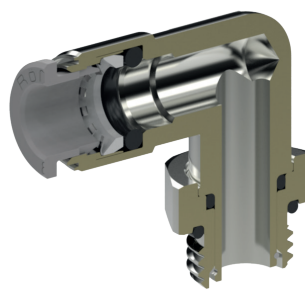


ELSA Fittings Nickel-Plated Brass (Push-in)

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	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.
--	--	--

SPECIAL VERSIONS (VERSIONS NOT INCLUDED IN THE CATALOGUE)

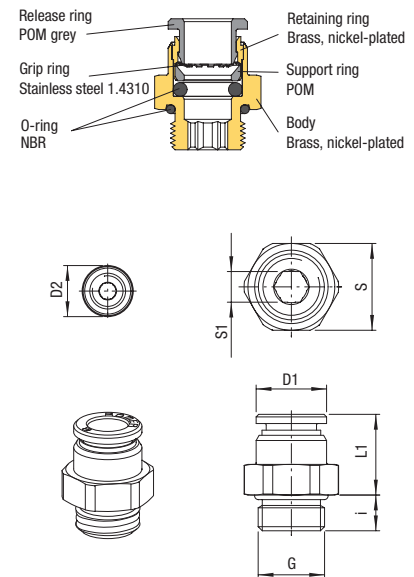
We also manufacture ELSA push-in fittings in various customer-specific versions.

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

Straight Adaptor - Male

Price 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	16.6	8	-	2.5	8	3.5	951M-4-M5	340004	o. r.
4	M 7	4.5	15.1	8	10	3	-	3.9	951M-4-M7-I	340237	o. r.
4	G 1/8	5	14	9.8	-	3	13	8.9	951M-4-1/8	340006	o. r.
4	G 1/4	7	11.8	9.8	-	3	17	17	951M-4-1/4	340007	o. r.
6	M 5	3.5	17.5	10	-	2.5	10	4.7	951M-6-M5	340010	o. r.
6	M 7	4.5	17.2	10	10	3	-	5	951M-6-M7-I	340238	o. r.
6	G 1/8	5	15.2	11.8	-	4	13	8.6	951M-6-1/8	340012	o. r.
6	G 1/4	7	14.7	11.8	-	4	17	17.2	951M-6-1/4	340013	o. r.
6	G 3/8	8	12	11.8	-	4	19	24	951M-6-3/8	340014	o. r.
8	G 1/8	5	20.2	13.8	-	5	14	12.7	951M-8-1/8	340016	o. r.
8	G 1/4	7	15.9	13.8	-	6	17	15.7	951M-8-1/4	340017	o. r.
8	G 3/8	8	15.9	13.8	-	6	19	24.5	951M-8-3/8	340018	o. r.
10	G 1/4	7	22.3	16.4	-	7	17	21.4	951M-10-1/4	340021	o. r.
10	G 3/8	8	17.6	16.4	-	8	19	22.7	951M-10-3/8	340022	o. r.
10	G 1/2	9	15.6	16.4	-	8	24*	38.1	951M-10-1/2	340023	o. r.
12	G 1/4	7	25	19.8	-	7	22	35.4	951M-12-1/4	340024	o. r.
12	G 3/8	8	19.5	19.8	-	10	22	27.5	951M-12-3/8	340025	o. r.
12	G 1/2	9	18.5	19.8	-	10	24*	39	951M-12-1/2	340026	o. r.
14	G 3/8	8	25.5	21.8	-	10	22	39.5	951M-14-3/8	340027	o. r.
14	G 1/2	9	19.5	21.8	-	12	24*	34.5	951M-14-1/2	340028	o. r.
16	G 3/8	8	26.5	23.8	-	10	24*	45	951M-16-3/8	340029	o. r.
16	G 1/2	9	19.5	23.8	-	12	24*	30.8	951M-16-1/2	340030	o. r.
22	G 1/2	9	32.1	31.6	-	-	32	91.7	951M-22-1/2	340032	o. r.
22	G 3/4	11	31.1	31.6	-	-	32	94.3	951M-22-3/4	340033	o. r.

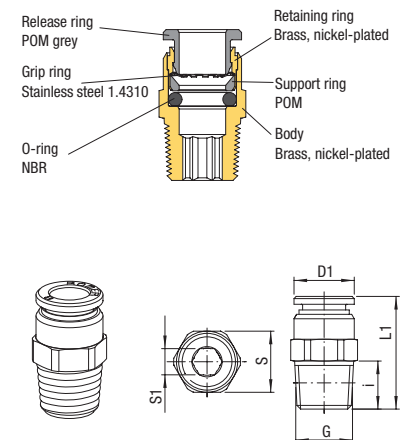
Illustration



Straight Adaptor - Male

Price 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	9.8	3	10	7.2	951M-4-D1/8K	340506	o. r.	
6	R 1/8	7.5	21.6	11.8	4	12	8.2	951M-6-D1/8K	340512	o. r.	
6	R 1/4	11	24.6	11.8	4	14	16.2	951M-6-D1/4K	340513	o. r.	
6	R 3/8	11.5	22.4	11.8	4	17	25.4	951M-6-D3/8K	340514	o. r.	
8	R 1/8	7.5	27.2	13.8	5	14	13.8	951M-8-D1/8K	340516	o. r.	
8	R 1/4	11	26.7	13.8	6	14	15	951M-8-D1/4K	340517	o. r.	
8	R 3/8	11.5	24.7	13.8	6	17	23.7	951M-8-D3/8K	340518	o. r.	
10	R 1/8	7.5	29.1	16.4	5	17	19.2	951M-10-D1/8K	340520	o. r.	
10	R 1/4	11	32.6	16.4	7	17	23.2	951M-10-D1/4K	340521	o. r.	
10	R 3/8	11.5	28.1	16.4	8	17	23.7	951M-10-D3/8K	340522	o. r.	
10	R 1/2	14	26.6	16.4	8	22	42	951M-10-D1/2K	340523	o. r.	
12	R 1/4	11	35	19.8	7	22	36.3	951M-12-D1/4K	340524	o. r.	
12	R 3/8	11.5	30	19.8	10	22	29.8	951M-12-D3/8K	340525	o. r.	
12	R 1/2	14	31.5	19.8	10	22	44.7	951M-12-D1/2K	340526	o. r.	
14	R 3/8	11.5	36	21.8	10	22	43.1	951M-14-D3/8K	340527	o. r.	
14	R 1/2	14	32.5	21.8	12	22	38.3	951M-14-D1/2K	340528	o. r.	
16	R 3/8	11.5	37	23.8	10	24*	47.4	951M-16-D3/8K	340529	o. r.	
16	R 3/4	16	30.5	23.8	12	27	67.6	951M-16-D3/4K	340531	o. r.	
16	R 1/2	14	32.5	23.8	12	24*	38.9	951M-16-D1/2K	340530	o. r.	
22	R 3/4	16	47.1	31.6	-	32	64.8	951M-22-D3/4K	340533	o. r.	

Illustration

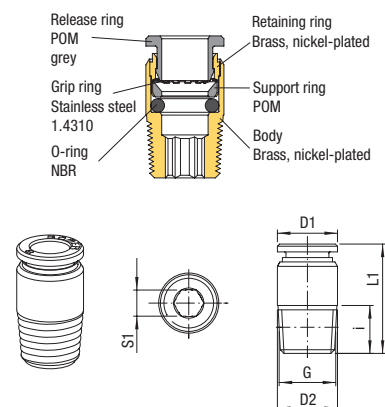


* S24 = octagon

Straight Adaptor - Male

Price 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	S1	Weight in [g]	Type	Order number	Price	
4	R 1/8	7.5	20	9.8	10	3	6.5	951M-4-D1/8K-I	340306	o. r.	
4	R 1/4	11	20	19.8	13.5	3	11.6	951M-4-D1/4K-I	340307	o. r.	
6	R 1/8	7.5	21.1	11.8	12	4	7.4	951M-6-D1/8K-I	340312	o. r.	
6	R 1/4	11	21.6	11.8	13.5	4	11.3	951M-6-D1/4K-I	340313	o. r.	
8	R 1/8	7.5	26.2	13.8	14	5	11.8	951M-8-D1/8K-I	340316	o. r.	
8	R 1/4	11	25.2	13.8	14	6	12.4	951M-8-D1/4K-I	340317	o. r.	
10	R 1/4	11	30.1	16.4	16.5	7	18	951M-10-D1/4K-I	340321	o. r.	

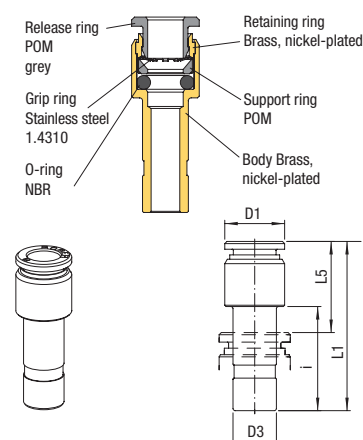
Illustration



Straight Stem Reducer

Price 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	31.3	15.6	9.8	6.5	947M-4-D6	339702	o. r.
6	8	20	34.1	16.5	11.8	9.5	947M-6-D8	339706	o. r.
6	10	24	38.1	18	11.8	16.1	947M-6-D10	339707	o. r.
8	10	24	39.1	19	13.8	13.4	947M-8-D10	339710	o. r.
8	12	26	41.1	19.1	13.8	21	947M-8-D12	339711	o. r.
8	14	26.5	40.2	17.7	13.8	29.3	947M-8-D14	339712	o. r.
10	12	26	42.6	20.6	16.4	18.5	947M-10-D12	339714	o. r.
10	14	26.5	43.1	20.6	16.4	27.8	947M-10-D14	339715	o. r.
12	14	26.5	50	27.5	19.8	36.3	947M-12-D14	339718	o. r.

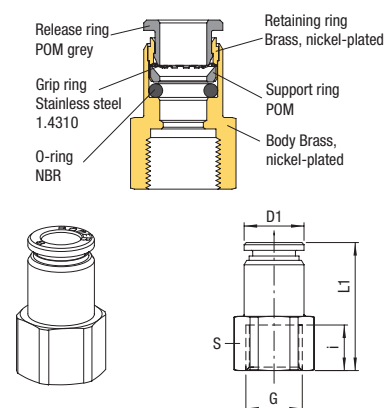
Illustration



Straight Adaptor - Female

Price group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread						Nickel-plated brass
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price	
4	G 1/8	7	23.8	9.8	13	10.9	946M-4-1/8	340806	o. r.	
4	G 1/4	9	26.8	9.8	17	18.6	946M-4-1/4	340807	o. r.	
6	G 1/8	7	25.1	11.8	13	12.4	946M-6-1/8	340812	o. r.	
6	G 1/4	9	27.6	11.9	17	20.1	946M-6-1/4	340813	o. r.	
8	G 1/8	7	27.1	13.8	14	16.4	946M-8-1/8	340816	o. r.	
8	G 1/4	9	29.6	13.8	17	22	946M-8-1/4	340817	o. r.	
8	G 3/8	10	30.6	13.8	19	22.9	946M-8-3/8	340818	o. r.	
10	G 1/4	9	32.1	16.4	17	26.6	946M-10-1/4	340821	o. r.	
10	G 3/8	10	33.1	16.4	19	26.7	946M-10-3/8	340822	o. r.	
10	G 1/2	13	36.6	16.4	24*	38.8	946M-10-1/2	340823	o. r.	

Illustration

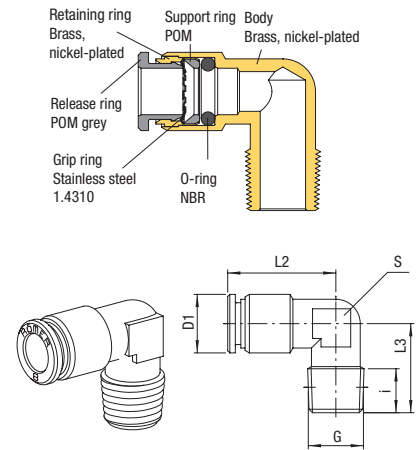


* S24 = octagon

90° Elbow Adaptor - Male

Price 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	20.6	15	9.8	9	10.6	950M- 4-D1/8K	341006	o. r.
6	R 1/8	7.2	22	15	11.8	9	11.3	950M- 6-D1/8K	341012	o. r.
6	R 1/4	10	22	18.5	11.8	9	15.7	950M- 6-D1/4K	341013	o. r.
8	R 1/8	7.7	25.6	17.5	13.8	12	20.8	950M- 8-D1/8K	341016	o. r.
8	R 1/4	10.4	25.6	21	13.8	12	23.2	950M- 8-D1/4K	341017	o. r.
8	R 3/8	10.8	25.6	22.5	13.8	12	27.8	950M- 8-D3/8K	341018	o. r.
10	R 1/4	10.4	29.6	23	16.4	13	28.9	950M-10-D1/4K	341021	o. r.
10	R 3/8	11	29.6	24.5	16.4	13	33.7	950M-10-D3/8K	341022	o. r.
10	R 1/2	14.2	29.6	29	16.4	17	52	950M-10-D1/2K	341023	o. r.
12	R 3/8	11	32	24.5	19.8	17	48.4	950M-12-D3/8K	341025	o. r.
12	R 1/2	14	32	29	19.8	17	57.5	950M-12-D1/2K	341026	o. r.

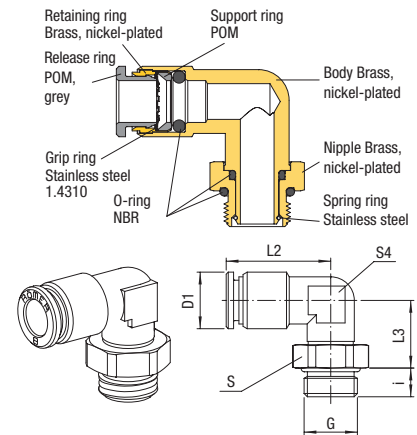
Illustration



90° Elbow Adaptor - Male - Positionable

Price 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	20.6	13.5	9.8	9	13	17.2	930M-4-1/8	341206	o. r.
4	G 1/4	7	22.1	15.5	9.8	10	17	24.8	930M-4-1/4	341207	o. r.
6	G 1/8	5	22	13.5	11.8	9	13	17.6	930M-6-1/8	341212	o. r.
6	G 1/4	7	23.8	15.5	11.8	10	17	26.2	930M-6-1/4	341213	o. r.
8	G 1/8	5	25.6	16	13.8	12	13	27.1	930M-8-1/8	341216	o. r.
8	G 1/4	7	27.7	17.5	13.8	13	17	38	930M-8-1/4	341217	o. r.
8	G 3/8	8	27.7	19.3	13.8	13	19	41.7	930M-8-3/8	341218	o. r.
10	G 1/4	7	29.6	17.5	16.4	13	17	38.1	930M-10-1/4	341221	o. r.
10	G 3/8	8	29.6	19.3	16.4	13	19	42.3	930M-10-3/8	341222	o. r.
12	G 1/4	7	32	18.5	19.8	17	17	56.1	930M-12-1/4	341224	o. r.
12	G 3/8	8	32	19.3	19.8	17	19	61	930M-12-3/8	341225	o. r.
12	G 1/2	9	32	21.3	19.8	17	24*	69.8	930M-12-1/2	341226	o. r.

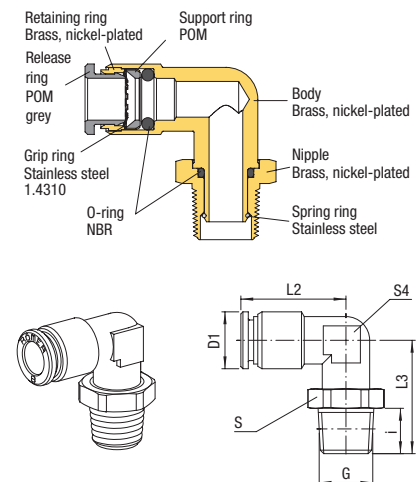
Illustration



90° Elbow Adaptor - Male - Positionable

Price 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	20.6	20	9.8	9	13	17.5	930M-4-D1/8K	341606	o. r.	
4	R 1/4	11	22.1	25.5	9.8	10	17	25.1	930M-4-D1/4K	341607	o. r.	
6	R 1/8	7.5	22	20	11.8	9	13	17.8	930M-6-D1/8K	341612	o. r.	
6	R 1/4	11	23.7	25.5	11.8	10	17	26.1	930M-6-D1/4K	341613	o. r.	
8	R 1/8	7.5	25.6	22.5	13.8	12	13	27.5	930M-8-D1/8K	341616	o. r.	
8	R 1/4	11	27.7	27.5	13.8	13	17	38	930M-8-D1/4K	341617	o. r.	
8	R 3/8	11.5	27.7	29.8	13.8	13	19	43.2	930M-8-D3/8K	341618	o. r.	
10	R 1/4	11	29.6	27.5	16.4	13	17	38.9	930M-10-D1/4K	341621	o. r.	
10	R 3/8	11.5	29.6	29.8	16.4	13	19	44.2	930M-10-D3/8K	341622	o. r.	
12	R 3/8	11.5	32	29.8	19.8	17	19	66	930M-12-D3/8K	341625	o. r.	

Illustration

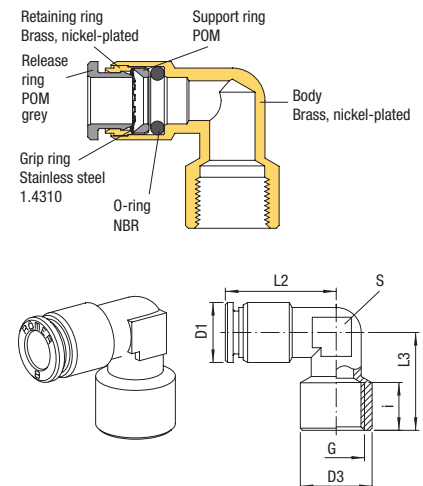


* S24 = octagon

90° Elbow Adaptor - Female

Price 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	9	24.1	22.5	11.8	17	12	26	949M-6-1/4	342813	o. r.
8	G 1/4	9	25.6	22.5	13.8	17	12	26	949M-8-1/4	342817	o. r.

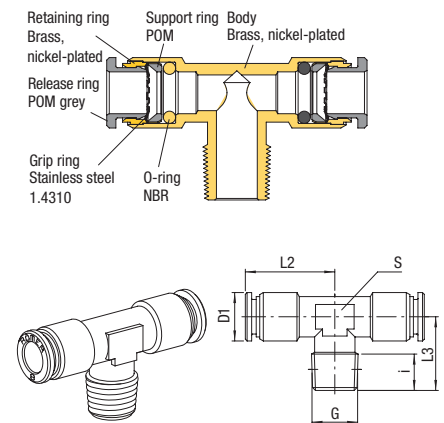
Illustration



T-Adaptor - Male

Price 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	20.6	15	9.8	9	16.2	941M-4-D1/8K	343406	o. r.
6	R 1/8		7.5	22.1	15	11.8	9	17.5	941M-6-D1/8K	343412	o. r.
6	R 1/4		10	22	18.5	11.8	9	22.3	941M-6-D1/4K	343413	o. r.
8	R 1/8		7.5	25.6	17.5	13.8	12	30.1	941M-8-D1/8K	343416	o. r.
8	R 1/4		10.5	25.6	21	13.8	12	34.7	941M-8-D1/4K	343417	o. r.
8	R 3/8		11	25.6	22.5	13.8	12	37.2	941M-8-D3/8K	343418	o. r.
10	R 1/4		10.5	29.6	23	16.4	13	42.1	941M-10-D1/4K	343421	o. r.
10	R 3/8		11	29.6	24.5	16.4	13	48.5	941M-10-D3/8K	343422	o. r.
10	R 1/2		14	29.6	29	16.4	17	69.3	941M-10-D1/2K	343423	o. r.
12	R 3/8		11	32	24.5	19.8	17	68.4	941M-12-D3/8K	343425	o. r.
12	R 1/2		14	32	29	19.8	17	76.2	941M-12-D1/2K	343426	o. r.

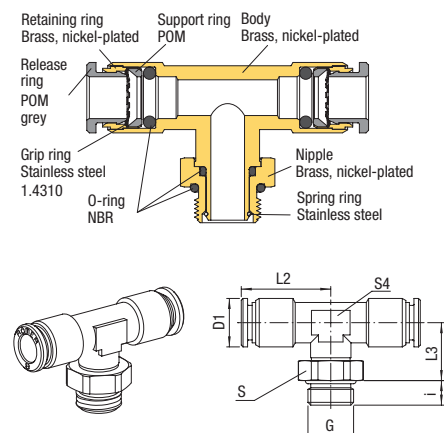
Illustration



T-Adaptor - Male - Positionable

Price 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	20.6	13.5	9.8	9	13	22	921M-4-1/8	343606	o. r.
4	G 1/4	7	22.1	15.5	9.8	10	17	31.9	921M-4-1/4	343607	o. r.
6	G 1/8	5	22	13.5	11.8	9	13	23	921M-6-1/8	343612	o. r.
6	G 1/4	7	23.7	15.5	11.8	10	17	32.8	921M-6-1/4	343613	o. r.
8	G 1/8	5	25.6	16	13.8	12	13	35.4	921M-8-1/8	343616	o. r.
8	G 1/4	7	27.7	17.5	13.8	13	17	48.2	921M-8-1/4	343617	o. r.
8	G 3/8	8	27.7	19.3	13.8	13	19	52.7	921M-8-3/8	343618	o. r.
10	G 1/4	7	29.6	17.5	16.4	13	17	49.9	921M-10-1/4	343621	o. r.
10	G 3/8	8	29.6	19.3	16.4	13	19	53.1	921M-10-3/8	343622	o. r.
12	G 3/8	8	32	19.3	19.8	17	19	81.5	921M-12-3/8	343625	o. r.

Illustration



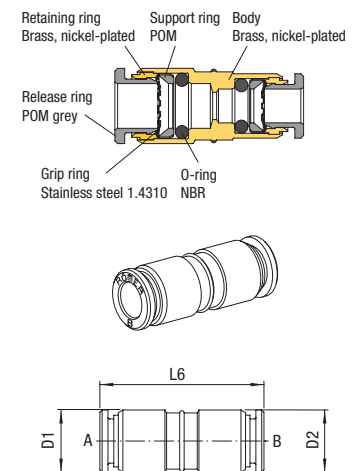
Straight Connector

Price 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	9.8	9.8	8.5	958M-4	347004	o. r.
6	4	32.4	11.8	9.8	9.8	958M-6-4	347008	o. r.
6	6	33.8	11.8	11.8	11.3	958M-6	347010	o. r.
8	6	34.7	13.8	11.8	14.6	958M-8-6	347011	o. r.
8	8	36.7	13.8	13.8	16.4	958M-8	347012	o. r.
10	8	39.7	16.4	13.8	19.3	958M-10-8	347014	o. r.
10	10	41.7	16.4	16.4	21.2	958M-10	347015	o. r.

Illustration



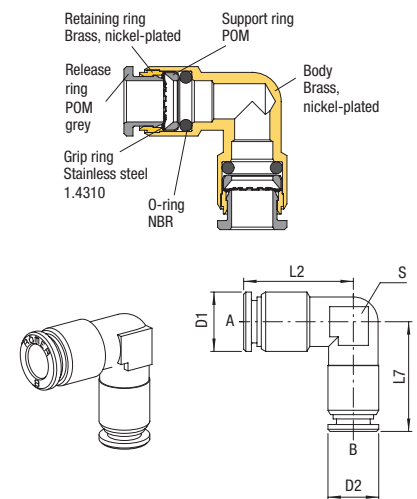
90° Elbow Connector

Price 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	18.3	18.3	12.6	12.6	9	18	955M-4	347204	o. r.
6	6	19.3	19.3	12.6	12.6	9	13.6	955M-6	347210	o. r.
8	8	25.6	25.6	13.8	13.8	12	24.8	955M-8	347212	o. r.
10	10	29.6	29.6	16.4	16.4	13	32	955M-10	347215	o. r.
12	12	32	32	19.8	19.8	17	52.9	955M-12	347217	o. r.

Illustration



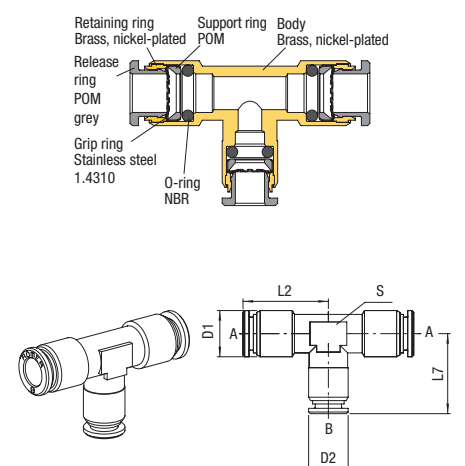
T-Connector

Price 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	18.3	18.3	12.6	12.6	9	23.5	954M-4	347404	o. r.
6	4	19.3	18.3	12.6	12.6	9	22.2	954M-6-4	347408	o. r.
6	6	19.3	19.3	12.6	12.6	9	20.8	954M-6	347410	o. r.
8	6	25.6	23.9	13.8	11.8	12	31	954M-8-6	347411	o. r.
8	8	25.6	25.6	13.8	13.8	12	32.5	954M-8	347412	o. r.
10	8	29.6	27.6	16.4	13.8	13	40.4	954M-10-8	347414	o. r.
10	10	29.6	29.6	16.4	16.4	13	42.1	954M-10	347415	o. r.

Illustration

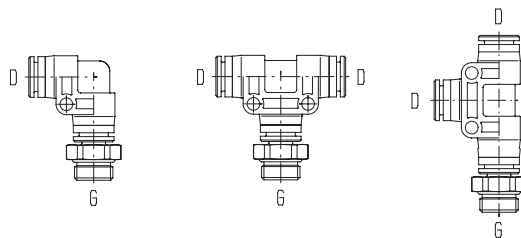


Straight Stem Adaptor

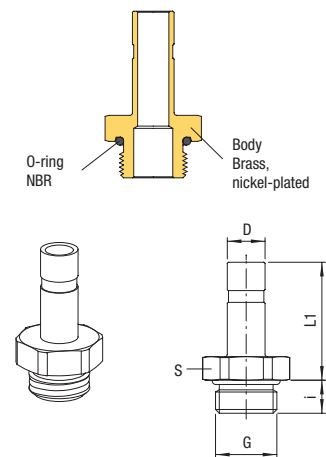
Price group	12	PN 20	Cylindrical thread	T _{min} -20 °C T _{max} +80 °C	Thread sealed by a NBR O-ring in recess	Nickel-plated brass
-------------	-----------	-------	--------------------	--	---	---------------------

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	14.3	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	15.9	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	27	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

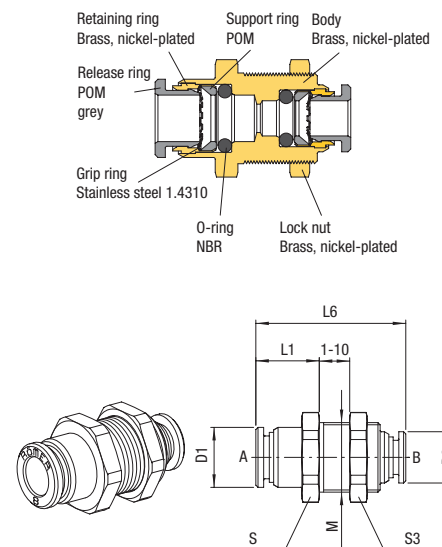


Straight Bulkhead Connector

Price group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Nickel-plated brass
-------------	-----------	-------	--	---------------------

for tube AD	for tube BD	M	L1	L6	D1	D2	S	S3	Weight in [g]	Type	Order number	Price
4	4	M12x1	12.3	31.1	9.8	9.8	14	17	17.3	959M-4	348704	o. r.
6	4	M14x1	12.6	31.4	11.8	9.8	17	17	23.7	959M-6-4	348708	o. r.
6	6	M14x1	13.6	32.5	11.8	11.8	17	17	22.3	959M-6	348710	o. r.
8	6	M16x1	14.7	34.6	13.8	11.8	19	19	30.8	959M-8-6	348711	o. r.
8	8	M16x1	16.5	36.7	13.8	13.8	19	19	29.6	959M-8	348712	o. r.
10	8	M20x1	19	39.2	16.4	13.8	22	24*	51.3	959M-10-8	348714	o. r.
10	10	M20x1	19.9	41	16.4	16.4	22	24*	50.9	959M-10	348715	o. r.
12	12	M22x1.5	22.3	45.6	19.8	19.8	24*	27	68.8	959M-12	348717	o. r.
14	14	M24x1.5	23.3	46.6	21.8	21.8	27	27	84	959M-14	348719	o. r.

Illustration

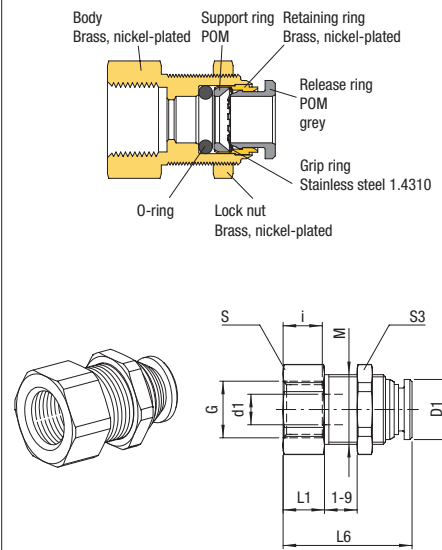


* S24 = octagon

Straight Bulkhead Adaptor

Price group	12	PN 20	T _{min} -20 °C T _{max} +80 °C											Nickel-plated brass	
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	7	25.3	3	9.8	14	17	17.5	945M-4-1/8	348806	o. r.		
6	G 1/8	M14x1	6.5	7	25.4	5	11.8	17	17	22.6	945M-6-1/8	348812	o. r.		
6	G 1/4	M14x1	12	9	30.9	5	11.8	17	17	27.4	945M-6-1/4	348813	o. r.		
8	G 1/8	M16x1	7	7	27.2	7	13.8	19	19	30.9	945M-8-1/8	348816	o. r.		
8	G 1/4	M16x1	9.5	9	29.7	7	13.8	19	19	31.6	945M-8-1/4	348817	o. r.		
10	G 1/4	M20x1	11	9	32.1	9	16.4	22	24*	56.2	945M-10-1/4	348821	o. r.		
10	G 3/8	M20x1	12	10	33.1	9	16.4	22	24*	50.4	945M-10-3/8	348822	o. r.		
22	G 3/4	M33x1.5	18.2	15.5	48.1	20	31.6	36	41	198.9	945M-22-3/4	348833	o. r.		

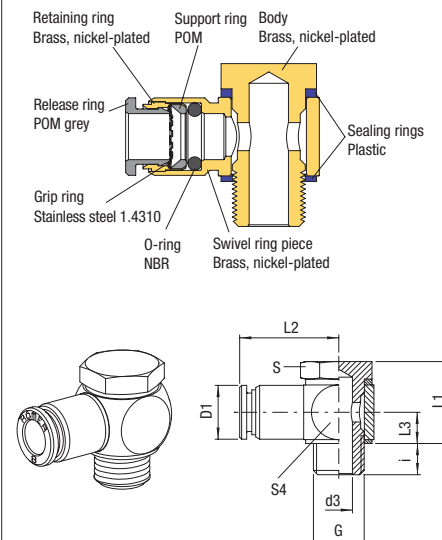
Illustration



Banjo Fitting

Price group	12	PN 20	T _{min} -20 °C T _{max} +80 °C	Cylindrical thread										Nickel-plated brass	
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	17.1	4.5	2	8	9	8	9	952M-4-M5N	370004	o. r.		
4	G 1/8	6	13.5	20.8	5	5	9.8	14	14	28.5	952M-4-1/8N	370006	o. r.		
6	M 5	4.5	14.5	18.7	5.5	2	10	10	8	12.3	952M-6-M5N	370010	o. r.		
6	G 1/8	6	20.5	21.6	8	5	11.8	14	14	29.9	952M-6-1/8N	370012	o. r.		
6	G 1/4	8	21	23.6	8	7	11.8	18	17	46.6	952M-6-1/4N	370013	o. r.		
8	G 1/8	6	20.5	23.6	8	5	13.8	14	14	31.5	952M-8-1/8N	370016	o. r.		
8	G 1/4	8	21	25.6	8	7	13.8	18	17	48.6	952M-8-1/4N	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.
------------------------	---

Other materials	see relevant products
-----------------	-----------------------

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
-----------------------------	---	---

"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.
-----------------------------------	--	--

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

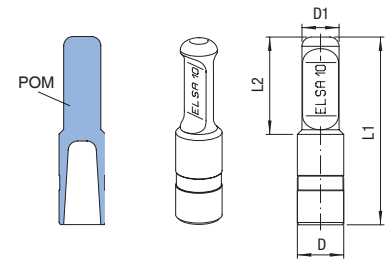
Price group **12**

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

**Plastic
POM**

for push-in connector D	permitted OP [bar] at medium temp.			L1	L2	D1	Weight in [g]	Type	Order number	Price
	20 °C	60 °C	80 °C							
4	16	16	12	31.5	17	6.2	0.6	971P-4	237404	o. r.
6	16	16	12	34.5	19	8.2	1	971P-6	237410	o. r.
8	16	16	12	37.5	20	8.2	1.4	971P-8	237412	o. r.
10	16	16	12	40.5	20.5	8	2	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	2.4	971P-14	237419	o. r.
16	12	8	6	45	22	8	3.6	971P-16	237422	o. r.

Illustration



Tube Cap

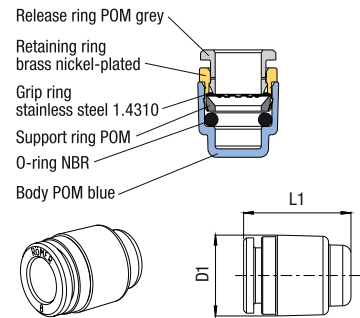
Price group **12**

permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °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	12.6	3.6	972P-6	337427	o. r.
8	16	12	10	19.1	14.4	4.1	972P-8	337429	o. r.
10	16	12	10	21.6	17.2	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

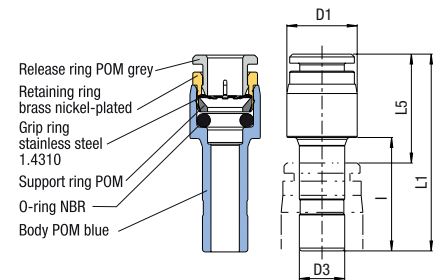
Price group **12**

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	31.6	15.9	10.4	7.2	947P-4-D6	339802	o. r.
6	8	16	12	10	20	34.7	17.1	12.4	1.4	947P-6-D8	339806	o. r.
6	10	16	12	10	23.8	40.3	20.3	14.4	5.9	947P-6-D10	339807	o. r.
8	10	16	12	10	23.8	40.7	20.6	14.4	5.3	947P-8-D10	339810	o. r.
8	12	16	12	10	26	43.3	21.3	17.2	7.1	947P-8-D12	339811	o. r.
10	12	16	12	10	26	44	22	17.2	7.8	947P-10-D12	339814	o. r.

Illustration



90° Elbow Adaptor - Male - Positionable

Price group **12**

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

Cylindrical
thread

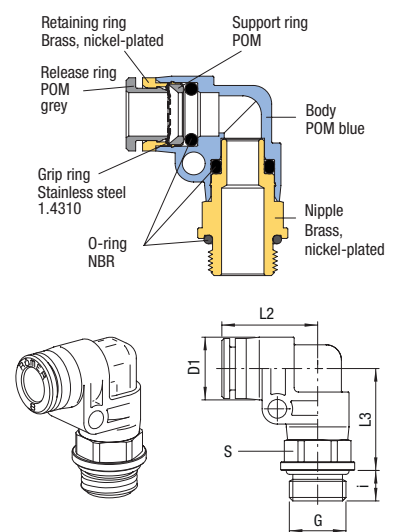
Thread sealed by
a NBR O-Ring in recess

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	14.7	11	9.8	8	3.8	930P-4-M5	342004	o. r.
4	G 1/8	16	16	12	5	18.6	20.3	12.4	12	12.7	930P-4-1/8	342006	o. r.
4	G 1/4	16	12	10	7	18.5	20.3	12.4	12	15.7	930P-4-1/4	342007	o. r.
6	M 5	16	16	12	3.5	16.6	11	11.8	8	4.5	930P-6-M5	342010	o. r.
6	G 1/8	16	12	10	5	19	20.3	12.4	12	14.1	930P-6-1/8	342012	o. r.
6	G 1/4	16	12	10	7	19	20.3	12.4	12	15.9	930P-6-1/4	342013	o. r.
8	G 1/8	16	12	10	5	22.1	21.9	14.4	14	19.1	930P-8-1/8	342016	o. r.
8	G 1/4	16	12	10	7	22.1	23.4	14.4	14	22.3	930P-8-1/4	342017	o. r.
8	G 3/8	16	12	10	8	22.1	23.9	14.4	14	22.7	930P-8-3/8	342018	o. r.
10	G 1/8	16	12	10	5	26.1	25.2	17.2	14	25	930P-10-1/8	342020	o. r.
10	G 1/4	16	12	10	7	26.1	25.7	17.2	17	30	930P-10-1/4	342021	o. r.
10	G 3/8	16	12	10	8	26.1	27.2	17.2	17	30.9	930P-10-3/8	342022	o. r.
10	G 1/2	16	12	10	9	26.1	26.2	17.2	24*	48.3	930P-10-1/2	342023	o. r.
12	G 3/8	16	12	10	8	31	30.5	23	22	50.8	930P-12-3/8	342025	o. r.
12	G 1/2	16	12	10	9	31	31	23	24*	57	930P-12-1/2	342026	o. r.
14	G 3/8	12	10	8	8	31	30.5	23	22	51.6	930P-14-3/8	342027	o. r.
14	G 1/2	12	10	8	9	31	31	23	24*	57.8	930P-14-1/2	342028	o. r.
16	G 3/8	12	8	6	8	32	32	25	24*	66.2	930P-16-3/8	342029	o. r.
16	G 1/2	12	8	6	9	32	32	25	24*	64.6	930P-16-1/2	342030	o. r.
22	G 1/2	12	8	6	9	40.1	41	33.8	32	128	930P-22-1/2	342032	o. r.
22	G 3/4	12	8	6	11	40.1	40	33.8	32	128.8	930P-22-3/4	342033	o. r.

Illustration

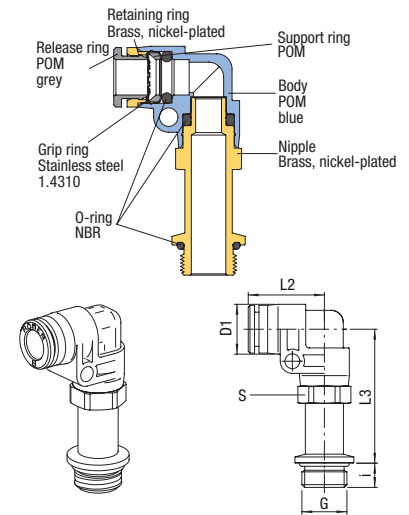


* S24 = octagon

90° Elbow Adaptor - Male - Positionable

Price 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	G 1/8	16	16	12	5	18.6	33.8	12.4	12	17.2	980P-4-1/8	342206	o. r.
4	G 1/4	16	12	10	7	18.6	34.3	12.4	12	22	980P-4-1/4	342207	o. r.
6	G 1/8	16	12	10	5	19	33.8	12.4	12	20.9	980P-6-1/8	342212	o. r.
6	G 1/4	16	12	10	7	19	34.4	12.4	12	21.9	980P-6-1/4	342213	o. r.
8	G 1/8	16	12	10	5	22.1	37.4	14.4	14	27.9	980P-8-1/8	342216	o. r.
8	G 1/4	16	12	10	7	22.1	38.9	14.4	14	28.6	980P-8-1/4	342217	o. r.
8	G 3/8	16	12	10	8	22.1	39.4	14.4	14	37.9	980P-8-3/8	342218	o. r.
10	G 1/4	16	12	10	7	26.1	42.7	17.2	17	38.8	980P-10-1/4	342221	o. r.
10	G 3/8	16	12	10	8	26.1	45.5	17.2	17	50.5	980P-10-3/8	342222	o. r.

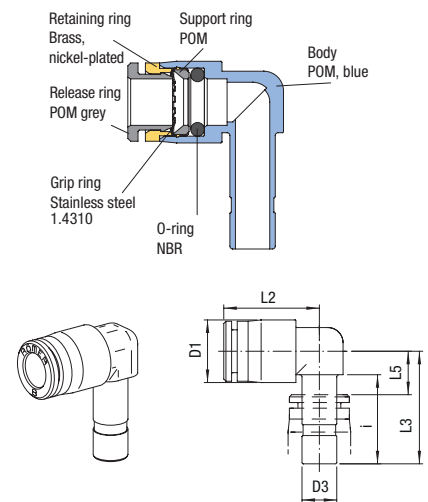
Illustration



90° Elbow Stem Connector

Price 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	18.6	21.4	12.4	6.6	3.5	911P-4-D4	348454	o. r.
		4	6	16	16	12	18	18.6	22.4	12.4	6.7	3.6	911P-4-D6	348458	o. r.
		6	4	16	12	10	17	19	21.4	12.4	6.6	4.1	911P-6-D4	348459	o. r.
		6	6	16	12	10	18	19.1	22.4	12.4	6.7	3.7	911P-6-D6	348460	o. r.
		6	8	16	12	10	20.5	21.6	25.9	14.4	8.3	5.7	911P-6-D8	348461	o. r.
		8	8	16	12	10	20.5	21.1	25.9	14.4	8.3	5.4	911P-8-D8	348462	o. r.
		8	10	16	12	10	24	25.4	32.1	17.2	12	8.4	911P-8-D10	348464	o. r.
		10	10	16	12	10	24	26.1	32.1	17.2	12	11.2	911P-10-D10	348465	o. r.

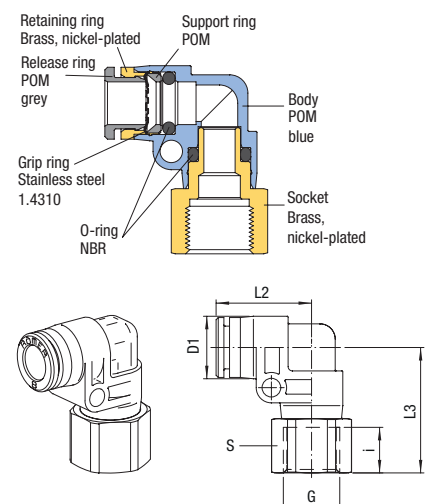
Illustration



90° Elbow Adaptor - Female - Positionable

Price 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	7	18.6	23.8	12.4	13	15	979P-4-1/8	343206	o. r.	
	4	G 1/4	16	12	10	9	18.6	26.3	12.4	17	22.1	979P-4-1/4	343207	o. r.	
	4	G 3/8	16	12	10	10	18.6	27.3	12.4	19	24.9	979P-4-3/8	343208	o. r.	
	6	G 1/8	16	12	10	7	19	23.8	12.4	13	14.4	979P-6-1/8	343212	o. r.	
	6	G 1/4	16	12	10	9	19	26.3	12.4	17	22.3	979P-6-1/4	343213	o. r.	
	6	G3/8	16	12	10	10	19	27.3	12.4	19	25	979P-6-3/8	343214	o. r.	
	8	G 1/8	16	12	10	7	22.1	27.9	14.4	14	20.4	979P-8-1/8	343216	o. r.	
	8	G 1/4	16	12	10	9	22.1	30.4	14.4	17	27.5	979P-8-1/4	343217	o. r.	
	10	G3/8	16	12	10	10	26.1	33.2	17.2	19	29.5	979P-10-3/8	343222	o. r.	

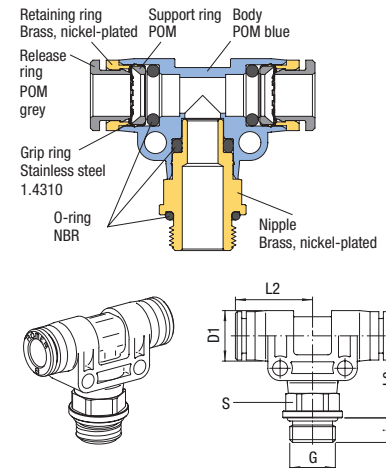
Illustration



T-Adaptor - Male - Positionable

Price 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	G 1/8	16	12	10	5	18.6	20.3	12.4	12	16	921P-4-1/8	344006	o. r.	
4	G 1/4	16	12	10	7	18.6	20.3	12.4	12	19	921P-4-1/4	344007	o. r.	
6	G 1/8	16	12	10	5	19	20.3	12.4	12	20	921P-6-1/8	344012	o. r.	
6	G 1/4	16	12	10	7	19	20.3	12.4	12	22.2	921P-6-1/4	344013	o. r.	
8	G 1/8	16	12	10	5	22.1	21.9	14.4	14	23.4	921P-8-1/8	344016	o. r.	
8	G 1/4	16	12	10	7	22.1	23.4	14.4	14	26.1	921P-8-1/4	344017	o. r.	
8	G 3/8	16	12	10	8	22.1	23.9	14.4	14	26.9	921P-8-3/8	344018	o. r.	
10	G 1/4	16	12	10	7	26.1	25.7	17.2	17	38.8	921P-10-1/4	344021	o. r.	
10	G 3/8	16	12	10	8	26.1	27.2	17.2	17	46.4	921P-10-3/8	344022	o. r.	
12	G 3/8	16	12	10	8	31	30.5	23	22	64.8	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	63.3	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	40.1	41	33.8	32	157	921P-22-1/2	344032	o. r.	
22	G 3/4	12	8	6	11	40.1	40	33.8	32	159.9	921P-22-3/4	344033	o. r.	

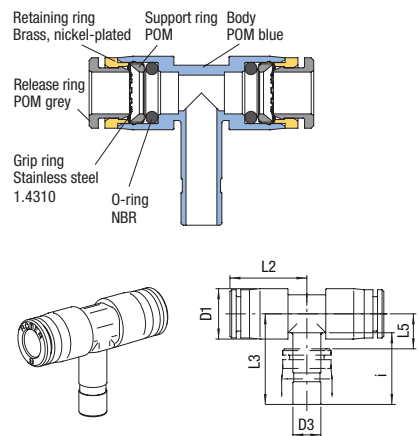
Illustration



T-Stem Connector

Price 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	18.6	21.4	12.4	6.6	6	912P-4-D4	348504	o. r.
4	6	16	16	12	18	18.6	22.4	12.4	6.7	6	912P-4-D6	348508	o. r.
6	4	16	12	10	17	19	21.4	12.4	6.6	on rep.	912P-6-D4	348509	o. r.
6	6	16	12	10	18	19	22.4	12.4	6.7	6.4	912P-6-D6	348510	o. r.
6	8	16	12	10	20.5	21.6	25.9	14.4	8.3	8	912P-6-D8	348511	o. r.
8	8	16	12	10	20.5	21.1	25.9	14.4	8.3	8	912P-8-D8	348512	o. r.
8	10	16	12	10	24	25.4	32.1	17.2	12	on rep.	912P-8-D10	348514	o. r.
10	10	16	12	10	24	26.1	32.1	17.2	12	15.1	912P-10-D10	348515	o. r.

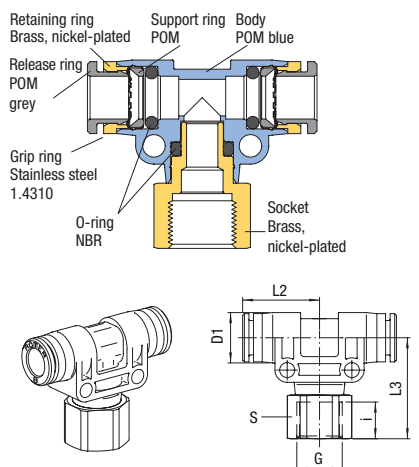
Illustration



T-Adaptor - Female - Positionable

Price 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	12	10	7	18.6	23.8	12.4	13	18	970P-4-1/8	345306	o. r.
4	G 1/4	16	12	10	9	18.6	26.3	12.4	17	24.8	970P-4-1/4	345307	o. r.
6	G 1/8	16	12	10	7	19.1	23.8	12.4	13	18.4	970P-6-1/8	345312	o. r.
6	G 1/4	16	12	10	9	19	26.3	12.4	17	26	970P-6-1/4	345313	o. r.
8	G 1/8	16	12	10	7	22.1	27.9	14.4	14	24	970P-8-1/8	345316	o. r.
8	G 1/4	16	12	10	9	22.1	30.4	14.4	17	on rep.	970P-8-1/4	345317	o. r.

Illustration

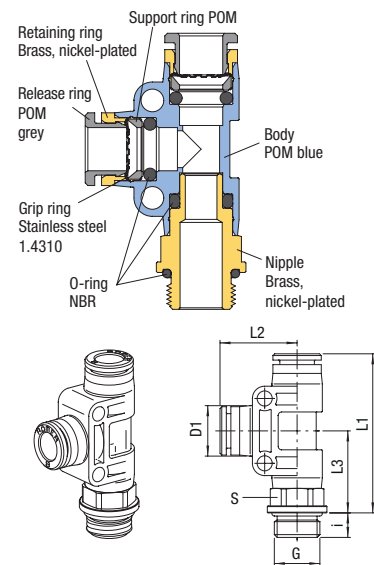


* S24 = octagon

Side T-Adaptor - Male - Positionable

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	38.9	18.6	20.3	12.4	12	16.5	922P-4-1/8	345006	o. r.
4	G 1/4	16	12	10	7	38.9	18.6	20.3	12.4	12	19.4	922P-4-1/4	345007	o. r.
6	G 1/8	16	12	10	5	39.3	19	20.3	12.4	12	17.3	922P-6-1/8	345012	o. r.
6	G 1/4	16	12	10	7	39.3	19	20.3	12.4	12	19.1	922P-6-1/4	345013	o. r.
8	G 1/8	16	12	10	5	44	22.1	21.9	14.4	14	23.2	922P-8-1/8	345016	o. r.
8	G 1/4	16	12	10	7	45.5	22.1	23.4	14.4	14	26.7	922P-8-1/4	345017	o. r.
8	G 3/8	16	12	10	8	46	22.1	23.9	14.4	14	26.9	922P-8-3/8	345018	o. r.
10	G 1/4	16	12	10	7	51.8	26.1	25.7	17.2	17	38.3	922P-10-1/4	345021	o. r.
10	G 3/8	16	12	10	8	53.3	26.1	27.2	17.2	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*	71.4	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	81.1	40.1	41	33.8	32	157	922P-22-1/2	345032	o. r.
22	G 3/4	12	8	6	11	80.1	40.1	40	33.8	32	158	922P-22-3/4	345033	o. r.

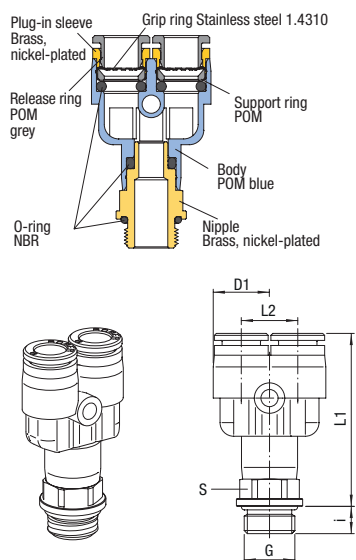
Illustration



Y-Adaptor - Male - Positionable

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	38.9	12.5	12.4	12	17.5	992P-4-1/8	345406	o. r.
4	G 1/4	16	12	10	7	38.9	12.5	12.4	12	18.7	992P-4-1/4	345407	o. r.
6	G 1/8	16	12	10	5	39.3	12.5	12.4	12	17	992P-6-1/8	345412	o. r.
6	G 1/4	16	12	10	7	39.3	12.5	12.4	12	19.8	992P-6-1/4	345413	o. r.
8	G 1/8	16	12	10	5	43	14.5	14.4	14	23.8	992P-8-1/8	345416	o. r.
8	G 1/4	16	12	10	7	44.5	14.5	14.4	14	29.8	992P-8-1/4	345417	o. r.
8	G 3/8	16	12	10	8	45	14.5	14.4	14	27.1	992P-8-3/8	345418	o. r.
10	G 1/4	16	12	10	7	48.8	17	17.2	17	38	992P-10-1/4	345421	o. r.
10	G 3/8	16	12	10	8	50.3	17	17.2	17	37.5	992P-10-3/8	345422	o. r.
12	G 3/8	16	12	10	8	54	20.5	21	22	60.4	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

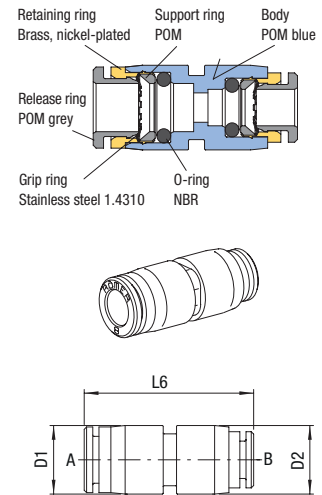
Price group **12**

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	30.1	10.4	10.4	4.2	958P-4	347104	o. r.
6	4	16	12	10	31.9	12.4	12.4	6.1	958P-6-4	347108	o. r.
6	6	16	12	10	32.2	12.4	12.4	5.7	958P-6	347110	o. r.
8	4	16	12	10	35.3	14.4	14.4	7.7	958P-8-4	347101	o. r.
8	6	16	12	10	35.8	14.4	14.4	7.9	958P-8-6	347111	o. r.
8	8	16	12	10	36.2	14.4	14.4	8.2	958P-8	347112	o. r.
10	6	16	12	10	40	17.2	17.2	11.9	958P-10-6	347113	o. r.
10	8	16	12	10	40.5	17.2	17.2	12.2	958P-10-8	347114	o. r.
10	10	16	12	10	41.2	17.2	17.2	12.3	958P-10	347115	o. r.
12	10	16	12	10	44.9	21	21	19.4	958P-12-10	347116	o. r.
12	12	16	12	10	45	21	21	19.8	958P-12	347117	o. r.
14	12	12	10	8	46	23	23	24.6	958P-14-12	347118	o. r.
14	14	12	10	8	46	23	23	22.8	958P-14	347119	o. r.
16	12	12	8	6	47	25	25	28	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	25.5	958P-16	347122	o. r.
20	20	12	8	6	54.5	31.8	31.8	53.6	958P-20	347123	o. r.
22	22	12	8	6	57.2	33.8	33.8	59.1	958P-22	347124	o. r.

Illustration



90° Elbow Connector

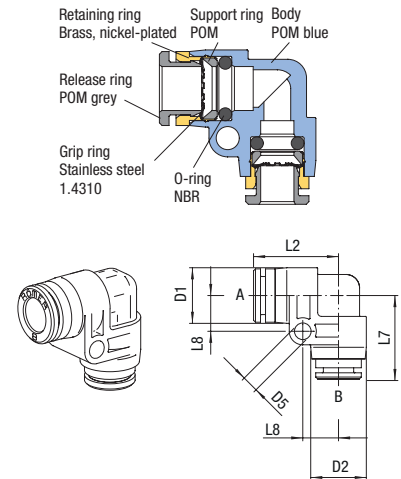
Price group **12**

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	18.6	18.6	8.3	12.4	12.4	4.3	6.3	955P-4	347304	o. r.
6	4	16	12	10	19	18.6	8.3	12.4	12.4	4.3	6.4	955P-6-4	347308	o. r.
6	6	16	12	10	19	19	8.3	12.4	12.4	4.3	6.4	955P-6	347310	o. r.
8	6	16	12	10	22.1	21.3	9.3	14.4	14.4	4.3	9.2	955P-8-6	347311	o. r.
8	8	16	12	10	22.1	22.1	9.3	14.4	14.4	4.3	9.6	955P-8	347312	o. r.
10	6	16	12	10	26.1	25	12	17.2	17.2	4.3	14.4	955P-10-6	347313	o. r.
10	8	16	12	10	26.1	25.4	12	17.2	17.2	4.3	15.1	955P-10-8	347314	o. r.
10	10	16	12	10	26.1	26.1	12	17.2	17.2	4.3	15	955P-10	347315	o. r.
12	12	16	12	10	31	31	12	23	23	4.3	28.4	955P-12	347317	o. r.
14	14	12	10	8	31	31	12	23	23	4.3	27.3	955P-14	347319	o. r.
14	10	12	10	8	31	30.9	12	23	23	4.3	27.5	955P-14-10	347309	o. r.
16	16	12	8	6	32	32	12	25	25	4.3	30.6	955P-16	347322	o. r.
22	22	12	8	6	40.1	40.1	16	33.8	33.8	5.4	71.8	955P-22	347324	o. r.

Illustration



T-Connector

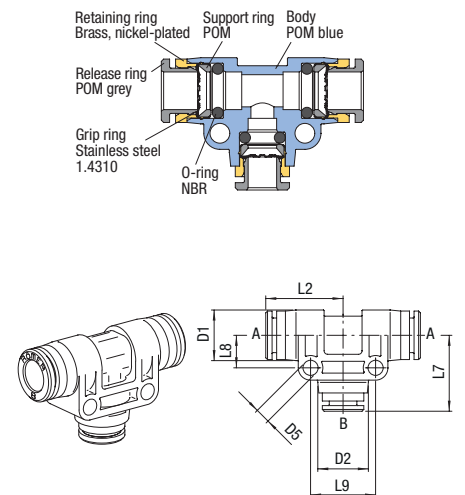
Price group **12**

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	18.6	18.6	8.3	16.5	12.4	12.4	4.3	9.2	954P-4	347504	o. r.
4	6	16	12	10	18.6	19	8.3	16.5	12.4	12.4	4.3	9.6	954P-4-6	347358	o. r.
6	4	16	12	10	19	18.6	8.3	16.5	12.4	12.4	4.3	9.6	954P-6-4	347508	o. r.
6	6	16	12	10	19	19	8.3	16.5	12.4	12.4	4.3	9.6	954P-6	347510	o. r.
6	8	16	12	10	21.6	22.1	9.3	18.5	14.4	14.4	4.3	13.3	954P-6-8	347361	o. r.
8	6	16	12	10	22.1	21.6	9.3	18.5	14.4	14.4	4.3	13.5	954P-8-6	347511	o. r.
8	8	16	12	10	22.1	22.1	9.3	18.5	14.4	14.4	4.3	13.8	954P-8	347512	o. r.
8	10	16	12	10	25.4	26.1	12	24	17.2	17.2	4.3	21.2	954P-8-10	347364	o. r.
10	6	16	12	10	26.1	25	12	24	17.2	17.2	4.3	21.8	954P-10-6	347513	o. r.
10	8	16	12	10	26.1	25.4	12	24	17.2	17.2	4.3	21.5	954P-10-8	347514	o. r.
10	10	16	12	10	26.1	26.1	12	24	17.2	17.2	4.3	22.4	954P-10	347515	o. r.
10	12	16	12	10	30.9	31	12	24	23	23	4.3	39.8	954P-10-12	347366	o. r.
12	10	16	12	10	31	30.9	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	44	954P-12	347517	o. r.
14	14	12	10	8	31	31	12	24	23	23	4.3	43.6	954P-14	347519	o. r.
14	10	12	10	8	31	30.9	12	24	23	23	4.3	39.1	954P-14-10	347509	o. r.
16	16	12	8	6	32	32	12	24	25	25	4.3	44.3	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	40.1	39.5	16	32	33.8	33.8	5.4	99.9	954P-22-16	347523	o. r.
22	22	12	8	6	40.1	40.1	16	32	33.8	33.8	5.4	103	954P-22	347524	o. r.

Illustration



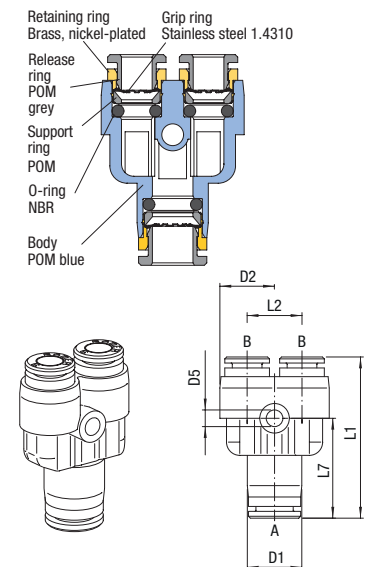
Y-Connector

Price 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	37.2	12.5	22.6	12.4	12.4	3.4	9.3	982P-4	347604	o. r.
6	4	16	12	10	37.6	12.5	23.1	12.4	12.4	3.3	9.7	982P-6-4	347608	o. r.
6	6	16	12	10	38.2	12.5	23.1	12.4	12.4	3.3	9.6	982P-6	347610	o. r.
8	4	16	12	10	42.3	14.5	26.5	14.4	14.4	4.3	13.4	982P-8-4	347626	o. r.
8	6	16	12	10	42.8	14.5	26.5	14.4	14.4	4.3	13.5	982P-8-6	347611	o. r.
8	8	16	12	10	43.2	14.5	26.5	14.4	14.4	4.3	14	982P-8	347612	o. r.
10	8	16	12	10	48.5	17	31.1	17.2	17.2	4.3	19.8	982P-10-8	347614	o. r.
10	10	16	12	10	49.2	17	31.1	17.2	17.2	4.3	21.6	982P-10	347615	o. r.
12	8	16	12	10	54.7	20.5	35.5	21	21	4.3	33	982P-12-8	347627	o. r.
12	10	16	12	10	55.4	20.5	35.5	21	21	4.3	346.1	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	40.1	982P-14	347619	o. r.

Illustration



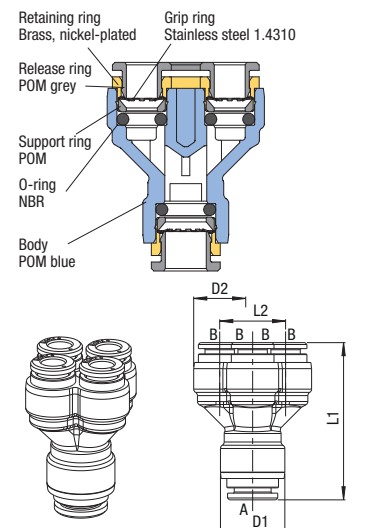
Double Y-Connector

Price 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	40.8	17.6	17	13.7	18.7	984P-6	347660	o. r.
8	6	16	12	6	41.2	17.6	17	13.7	20.1	984P-8-6	347661	o. r.

Illustration



Straight Bulkhead Connector

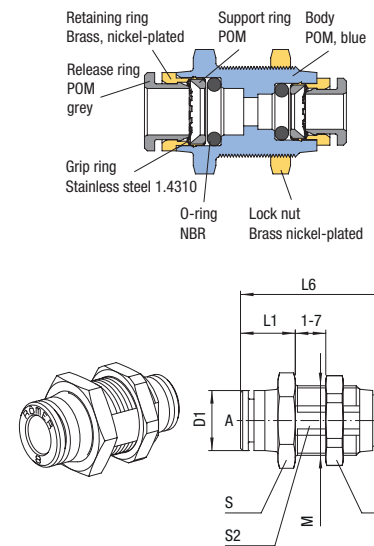
Price group **12**

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	31.4	9.4	9.4	17	12.5	17	9	959P-4	348604	o. r.
6	4	16	12	10	M14x1	11	32	11.4	9.4	17	12.5	17	9.2	959P-6-4	348608	o. r.
6	6	16	12	10	M14x1	11	32	11.4	11.4	17	12.5	17	9.4	959P-6	348610	o. r.
8	6	16	12	10	M16x1	13.5	36	13.8	11.4	19	14.5	19	12.4	959P-8-6	348611	o. r.
8	8	16	12	10	M16x1	12.7	36.2	13.8	13.8	19	14.5	19	12.8	959P-8	348612	o. r.
10	8	16	12	10	M20x1	13.4	40.5	16.4	13.8	22	18	24*	20.3	959P-10-8	348614	o. r.
10	10	16	12	10	M20x1	13	41	16.4	16.4	22	18	24*	20.8	959P-10	348615	o. r.

Illustration



Banjo Fitting

Price group **12**

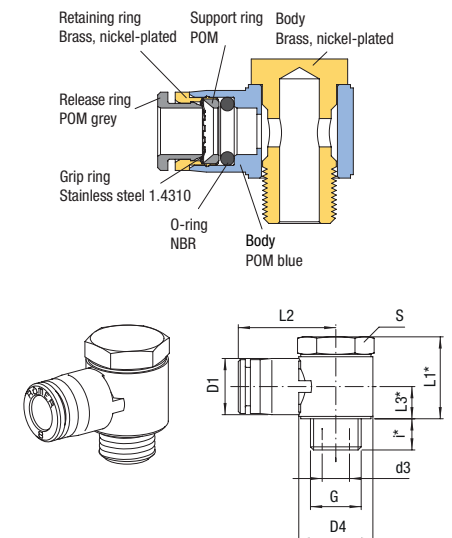
permitted OP at ambient temp.
T_{min} -20 °C. T_{max} +60 °C

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	17.1	5.5	2	8	9	8	5.4	952P-4-M5	370404	o. r.
4	G 1/8	16	12	10	6.5	20	22.2	8	5	14.4	15	14	18.1	952P-4-1/8	370406	o. r.
6	M 5	16	12	10	4	14	17.9	5.5	2	10	9	8	5.7	952P-6-M5	370410	o. r.
6	G 1/8	16	12	10	6.5	20	22.6	8	5	14.4	15	14	18.3	952P-6-1/8	370412	o. r.
6	G 1/4	16	12	10	8.5	20.5	24.6	8	7	14.4	19	17	30.1	952P-6-1/4	370413	o. r.
8	G 1/8	16	12	10	6.5	20	23.1	8	5	14.4	15	14	18.4	952P-8-1/8	370416	o. r.
8	G 1/4	16	12	10	8.5	20.5	25.1	8	7	14.4	19	17	30	952P-8-1/4	370417	o. r.
8	G 3/8	16	12	10	8.5	26	28.5	10.5	9.5	17.2	22.4	19	49.1	952P-8-3/8	370418	o. r.
10	G 1/4	16	12	10	8	24.5	27.5	10	7	17.2	19	17	35.7	952P-10-1/4	370421	o. r.
10	G 3/8	16	12	10	8.5	26	29.2	10.5	9.5	17.2	22.4	19	50.8	952P-10-3/8	370422	o. r.
10	G 1/2	16	12	10	8.5	27	33.2	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	22.4	19	56	952P-12-3/8	370425	o. r.
12	G 1/2	16	12	10	8.5	27	33.3	11	12	21	27	27	89.5	952P-12-1/2	370426	o. r.
14	G 1/2	12	10	8	9.5	31	34.2	13	12	25	27	27	103	952P-14-1/2	370428	o. r.
16	G 1/2	12	8	6	9.5	31	34.2	13	12	25	27	27	101.4	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, these are also available with FDA-compliant EPDM sealing rings approved according to the UBA elastomer guidelines.

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, PVDF body conforms to KTW-BWGL	
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
-----------------------------	---	---

"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.
-------------------------------------	--	--

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
- Execution according to ASTM G93 or EN ISO 15001 for oxygen use

Push-in Plug

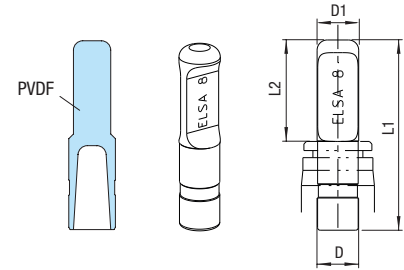
Price group **12**

Max. allow. OP at ambient temp.
 $T_{min} -20\text{ °C}$, $T_{max} +60\text{ °C}$

**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	16.8	6.6	0.7	971V-4	237454	o. r.
6	16	16	10	34.5	18.9	8.2	1.3	971V-6	237460	o. r.
8	16	12	10	37.5	20	8.2	1.7	971V-8	237462	o. r.
10	16	12	10	40.5	21	8	2.4	971V-10	237465	o. r.

Illustration



90° Elbow Adaptor - Male - Positionable

Price group **12**

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

Thread
cylindrical

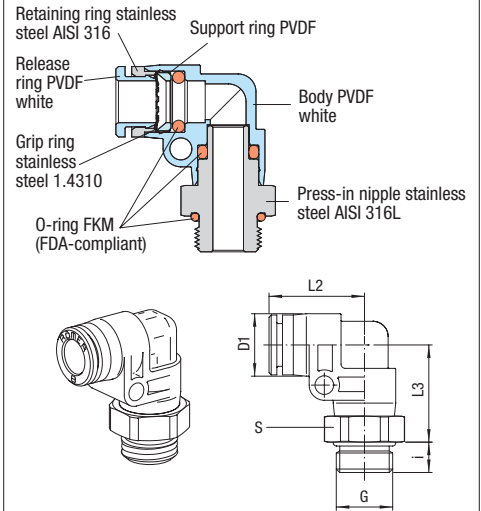
Thread sealed by a
FKM O-Ring in recess

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	14.7	11	9.8	8	3.9	930V-4FF-M5	367334	o. r.
4	G 1/8	16	10	3	5	18.6	19.3	12.4	13	14.8	930V-4FF-1/8	367335	o. r.
4	G 1/4	16	10	3	7	18.6	19.8	12.4	17	24.6	930V-4FF-1/4	367348	o. r.
6	M 5	16	10	3	3.5	16.7	11	11.8	8	4.7	930V-6FF-M5	367336	o. r.
6	G 1/8	16	10	3	5	19.1	19.3	12.4	13	15.7	930V-6FF-1/8	367337	o. r.
6	G 1/4	16	10	3	7	19.1	19.8	12.4	17	24.9	930V-6FF-1/4	367338	o. r.
8	G 1/8	16	8	3	5	22.1	21.9	14.4	14	19	930V-8FF-1/8	367339	o. r.
8	G 1/4	16	8	3	7	22.1	22.4	14.4	17	26.8	930V-8FF-1/4	367340	o. r.
8	G 3/8	16	8	3	8	22.1	22.4	14.4	19	35.2	930V-8FF-3/8	367341	o. r.
10	G 1/4	12	6	3	7	26.1	25.7	17.2	17	31.8	930V-10FF-1/4	367342	o. r.
10	G 3/8	12	6	3	8	26	25.7	17.2	19	40.1	930V-10FF-3/8	367343	o. r.
12	G 1/4	12	6	3	7	31	30.5	23	22	58.1	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

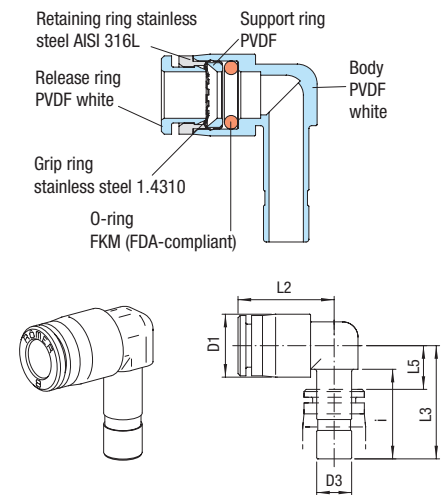
Price group **12**

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

**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	18.6	21.4	12.4	6.6	4	911V-4FF-D4	367028	o. r.
4	6	16	10	3	18	18.6	22.4	12.4	6.7	3.8	911V-4FF-D6	367029	o. r.
6	4	16	10	3	17	19.1	21.4	12.4	6.6	4.2	911V-6FF-D4	367030	o. r.
6	6	16	10	3	18	19.1	22.4	12.4	6.7	4.3	911V-6FF-D6	367031	o. r.
6	8	16	10	3	20.5	21.7	25.9	14.4	8.3	6.3	911V-6FF-D8	367032	o. r.
8	8	16	8	3	20.5	22.1	25.9	14.4	8.3	6.4	911V-8FF-D8	367033	o. r.
8	10	16	8	3	24	25.4	32.1	17.2	12	9.8	911V-8FF-D10	367034	o. r.
10	10	12	6	3	24	26.1	32.1	17.2	12	10.2	911V-10FF-D10	367035	o. r.

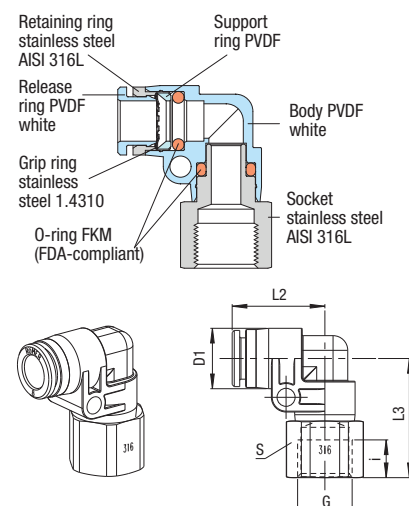
Illustration



90° Elbow Adaptor - Female - Positionable

Price 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	18.6	24.3	12.4	13	16.3	979V-4FF-1/8	367880	o. r.		
4	G 1/4	16	10	3	9	18.6	27.3	12.4	17	24.7	979V-4FF-1/4	367881	o. r.		
6	G 1/8	16	10	3	6.5	19.1	24.3	12.4	13	16.3	979V-6FF-1/8	367882	o. r.		
6	G 1/4	16	10	3	9	19.1	27.3	12.4	17	24.7	979V-6FF-1/4	367883	o. r.		
8	G 1/8	16	8	3	6.5	22.1	26.2	14.4	17	24.9	979V-8FF-1/8	367884	o. r.		
8	G 1/4	16	8	3	9	22.1	31.4	14.4	17	26.6	979V-8FF-1/4	367885	o. r.		

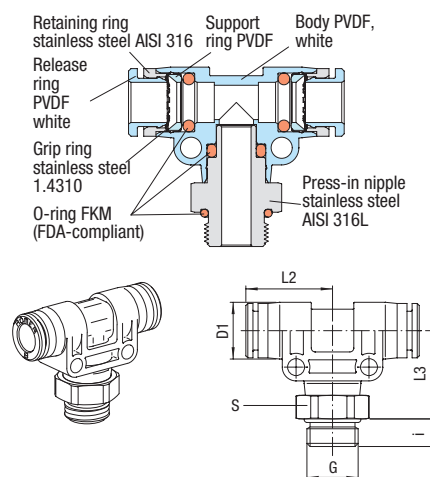
Illustration



T-Adaptor - Male - Positionable

Price 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	G 1/8	16	10	3	5	18.6	19.3	12.4	13	19.4	921V-4FF-1/8	367356	o. r.	
4	G 1/4	16	10	3	7	18.6	19.8	12.4	17	28.5	921V-4FF-1/4	367357	o. r.	
6	G 1/8	16	10	3	5	19.1	19.3	12.4	13	19.7	921V-6FF-1/8	367362	o. r.	
6	G 1/4	16	10	3	7	19.1	19.8	12.4	17	28.4	921V-6FF-1/4	367363	o. r.	
8	G 1/8	16	8	3	5	22.1	21.9	14.4	14	24	921V-8FF-1/8	367366	o. r.	
8	G 1/4	16	8	3	7	22.1	22.4	14.4	17	31.4	921V-8FF-1/4	367367	o. r.	
8	G 3/8	16	8	3	8	22.1	22.4	14.4	19	39.9	921V-8FF-3/8	367368	o. r.	
10	G 1/4	12	6	3	7	26.1	25.7	17.2	17	40.2	921V-10FF-1/4	367371	o. r.	
10	G 3/8	12	6	3	8	26.1	25.7	17.2	19	48.3	921V-10FF-3/8	367372	o. r.	
12	G 1/4	12	6	3	7	31	30.5	21	22	68.5	921V-12FF-1/4	367374	o. r.	
12	G 3/8	12	6	3	8	31	30.5	21	22	8.8	921V-12FF-3/8	367375	o. r.	

Illustration



T-Stem Connector

Price group

12

Max. allow. OP at ambient temp.

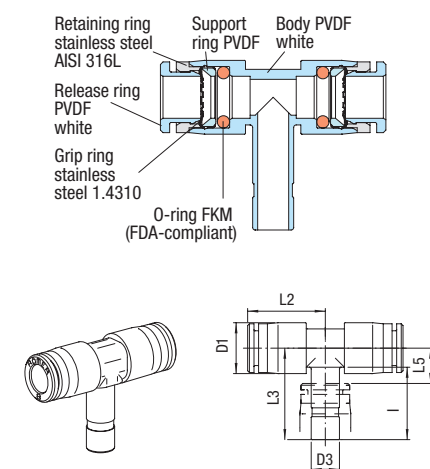
T_{min} 0 °C, T_{max} +60 °C

NSF

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	18.6	21.4	12.4	6.6	7.1	912V-4FF-D4	367036	o. r.
4	6	16	10	3	18	18.6	22.4	12.4	6.7	7	912V-4FF-D6	367037	o. r.
6	4	16	10	3	17	19.1	21.4	12.4	6.6	7.1	912V-6FF-D4	367038	o. r.
6	6	16	10	3	18	19	22.4	12.4	6.7	7.2	912V-6FF-D6	367039	o. r.
6	8	16	10	3	20.5	21.7	25.9	14.4	8.3	10.2	912V-6FF-D8	367040	o. r.
8	8	16	8	3	20.5	22.1	25.9	14.4	8.3	10.7	912V-8FF-D8	367041	o. r.
8	10	16	8	3	24	25.4	32.1	17.2	12	15.9	912V-8FF-D10	367042	o. r.
10	10	12	6	3	24	26.1	32.1	17.2	12	16.8	912V-10FF-D10	367043	o. r.

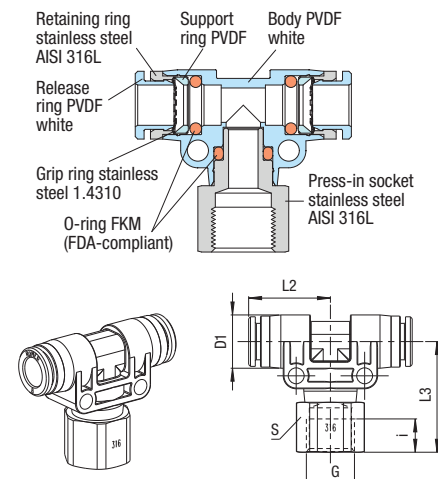
Illustration



T-Adaptor - Female - Positionable

Price 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 certified		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	18.6	24.3	12.4	13	19.9	970V-4FF-1/8	367888	o. r.		
4	G 1/4	16	10	3	9	18.6	27.3	12.4	17	28.3	970V-4FF-1/4	367889	o. r.		
6	G 1/8	16	10	3	6.5	19.1	24.3	12.4	13	19.9	970V-6FF-1/8	367890	o. r.		
6	G 1/4	16	10	3	9	19.1	27.3	12.4	17	28.3	970V-6FF-1/4	367891	o. r.		
8	G 1/8	16	8	3	6.5	22.1	26.2	14.4	17	29.9	970V-8FF-1/8	367892	o. r.		
8	G 1/4	16	8	3	9	22.1	29.9	14.4	17	32	970V-8FF-1/4	367893	o. r.		

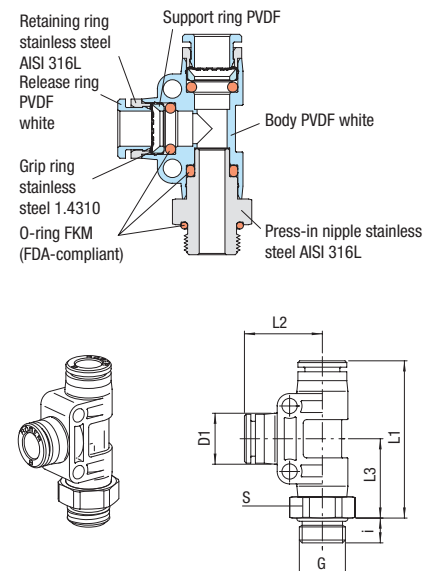
Illustration



Side T-Adaptor - Male - Positionable

Price 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	L1	L2	L3	D1	S	Weight in [g]			Type
for tube D	G	20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	5	37.9	18.6	19.3	12.4	13	19.2	922V-4FF-1/8	367406	o. r.	
4	G 1/4	16	10	3	7	38.4	18.6	19.8	12.4	17	28.3	922V-4FF-1/4	367407	o. r.	
6	G 1/8	16	10	3	5	38.4	19.1	19.3	12.4	13	19.7	922V-6FF-1/8	367412	o. r.	
6	G 1/4	16	10	3	7	38.9	19.1	19.8	12.4	17	28.4	922V-6FF-1/4	367413	o. r.	
8	G 1/8	16	8	3	5	44	22.1	21.9	14.4	14	23.8	922V-8FF-1/8	367416	o. r.	
8	G 1/4	16	8	3	7	44.5	22.1	22.4	14.4	17	31.5	922V-8FF-1/4	367417	o. r.	
8	G 3/8	16	8	3	8	44.5	22.1	22.4	14.4	19	39.8	922V-8FF-3/8	367418	o. r.	
10	G 1/4	12	6	3	7	51.8	26.1	25.7	17.4	17	39.8	922V-10FF-1/4	367421	o. r.	
10	G 3/8	12	6	3	8	51.8	26.1	25.7	17.2	19	48.4	922V-10FF-3/8	367422	o. r.	
12	G 1/4	12	6	3	7	61.5	31	30.5	21	22	68.5	922V-12FF-1/4	367424	o. r.	
12	G 3/8	12	6	3	8	61.5	31	30.5	21	22	68.8	922V-12FF-3/8	367425	o. r.	

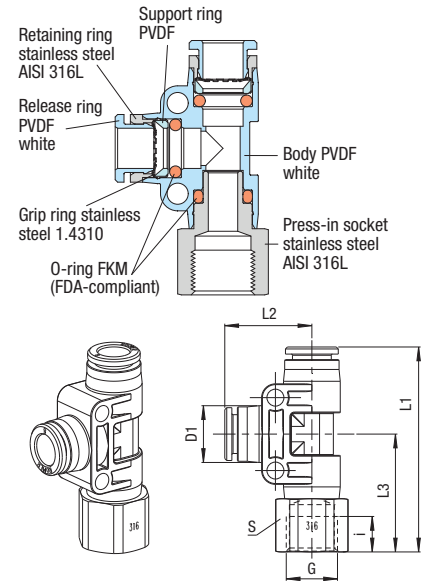
Illustration



Side T-Adaptor - Female - Positionable

Price 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	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	42.9	18.6	24.3	12.4	13	19.9	923V-4FF-1/8	367810	o. r.
4	G 1/4	16	10	3	9	45.9	18.6	27.3	12.4	17	28.3	923V-4FF-1/4	367811	o. r.
6	G 1/8	16	10	3	6.5	43.4	19.1	24.3	12.4	13	19.9	923V-6FF-1/8	367812	o. r.
6	G 1/4	16	10	3	9	46.4	19.1	27.3	12.4	17	28.3	923V-6FF-1/4	367813	o. r.
8	G 1/8	16	8	3	6.5	48.3	22.1	25.2	14.4	17	29.9	923V-8FF-1/8	367814	o. r.
8	G 1/4	16	8	3	9	53.5	22.1	31.4	14.4	17	32	923V-8FF-1/4	367815	o. r.

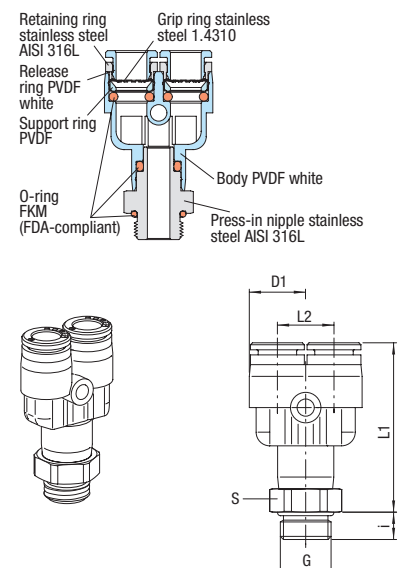
Illustration



Y-Adaptor - Male - Positionable

Price 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.											
for tube D	G	20 °C	100 °C	120 °C	i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price
4	G 1/8	16	10	3	5	37.9	12.5	12.4	13	19.1	992V-4FF-1/8	367456	o. r.
4	G 1/4	16	10	3	7	38.4	12.5	12.5	17	28	992V-4FF-1/4	367457	o. r.
6	G 1/8	16	10	3	5	38.4	12.5	12.4	13	19.6	992V-6FF-1/8	367462	o. r.
6	G 1/4	16	10	3	7	38.9	12.5	12.4	17	28.3	992V-6FF-1/4	367463	o. r.
8	G 1/8	16	8	3	5	43	14.5	14.4	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	31.9	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	48.9	17	17.2	17	38.6	992V-10FF-1/4	367471	o. r.
10	G 3/8	12	6	3	8	48.9	17	17.2	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.

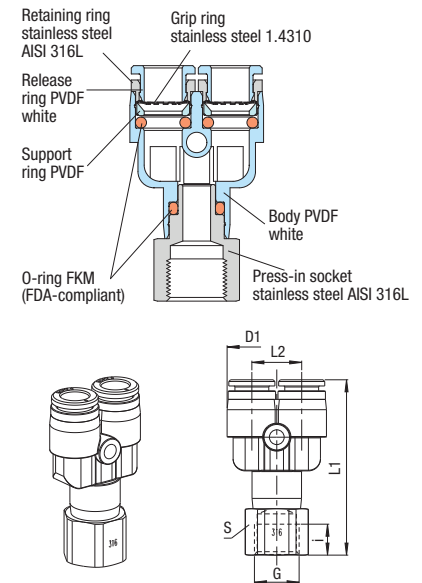
Illustration



Y-Adaptor - Female - Positionable

Price 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 H1		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	42.9	12.5	12.4	13	19.9	993V-4FF-1/8	367820	o. r.	
4	G 1/4	16	10	3	9	45.9	12.5	12.4	17	28.4	993V-4FF-1/4	367821	o. r.	
6	G 1/8	16	10	3	6.5	43.4	12.5	12.4	13	19.7	993V-6FF-1/8	367822	o. r.	
6	G 1/4	16	10	3	9	46.4	12.5	12.4	17	28.1	993V-6FF-1/4	367823	o. r.	
8	G 1/8	16	8	3	6.5	47.3	14.5	14.4	17	30	993V-8FF-1/8	367824	o. r.	
8	G 1/4	16	8	3	9	52.5	14.5	14.4	17	32.1	993V-8FF-1/4	367825	o. r.	

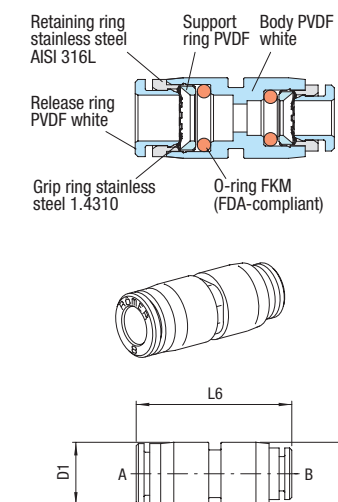
Illustration



Straight Adaptor

Price group		12	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C							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	30.1	10.4	10.4	6.4	958V-4FF	367504	o. r.
6	4	16	10	3	31.9	12.4	12.4	6.2	958V-6-4FF	367508	o. r.
6	6	16	10	3	32.4	12.4	12.4	6.2	958V-6FF	367510	o. r.
8	6	16	8	3	35.8	14.4	14.4	8.7	958V-8-6FF	367511	o. r.
8	8	16	8	3	36.2	14.4	14.4	8.9	958V-8FF	367512	o. r.
10	8	12	6	3	40.5	17.2	17.2	12.9	958V-10-8FF	367514	o. r.
10	10	12	6	3	41.2	17.2	17.2	13.6	958V-10FF	367515	o. r.
12	10	12	6	3	44.9	21	21	24.4	958V-12-10FF	367516	o. r.
12	12	12	6	3	45	21	21	21.4	958V-12FF	367517	o. r.

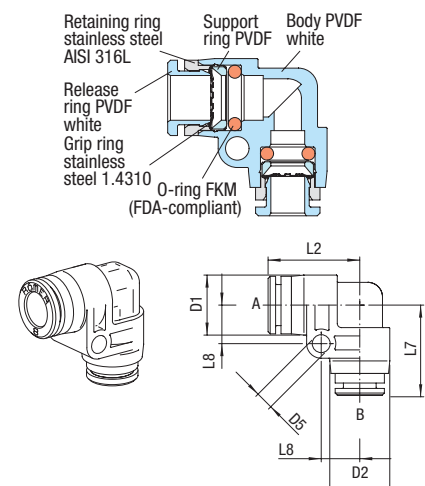
Illustration



90° Elbow Connector

Price 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	18.6	18.6	8.3	12.4	12.4	4.3	7.2	955V-4FF	367554	o. r.
6	4	16	10	3	19.1	18.6	8.3	12.4	12.4	4.3	7.2	955V-6-4FF	367558	o. r.
6	6	16	10	3	19.1	19.1	8.3	12.4	12.4	4.3	7.1	955V-6FF	367560	o. r.
8	6	16	8	3	22.1	21.7	9.3	14.4	14.4	4.3	10.2	955V-8-6FF	367561	o. r.
8	8	16	8	3	22.1	22.1	9.3	14.4	14.4	4.3	10.5	955V-8FF	367562	o. r.
10	6	12	6	3	26.1	25	12	17.2	17.2	4.3	16.3	955V-10-6FF	367563	o. r.
10	8	12	6	3	26.1	25.4	12	17.2	17.2	4.3	19.3	955V-10-8FF	367564	o. r.
10	10	12	6	3	26.1	26.1	12	17.2	17.2	4.3	17	955V-10FF	367565	o. r.
12	12	12	6	3	31	31	12	23	23	4.3	32.5	955V-12FF	367567	o. r.

Illustration



T-Connector

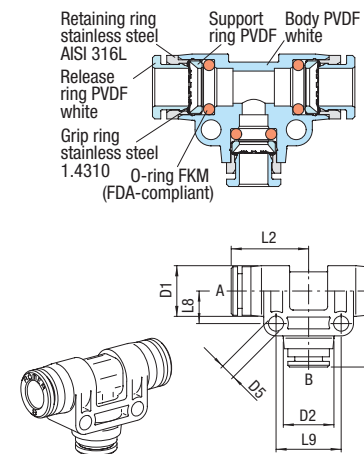
Price group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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	18.6	18.6	8.3	16.5	12.4	12.4	4.3	10.7	954V-4FF	367604	o. r.
6	4	16	10	3	19.1	18.6	8.3	16.5	12.4	12.4	4.3	10.6	954V-6-4FF	367608	o. r.
6	6	16	10	3	19.1	19.1	8.3	16.5	12.4	12.4	4.3	10.9	954V-6FF	367610	o. r.
6	8	16	8	3	21.7	22.1	9.3	18.5	14.4	14.4	4.3	15.4	954V-6-8FF	367639	o. r.
8	6	16	8	3	22.1	21.7	9.3	18.5	14.4	14.4	4.3	15.1	954V-8-6FF	367611	o. r.
8	8	16	8	3	22.1	22.1	9.3	18.5	14.4	14.4	4.3	15.2	954V-8FF	367612	o. r.
10	6	12	6	3	26.1	25	12	24	17.2	17.2	4.3	24.5	954V-10-6FF	367613	o. r.
10	8	12	6	3	26.1	25.4	12	24	17.2	17.2	4.3	24.7	954V-10-8FF	367614	o. r.
10	10	12	6	3	26.1	26.1	12	24	17.2	17.2	4.3	25	954V-10FF	367615	o. r.
12	12	12	6	3	31	31	12	24	21	21	4.3	41.9	954V-12FF	367617	o. r.

Illustration



Y-Connector

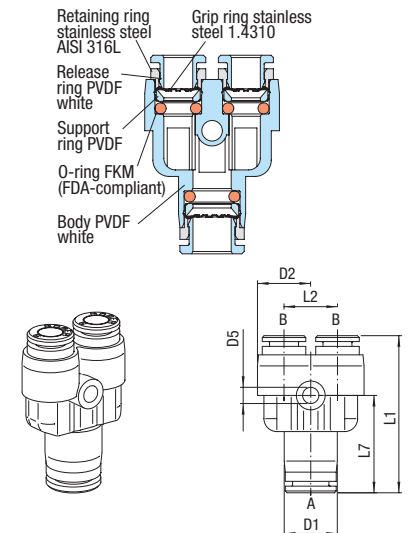
Price group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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	37.2	12.5	22.6	12.4	12.5	3.3	10.5	982V-4FF	367654	o. r.
6	4	16	10	3	37.7	12.5	23.1	12.4	12.5	3.3	10.6	982V-6-4FF	367658	o. r.
6	6	16	10	3	38.2	12.5	23.1	12.4	12.5	3.3	10.7	982V-6FF	367660	o. r.
8	6	16	8	3	42.8	14.5	26.5	14.4	14.5	4.3	15.6	982V-8-6FF	367661	o. r.
8	8	16	8	3	43.2	14.5	26.5	14.4	14.4	4.3	16	982V-8FF	367662	o. r.
10	8	12	6	3	48.5	17	31.1	17.2	17.2	4.3	23.3	982V-10-8FF	367664	o. r.
10	10	12	6	3	49.2	17	31.1	17.2	17.2	4.3	24.4	982V-10FF	367665	o. r.
12	12	12	6	3	55.5	20.5	35.5	21	21	4.3	38.4	982V-12FF	367667	o. r.

Illustration



Straight Bulkhead Connector

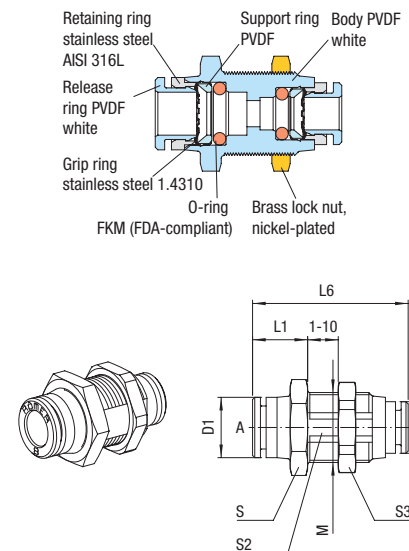
Price group **12** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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	31	9.4	9.4	17	12.5	17	10	959V-4FF	367704	o. r.
6	4	16	10	3	M14x1	11	32	11.4	9.4	17	12.5	17	10.1	959V-6-4FF	367708	o. r.
6	6	16	10	3	M14x1	11	32	11.4	11.4	17	12.5	17	10.2	959V-6FF	367710	o. r.
8	6	16	8	3	M16x1	12.7	35.8	13.8	11.4	19	14.5	19	13.7	959V-8-6FF	367711	o. r.
8	8	16	8	3	M16x1	13	36	13.8	13.8	19	14.5	19	13.6	959V-8FF	367712	o. r.
10	8	12	6	3	M20x1	13.4	40.5	16.4	13.8	22	18	24*	22.6	959V-10-8FF	367714	o. r.
10	10	12	6	3	M20x1	13	41	16.4	16.4	22	18	24*	23.1	959V-10FF	367715	o. r.

Illustration

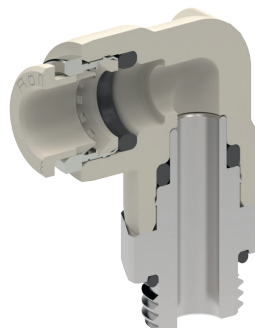


* S24 = Octagon



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, these are also available with FDA-compliant EPDM sealing rings approved according to the UBA elastomer guidelines. 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, 8 and 10
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
-----------------------------	---	---

"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.
-------------------------------------	--	--

SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOGUE)

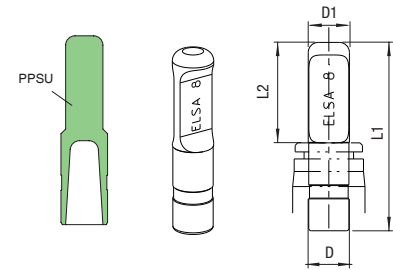
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials such as EPDM, FDA-compliant
- for pipe/tube with inch dimensions
- "R" conical threaded fitting
- Execution according to ASTM G93 or EN ISO 15001 for oxygen use

Push-in Plug

Price 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	16.8	6.2	0.5	971P3-4	237495	o. r.
6	20	16	10	34.5	18.9	8.2	1.1	971P3-6	237496	o. r.
8	16	12	10	37.5	20	8.2	1.3	971P3-8	237497	o. r.

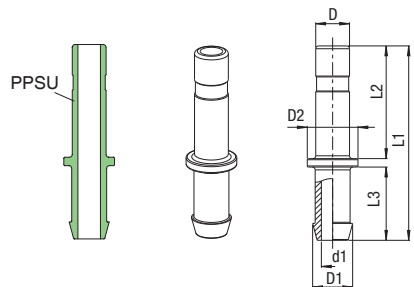
Illustration



Straight Stem Connector with Hose Tail

Price 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	0.3	907P3-D4-3	281181	o. r.
4	3.5-4	20	16	10	2.5	28.5	17	10	5.1	6	0.4	907P3-D4-4	281182	o. r.
6	2.7-3	20	16	10	1.8	28.5	20	8.5	3.6	6	0.5	907P3-D6-3	281183	o. r.
6	3.5-4	20	16	10	2.8	30	20	10	5.1	6	0.6	907P3-D6-4	281184	o. r.
6	5-6	20	16	10	4	34.5	20	13	7.1	9	0.9	907P3-D6-7	281185	o. r.
6	7-8	20	16	10	4	39	18	19.5	9.5	13	1.3	907P3-D6-9	281187	o. r.

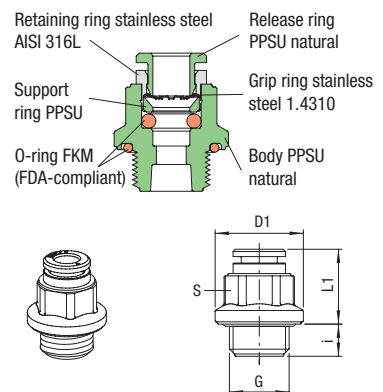
Illustration



Straight Adaptor - Male

Price 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			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	16.8	15.8	14	4.1	951P3-4FF-1/8	367051	o. r.		
4	G 1/4	20	16	10	7	15.8	19.2	14	5	951P3-4FF-1/4	367052	o. r.		
6	G 1/8	20	16	10	6	17.3	15.8	14	4.3	951P3-6FF-1/8	367053	o. r.		
6	G 1/4	20	16	10	7	16.3	19.2	14	4.9	951P3-6FF-1/4	367054	o. r.		
8	G 1/4	16	12	6	7	19.2	19.2	17	a. A.	951P3-8FF-1/4	367055	o. r.		
8	G 3/8	6	12	6	8	17.2	22.8	17	a. A.	951P3-8FF-3/8	367056	o. r.		

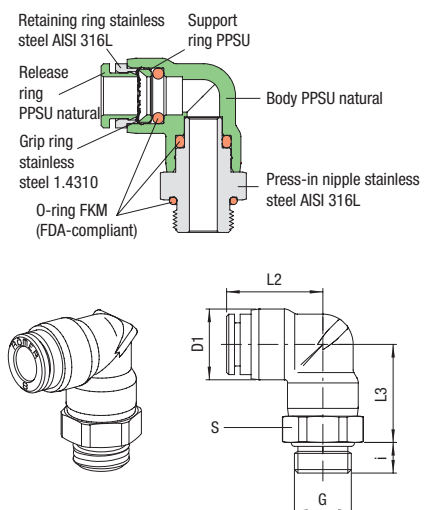
Illustration



90° Elbow Adaptor - Male - Positionable

Price 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	14.9	11.1	10	8	3.7	930P3-4FF-M5	367057	o. r.
4	G 1/8	20	16	10	5	17.7	18.4	11.9	13	12.8	930P3-4FF-1/8	367058	o. r.
4	G 1/4	20	16	10	7	18.9	20.1	13.9	17	24.6	930P3-4FF-1/4	367059	o. r.
6	M 5	20	16	10	3.5	16.9	11.1	12	8	4.3	930P3-6FF-M5	367060	o. r.
6	G 1/8	20	16	10	5	19.4	19.6	13.9	13	15.9	930P3-6FF-1/8	367061	o. r.
6	G 1/4	20	16	10	7	19.4	20.1	13.9	17	24.7	930P3-6FF-1/4	367062	o. r.
8	G 1/8	16	12	6	5	22.4	22.7	17.2	17	24.2	930P3-8FF-1/8	366805	o. r.
8	G 1/4	16	12	6	7	22.4	22.7	17.2	17	40.0	930P3-8FF-1/4	366806	o. r.
8	G 3/8	16	12	6	8	22.4	22.7	17.2	19	36.7	930P3-8FF-3/8	366807	o. r.

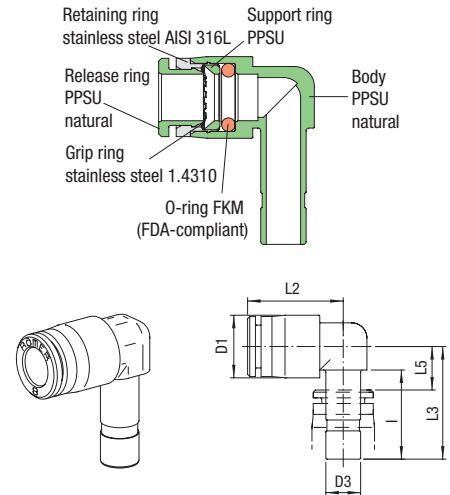
Illustration



90° Elbow Connector with Stem

Price group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °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
		20 °C	100 °C	140 °C									
4	4	20	16	10	17	17.1	21.8	11.9	7	o. r.	911P3-4FF-D4	367001	o. r.
4	6	20	16	10	18	17.1	22.9	11.9	7.2	o. r.	911P3-4FF-D6	367002	o. r.
6	4	20	16	10	17	19.4	21.8	13.9	7	4	911P3-6FF-D4	367003	o. r.
6	6	20	16	10	18	19.4	22.9	13.9	7.2	4	911P3-6FF-D6	367004	o. r.
6	8	16	12	6	20	19.3	26.4	13,9	8.8	4.7	911P3-6FF-D8	36005	o. r.
8	8	16	12	6	20	22.4	26.4	17,2	8.8	7.6	911P3-8FF-D8	36006	o. r.

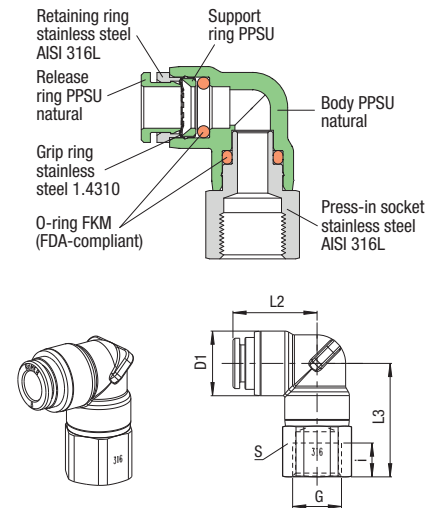
Illustration



90° Elbow Adaptor - Female - Positionable

Price 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	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	18.9	24.6	13.9	13	15.9	979P3-4FF-1/8	366762	o. r.	
4	G 1/4	20	16	10	9	18.9	27.6	13.9	17	24.3	979P3-4FF-1/4	366763	o. r.	
6	G 1/8	20	16	10	6.5	19.4	24.6	13.9	13	16.4	979P3-6FF-1/8	366764	o. r.	
6	G 1/4	20	16	10	9	19.4	27.6	13.9	17	22.5	979P3-6FF-1/4	366765	o. r.	
8	G 1/8	16	12	6	6.5	22.4	25	17.2	17	26.4	979P3-8FF-1/8	366766	o. r.	
8	G 1/4	16	12	6	9	22.4	30.2	17.2	17	30.3	979P3-8FF-1/4	366767	o. r.	

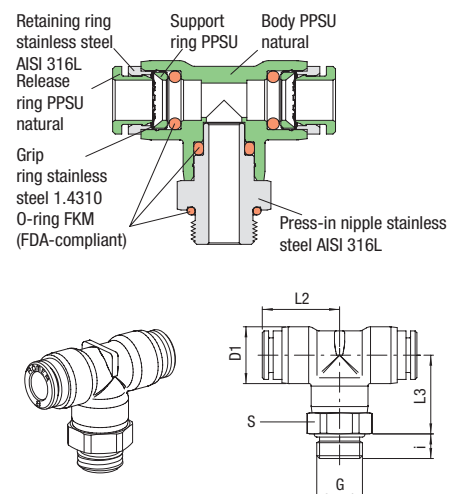
Illustration



T-Adaptor - Male - Positionable

Price 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	18.9	19.6	13.9	13	18.3	921P3-4FF-1/8	367065	o. r.
4	G 1/4	20	16	10	7	18.9	20.1	13.9	17	27.3	921P3-4FF-1/4	367066	o. r.
6	G 1/8	20	16	10	5	19.4	19.6	13.9	13	18.6	921P3-6FF-1/8	367067	o. r.
6	G 1/4	20	16	10	7	19.4	20.1	13.9	17	27.4	921P3-6FF-1/4	367068	o. r.
8	G 1/8	16	12	6	5	22.4	22.7	17.2	17	28.8	921P3-8FF-1/8	366810	o. r.
8	G 1/4	16	12	6	7	22.4	22.7	17.2	17	33.3	921P3-8FF-1/4	366811	o. r.
8	G 3/8	16	12	6	8	22.4	22.7	17.2	19	42.2	921P3-8FF-3/8	366812	o. r.

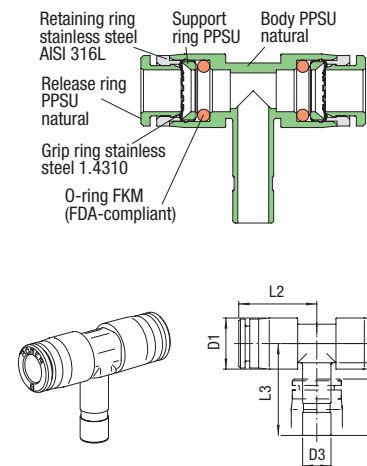
Illustration



T-Stem Connector

Price group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C								 NSF		 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	17.3	18.9	21.8	12.7	7	6.2	912P3-4FF-D4	367007	o. r.	
4	6	20	16	10	18.4	18.9	22.9	12.7	7,2	6.2	912P3-4FF-D6	367008	o. r.	
6	4	20	16	10	17.3	19.4	21.8	13.9	7	6.3	912P3-6FF-D4	367009	o. r.	
6	6	20	16	10	18.4	19.4	22.9	13.9	7,2	7.1	912P3-6FF-D6	367010	o. r.	
6	8	16	12	6	20	19.3	26.4	13.9	8.8	8	912P3-6FF-D8	367011	o. r.	
8	8	16	12	6	20	22.4	26.4	16.8	8.8	12.7	912P3-8FF-D8	367012	o. r.	

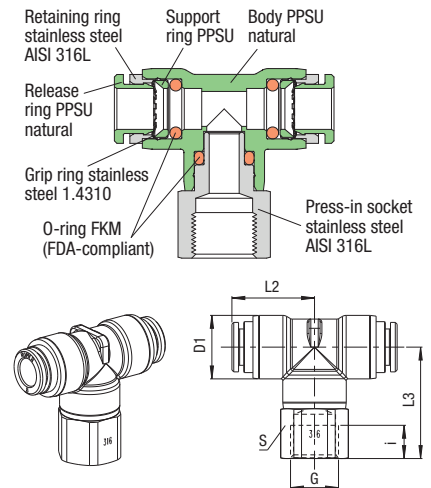
Illustration



T-Adaptor - Female - Positionable

Price 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	18.9	24.6	13.9	13	18.7	970P3-4FF-1/8	366770	o. r.	
	4	G 1/4	20	16	10	9	18.9	27.6	13.9	17	27.1	970P3-4FF-1/4	366771	o. r.	
	6	G 1/8	20	16	10	6.5	19.4	24.6	13.9	13	18	970P3-6FF-1/8	366772	o. r.	
	6	G 1/4	20	16	10	9	19.4	27.6	13.9	17	25.1	970P3-6FF-1/4	366773	o. r.	
	8	G 1/8	16	12	6	6.5	22.4	25	17.2	17	30.4	970P3-8FF-1/8	366774	o. r.	
	8	G 1/4	16	12	6	9	22.4	30.2	17.2	17	34.3	970P3-8FF-1/4	366775	o. r.	

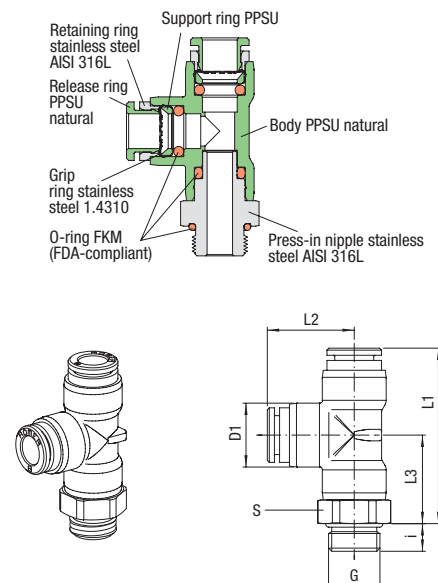
Illustration



Side T-Adaptor - Male - Positionable

Price 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	18.9	19.6	13.9	13	18.3	922P3-4FF-1/8	367071	o. r.	
4	G 1/4	20	16	10	7	39	18.9	20.1	13.9	17	27.3	922P3-4FF-1/4	367072	o. r.	
6	G 1/8	20	16	10	5	39	19.4	19.6	13.9	13	18.6	922P3-6FF-1/8	367073	o. r.	
6	G 1/4	20	16	10	7	39.5	19.4	20.1	13.9	17	27.6	922P3-6FF-1/4	367074	o. r.	
8	G 1/8	16	12	6	6	44.1	22.4	21.7	17.2	17	28.8	922P3-8FF-1/8	366815	o. r.	
8	G 1/4	16	12	6	7	45.1	22.4	22.7	17.2	17	33.3	922P3-8FF-1/4	366816	o. r.	
8	G 3/8	16	12	6	8	45.1	22.4	22.7	17.2	19	42.2	922P3-8FF-3/8	366817	o. r.	

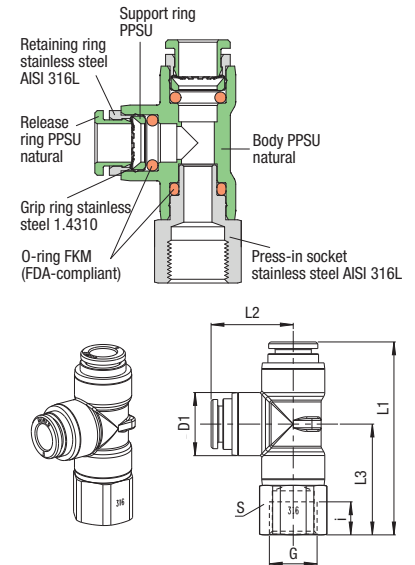
Illustration



Side T-Adaptor - Female - Positionable

Price 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	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	18.9	24.5	13.9	13	17.8	923P3-4FF-1/8	366778	o. r.
4	G 1/4	20	16	10	9	46.5	18.9	27.5	13.9	17	27.1	923P3-4FF-1/4	366779	o. r.
6	G 1/8	20	16	10	6.5	44	19.4	24.5	13.9	13	17.9	923P3-6FF-1/8	366780	o. r.
6	G 1/4	20	16	10	9	47	19.4	27.5	13.9	17	27.4	923P3-6FF-1/4	366781	o. r.
8	G 1/8	16	12	6	6.5	47.4	22.4	25.5	17.2	13	30.4	923P3-8FF-1/8	366782	o. r.
8	G 1/4	16	12	6	9	52.6	22.4	30.5	17.2	17	34.3	923P3-8FF-1/4	366783	o. r.

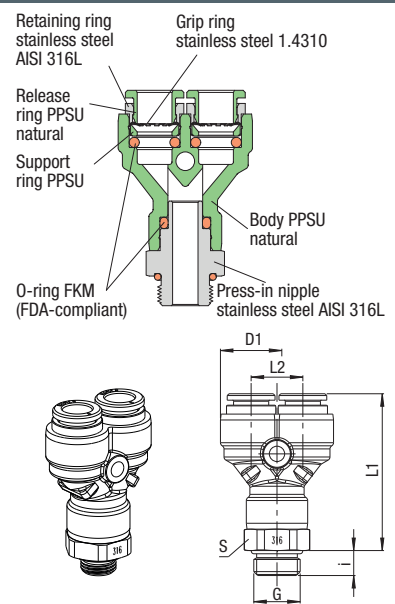
Illustration



Y-Adaptor - Male - Positionable

Price 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	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	13.9	13	19.1	992P3-4FF-1/8	367077	o. r.
4	G 1/4	20	16	10	7	39	12.5	13.9	17	27.9	992P3-4FF-1/4	367078	o. r.
6	G 1/8	20	16	10	5	39	12.5	13.9	13	20.2	992P3-6FF-1/8	367079	o. r.
6	G 1/4	20	16	10	7	39.5	12.5	13.9	17	28.9	992P3-6FF-1/4	367080	o. r.
8	G 1/8	16	12	6	5	44	14.5	17.2	17	29.1	992P3-8FF-1/8	366820	o. r.
8	G 1/4	16	12	6	7	44	14.5	17.2	17	33.7	992P3-8FF-1/4	366821	o. r.
8	G 3/8	16	12	6	8	44	14.5	17.2	19	42.6	992P3-8FF-3/8	366822	o. r.

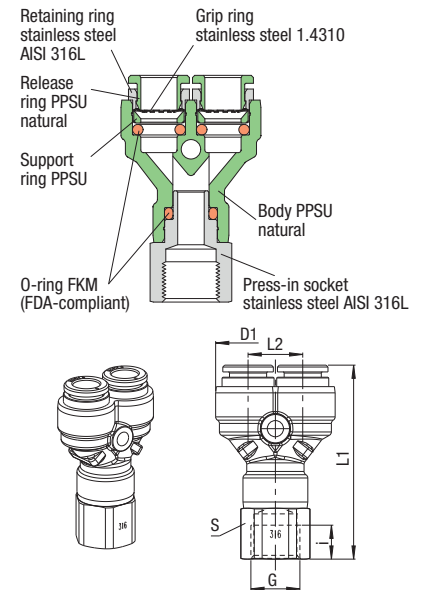
Illustration



Y-Adaptor - Female - Positionable

Price 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	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	13.2	13	18.6	993P3-4FF-1/8	366786	o. r.	
4	G 1/4	20	16	10	9	46.5	12.5	13.2	17	27.9	993P3-4FF-1/4	366787	o. r.	
6	G 1/8	20	16	10	6.5	43.9	12.5	13.2	13	19.7	993P3-6FF-1/8	366788	o. r.	
6	G 1/4	20	16	10	9	46.9	12.5	13.2	17	28.1	993P3-6FF-1/4	366789	o. r.	
8	G 1/8	16	12	6	6.5	47.8	14.5	15.9	17	31.3	993P3-8FF-1/8	366790	o. r.	
8	G 1/4	16	12	6	9	53	14.5	15.9	17	33.7	993P3-8FF-1/4	366791	o. r.	

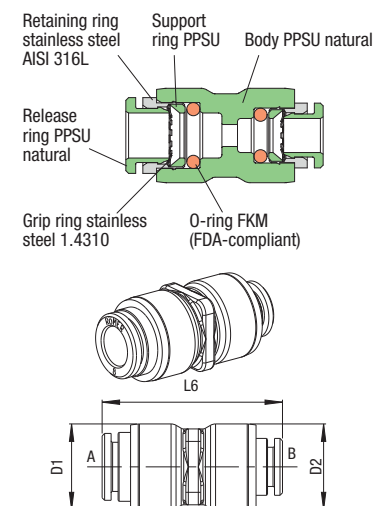
Illustration



Straight Connector

Price 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	31.8	12.7	12.7	5.4	958P3-4FF	367083	o. r.
6	4	20	16	10	32.4	13.9	13.9	6	958P3-6-4FF	367084	o. r.
6	6	20	16	10	32.9	13.9	13.9	6.1	958P3-6FF	367085	o. r.
8	6	16	12	6	36.1	17.2	17.2	10.4	958P3-8-6FF	367086	o. r.
8	8	16	12	6	36.5	17.2	17.2	10	958P3-8FF	367087	o. r.

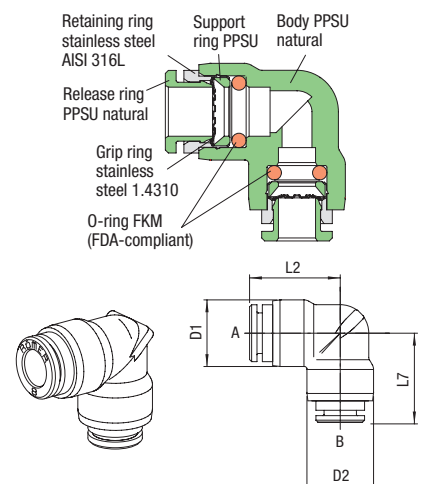
Illustration



90° Elbow Connector

Price 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	17.7	17.7	11.9	11.9	5.2	955P3-4FF	367088	o. r.	
6	4	20	16	10	19.4	18.9	13.9	13.9	7	955P3-6-4FF	367089	o. r.	
6	6	20	16	10	19.4	19.4	13.9	13.9	7.5	955P3-6FF	367090	o. r.	
8	6	16	12	6	22.4	22	17.2	17.2	11.3	955P3-8-6FF	367091	o. r.	
8	8	16	12	6	22.4	22.4	17.2	17.2	12.7	955P3-8FF	367092	o. r.	

Illustration



T-Connector

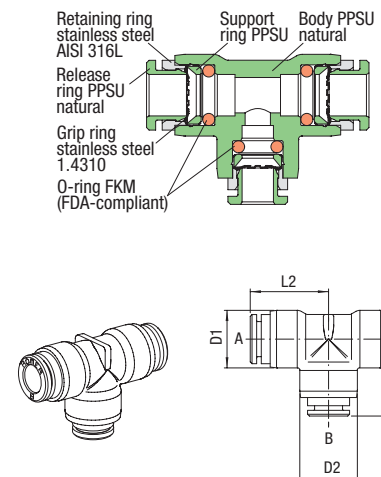
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



**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	17.7	17.7	11.9	11.9	7.3	954P3-4FF	367093	o. r.
6	4	20	16	10	19.4	18.9	13.9	13.9	10.6	954P3-6-4FF	367094	o. r.
6	6	20	16	10	19.4	19.4	13.9	13.9	9.8	954P3-6FF	367095	o. r.
6	8	16	12	6	22	22.4	17.2	17.2	15.5	954P3-6-8FF	367082	o. r.
8	6	16	12	6	22.4	22	17.2	17.2	16	954P3-8-6FF	367096	o. r.
8	8	16	12	6	22.4	22.4	17.2	17.2	16.1	954P3-8FF	367097	o. r.
10	8	16	12	6	26.4	25.7	20	20	23.8	954P3-10-8FF	367950	o. r.
10	10	16	12	6	26.4	26.4	20	20	24.3	954P3-10FF	367951	o. r.

Illustration



Y-Connector

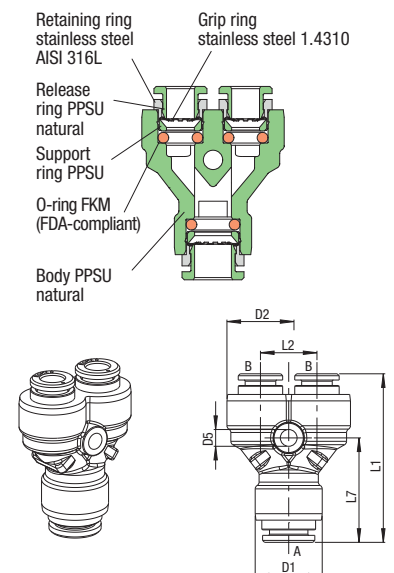
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



**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	37.8	12.5	23	12.7	12.7	3.3	9.5	982P3-4FF	367098	o. r.
6	4	20	16	10	38.3	12.5	23.5	13.9	13.9	3.3	10.4	982P3-6-4FF	367099	o. r.
6	6	20	16	10	38.3	12.5	23.5	13.9	13.9	3.3	10.4	982P3-6FF	367100	o. r.
8	6	16	12	6	43.3	14.5	26.8	17.2	17.2	4.3	16	982P3-8-6FF	366801	o. r.
8	8	16	12	6	43.7	14.5	26.8	17.2	17.2	4.3	18	982P3-8FF	366802	o. r.

Illustration



Double Y-Connector

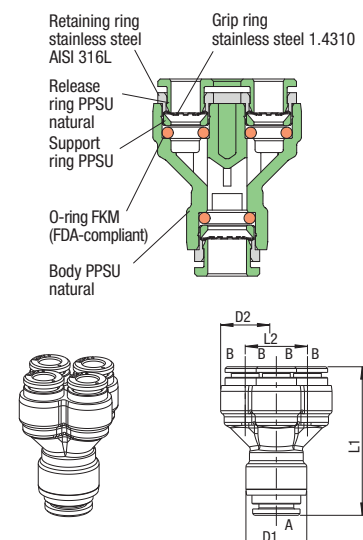
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



**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	41.6	17.6	17.2	13.9	17.8	984P3-6FF	366803	o. r.
8	6	16	12	6	41.9	17.6	17.2	13.9	19.9	984P3-8-6FF	366804	o. r.

Illustration



Straight Bulkhead Connector

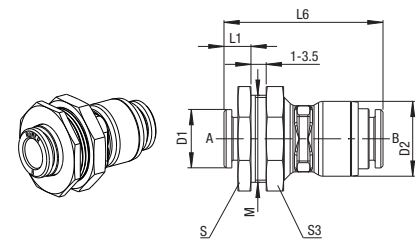
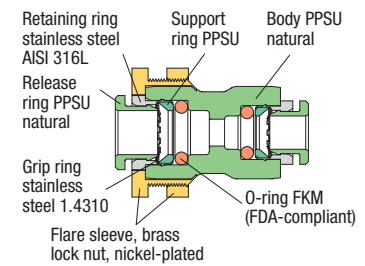
Price group **15**

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

**Plastic
PPSU**

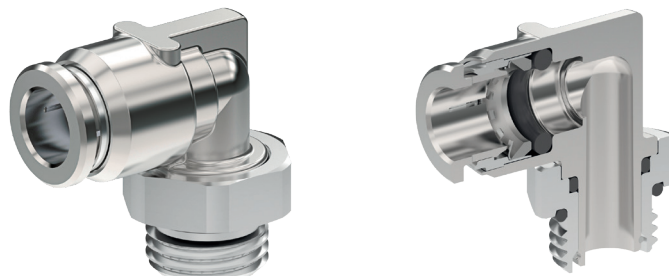
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			M	L1	L6	D2	S	S3	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C										
4	4	20	16	10	M16x1	6.3	31.8	12.7	19	19	18.2	959P3-4FF	366794	o. r.
6	6	20	16	10	M16x1	6.7	32.9	13.9	19	19	17.1	959P3-6FF	366795	o. r.
8	8	16	12	6	M20x1	7.8	36.5	17.2	24	24	28.1	959P3-8FF	366796	o. r.

Illustration



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 +200 °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, these are also available with FDA-compliant EPDM sealing rings approved according to the UBA elastomer guidelines.

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 20 T_{min} 0 °C T_{max} +140 °C	Means that the allowable operating pressure OP corresponds to the given nominal pressure PN in the specified temperature range "T". Can be loaded up to 200 °C for a short time (see information on data sheet)
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.
--	--	--

SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOGUE)

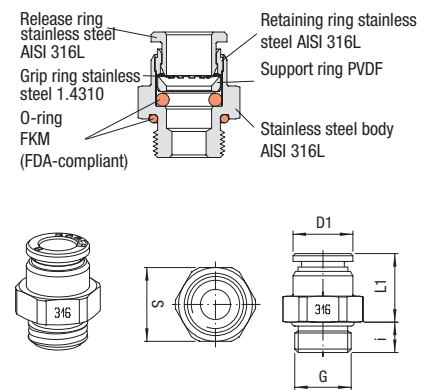
We also manufacture ELSA push-in fittings in various customer-specific versions.

- other O-ring materials such as EPDM, FDA-compliant
- for pipe/tube with inch dimensions
- threaded connection, metric
- Versions according to ASTM G93 and EN ISO 15001 for oxygen use

Straight Adaptor - Male

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C	Thread cylindrical	Thread sealed by a FKM O-Ring in recess		NSF	Stainless steel AISI 316L		
for tube D	G	i	L1	D1	D2	S	Weight in [g]	Type	Order number	Price
4	M 5	3,5	16,8	8	9,4	8	4,4	951X44-4FF-M5	385021	o. r.
4	G 1/8	5	14	9,8		13	9,9	951X44-4FF-1/8	385022	o. r.
4	G 1/4	7	12	9,8		17	17,7	951X44-4FF-1/4	385023	o. r.
6	M 5	3,5	17,7	10	11,4	10	6,1	951X44-6FF-M5	385024	o. r.
6	G 1/8	5	15,2	11,8		13	15	951X44-6FF-1/8	385025	o. r.
6	G 1/4	7	14,8	11,8		17	18,6	951X44-6FF-1/4	385026	o. r.
6	G 3/8	8	12	11,8		19	25,6	951X44-6FF-3/8	385019	o. r.
8	G 1/8	5	20,2	13,8		14	14,6	951X44-8FF-1/8	385027	o. r.
8	G 1/4	7	15,9	13,8		17	11,9	951X44-8FF-1/4	385028	o. r.
8	G 3/8	8	16	13,8		19	26,8	951X44-8FF-3/8	385029	o. r.
10	G 1/4	7	22	16,4		17	24,9	951X44-10FF-1/4	385030	o. r.
10	G 3/8	8	17,6	16,4		19	25,4	951X44-10FF-3/8	385031	o. r.
10	G 1/2	9	16	16,4		24	43,6	951X44-10FF-1/2	385032	o. r.
12	G 1/4	7	24	19,8		22	39,3	951X44-12FF-1/4	385033	o. r.
12	G 3/8	8	19,5	19,8		22	32,2	951X44-12FF-3/8	385034	o. r.
12	G 1/2	9	19	19,8		24	45,21	951X44-12FF-1/2	385035	o. r.

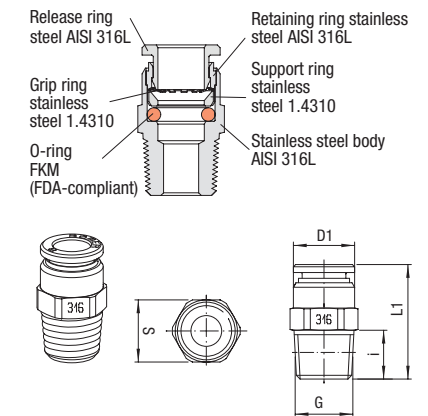
Illustration



Straight Adaptor - Male

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C	Thread conical						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	9.8	10	8,3	951X44-4FF-1/8K	385040	o. r.	
4	R 1/4	11	22.8	9.8	14	17,9	951X44-4FF-1/4K	385041	o. r.	
6	R 1/8	7.5	21.7	11.8	12	9,9	951X44-6FF-1/8K	385042	o. r.	
6	R 1/4	11	24.7	11.8	14	18,1	951X44-6FF-1/4K	385043	o. r.	
8	R 1/8	7.5	27.2	13.8	14	15,3	951X44-8FF-1/8K	385044	o. r.	
8	R 1/4	11	26.7	13.8	14	16,2	951X44-8FF-1/4K	385045	o. r.	
8	R 3/8	11.5	24.7	13.8	17	26,5	951X44-8FF-3/8K	385046	o. r.	
10	R 1/4	11	32.6	16.4	17	27,3	951X44-10FF-1/4K	385047	o. r.	
10	R 3/8	11.5	28.1	16.4	17	27,7	951X44-10FF-3/8K	385048	o. r.	
10	R 1/2	14	26.6	16.4	22	47,5	951X44-10FF-1/2K	385049	o. r.	
12	R 1/4	11	34.8	19.8	22	41,2	951X44-12FF-1/4K	385050	o. r.	
12	R 3/8	11.5	30	19.8	22	35,9	951X44-12FF-3/8K	385051	o. r.	
12	R 1/2	14	31.5	19.8	22	50,9	951X44-12FF-1/2K	385052	o. r.	

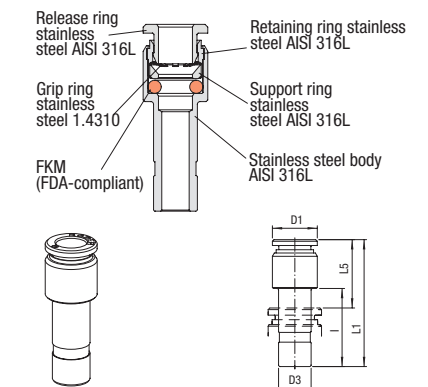
Illustration



Straight Stem Reducer

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C		NSF 14000000				Stainless steel AISI 316L	
for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price	
4	6	18	31,3	17,5	9,8	7,26	947X44-4FF-D6	385390	o. r.	
6	8	20	34,2	18,5	11,8	10,8	947X44-6FF-D8	385391	o. r.	
8	10	24	39,1	21	13,8	15,4	947X44-8FF-D10	385392	o. r.	
10	12	26	42,6	22,5	16,4	21,9	947X44-10FF-D12	385393	o. r.	

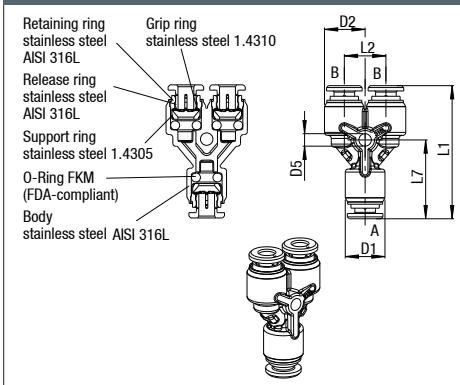
Illustration



Y-Connector

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C										Stainless steel AISI 316L	
for tube D	D3	L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price			
4	4	35.2	11	20.9	10.5	10.5	3.3	19.5	982X44M-4FF	385230	o. r.			
6	6	39.1	13	24.1	12.5	12.5	3.3	28.5	982X44M-6FF	385232	o. r.			
8	8	45.5	15.5	28.8	14.5	14.5	4.3	41	982X44M-8FF	385234	o. r.			
10	10	51.8	18	33.7	17	17	4.3	61.9	982X44M-10FF	385236	o. r.			
12	12	57.2	21.5	37.4	20.5	20.5	4.3	97.2	982X44M-12FF	385238	o. r.			

Illustration



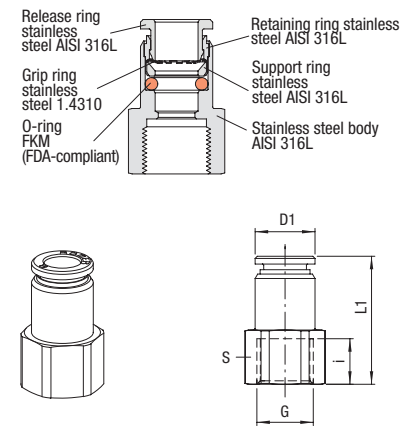
Straight Adaptor - Female

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °C	Thread	cylindrical
-------------	-----------	----	----	------------------	------	------------------	---------	--------	-------------


**Stainless steel
AISI 316L**

for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price
4	G 1/8	7	23.8	9.8	13	11.1	946X44-4FF-1/8	385061	o. r.
4	G 1/4	9	26.8	9.8	17	21.7	946X44-4FF-1/4	385062	o. r.
6	G 1/8	7	25.2	11.8	13	13.2	946X44-6FF-1/8	385063	o. r.
6	G 1/4	9	27.7	11.9	17	23.6	946X44-6FF-1/4	385064	o. r.
6	G 3/8	10	28.7	11.8	19	24.5	946X44-6FF-3/8	385065	o. r.
8	G 1/8	7	27.1	13.8	14	19.6	946X44-8FF-1/8	385066	o. r.
8	G 1/4	9	29.6	13.8	17	26.2	946X44-8FF-1/4	385067	o. r.
8	G 3/8	10	30.6	13.8	19	27.2	946X44-8FF-3/8	385068	o. r.
10	G 1/4	9	32.1	16.4	17	31.8	946X44-10FF-1/4	385069	o. r.
10	G 3/8	10	33.1	16.4	19	33.2	946X44-10FF-3/8	385070	o. r.
10	G 1/2	13	36.6	16.4	24	51.6	946X44-10FF-1/2	385071	o. r.
12	G 1/4	9	35	19.8	22	62.3	946X44-12FF-1/4	385072	o. r.
12	G 3/8	10	36	19.8	22	57.3	946X44-12FF-3/8	385073	o. r.
12	G 1/2	13	39.5	19.8	24	63	946X44-12FF-1/2	385074	o. r.

Illustration



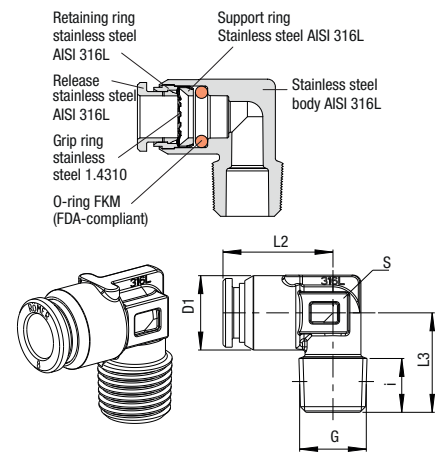
90° Elbow Adaptor - Male

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °C	Thread	conical
-------------	-----------	----	----	------------------	------	------------------	---------	--------	---------


**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	16.8	14.4	10.5	8	10.3	950X44M-4FF-1/8K	385081	o. r.
4	R 1/4	10.5	16.8	17.4	10.5	8	14.8	950X44M-4FF-1/4K	385082	o. r.
6	R 1/8	7.5	18.4	15.4	12.5	8	13.5	950X44M-6FF-1/8K	385083	o. r.
6	R 1/4	10.5	18.5	18.4	12.5	9	18.3	950X44M-6FF-1/4K	385084	o. r.
8	R 1/8	7.5	20.2	16.4	14.5	12	20.6	950X44M-8FF-1/8K	385085	o. r.
8	R 1/4	10.5	21.5	19.4	14.5	12	24.7	950X44M-8FF-1/4K	385086	o. r.
8	R 3/8	11	21.4	19.9	14.5	12	29.4	950X44M-8FF-3/8K	385087	o. r.
10	R 1/4	10.5	24	20.7	17	14	34.2	950X44M-10FF-1/4K	385088	o. r.
10	R 3/8	11	24.9	21.2	17	14	38.1	950X44M-10FF-3/8K	385089	o. r.
10	R 1/2	14	24.9	24.2	17	14	48.6	950X44M-10FF-1/2K	385090	o. r.
12	R 1/4	10.5	26.8	22.4	20.5	17	50	950X44M-12FF-1/4K	385091	o. r.
12	R 3/8	11	27.8	22.9	20.5	17	52	950X44M-12FF-3/8K	385092	o. r.
12	R 1/2	14	27.8	25.9	20.5	17	61.7	950X44M-12FF-1/2K	385093	o. r.

Illustration



90° Elbow Adaptor - Male - Positionable

Price group	13	PN	16	T _{min}	0 °C	T _{max}	+140 °C	Thread	cylindrical
-------------	-----------	----	----	------------------	------	------------------	---------	--------	-------------

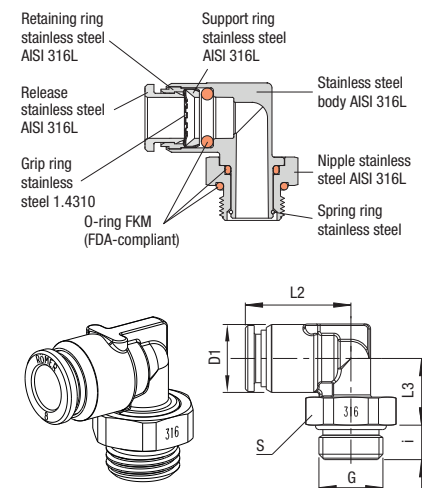
Thread sealed by a FKM
O-Ring in recess

not suitable for rotating
or oscill. movement

**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	16,6	11,1	10,5	8	10,7	930X44M-4FF-M5	385101	o. r.
4	G 1/8	5	16,8	11,5	10,5	13	15,2	930X44M-4FF-1/8	385102	o. r.
4	G 1/4	7	16,8	11,6	10,5	17	21,3	930X44M-4FF-1/4	385103	o. r.
6	M 5	3,5	17,6	12,1	12,5	8	13,4	930X44M-6FF-M5	385104	o. r.
6	G 1/8	5	18,3	12,4	12,5	13	16,1	930X44M-6FF-1/8	385105	a. A.
6	G 1/4	7	18,5	12,7	12,5	17	25	930X44M-6FF-1/4	385106	o. r.
6	G 3/8	8	18,5	13	12,5	19	30,2	930X44M-6FF-3/8	385098	o. r.
8	G 1/8	5	20,2	13,4	14,5	13	19,9	930X44M-8FF-1/8	385107	o. r.
8	G 1/4	7	21,5	13,6	14,5	17	27,8	930X44M-8FF-1/4	385108	o. r.
8	G 3/8	8	21,4	13,9	14,5	19	34,5	930X44M-8FF-3/8	385109	o. r.
10	G 1/4	7	24	14,9	17	17	35,4	930X44M-10FF-1/4	385110	o. r.
10	G 3/8	8	24,9	15,3	17	19	41,8	930X44M-10FF-3/8	385111	o. r.
10	G 1/2	9	24,9	16,3	17	24	62	930X44M-10FF-1/2	385112	o. r.
12	G 1/4	7	25,8	16,6	20,5	17	48,1	930X44M-12FF-1/4	385113	o. r.
12	G 3/8	8	26,8	17	20,5	19	54,7	930X44M-12FF-3/8	385114	o. r.
12	G 1/2	9	26,8	18	20,5	24	74,9	930X44M-12FF-1/2	385115	o. r.

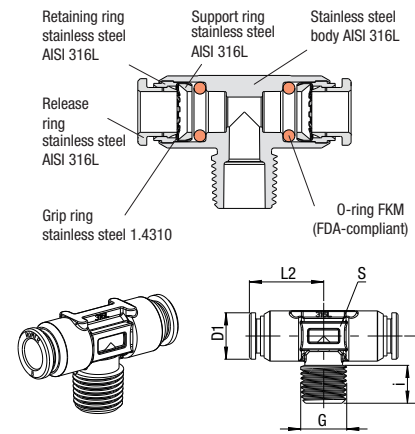
Illustration



T-Adaptor - Male

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C	Thread conical	 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	16.8	14.4	10.5	8	15.2	941X44M-4FF-1/8K	385305	o. r.
4	R 1/4	10.5	16.8	17.4	10.5	8	20	941X44M-4FF-1/4K	385306	o. r.
6	R 1/8	7.5	18.4	15.4	12.5	8	20.4	941X44M-6FF-1/8K	385307	o. r.
6	R 1/4	10.5	18.5	18.4	12.5	9	25.4	941X44M-6FF-1/4K	385308	o. r.
8	R 1/8	7.5	20.2	16.4	14.5	12	29.2	941X44M-8FF-1/8K	385309	o. r.
8	R 1/4	10.5	21.5	19.4	14.5	12	34.3	941X44M-8FF-1/4K	385310	o. r.
8	R 3/8	11	21.4	19.9	14.5	12	38.8	941X44M-8FF-3/8K	385311	o. r.
10	R 1/4	10.5	24	20.7	17	14	47.9	941X44M-10FF-1/4K	385312	o. r.
10	R 3/8	11	24.9	21.2	17	14	52.4	941X44M-10FF-3/8K	385313	o. r.
10	R 1/2	14	24.9	24.2	17	14	62.6	941X44M-10FF-1/2K	385314	o. r.
12	R 1/4	10.5	26.8	22.4	20.5	17	71.6	941X44M-12FF-1/4K	385315	o. r.
12	R 3/8	11	27.8	22.9	20.5	17	74.6	941X44M-12FF-3/8K	385316	o. r.
12	R 1/2	14	27.8	25.9	20.5	17	84.5	941X44M-12FF-1/2K	385317	o. r.

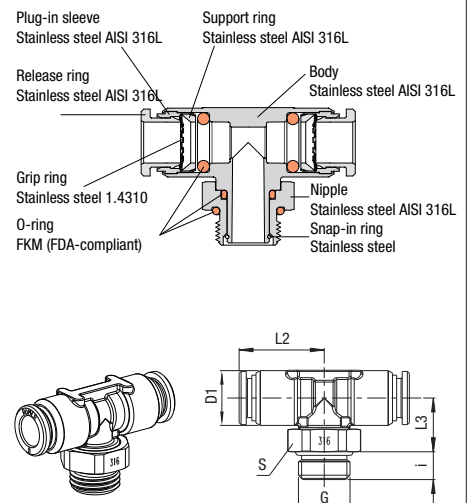
Illustration



T-Adaptor - Male - Positionable

Price group	13	PN 16	T _{min} 0 °C T _{max} +140 °C	Thread cylindrical	Thread sealed by a FKM O-Ring in recess	not suitable for rotating or oscill. movement	 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	16.6	11.1	10.5	8	15.7	921X44M-4FF-M5	385121	o. r.
4	G 1/8	5	17.3	11.5	10.5	13	19.8	921X44M-4FF-1/8	385122	o. r.
4	G 1/4	7	17.3	11.6	10.5	17	26.3	921X44M-4FF-1/4	385123	o. r.
6	M 5	3.5	17.6	12.1	12.5	8	19.9	921X44M-6FF-M5	385124	o. r.
6	G 1/8	5	18.3	12.4	12.5	13	24.2	921X44M-6FF-1/8	385125	o. r.
6	G 1/4	7	19.5	12.7	12.5	17	31.8	921X44M-6FF-1/4	385126	o. r.
6	G 3/8	8	22.2	13.1	12.5	19	42.5	921X44M-6FF-3/8	385127	o. r.
8	G 1/8	5	20.2	13.4	14.5	13	30.7	921X44M-8FF-1/8	385128	o. r.
8	G 1/4	7	21.5	13.6	14.5	17	38.1	921X44M-8FF-1/4	385129	o. r.
8	G 3/8	8	22.4	13.9	14.5	19	45.6	921X44M-8FF-3/8	385130	o. r.
10	G 1/4	7	24	14.9	17	17	50.7	921X44M-10FF-1/4	385131	o. r.
10	G 3/8	8	24.9	15.3	17	19	56.8	921X44M-10FF-3/8	385132	o. r.
10	G 1/2	9	24.9	16.3	17	24	76.9	921X44M-10FF-1/2	385133	o. r.
12	G 1/4	7	25.8	16.6	20.5	17	70.7	921X44M-12FF-1/4	385134	o. r.
12	G 3/8	8	26.8	17	20.5	19	77.5	921X44M-12FF-3/8	385135	o. r.
12	G 1/2	9	26.8	18	20.5	24	97.7	921X44M-12FF-1/2	385136	o. r.

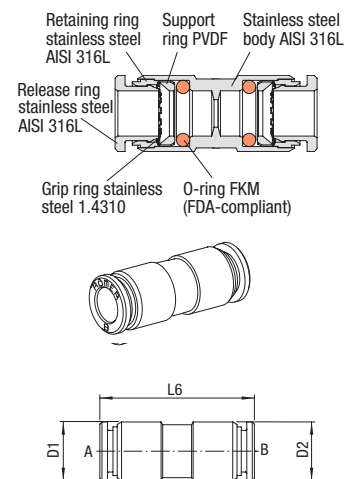
Illustration



Straight Connector

Price group	13	PN 20	T _{min} 0 °C T _{max} +140 °C	Stainless steel AISI 316L				
for tube AD	for tube BD	L6	D1	D2	Weight in [g]	Type	Order number	Price
4	4	31	9.8	9.8	10.2	958X44-4FF	385161	o. r.
6	6	33	11.8	11.8	10.4	958X44-6FF	385163	o. r.
8	8	36.7	13.8	13.8	17.7	958X44-8FF	385165	o. r.
10	10	41.7	16.4	16.4	27.3	958X44-10FF	385167	o. r.
12	12	45.6	19.8	19.8	49	958X44-12FF	385169	o. r.

Illustration



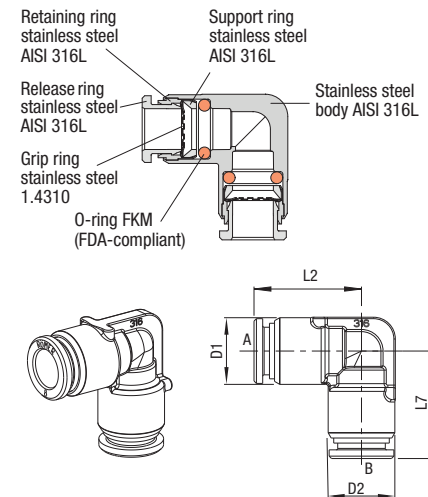
90° Elbow Connector

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °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	12.2	955X44M-4FF	385141	o. r.
6	6	19.4	19.4	12.5	12.5	17.6	955X44M-6FF	385142	o. r.
8	8	22.3	22.3	14.5	14.5	24.7	955X44M-8FF	385143	o. r.
10	10	25.8	25.8	17	17	37.2	955X44M-10FF	385144	o. r.
12	12	28.8	28.8	20.5	20.5	57.4	955X44M-12FF	385145	o. r.

Illustration



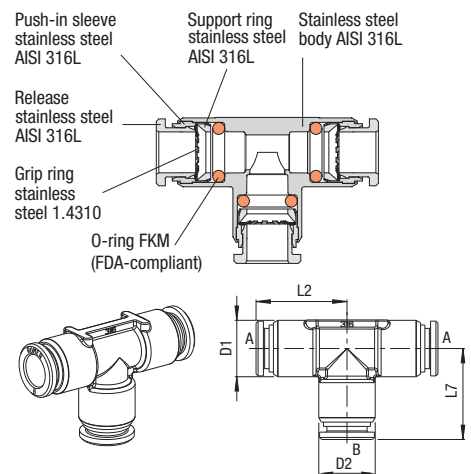
T-Connector

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °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	17.1	954X44M-4FF	385151	o. r.
6	6	19.4	19.4	12.5	12.5	24.3	954X44M-6FF	385152	o. r.
8	8	22.3	22.3	14.5	14.5	34.1	954X44M-8FF	385153	o. r.
10	10	25.8	25.8	17	17	51.4	954X44M-10FF	385154	o. r.
12	12	28.8	28.8	20.5	20.5	79.6	954X44M-12FF	385155	o. r.

Illustration



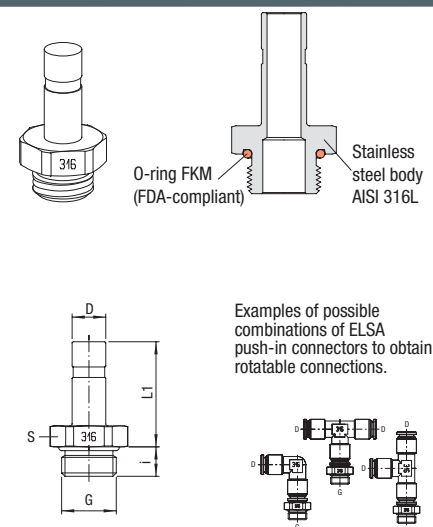
Straight Stem Adaptor

Price 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	M 5	3.5	21.5	8	2.99	908X4-4FF-M5	383805	o. r.
4	G 1/8	5	21.5	13	6.5	908X4-4FF-1/8	383806	o. r.
4	G 1/4	7	22	17	12.9	908X4-4FF-1/4	383807	o. r.
6	M 5	3.5	21.5	8	3.8	908X4-6FF-M5	383811	o. r.
6	G 1/8	5	22.5	13	8.5	908X4-6FF-1/8	383812	o. r.
6	G 1/4	7	23	17	16.6	908X4-6FF-1/4	383813	o. r.
6	G 3/8	8	25	19	23	908X4-6FF-3/8	383814	o. r.
8	G 1/8	5	24.5	13	8	908X4-8FF-1/8	383816	o. r.
8	G 1/4	7	25	17	15.8	908X4-8FF-1/4	383817	o. r.
8	G 3/8	8	25	19	25.4	908X4-8FF-3/8	383818	o. r.
10	G 1/4	7	29	17	15.9	908X4-10FF-1/4	383821	o. r.
10	G 3/8	8	29	19	23.4	908X4-10FF-3/8	383822	o. r.
10	G 1/2	9	29.5	24	33.5	908X4-10FF-1/2	383823	o. r.
12	G 1/4	7	31	17	24.3	908X4-12FF-1/4	383824	o. r.
12	G 3/8	8	31	19	26.3	908X4-12FF-3/8	383825	o. r.
12	G 1/2	9	31.5	24	38.1	908X4-12FF-1/2	383826	o. r.

Illustration



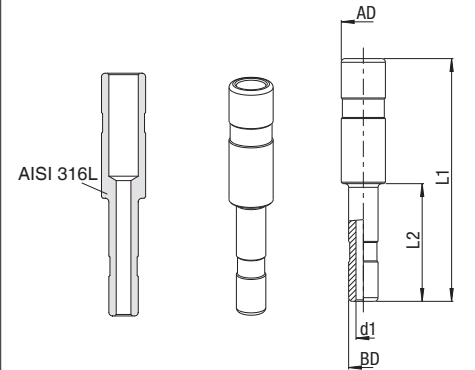
Straight Double Stem Connector

Price group	13	PN	20	T _{min}	-40 °C	T _{max}	+200 °C
-------------	-----------	----	----	------------------	--------	------------------	---------


Stainless steel
AISI 316L

Connection AD	Connection BD	d1	L1	L2	Weight in [g]	Type	Order number	Price
6	4	2	33	16	3.3	904X4-D6-D4	283852	o. r.
6	6	4	34.5	-	4.2	904X4-D6	283853	o. r.
8	6	4	37.5	18	6.5	904X4-D8-D6	283858	o. r.
8	8	6	37.5	-	6.2	904X4-D8	283854	o. r.
10	8	6	45.5	18	10.9	904X4-D10-D8	283859	o. r.
10	10	8	45.5	-	9.7	904X4-D10	283857	o. r.
12	10	8	50	24	14	904X4-D12-D10	283860	o. r.
12	12	10	50	-	14.2	904X4-D12	283861	o. r.

Illustration



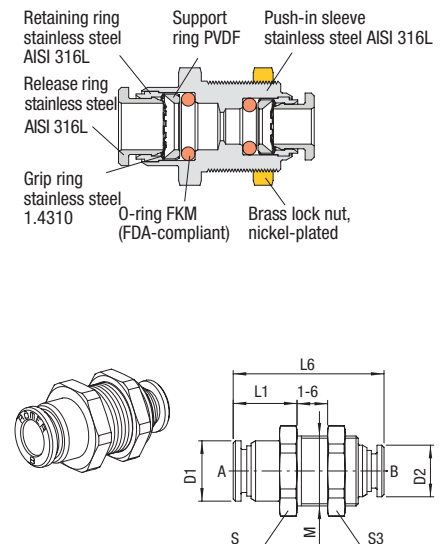
Straight Bulkhead Connector

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °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	12.3	31.1	9.8	9.8	14	17	20.4	959X44-4FF	385410	o. r.
6	6	M14x1	13.7	32.7	11.8	11.8	17	17	26.2	959X44-6FF	385411	o. r.
8	8	M16x1	16.5	36.7	13.8	13.8	19	19	35.1	959X44-8FF	385412	o. r.
10	10	M20x1	20.8	41.9	16.4	16.4	22	24	55.9	959X44-10FF	385413	o. r.
12	12	M22x1,5	22.3	45.6	19.8	19.8	24	27	87.6	959X44-12FF	385414	o. r.

Illustration



Straight Bulkhead Adaptor - Female

Price group	13	PN	20	T _{min}	0 °C	T _{max}	+140 °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	7	25,3	3	9,8	14	17	19,4	945X44-4FF-1/8	385351	o. r.
4	G 1/4	M14x1	12,5	9	31,3	3	9,8	17	17	33,1	945X44-4FF-1/4	385352	o. r.
6	G 1/8	M14x1	6,5	7	25,5	5	11,8	17	17	25,5	945X44-6FF-1/8	385353	o. r.
6	G 1/4	M14x1	12	9	31	5	11,8	17	17	30,8	945X44-6FF-1/4	385354	o. r.
6	G 3/8	M14x1	13	10	32	5	11,8	19	17	31,5	945X44-6FF-3/8	385355	o. r.
8	G 1/8	M16x1	7	7	27,2	7	13,8	19	19	34,9	945X44-8FF-1/8	385356	o. r.
8	G 1/4	M16x1	9,5	9	29,7	7	13,8	19	19	36,1	945X44-8FF-1/4	385357	o. r.
8	G 3/8	M16x1	12	10	32,2	7	13,8	19	19	34,1	945X44-8FF-3/8	385358	o. r.
10	G 1/4	M20x1	12	9	33,1	9	16,4	22	24	64,4	945X44-10FF-1/4	385359	o. r.
10	G 3/8	M20x1	13	10	34,1	9	16,4	22	24	60	945X44-10FF-3/8	385360	o. r.
10	G 1/2	M20x1	16,5	13	37,6	9	16,4	24	24	64,9	945X44-10FF-1/2	385361	o. r.
12	G 1/4	M22x1,5	13	9	35,8	10	19,8	24	27	88,3	945X44-12FF-1/4	385362	o. r.
12	G 3/8	M22x1,5	13,2	10	36	10	19,8	24	27	82	945X44-12FF-3/8	385363	o. r.
12	G 1/2	M22x1,5	16,7	13	39,5	10	19,8	24	27	78,7	945X44-12FF-1/2	385364	o. r.

Illustration

