

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, PPSU body conforms to KTW-BWGL

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
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"ROTATABLE" VERSION

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

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

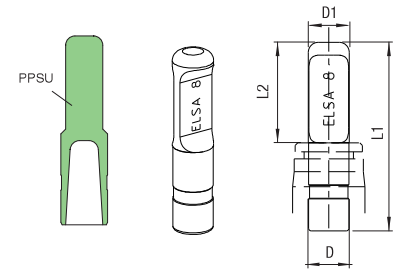
Price group **15** Max. allow. OP at ambient temp.
T_{min} -20 °C, T_{max} +60 °C



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	16,7	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	19,9	8,2	1,3	971P3-8	237497	o. r.

Illustration



Straight Stem Connector with Hose Tail

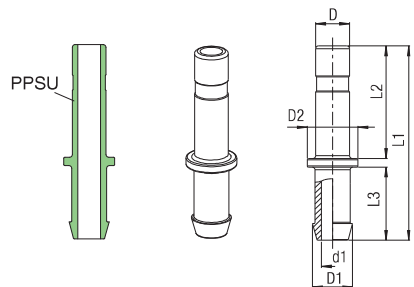
Price group **15** Max. allow. OP at ambient temp.
T_{min} -20 °C, T_{max} +60 °C



Plastic
PPSU

for push-in connection	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

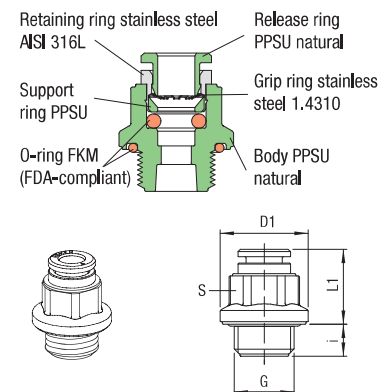
Tightening torque
3-3,5 Nm



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	16	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

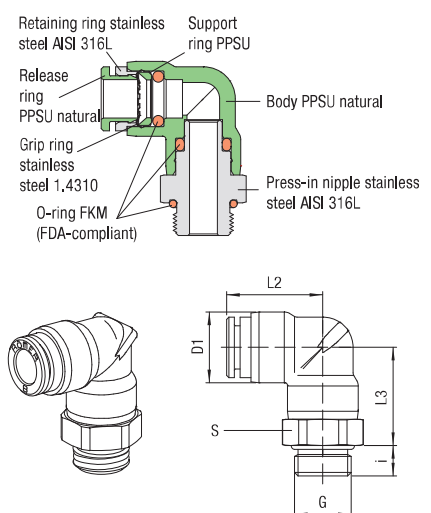
not suitable for rotating
or oscill. movement



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.

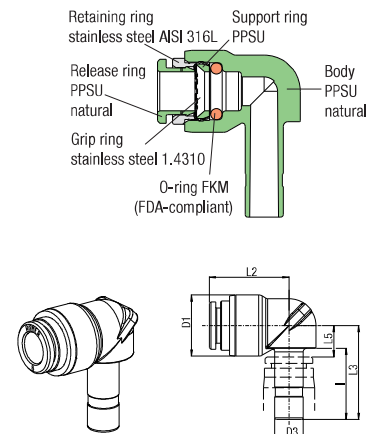
Illustration



90° Elbow Connector with Stem

for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5 approx.	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C									
4	4	20	16	10	17	17.7	21.8	11.9	7	o. r.	911P3-4FF-D4	367001	o. r.
4	6	20	16	10	18	17.7	22.9	11.9	7.3	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	7.3	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	367005	o. r.
8	8	16	12	6	20	22.4	26.4	17.2	8.8	7.6	911P3-8FF-D8	367006	o. r.

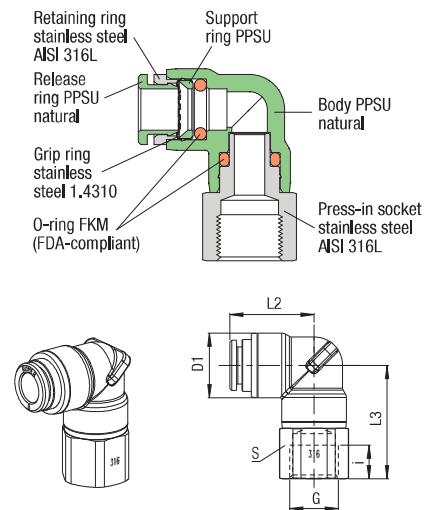
Illustration



90° Elbow Adaptor - Female - Positionable

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.

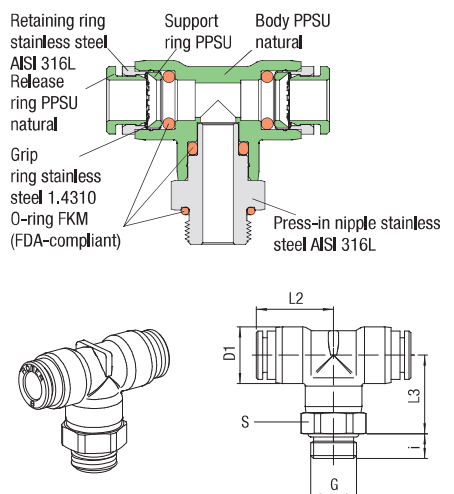
Illustration



T-Adaptor - Male - Positionable

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

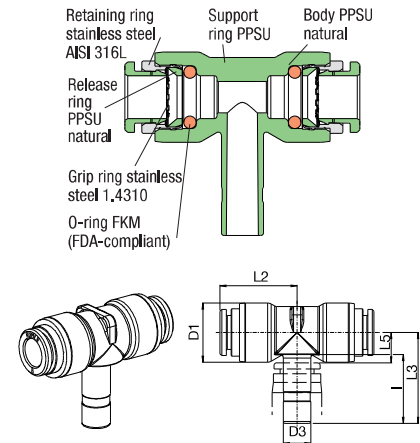
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



Plastic
PPSU

for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			I	L2	L3	D1	L5 approx.	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C									
4	4	20	16	10	17	17.7	21.8	12.7	7	6.2	912P3-4FF-D4	367007	o. r.
4	6	20	16	10	18	17.7	22.9	11.9	7.3	6.2	912P3-4FF-D6	367008	o. r.
6	4	20	16	10	17	19.3	21.8	13.9	7	6.3	912P3-6FF-D4	367009	o. r.
6	6	20	16	10	18	19.3	22.9	13.9	7.3	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

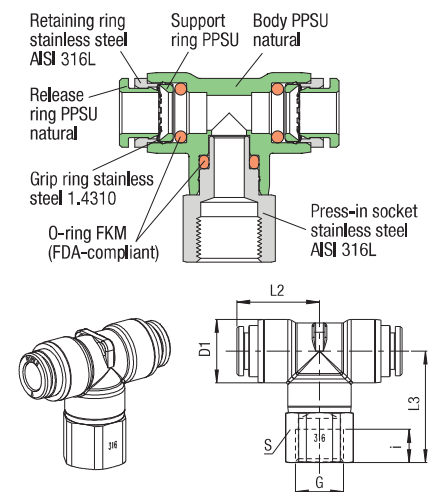
not suitable for rotating
or oscill. movement



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

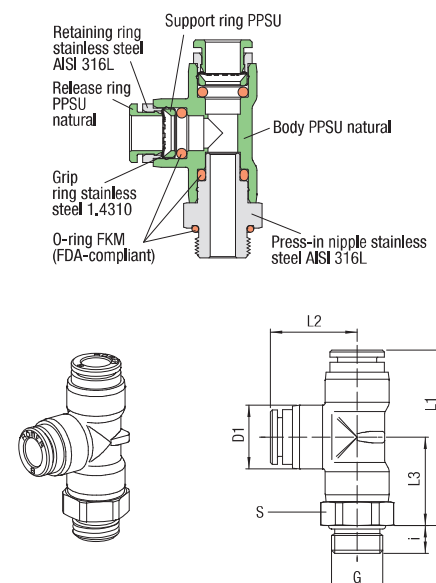
not suitable for rotating
or oscill. movement



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.

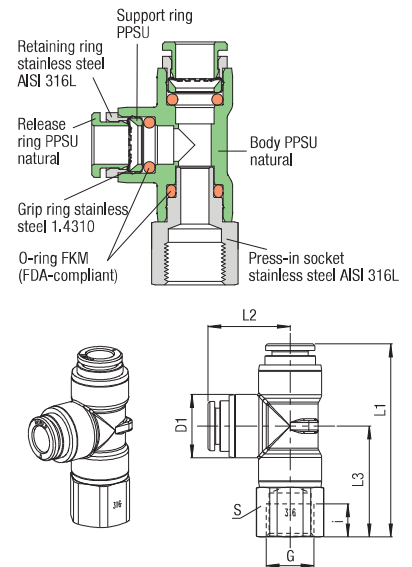
Illustration



Side T-Adaptor - Female - Positionable

for tube D	G	Max. allow. OP at ambient temp. T_{min} 0 °C, T_{max} +60 °C			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	24,6	13,9	13	17,8	923P3-4FF-1/8	366778	o. r.
4	G 1/4	20	16	10	9	46,5	18,9	27,6	13,9	17	27,1	923P3-4FF-1/4	366779	o. r.
6	G 1/8	20	16	10	6,5	44	19,4	24,6	13,9	13	17,9	923P3-6FF-1/8	366780	o. r.
6	G 1/4	20	16	10	9	47	19,4	27,6	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	17,2	13	30,4	923P3-8FF-1/8	366782	o. r.
8	G 1/4	16	12	6	9	52,6	22,4	30,2	17,2	17	32	923P3-8FF-1/4	366783	o. r.

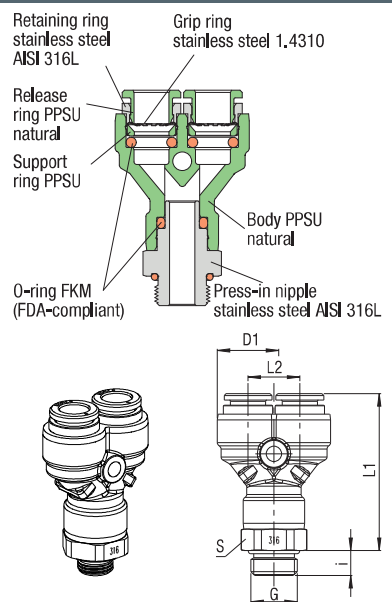
Illustration



Y-Adaptor - Male - Positionable

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	19,2	992P3-4FF-1/8	367077	o. r.
4	G 1/4	20	16	10	7	39	12,5	13,9	17	28,5	992P3-4FF-1/4	367078	o. r.
6	G 1/8	20	16	10	5	38,9	12,5	13,9	13	19,4	992P3-6FF-1/8	367079	o. r.
6	G 1/4	20	16	10	7	39,4	12,5	13,9	17	28,7	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.

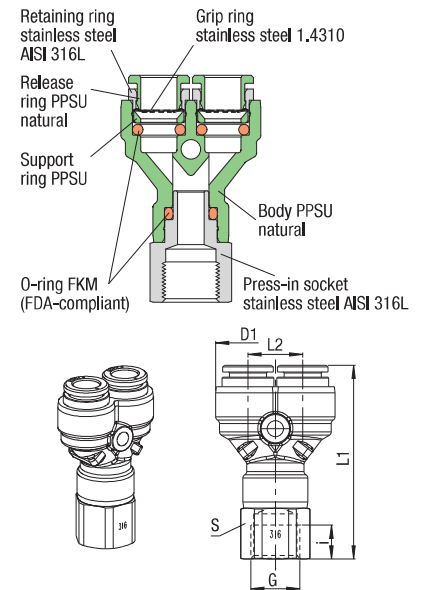
Illustration



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					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	19,4	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.

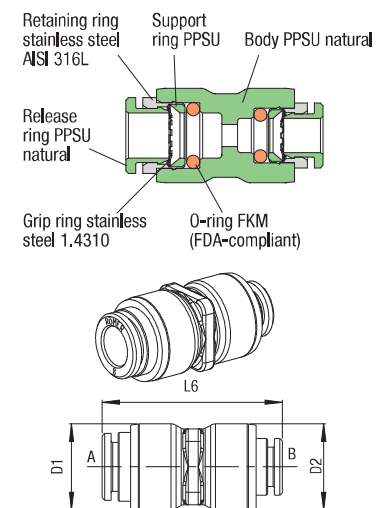
Illustration



Straight Connector

Price group		15	Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C					 		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	11.9	11.9	4.9	958P3-4FF	367083	o. r.
6	4	20	16	10	32.2	13.6	13.6	6	958P3-6-4FF	367084	o. r.
6	6	20	16	10	32.6	13.6	13.6	6.2	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.

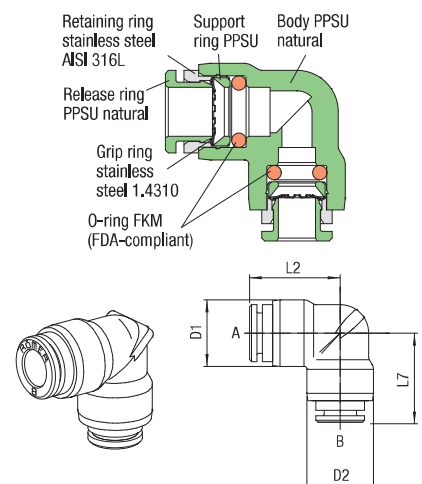
Illustration



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
				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	6.9	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

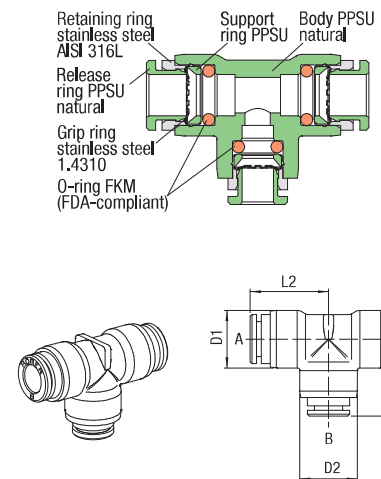
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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

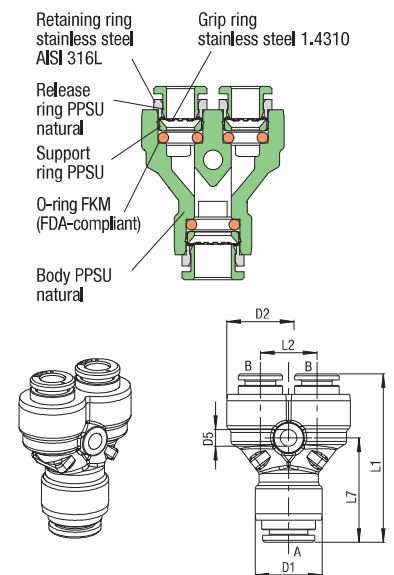
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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	35.4	12.5	21.4	11.9	11.9	3.3	7.2	982P3-4FF	367098	o. r.
6	4	20	16	10	38.2	12.5	23.4	13.9	13.9	3.3	10.3	982P3-6-4FF	367099	o. r.
6	6	20	16	10	38.6	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	15.9	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

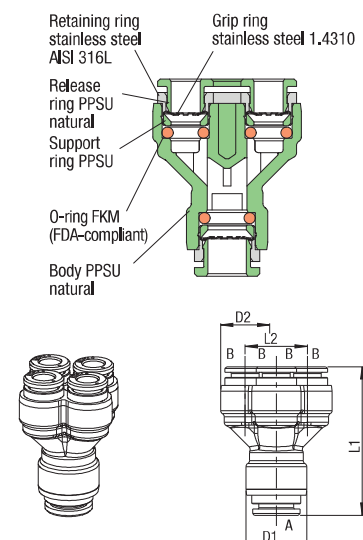
Price group **15** Max. allow. OP at ambient temp.
T_{min} 0 °C, T_{max} +60 °C



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	41.4	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	19.3	984P3-8-6FF	366804	o. r.

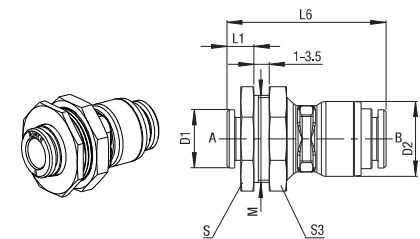
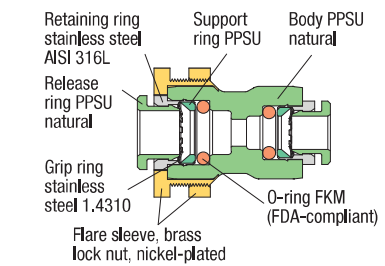
Illustration



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	5.4	31.8	11.7	19	19	17.8	959P3-4FF	366794	o. r.
6	6	20	16	10	M16x1	6	32.6	13.6	19	19	17.7	959P3-6FF	366795	o. r.
8	8	16	12	6	M20x1	7.8	36.5	17.2	24	24	26.7	959P3-8FF	366796	o. r.

Illustration



Cross Connector

Price group		15			Max. allow. OP at ambient temp. T _{min} 0 °C, T _{max} +60 °C							 	
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L1	L2	D1	Weight in [g]	Type	Order number	Price		
		20 °C	100 °C	140 °C									
4	4	20	16	10	18,9	18,9	13,9	11,9	960P3-4FF	366210	a. A.		
4	6	20	16	10	19,3	18,9	13,9	12,3	960P3-6-4FF	366211	a. A.		
6	6	20	16	10	19,3	19,3	13,9	12,5	960P3-6FF	366212	a. A.		

Illustration

