	-	-	-	-	-	-	-	-	-	44	
	Straight Bulkhead Connector		-	•	•	•	-	-	-	-	-	M 12x1 - M14x1	-	-	44	
	Straight Bulkhead Adaptor - Female		-	•	•	•	-	-	-	-	-	M 12x1 M 14x1 M16x1	G 1/8 - G 1/4	-	44	

RAPID Fittings Nickel-Plated Brass (Push-on) Part 1

CuZn39Pb3, galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring, FDA compliant.

Nickel-plated brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

45



Overview		positionable (no rotating or oscil. move)	for tube outside diameter (D) / inside diameter (d)																Thread			Page	Link
			4,3	5	6	8	10	11.5	12	12	15	17.6	1/4	3/8	1/2	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“					
			3	3	4	6	8	9	9	10	12.5	13	1/8	1/4	3/8								
	Cap Nut	-	●	●	●	●	●	●	●	●	●	●	●	●	●	M7x0.75 - M16x1	-	-	46				
	Cap Nut with Anti-kink Protection	-	-	-	●	●	●	-	●	●	-	-	-	-	-	M10x1 - M16x1	-	-	46				
	Straight Adaptor - Male	-	●	●	●	●	●	●	●	●	●	●	-	-	-	M5 M6	G 1/8 G 1/2	-	46				
	Straight Adaptor - Male	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	R 1/8 - R 1/2	47				
	Straight Adaptor - Male - Positionable	●	-	-	●	●	●	-	●	●	-	-	-	-	-	-	G 1/8 - G 3/8	-	47				
	Straight Adaptor - Male - Positionable	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	47				
	Straight Adaptor - Female	-	●	●	●	●	●	●	●	-	-	-	-	-	-	-	G 1/8 - G 3/8	-	48				
	90° Elbow Adaptor - Male	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	R 1/8 - R 1/2	48				
	90° Elbow Adaptor - Male - Positionable	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	48				
	90° Elbow Adaptor - Male - Positionable	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	49				
	90° Elbow Adaptor - Female	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	49				
	T-Adaptor - Male	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	R 1/8 - R 1/2	49				
	T-Adaptor - Male - Positionable	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	49				
	T-Adaptor - Male - Positionable	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	50				
	Side T-Adaptor - Male	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	R 1/8 - R 1/2	50				
	Straight Fitting	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	-	50				
	90° Elbow Connector	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	-	50				
Other Rapid Fittings																							

RAPID Fittings Nickel-Plated Brass (Push-on) Part 2

CuZn39Pb3, galvanically nickel-plated. Suitable for many neutral gaseous and liquid media, especially compressed air, water, hydraulic oil etc. Special version chemically nickel-plated with FKM seal ring, FDA compliant.

Nickel-plated brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

45



Home



Overview		positionable (no rotating or oscil. move)	for tube outside diameter (D) / inside diameter (d)														Thread			Page	Link
			4,3	5	6	8	10	11,5	12	15	17,6	1/4	3/8	1/2	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“				
			3	3	4	6	8	9	9	10	12,5	13	1/8	1/4				3/8			
	T-Connector	-	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	51	
	Cross Connector	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	51		
	Straight Bulkhead Fitting	-	●	●	●	●	●	●	●	●	●	●	●	-	-	-	see product details			51	
	Bulkhead Fitting Accessories	-	see product details														-	-	-	51	
	Bulkhead Adaptor also Suitable for Pressure Gauge	-	●	●	●	●	●	●	●	●	-	-	-	-	-	-	see product details			52	
	Straight Solder-in Fitting	-	●	●	●	●	●	-	-	●	●	●	-	-	-	-	-	-	52		
	Banjo Ring Piece	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	52		
	Banjo T-Ring Piece	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	M 5	G 1/8 - G 1/2	-	53	
	Banjo - Short	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	M 5	G 1/8 - G 1/2	-	53	
	Banjo - Long	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	G 1/8 - G 1/2	-	54	
	T-Banjo - Short	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	M 5	G 1/8 - G 1/2	-	54	
	T-Banjo - Long	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	G 1/8 - G 1/2	-	55	
	Straight Adaptor - Male with Anti-kink Protection	-	-	-	●	●	●	-	●	●	-	-	-	-	-	-	-	G 1/8 - G 1/2	-	55	
	Straight Adaptor - Male with Anti-kink Protection	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	R 1/8 - R 1/2	55	
	Straight Adaptor - Male - Positionable with Anti-kink Protection	●	-	-	●	●	●	-	●	●	-	-	-	-	-	-	-	G 1/8 - G 3/8	-	56	
	Straight Adaptor - Male - Positionable with Anti-kink Protection	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	56	
	90° Elbow Adaptor - Male with Bend Protection Spiral	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	R 1/8 - R 3/8	56	
	90° Elbow Adaptor - Male - Positionable with Anti-kink Protection	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	57	
	90° Elbow Adaptor - Male - Positionable with Anti-kink Protection	●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	57	

RAPID Fittings Stainless Steel AISI 316L (1.4404) with Union Nut Nickel-Plated Brass (Push-on)

corresponds to stainless steel 1.4404. Suitable for many aggressive media. The FKM seal ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless steel
AISI 316L

CuZn39Pb3. galvanically nickel-plated. Union nut not in contact with the medium.

Union nut: Nickel
-plated brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

59



Overview			positionable (no rotating or oscil. move)	for tube outside diameter (D) / inside diameter (d)														Thread			Page	Link
				4,3	5	6	8	10	11,5	12	12	15	17,6	1/4	3/8	1/2	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“			
				3	3	4	6	8	9	9	10	12,5	13	1/8	1/4	3/8						
	Straight Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	G 1/8 - G 1/2	-	60			
	Straight Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	60			
	90° Elbow Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	60			
	90° Elbow Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	60			
	90° Elbow Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	61			
	T-Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	61			
	T-Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	61			
	T-Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	61			
	Side T-Adaptor - Male		-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 3/8	61			
	90° Elbow Connector		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	62			
	T-Connector		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	62			

RAPID Fittings Stainless Steel AISI 316L (1.4404) (Push-on)

Corresponds to 1.4404 stainless steel. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless steel
AISI 316L

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview			positionable (no rotating or oscil. move)	for tube outside diameter (D) / inside diameter (d)															Thread			Page	Link
				4,3	5	6	8	10	11,5	12	12	15	17,6	1/4	3/8	1/2	metric NBR- O-ring „M“	pipe thread NBR- O-ring „G“	taper thread coated „R“				
				3	3	4	6	8	9	9	10	12,5	13	1/8	1/4	3/8							
	Straight Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	G 1/8 - G 1/2	-	64				
	Straight Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	64				
	90° Elbow Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	64				
	90° Elbow Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	64				
	90° Elbow Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	65				
	T-Adaptor - Male		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	R 1/8 - R 1/2	65				
	T-Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	G 1/8 - G 1/4	-	65				
	T-Adaptor - Male - Positionable		●	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 1/4	65				
	Side T-Adaptor - Male		-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	R 1/8 - R 3/8	65				
	90° Elbow Connector		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	66				
	T-Connector		-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	66				

Fitting Accessories Nickel-Plated Brass / Alu Part 1

CuZn39Pb3, electrolytically nickel-plated (on request also chemically nickel-plated)

Nickel-plated
brass

Aluminium alloy AlCuMgPbF37

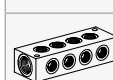
Aluminium

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Thread		Page	Link
		cylindrical	conically		
	Hosetail Adaptor	●	-	68	
	90° Elbow Hosetail Adaptor	-	●	68	
	T-Hosetail Adaptor	-	●	68	
	Double Nipple	●	-	68	
	Double Nipple	-	●	69	
	Double Nipple - Union	-	●	69	
	Double Reducing Nipple	●	-	69	
	Double Reducer Nipple	-	●	69	
	Reducer	●	-	70	
	Reducer - Positionable	●	-	70	
	Reducer	inside ●	●	70	
	Reducer	●	-	70	
	Reducer	inside ●	●	71	
	Socket	●	-	71	
	Reducing Socket	●	-	71	
	Blind Plug	-	●	71	
	Plug	●	-	71	

Overview		Thread		Page	Link
		cylindrical	conically		
	Plug with Internal Hexagon - DIN 908	●	-	72	
	Plug with Internal Hexagon	●	-	72	
	Lock Nut	●	-	72	
	90° Elbow	●	-	72	
	90° Elbow	inside ●	●	72	
	90° Elbow	-	●	73	
	T-Piece	●	-	73	
	T-Piece	inside ●	●	73	
	T-Piece	inside ●	●	73	
	T-Piece	inside ●	●	73	
	T-Piece	inside ●	●	74	
	Y-Piece	inside ●	●	74	
	Cross-Piece	●	-	74	
	90° Elbow Compact	●	-	74	
	T-Piece - Compact	●	-	74	
	Cross-Manifold	●	-	75	
	Manifold	●	-	75	

more Fitting Accessories



Fitting Accessories Nickel-Plated Brass / Alu Part 2

CuZn39Pb3, elektrolytisch vernickelt (Auf Wunsch auch chemisch vernickelt)

Nickel-plated brass

Aluminium alloy AlCuMgPbF37

Aluminium

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

67



Overview		Thread		Page	Link
		cylindrical	conically		
	Banjo Ring Piece	●	-	75	
	Banjo Ring Piece	●	-	75	
	T-Banjo Ring Piece	●	-	75	
	Banjo Bolt - Short	●	-	76	
	Banjo Bolt - Long	●	-	76	
	Banjo Bolt - Double Stacking - Short	●	-	76	
	Banjo Bolt - Double Stacking - Long	●	-	76	
	Banjo Bolt - Triple Stacking - Short	●	-	77	
	Banjo Bolt - Triple Stacking - Long	●	-	77	
	Banjo Bolt with Top Port - Short	●	-	77	
	Quick Release Coupling Plug with Male Thread - NG 5 and NG 8	●	-	78	
	Quick Release Coupling Plug with Female Thread - NG 5 and NG 8	●	-	78	
	Quick Release Coupling Plug with Hosetail - NG 5 and NG 8	-	-	78	
	Quick Release Coupling Plug with Push-on Connector - NG 5 and NG 8	-	-	78	
	Quick Release Coupling Plug with Push-on Connector and Anti-kink Protection - NG 5 and NG 8	-	-	78	
	Quick Release Coupling with Male Thread - NG 5 and NG 8	●	-	79	
	Quick Release Coupling with Female Thread - NG 5 and NG 8	●	-	79	

Overview		Thread		Page	Link
		cylindrical	conically		
	Quick Release Coupling with Push-on Connector - NG 5	-	-	79	
	Quick Release Coupling with Hosetail - NG 8	-	-	79	
	Silencer	●	-	80	
	Silencer	●	-	80	
	Silencer	●	-	80	
	Silencer	●	-	81	
	Silencer	-	-	81	
	Silencer	●	-	81	
	Silencer	-	-	81	
	Sealing Ring copper	-	-	82	
	Sealing Ring Fiber	-	-	82	
	Sealing Ring Alu	-	-	82	
	Sealing Ring Polyamide	-	-	82	
	Sealing Ring Hard-PVC	-	-	82	
	Distance Ring Polyamide	-	-	83	
	Distance Ring Polyamide	-	-	83	
	Pressure Gauge Sealing Ring	-	-	83	
	PTFE Band	-	-	83	

Fitting Accessories Stainless Steel AISI 316L (1.4404)

Corresponds to 1.4404 stainless steel. Suitable for many aggressive media, in particular at higher pressures. The FKM seal is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless steel
AISI 316L

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview			Thread		Page	Link
			cylindrical	conically		
	Hose Tail Adaptor		●	-	86	
	Double Nipple		●	-	86	
	Double Nipple		-	●	86	
	Double Reducing Nipple		●	-	86	
	Double Reducing Nipple		-	●	87	
	Reducer		●	-	87	
	Reducer		● inside	●	87	
	Reducer		●	-	88	
	Reducer		● inside	●	88	
	Socket		●	-	88	
	Reducing Socket		●	-	88	
	Blind Plug		●	-	88	

Tube

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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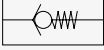
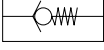
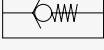
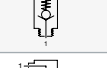
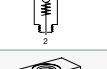
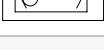
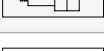
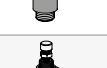
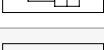
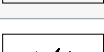
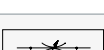
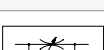
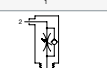
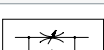
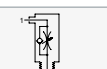
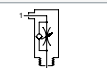
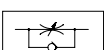
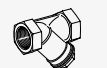
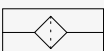
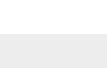
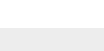
Overview		for tube																				Tube colour							Page	Link	
		Outside diameter (D) / Inside diameter (d)																				transparent	nature	blue	red	green	yellow	black			
		4	4	4,3	5	6	6,2	8	8,2	10	10,2	11,6	12	12	12,5	14	15	16	17,6	22											
		2	2,5	3	3	4	4	6	6	8	8	9	9	10	10	11	12,5	13	13	18											
	Polyamide Tube - Flexible Polyamide PA12-PHL	-	●	-	●	●	-	●	-	●	-	-	●	●	-	●	●	●	-	●	●	-	●	●	●	●	●	90			
	Polyethylene Tube - Flexible LD-PE	-	-	-	●	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	90			
	Polyurethane Tube - Flexible PUR	-	●	●	●	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	●	-	●	-	-	-	●	91			
	Polyvinylchloride Tube - Flexible PVC tissue	-	-	-	-	-	●	-	●	-	●	●	-	-	●	-	●	-	●	-	-	-	●	-	-	-	-	91			
	Kunststoff-Schlauch Fluorethylenpropylen FEP	●	-	-	-	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	91			
	Perfluoralkoxy-Copolymer Tube PFA	●	-	-	-	●	-	●	-	●	-	-	-	●	-	-	-	-	-	-	-	●	-	-	-	-	-	91			
	10-fold Tube Terminal	see product details																												92	

Function Fittings Nickel-Plated Brass / POM / Alu (Push-in)

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Graph	Material	Operating pressure (bar)	Temperature range	Page	Link
	Non-Return Valve with ELSA Push-in Connector		Plastic POM	0.2 - 10	-20 °C - +60 °C	94	
	Non-Return Valve		Nickel-plated brass	0.2 - 16	siehe Produkt	94	
	Non-Return Valve		Nickel-plated brass	0.02 - 16	-20 °C - +90 °C	94	
	Inlet Strainer	see product details				94	
	Banjo Non-Return Valve - Supply Air Closing		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	95	
	Banjo Non-Return Valve - Exhaust Air Clothing		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	96	
	Double Non-Return Valve		Aluminium bright	0.5 - 10	-20 °C - +90 °C	96	
	Quick Relief Valve		Nickel-plated brass	0.2 - 10	-20 °C - +80 °C	97	
	Throttle - Male		Nickel-plated brass	0 - 16	-50 °C - +100 °C	97	
	Throttle - Male		Nickel-plated brass	0 - 12	-10 °C - +80 °C	97	
	Throttle Valve with ELSA Push-in Connector		Plastic POM	0 - 10	-20 °C - +60 °C	98	
	Throttle Valve		Aluminium bright	0 - 10	-20 °C - +80 °C	98	
	Swivel Throttle Valve with Screw Slot		Nickel-plated brass	0 - 10	-10 °C - +80 °C	99	
	Banjo Throttle Valve - Knurled Screw Lockable		Nickel-plated brass	0 - 10	-10 °C - +80 °C	100	
	Throttle Non-Return Valve with ELSA Push-in Connector		Plastic POM	0.2 - 10	-20 °C - +60 °C	100	
	Throttle Non-Return Valve		Aluminium bright	0.2 - 10	-20 °C - +80 °C	101	
	Banjo Throttle Non-Return Valve - Exhaust Air Restricting - Screw Slot		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	101	
	Banjo Throttle Non-Return Valve - Exhaust Air Restricting - Knurled Screw Lockable		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	102	
	Banjo Throttle Non-Return Valve - Supply Air Restricting		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	103	
	Swivel Throttle Non-Return Valve - Air Inlet Throttling - Knurled Screw Lockable		Nickel-plated brass	0.2 - 10	-10 °C - +80 °C	104	
	Strainer Type SMF Series 100		Nickel-plated brass	see product details	-10 °C - +180 °C	104	

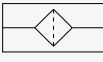
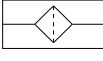
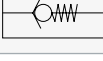
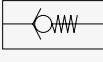
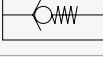
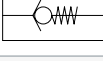
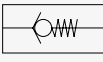
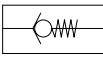
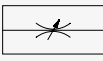
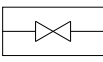
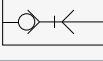
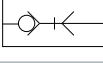
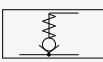
Function Fittings PPSU / Stainless Steel AISI 316L (1.4404) (Push-in)

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Home

Overview			Graph	Material	Operating pressure (bar)	Temperature range		Page	Link
						Ambient	Medium		
	Filter with Push-in Connector and Stem			Plastic PPSU	0 - 16	0 °C - +60 °C	0 °C - +140 °C	106	
	Filter with Push-in Connectors			Plastic PPSU	0 - 16	0 °C - +60 °C	0 °C - +140 °C	106	
	Non-Return Valve with Push-in Connector on Outlet			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	106	
	Non-Return Valve with Push-in Connector on Inlet			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	106	
	Non-Return Valve with Push-in Connector on Inlet			Stainless steel AISI 316L	0.1 - 8	0 °C - +140 °C	0 °C - +140 °C	107	
	Non-Return Valve with Plug-in Connector - Stem on Inlet			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	107	
	Non-Return Valve with Plug-in Connector - Stem on Outlet			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	107	
	Non-Return Valve with Push-in Connectors			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	107	
	Non-Return Valve with Push-in Connectors and Hose Tail			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	108	
	Non-Return Valve with Push-in Connectors			Plastic PPSU	0.1 - 16	0 °C - +60 °C	0 °C - +140 °C	108	
	Throttle Valve with Push-in Connectors			Plastic PPSU	0 - 20	0 °C - +60 °C	0 °C - +140 °C	108	
	Shut-Off Valve with Push-in Connectors			Plastic PPSU	0 - 16	0 °C - +60 °C	0 °C - +140 °C	108	
	Quick Coupling with Push-in Connectors - int. NRV			Plastic PPSU	see product details			109	
	Bulkhead Quick Coupling with Push-in Connectors, int. NRV			Plastic PPSU	see product details			109	
	Pressure Relief Valve with Push-in Connectors			Plastic PPSU	see product details			109	

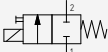
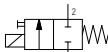
MAGMA Solenoid Valves Type ETV Series 100

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Home

Overview					Graph	Tube connection outside diameter		Seal material	DN	Page	Link
						4 mm	6 mm				
	2/2-Way Coaxial Solenoid Valve - Type ETV Series 100				-	●	FKM (FDA compliant)	2 3 4	112		
	2/2-Way 90° Solenoid Valve - Type ETV Series 100				-	●	FKM (FDA compliant)	2 3 4	112		
	3/2-Way Solenoid Valve - Type ETV Series 100				-	●	FKM (FDA compliant)	2 3 4	112		
	3/2-Way Solenoid Valve - Type ETV Series 100				-	●	FKM (FDA compliant)	2 3 4	113		

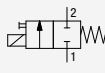
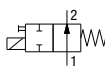
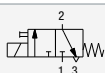
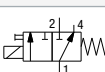
MAGMA Solenoid Valves Type ETV Series 200

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Home

Overview					Graph	Tube connection outside diameter		Seal material	DN	Page	Link
						4 mm	6 mm				
	2/2-Way Coaxial Solenoid Valve - Type ETV Series 200			•	•	EPDM FKM (FDA compliant)	1.5 2 2.5	116			
	2/2-Way Coaxial Solenoid Valve - Type ETV Series 200			•	•	EPDM FKM (FDA compliant)	1.5 2 2.5	116			
	3/2-Way Coaxial Solenoid Valve - Type ETV Series 200			•	•	EPDM FKM (FDA compliant)	1.5 2 3	117			
	3/2-Way Coaxial Solenoid Valve - Type ETV Series 200			•	•	EPDM FKM (FDA compliant)	1.5 2 3	117			

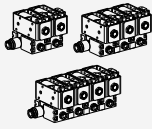
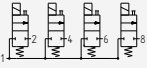
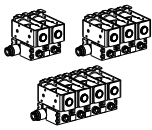
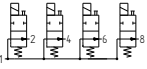
MAGMA Solenoid Valve Batteries Type ETV Series 200

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Home

Overview			Graph	Tube connection outside diameter		Seal material	DN	Page	Link
				4 mm	6 mm				
	2/2-Way Solenoid Valve Battery - Type ETV Series 200			•	•	EPDM FKM (FDA konform)	1 1.5 2 2.5	120	
	2/2-Way Solenoid Valve Battery - Type ETV Series 200			•	•	EPDM FKM (FDA konform)	1 1.5 2 2.5	121	

2/2- and 3/2-Way Solenoid Valves Type EAV Series 200

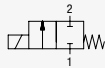
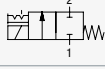
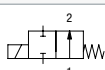
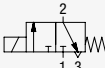
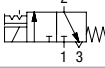
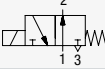
CuZn39Pb3. Bright brass

Bright brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

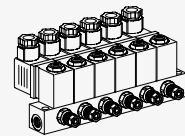
123



Overview		Graph	Thread		Seal material	DN	Page	Link
			metrisch	Pipe thread				
	2/2-Way Solenoid Valve - Type EAV Series 200 without manual override		M 5	G 1/8 G 1/4	NBR FKM	1,2 1,5 1,8 2 2,2 3	124	
	2/2-Way Solenoid Valve - Type EAV Series 200 with manual override		M 5	G 1/8 G 1/4	NBR FKM	1,5 2 3	124	
	further technical data						125	
	2/2-Way Solenoid Valve - Type EAV Series 200 without manual override		M 5	G 1/8	NBR FKM	1,2 1,5 1,8	126	
	further technical data						127	
	3/2-Way Solenoid Valve - Type EAV Series 200 without manual override		M 5	G 1/8	NBR FKM	1,2 1,5 1,8	128	
	3/2-Way Solenoid Valve - Type EAV Series 200 with manual override		M 5	G 1/8	NBR FKM	1,2 1,5 1,8	128	
	further technical data						129	
	3/2-Way Solenoid Valve - Type EAV Series 200 with manual override		M 5	G 1/8	NBR FKM	1,2 1,5 1,8	130	
	Power Bar Type ZAV Series 100 to Solenoid Valve EAV Series 200	see product details					131	

Sondermagnetventile

AVS-Römer also manufactures special versions according to customer requirements, e.g. multiple solenoid valves



2/2- and 3/2-Way Solenoid Valves Type EAV Series 700

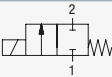
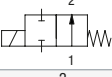
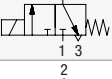
Corresponds to 1.4404 stainless steel. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless Steel

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Graph	Seal material	DN	Page	Link
	2/2-Way Solenoid Valve - Type EAV Series 700		FKM	1,2 1,5 2 3	134	
	2/2-Way Solenoid Valve - Type EAV Series 700		FKM	1,2 1,5 1,8	135	
	3/2-Way Solenoid Valve - Type EAV Series 700		FKM	1,2 1,5 2 3	136	
	3/2-Way Solenoid Valve - Type EAV Series 700		FKM	1,2 1,5 1,8	137	

3/2-Way Flange-Solenoid Valves Type EAV Series 300

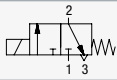
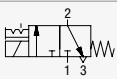
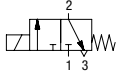
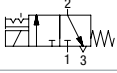
CuZn39Pb3. Brass bright

Brass
bright

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Graph	Seal material	DN	Page	Link
	3/2-Way Solenoid Valve - Type EAV Series 300 without manual override		NBR FKM	1.2 1.5 1.8	140	
	3/2-Way Solenoid Valve - Type EAV Series 300 with manual override		NBR FKM	1.2 1.5 1.8		
	further technical data				141	
	3/2-Way Solenoid Valve Battery - Type EAV Series 300 without manual override		NBR	1.2 1.5 1.8	142	
	3/2-Way Solenoid Valve Battery - Type EAV Series 300 with manual override		NBR	1.2 1.5 1.8		
	further technical data				143	
	Collector Manifold for Solenoid Valve - Type EAV Type ZAV Series 300		see product details		143	

2/2-Way Solenoid Valves Type EBV Series 100

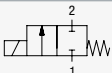
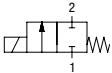
CuZn39Pb3. Brass bright

Brass
bright

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

145



Overview		Graph	Thread	Voltage / Electricity	Seal material	DN	Page	Link
	2/2-Way Solenoid Valve - Direct-acting - Type EBV Series 100		G 1/4	12 V DC 24 V DC	NBR FKM	3 4 6	146	
	2/2-Way Solenoid Valve - Direct-acting - Type EBV Series 100		G 3/4	12 V DC 24 V DC	NBR FKM	3 4 6	146	

2/2-Way Solenoid Valves Type EDV Series 100

CuZn39Pb3. Brass blank

Brass blank

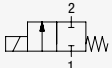
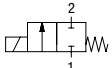
Corresponds to 1.4404 stainless steel. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Stainless steel
AISI 316L

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

147



Overview		Graph	Thread	Voltage / Electricity	Seal material	DN	Page	Link
	2/2-Way Solenoid Valve - Type EDV Series 100		G 3/8 G 1/2	24 V DC 24 V 50 Hz 230 V 50 Hz	PTFE / NBR	3 4 6 10	148	
	Variant 2/2-Way Solenoid Valve - Type EDV Series 100		see product details				148	

GAMMA Valves Series 100

CuZn39Pb3. Bright brass

Bright brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Gamma valve Functional description 1

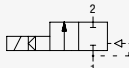
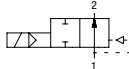
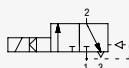
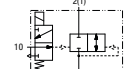
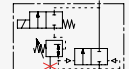
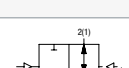
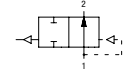
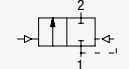
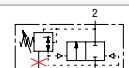
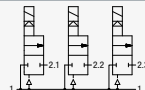
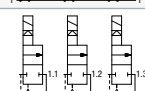
150



Gamma valve Functional description 2

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Overview	Graph	Thread	Seal material	PN	DN	Page	Link
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16 / 8	15 20 25 32 40 50	152	
	further technical data / equipment					153	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	154	
	further technical data / equipment					155	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	12,5 10	15 20 25 32 40 50	156	
	further technical data / equipment					157	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	158	
	further technical data / equipment					159	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR	16 / 8	15 20 25 32 40 50	160	
	further technical data / equipment					161	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	162	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50		
further technical data / equipment						163	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR	16	15 20 25 32 40 50	164	
	further technical data / equipment					165	
		G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	NBR	16	15 20 25 32 40 50	166	
	further technical data / equipment					167	
		G 1/2 G 3/4	NBR EPDM FKM	16 / 8	15 20	168	
		G 1/2 G 3/4	NBR EPDM FKM	16 / 8	15 20	169	

GAMMA Valves Serie 200

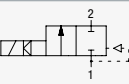
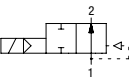
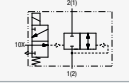
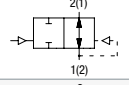
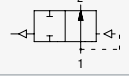
CuZn39Pb3. Bright brass

Bright brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

171



Overview		Graph	Thread	Seal material	PN	DN	Page	Link
	2/2-Way Solenoid Valve - Type EGV Series 200		G 1/2 G 3/8	NBR EPDM FKM	16/8	10 12	172	
	2/2-Way Solenoid Valve - Type EGV Series 200		G 1/2 G 3/8	NBR EPDM FKM	16/8	10 12	173	
	2/2-Way Solenoid Valve - Type EGV Series 200		G 1/2 G 3/8	NBR EPDM FKM	16	10 12	174	
	2/2-Way Valve - Type PGV Series 200 - Pressure Operated (Volume Booster) by External Medium		G 1/2 G 3/8	NBR EPDM FKM	16	10 12	175	
	2/2-Way Valve - Type PGV Series 200 - Pressure Operated (Volume Booster) by Own Medium		G 1/2 G 3/8	NBR EPDM FKM	16	10 12	175	

GAMMA Valves Series 300

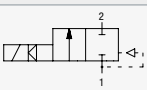
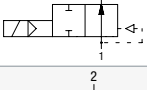
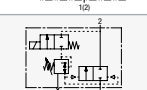
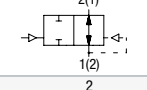
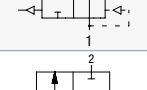
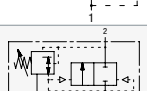
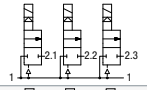
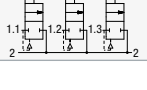
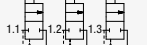
CuZn39Pb3. Bright brass

Bright brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Graph	Thread	Seal material	PN	DN	Page	Link
	2/2-Way Solenoid Valve - Type EGV Series 300		G 1/2	NBR EPDM FKM	16/8	13	178	
	2/2-Way Solenoid Valve - Type EGV Series 300		G 1/2	NBR EPDM FKM	16	13	179	
	2/2-Way Solenoid Valve - Type EGV Series 300		G 1/2	NBR EPDM FKM	12,5	13	180	
	2/2-Way Solenoid Valve - Type EGV Series 300		G 1/2	NBR EPDM FKM	16	13	181	
	2/2-Way Solenoid Valve with Pressure Regulator - Type EGR Series 300		G 1/2	NBR	16/8	13	182	
	2/2-Way Valve - Type PGV Series 300 - Pressure Operated (Volume Booster) by External Medium		G 1/2	NBR EPDM FKM	16	13	183	
	2-Way Valve - Type PGV Series 300 - Pressure Operated (Volume Booster) by own Medium		G 1/2	NBR EPDM FKM	16	13	183	
	2/2-Way Valve - Type PGV Series 300 - Pressure Operated		G 1/2	NBR	16	13	184	
	Pressure Regulator Valve - Type RGV Series 300		G 1/2	NBR	16	13	185	
	2/2-Way Solenoid Valve Battery - Type EGV Series 300		G 1/2	NBR EPDM FKM	16/8	13	186	
	2/2-Way Solenoid Valve Battery - Type EGV Series 300		G 1/2	NBR EPDM FKM	16/8	13	187	

GAMMA Valves Series 700 Stainless Steel AISI 303 (1.4305)

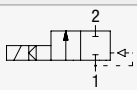
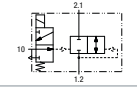
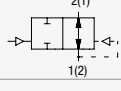
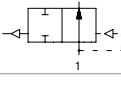
corresponds to stainless steel 1.4305.

Stainless steel
1.4305

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview	Graph	Thread	Seal material	PN	DN	Page	Link
		G 1/2 G 3/4 G 1, G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16/8	15 20 25 32 40 50	190	
	further technical data					191	
		G 1/2 G 3/4 G 1, G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	192	
	further technical data					193	
		G 1/2 G 3/4 G 1, G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	194	
	further technical data					195	
		G 1/2 G 3/4 G 1, G 1 1/4 G 1 1/2 G 2	NBR EPDM FKM	16	15 20 25 32 40 50	194	
	further technical data					195	

GAMMA Valves Series 800 Stainless Steel AISI 303 (1.4305)

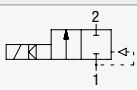
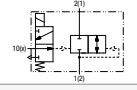
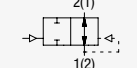
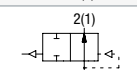
corresponds to stainless steel 1.4305.

Stainless steel
1.4305

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

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Overview		Graph	Thread	Seal material	PN	DN	Page	Link
	2/2-Way Solenoid Valve - Type EGV Series 800		G 1/2	NBR EPDM FKM	16/8	12	198	
	2/2-Way Solenoid Valve - Type EGV Series 800		G 1/2	NBR EPDM FKM	16	12	199	
	2/2-Way Valve - Type PGV Series 800 - Pressure Operated by External Medium		G 1/2	NBR EPDM FKM	16	12	200	
	2/2-Way Valve - Type PGV Series 800 - Pressure Operated by own Medium		G 1/2	NBR EPDM FKM	16	12	200	

SIGMA Valves

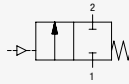
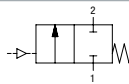
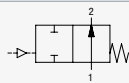
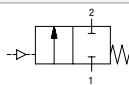
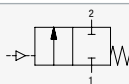
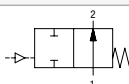
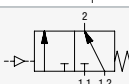
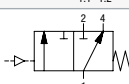
CuZn39Pb3. Bright brass

Bright brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

201



Overview	Graph	Thread	Seal material	PB	PS	DN	Page	Link
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 10	3,8 - 10	15 20	202	
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 10	3,8 - 10	15 20		
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 12,5	2 - 10	15 20		
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 12,5	2 - 10	15 20	203	
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 10	3,8 - 10	15 20		
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 12,5	2 - 10	15 20		
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 10	3,8 - 10	15 20	204	
		G 1/2 G 3/4	NBR HNBR EPDM FKM	0 - 16 0 - 10	3 - 10	15 20		
Dimension tables and drawings for SIGMA valves							205	

Solenoid Coils and Cable Sockets

Overview		nominal voltage	Pressure screw thread	For cables diameter	Electric wire-length (cm)	Casing-colour	operating current [A] at ambient temperature up		Page	Link
							75 C°	90 C°		
	Solenoid Coils	see product details							207	
	Cable Sockets - Type ESG-122 100 pieces	250 V AC, 300V DC	Pg 7 Pg 9	4 - 6 6 - 8	-	black	10	7	208	
	Cable Sockets - Type ESG-162 100 pieces	250 V AC, 300V DC	-	PVC 3 x 0,75 H05VVF	50 150	black	5	3		
	Cable Sockets - Type ESG-182 100 pieces	250 V AC, 300V DC	Pg 9 Pg 11	6 - 8 8 - 10	-	black	10	7	209	
	Cable Sockets - Type ESG-183 100 pieces	250 V AC, 300V DC	Pg 9 Pg 11	6 - 8 8 - 10	-	black	10	7		
	Cable Sockets - Type ESG-572 100 pieces	220 V AC	Pg 9	6 - 8	-	black	0.8	0.6	210	
	Cable Sockets - Type ESG-542 100 pieces	24 V DC	Pg 9	6 - 8	-	transp.	2.5	2		
	Cable Sockets - Type ESG-132 100 pieces	220 V AC	Pg 9	6 - 8	-	black	1.5	1.4	211	
	Cable Sockets - Type ESG-532 100 pieces	24 V DC	Pg 9	6 - 8	-	transp.	2.5	2		

Temperature Sensors Type ITS POM

Polyoxymethylene. UV-resistant. Suitable for neutral gaseous and liquid media, especially compressed air, water etc.

Plastic
POM

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

213



Overview		for tube D			Seal material	DN	Page	Link
		4	6	8				
	Temperature Sensor - Type ITS POM	•	•		FKM	2.5 4.0	214	

Temperature Sensors Type ITS PVDF		
Polyvinylidene fluoride. Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.		Plastic PVDF
CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.		215 

Overview			for tube D			Seal material	DN	Page	Link
			4	6	8				
	Temperature Sensor - Type ITS PVDF		•	•		FKM (FDA konform)	2.5 4.0	216	

Temperature Sensors Type ITS PPSU

Polyphenylsulfone. Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

Plastic
PPSU

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

217



Overview			for tube D			Seal material	DN	Page	Link
			4	6	8				
	Temperature Sensor, Type ITS		●	●		FKM (FDA konform)	2.5 4.0	218	

Pressure Sensors Type IPS PPSU

Polyphenylsulfone. Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

Plastic
PPSU

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

219



Overview			for tube D			Seal material	DN	Page	Link
			4	6	8				
	Pressure Sensor - Type IPS		●	●	●	FKM (FDA konform)	2.5 4.0 6.0	220	

Dispensing Valves Type EFC PPSU

Polyphenylsulfone. Suitable for many aggressive media with temperatures up to 140 °C (hot water, steam). The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.

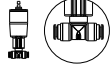
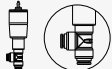
Plastic
PPSU

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

223



Overview 			for tube D			Seal material	DN	Page	Link
			4	6	8				
	Dispensing Valve - Type EFC		•	•		FKM EPDM (FDA konform)	0.5 1 1.5 2 3	224	
	Dispensing Valve - Type EFC			•	•	FKM EPDM (FDA konform)	4 5	225	

Shut-off Valves POM

Polyoxymethylene, UV-resistant. Suitable for neutral gaseous and liquid media, especially compressed air, water etc.

Plastic
POM

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

227



Overview	 ELSA Push-in Fittings	for tube OD	Thread	Spanner size	Page	Link
	2-Way Shut-off Valve	10 12	M22x1,5	27	228	

Ball Valves Brass

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

229



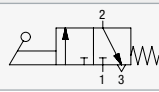
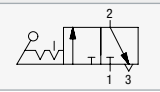
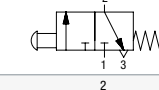
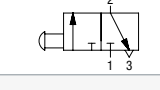
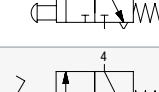
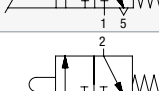
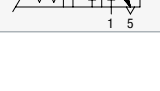
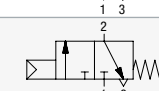
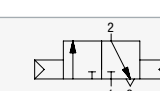
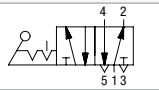
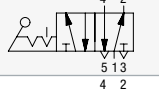
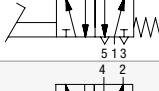
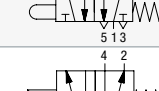
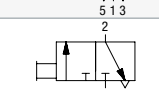
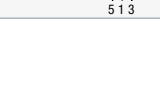
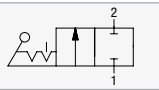
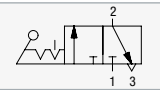
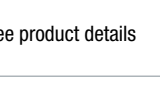
Overview		Graph	Thread	DN	Page	Link
	2-Way Ball Valve - Small Series		G 1/4 G 3/8 G 1/2	8 10 15	230	
	2-Way Ball Valve - Small Series		G 1/4 G 3/8 G 1/2	8 10 15	230	
	2-Way Ball Valve - Small Series		G 1/4 G 3/8 G 1/2	8 10 15	230	
	2-Way Ball Valve - Small Series		G 1/4 G 3/8 G 1/2	8 10 15	230	
	2-Way Ball Valve - Full Flow - however DN 65 to 100 slightly reduced		G 1/4 G 3/8 G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2 G 2 1/2 G 3 G 4	8 10 15 20 25 32 40 50 65 80 100	230	
	2-Way Ball Valve		G 1/4 G 3/8 G 1/2 G 3/4 G 1	8 10 15 20 25	231	
	2-Way Ball Valve		G 3/8 G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	10 15 20 25 32 40 50	231	
	2-Way Ball Valve		G 3/8 G 1/2 G 3/4 G 1	10 15 20 25	231	
	2-Way Ball Valve - DIN-DVGW Reg. No. 92.01 e 770 (full flow)		Rp 3/8 Rp 1/2 Rp 3/4 Rp 1 Rp 1 1/4 Rp 1 1/2 Rp 2	10 15 20 25 32 40 50	231	
	2-Way Ball Valve, DIN-DVGW Reg. No. 92.01 e 770 (full flow)		Rp 3/8 Rp 1/2 Rp 3/4 Rp 1	10 15 20 25	231	
	3-Way Ball Valve with T-bore - Reduced Flow		G 1/4 G 3/8 G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	8 10 15 20 25 32 40 50	232	
	3-Way Ball Valve with Side T-bore - Reduced Flow		G 1/4 G 3/8 G 1/2 G 3/4 G 1 G 1 1/4 G 1 1/2 G 2	8 10 15 20 25 32 40 50	232	
	3-Way Small Ball Valve		G 1/4	6	232	
	3-Way Small Ball Valve Accessories		see product details		232	

3/2, 5/2 and 5/3-Way Spool Valves and Pedal Valves

CHARACTERISTICS: Detailed information about material, connections, threads, pressures, seals, design and special designs.

233



Overview	Graphs / Versions		Thread	DN	Page	Link
	3/2-Way Spool Valve - Type MSV	 	G 1/8 G 1/4	5 8	233	
	3/2-Way Spool Valve - Type TSV	 	G 1/8 G 1/4	5 8	234	
	3/2-Way Spool Valve - Type USV	 	G 1/8	5	234	
	3/2-Way Spool Valve - Type DSV	 	G 1/8	5	234	
	3/2-Way Poppet Valve - Type FSV	 	G 1/4	8	235	
	3/2-Way Spool Valve - Type NSV	 	G 1/8	5	235	
	3/2-Way Spool Valve - Type PSV	 	G 1/8 G 1/4	5 8	235	
	5/2-Way Spool Valve - Type MSV	 	G 1/8 G 1/4	5 8	236	
	5/2-Way Spool Valve - Type USV	 	G 1/8	5	236	
	5/2-Way Poppet Valve - Type FSV	 	G 1/4	8	236	
	5/2-Way Spool Valve - Type NSV	 	G 1/8	5	237	
	5/2-Way Spool Valve Type PSV	 	G 1/8 G 1/4	5 8	237	
	5/3-Way Spool Valve - Type MSV	 	G 1/8 G 1/4	5 8	238	
	3/2-Way Hand Spool Valve	 	G 1/8 G 1/4 G 3/8 G 1/2 G 1/4	4 7 10 14	238	
	2/2- and 3/2-Way Toggle Valve	 	G 1/8	3	238	
	Accessories for 2/2- and 3/2-Way Rocker Lever Valve	see product details			238	

Air Preparation: Filters, Lubricators and Regulators

Overview		Thread	Pressure range (bar)	Temperature range (°C)	Page	Link
	Air Filter Standard Series 100 Plastic Vessel	G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1	0 - 10 0 - 16	0 - +50	240	
	Air Filter Modular Series 200 Plastic Vessel	G 1/4 G 3/8 G 1/2 G 3/4	0 - 16	0 - +50	240	
	Pressure Regulator Standard Series 100 with Pressure Gauge	G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1	0.5 - 25 primary 0.5 - 10 secondary	0 - +60	240	
	Precision Pressure Regulator Series 300 without Pressure Gauge	G 1/4 G 3/8 G 1/2	0 - 20 primary 0 - 3 secondary	0 - +80	240	
	Pressure Regulator Modular Series 200 with Pressure Gauge	G 1/4 G 3/8 G 1/2 G 3/4	0.5 - 16 primary 0.5 - 10 secondary	0 - +60	241	
	Lubricator Standard Series 100 Plastic Vessel	G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1	0 - 10 0 - 16	0 - +50	241	
	Lubricator Standard Series 100 Metal Vessel	G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1	0 - 25	0 - +80	241	
	Lubricator Modular Series 200 Plastic Vessel	G 1/4 G 3/8 G 1/2 G 3/4	0 - 16	0 - +50	241	
	Filter Regulator Standard Series 100 - Plastic Vessel with Pressure Gauge	G 1/8 G 1/4 G 3/8 G 1/2	0.5 - 16 primary 0.5 - 10 secondary	0 - +50	242	
	Filter Regulator Modular Series 200 - Plastic Vessel with Pressure Gauge	G 1/4 G 3/8 G 1/2 G 3/4	0.5 - 16 primary 0.5 - 10 secondary	0 - +50	242	
	Combination Unit Standard Series 100 - Plastic Vessel with Pressure Gauge	G 1/8 G 1/4 G 3/8 G 1/2	0.5 - 10 primary 0.5 - 16 primary 0.5 - 10 secondary	0 - +50	242	
	Combination Unit Modular Series 200 - Plastic Vessel with Pressure Gauge	G 1/4 G 3/8 G 1/2 G 3/4	0.5 - 16 primary 0.5 - 10 secondary	0 - +50	243	
	Combination Unit Standard Series 100 - Plastic Vessel with Pressure Gauge	G 1/8 G 1/4 G 3/8 G 1/2 G 3/4 G 1	0.5 - 10 primary 0.5 - 16 primary 0.5 - 10 secondary	0 - +50	243	
	Maintenance Unit Modular Series 200 - Plastic Vessel with Pressure Gauge	G 1/4 G 3/8 G 1/2 G 3/4	0.5 - 16 primary 0.5 - 10 secondary	0 - +50	244	
	Pressure Gauge Series 100	see product details		0 - +60	244	
	Pressure Gauge for Mounting Panel Mounting Series 300	see product details		0 - +60	244	
	Installation Elements	see product details			245	
	Accessories Modular Series 200: Assembly Kit	see product details			245	