

**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**

<b>Plastic</b> PVDF	<b>Polyvinylidene fluoride.</b> Suitable for many aggressive media. The FKM sealing ring is FDA-compliant and can be used in the food and pharmaceutical industries.	
<b>Other materials</b>	see relevant products	
<b>Approval</b>	NSF/ANSI 169, PVDF body conforms to KTW-BWGL	
<b>TUBE</b>		
<b>Outside diameter [mm]</b>	4, 6 and 8	10, 12
<b>Permitted tolerance [mm]</b>	±0.1	±0.15
<b>Permitted grades</b>	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)	
<b>THREAD</b>		
<b>External thread</b>	"M" cylindrical thread: Metric ISO thread M5	
<b>External thread</b>	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8	
<b>Internal thread</b>	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/4	
<b>OPERATING PRESSURE / TEMPERATURE</b>		
<b>Plastic version</b>	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.
<b>Allowable operating pressure and operating temperature of pipe/tube must be observed!</b>		
<b>THREAD SEAL</b>		
<b>Cylindrical threaded nipple</b>	Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples
<b>"ROTATABLE" VERSION</b>		
<b>90° elbow-, T- and Y-adaptors, male</b>	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.
<b>SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOG)</b>		
We also manufacture ELSA push-in fittings in various customer-specific versions.		
<ul style="list-style-type: none"> <li>• other O-ring materials such as EPDM, FDA-compliant</li> <li>• for pipes/tubes with inch dimensions</li> <li>• "R" conical threaded fitting</li> <li>• Execution according to ASTM G93 or EN ISO 15001 for oxygen use</li> </ul>		

### Push-in Plug

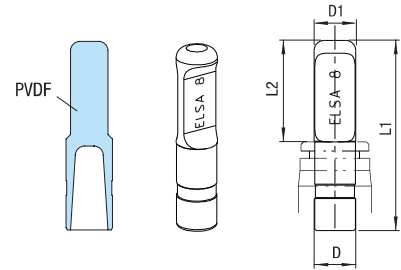
Price group **12** Max. allow. OP at ambient temp.  
 $T_{min} -20\text{ °C}$ ,  $T_{max} +60\text{ °C}$



Plastic  
PVDF

for push-in connector D	Max. allow. OP [bar] at medium temp.			L1	L2 approx.	D1	Weight in [g]	Type	Order number	Price
	20 °C	100 °C	120 °C							
4	16	16	10	31.5	16.8	6.2	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.
12	12	6	3	44	22	8	3.1	971V-12	237467	o. r.
14	12	6	3	44.5	22	8	3.7	971V-14	237469	o. r.

### Illustration



### 90° Elbow Adaptor - Male - Positionable

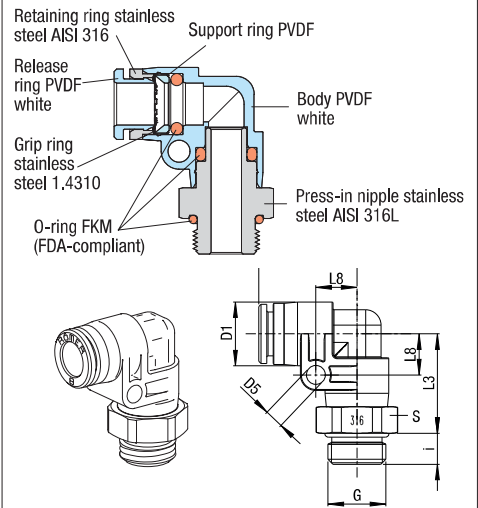
Price group **12** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ °C}$ ,  $T_{max} +60\text{ °C}$  Thread cylindrical Thread sealed by a FKM O-Ring in recess not suitable for rotating or oscill. movement



Plastic  
PVDF

for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	L8	D1	D5	S	Weight in [g]	Type	Order number
		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
4	G 1/8	16	10	3	5	18.6	19.3	8.2	12.4	4.3	13	14.8	930V-4FF-1/8	367335
4	G 1/4	16	10	3	7	18.6	19.8	8.2	12.4	4.3	17	24.6	930V-4FF-1/4	367348
6	M 5	16	10	3	3.5	16.7	11	-	11.8	-	8	4.7	930V-6FF-M5	367336
6	G 1/8	16	10	3	5	19	19.3	8.2	12.4	4.3	13	15.7	930V-6FF-1/8	367337
6	G 1/4	16	10	3	7	19	19.8	8.2	12.4	4.3	17	24.9	930V-6FF-1/4	367338
8	G 1/8	16	8	3	5	22.1	21.9	9.2	14.4	4.3	14	19	930V-8FF-1/8	367339
8	G 1/4	16	8	3	7	22.1	22.4	9.2	14.4	4.3	17	26.8	930V-8FF-1/4	367340
8	G 3/8	16	8	3	8	22.1	22.4	9.2	14.4	4.3	19	35.2	930V-8FF-3/8	367341
10	G 1/4	12	6	3	7	26.1	25.7	12	17.2	4.3	17	31.8	930V-10FF-1/4	367342
10	G 3/8	12	6	3	8	26	25.7	12	17.2	4.3	19	40.1	930V-10FF-3/8	367343
12	G 1/4	12	6	3	7	31	30.5	12	23	4.3	22	58.1	930V-12FF-1/4	367349
12	G 3/8	12	6	3	8	31	30.5	12	23	4.3	22	58	930V-12FF-3/8	367350

### Illustration



### 90° Elbow Connector with Stem

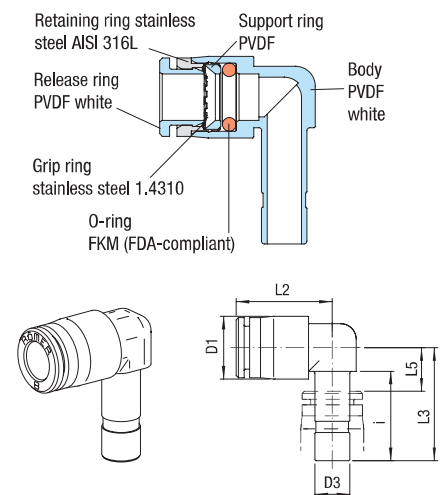
Price group **12** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ °C}$ ,  $T_{max} +60\text{ °C}$



Plastic  
PVDF

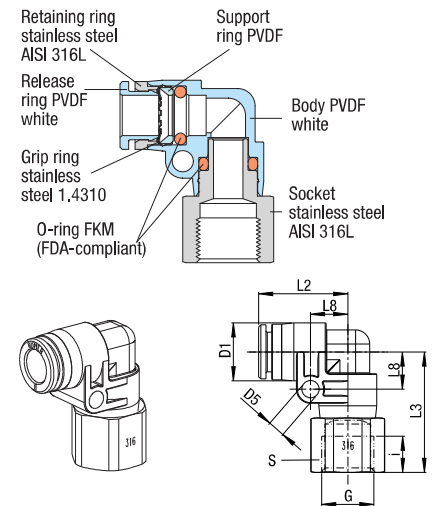
for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			l	L2	L3	D1	L5 approx.	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C									
4	4	16	10	3	17	18.6	21.4	12.4	6.6	4	911V-4FF-D4	367028	o. r.
4	6	16	10	3	18	18.6	22.4	12.4	6.8	3.8	911V-4FF-D6	367029	o. r.
6	4	16	10	3	17	19	21.4	12.4	6.6	4.2	911V-6FF-D4	367030	o. r.
6	6	16	10	3	18	19	22.4	12.4	6.8	4.3	911V-6FF-D6	367031	o. r.
6	8	16	10	3	20.5	21.6	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

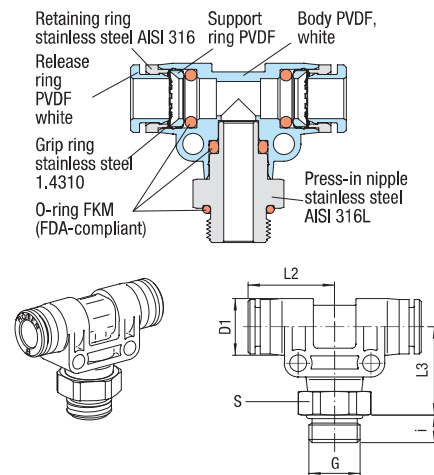


**90° Elbow Adaptor - Female - Positionable**

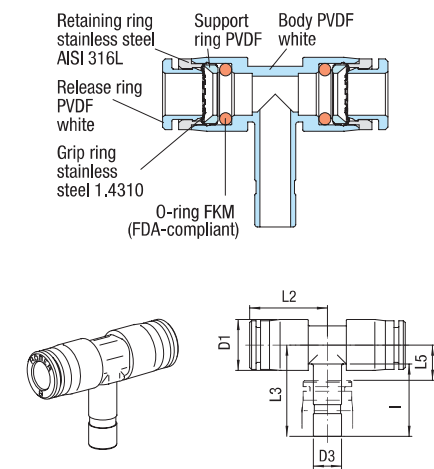
Price group	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ °C}, T_{max} +60\text{ °C}$			Thread cylindrical	not suitable for rotating or oscill. movement						Plastic PVDF		
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	L8	D1	D5	S	Weight in [g]	Type	Order number
		20 °C	100 °C	120 °C										
4	G 1/8	16	10	3	6.5	18.6	24.3	8.2	12.4	4.3	13	16.3	979V-4FF-1/8	367880
4	G 1/4	16	10	3	9	18.6	27.3	8.2	12.4	4.3	17	24.7	979V-4FF-1/4	367881
6	G 1/8	16	10	3	6.5	19	24.3	8.2	12.4	4.3	13	16.3	979V-6FF-1/8	367882
6	G 1/4	16	10	3	9	19	27.3	8.2	12.4	4.3	17	24.7	979V-6FF-1/4	367883
8	G 1/8	16	8	3	6.5	22.1	26.2	9.2	14.4	4.3	17	24.9	979V-8FF-1/8	367884
8	G 1/4	16	8	3	9	22.1	31.4	9.2	14.4	4.3	17	26.6	979V-8FF-1/4	367885

**Illustration**

**T-Adaptor - Male - Positionable**

Price group	<b>12</b>	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	L8	L9	D1	D5	S	Weight in [g]	Type	Order number
		20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	5	18.6	19.3	8.2	16.5	12.4	4.3	13	19.4	921V-4FF-1/8	367356
4	G 1/4	16	10	3	7	18.6	19.8	8.2	16.5	12.4	4.3	17	28.5	921V-4FF-1/4	367357
6	G 1/8	16	10	3	5	19	19.3	8.2	16.5	12.4	4.3	13	19.7	921V-6FF-1/8	367362
6	G 1/4	16	10	3	7	19	19.8	8.2	16.5	12.4	4.3	17	28.4	921V-6FF-1/4	367363
8	G 1/8	16	8	3	5	22.1	21.9	9.2	18.5	14.4	4.3	14	24	921V-8FF-1/8	367366
8	G 1/4	16	8	3	7	22.1	22.4	9.2	18.5	14.4	4.3	17	31.4	921V-8FF-1/4	367367
8	G 3/8	16	8	3	8	22.1	22.4	9.2	18.5	14.4	4.3	19	39.9	921V-8FF-3/8	367368
10	G 1/4	12	6	3	7	26.1	25.7	12	24	17.2	4.3	17	40.2	921V-10FF-1/4	367371
10	G 3/8	12	6	3	8	26.1	25.7	12	24	17.2	4.3	19	48.3	921V-10FF-3/8	367372
12	G 1/4	12	6	3	7	31	30.5	12	24	21	4.3	22	68.5	921V-12FF-1/4	367374
12	G 3/8	12	6	3	8	31	30.5	12	24	21	4.3	22	8.8	921V-12FF-3/8	367375

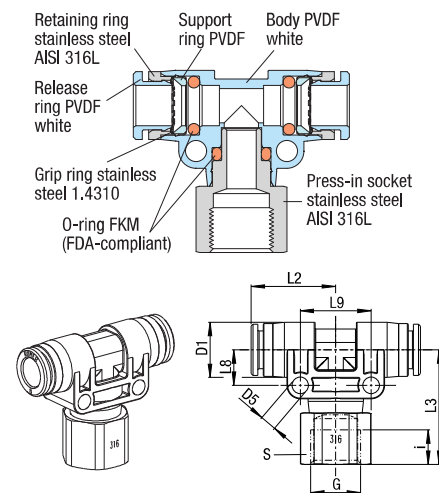
**Illustration**

**T-Stem Connector**

Price group	<b>12</b>	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.			L	L2	L3	D1	L5 approx.	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	6.8	7	912V-4FF-D6	367037	o. r.
6	4	16	10	3	17	19	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	6.8	7.2	912V-6FF-D6	367039	o. r.
6	8	16	10	3	20.5	21.6	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.

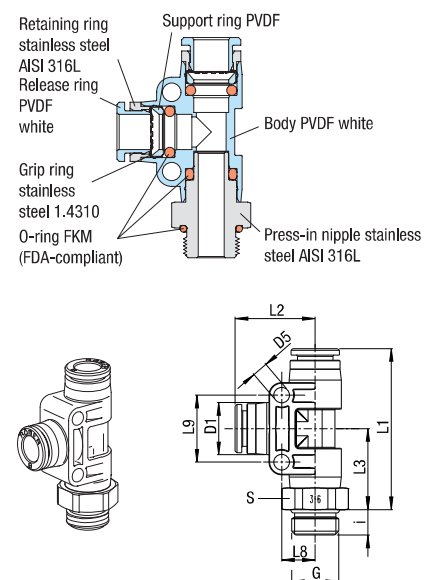
**Illustration**


**T-Adaptor - Female - Positionable**

Price group	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$			Thread cylindrical		not suitable for rotating or oscill. movement							<b>Plastic PVDF</b>	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L2	L3	L8	L9	D1	D5	S	Weight in [g]	Type	Order number
		20 °C	100 °C	120 °C											
4	G 1/8	16	10	3	6.5	18.6	24.3	8.2	16.5	12.4	4.3	13	19.9	970V-4FF-1/8	367888
4	G 1/4	16	10	3	9	18.6	27.3	8.2	16.5	12.4	4.3	17	28.3	970V-4FF-1/4	367889
6	G 1/8	16	10	3	6.5	19	24.3	8.2	16.5	12.4	4.3	13	19.9	970V-6FF-1/8	367890
6	G 1/4	16	10	3	9	19	27.3	8.2	16.5	12.4	4.3	17	28.3	970V-6FF-1/4	367891
8	G 1/8	16	8	3	6.5	22.1	26.2	9.2	18.5	14.4	4.3	17	29.9	970V-8FF-1/8	367892
8	G 1/4	16	8	3	9	22.1	29.9	9.2	18.5	14.4	4.3	17	32	970V-8FF-1/4	367893

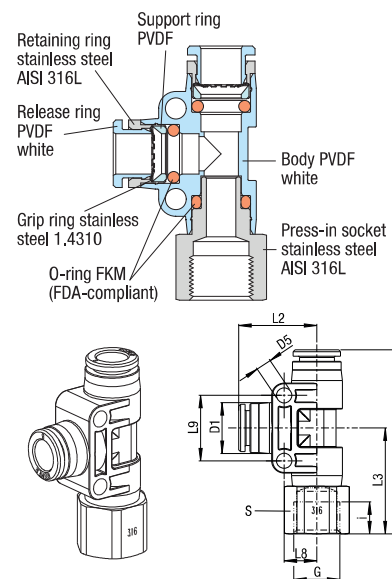
**Illustration**

**Side T-Adaptor - Male - Positionable**

Price group	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$			Thread cylindrical		Thread sealed by a FKM O-Ring in recess		not suitable for rotating or oscill. movement							<b>Plastic PVDF</b>
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	L8	L9	D1	D5	S	Weight in [g]	Type	Order number
		20 °C	100 °C	120 °C												
4	G 1/8	16	10	3	5	37.9	18.6	19.3	8.2	16.5	12.4	4.3	13	19.2	922V-4FF-1/8	367406
4	G 1/4	16	10	3	7	38.4	18.6	19.8	8.2	16.5	12.4	4.3	17	28.3	922V-4FF-1/4	367407
6	G 1/8	16	10	3	5	38.3	19	19.3	8.2	16.5	12.4	4.3	13	19.7	922V-6FF-1/8	367412
6	G 1/4	16	10	3	7	38.8	19	19.8	8.2	16.5	12.4	4.3	17	28.4	922V-6FF-1/4	367413
8	G 1/8	16	8	3	5	44	22.1	21.9	9.2	18.5	14.4	4.3	14	23.8	922V-8FF-1/8	367416
8	G 1/4	16	8	3	7	44.5	22.1	22.4	9.2	18.5	14.4	4.3	17	31.5	922V-8FF-1/4	367417
8	G 3/8	16	8	3	8	44.5	22.1	22.4	9.2	18.5	14.4	4.3	19	39.8	922V-8FF-3/8	367418
10	G 1/4	12	6	3	7	51.8	26.1	25.7	12	24	17.4	4.3	17	39.8	922V-10FF-1/4	367421
10	G 3/8	12	6	3	8	51.8	26.1	25.7	12	24	17.2	4.3	19	48.4	922V-10FF-3/8	367422
12	G 1/4	12	6	3	7	61.5	31	30.5	12	24	21	4.3	22	68.5	922V-12FF-1/4	367424
12	G 3/8	12	6	3	8	61.5	31	30.5	12	24	21	4.3	22	68.8	922V-12FF-3/8	367425

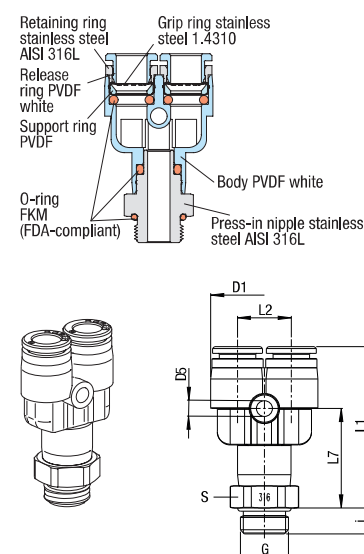
**Illustration**


**Side T-Adaptor - Female - Positionable**

Price group	12	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$			Thread cylindrical	not suitable for rotating or oscill. movement								NSF	Plastic PVDF			
		20 °C	100 °C	120 °C		i	L1	L2	L3	L8	L9	D1	D5			S	Weight in [g]	Type
for tube D	G	Max. allow. OP [bar] at medium temp.																
4	G 1/8	16	10	3	6.5	42.9	18.6	24.3	8.2	16.5	12.4	4.3	13	19.9	923V-4FF-1/8	367810		
4	G 1/4	16	10	3	9	45.9	18.6	27.3	8.2	16.5	12.4	4.3	17	28.3	923V-4FF-1/4	367811		
6	G 1/8	16	10	3	6.5	43.3	19	24.3	8.2	16.5	12.4	4.3	13	19.9	923V-6FF-1/8	367812		
6	G 1/4	16	10	3	9	46.3	19	27.3	8.2	16.5	12.4	4.3	17	28.3	923V-6FF-1/4	367813		
8	G 1/8	16	8	3	6.5	48.3	22.1	25.2	9.2	18.5	14.4	4.3	17	29.9	923V-8FF-1/8	367814		
8	G 1/4	16	8	3	9	53.5	22.1	31.4	9.2	18.5	14.4	4.3	17	32	923V-8FF-1/4	367815		

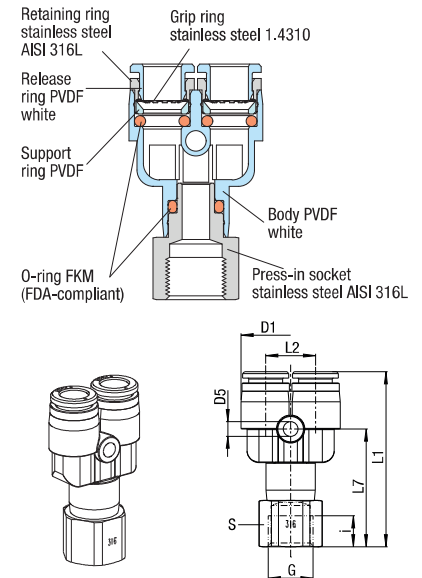
**Illustration**

**Y-Adaptor - Male - Positionable**

Price group	12	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$			Thread cylindrical	Thread sealed by a FKM O-Ring in recess		not suitable for rotating or oscill. movement					NSF	Plastic PVDF		
		20 °C	100 °C	120 °C		i	L1	L2	L7	D1	D5	S			Weight in [g]	Type
for tube D	G	Max. allow. OP [bar] at medium temp.														
4	G 1/8	16	10	3	5	37.9	12.5	23.3	12.4	3.3	13	19.1	992V-4FF-1/8	367456		
4	G 1/4	16	10	3	7	38.4	12.5	23.8	12.5	3.3	17	28	992V-4FF-1/4	367457		
6	G 1/8	16	10	3	5	38.3	12.5	23.3	12.4	3.3	13	19.6	992V-6FF-1/8	367462		
6	G 1/4	16	10	3	7	38.8	12.5	23.8	12.4	3.3	17	28.3	992V-6FF-1/4	367463		
8	G 1/8	16	8	3	5	43	14.5	26.3	14.4	4.3	14	24.1	992V-8FF-1/8	367466		
8	G 1/4	16	8	3	7	43.5	14.5	26.8	14.5	4.3	17	31.9	992V-8FF-1/4	367467		
8	G 3/8	16	8	3	8	43.5	14.5	26.8	14.5	4.3	19	40.2	992V-8FF-3/8	367468		
10	G 1/4	12	6	3	7	48.9	17	30.7	17.2	4.3	17	38.6	992V-10FF-1/4	367471		
10	G 3/8	12	6	3	8	48.9	17	30.7	17.2	4.3	19	47.1	992V-10FF-3/8	367472		
12	G 1/4	12	6	3	7	55	20.5	35	21	4.3	22	65.1	992V-12FF-1/4	367474		
12	G 3/8	12	6	3	8	55	20.5	35	21	4.3	22	74.1	992V-12FF-3/8	367475		

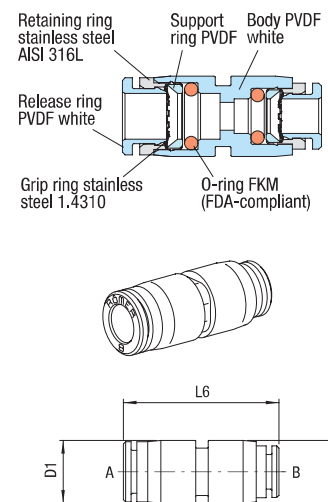
**Illustration**


**Y-Adaptor - Female - Positionable**

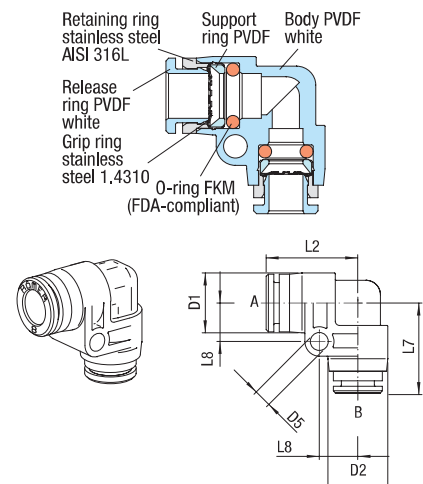
Price group	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$			Thread cylindrical			not suitable for rotating or oscill. movement					<b>Plastic PVDF</b>	
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L7	D1	D5	S	Weight in [g]	Type	Order number
		20 °C	100 °C	120 °C										
4	G 1/8	16	10	3	6.5	42.9	12.5	28.3	12.4	3.3	13	19.9	993V-4FF-1/8	367820
4	G 1/4	16	10	3	9	45.9	12.5	31.3	12.4	3.3	17	28.4	993V-4FF-1/4	367821
6	G 1/8	16	10	3	6.5	43.3	12.5	28.3	12.4	3.3	13	19.7	993V-6FF-1/8	367822
6	G 1/4	16	10	3	9	46.3	12.5	31.3	12.4	3.3	17	28.1	993V-6FF-1/4	367823
8	G 1/8	16	8	3	6.5	47.3	14.5	30.6	14.4	4.3	17	30	993V-8FF-1/8	367824
8	G 1/4	16	8	3	9	52.5	14.5	35.8	14.4	4.3	17	32.1	993V-8FF-1/4	367825

**Illustration**

**Straight Adaptor**

Price group	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$						<b>Plastic PVDF</b>			
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	31.8	12.4	12.4	6.2	958V-6-4FF	367508	o. r.
6	6	16	10	3	32.2	12.4	12.4	6.2	958V-6FF	367510	o. r.
8	6	16	8	3	35.7	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	<b>12</b>	Max. allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$						<b>Plastic PVDF</b>						
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	18.6	8.3	12.4	12.4	4.3	7.2	955V-6-4FF	367558	o. r.
6	6	16	10	3	19	19	8.3	12.4	12.4	4.3	7.1	955V-6FF	367560	o. r.
8	6	16	8	3	22.1	21.6	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	24.9	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**


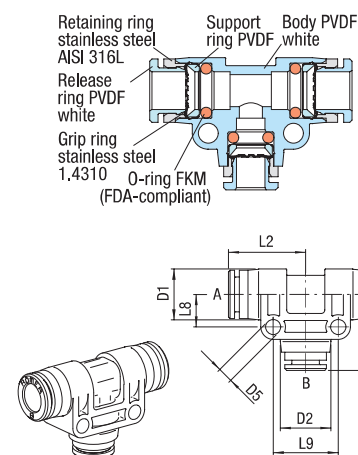


**T-Connector**

 Price group **12** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

**Plastic PVDF**

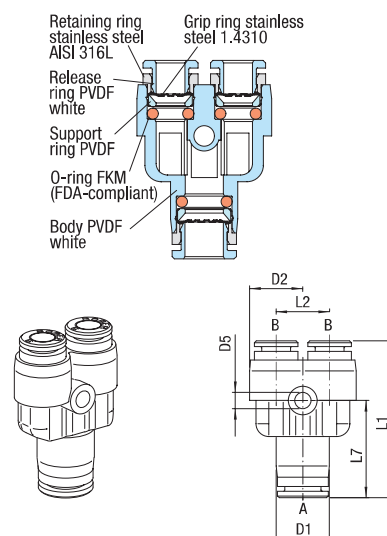
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L2	L7	L8	L9	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C											
4	4	16	10	3	18.6	18.6	8.3	16.5	12.4	12.4	4.3	10.7	954V-4FF	367604	o. r.
6	4	16	10	3	19	18.6	8.3	16.5	12.4	12.4	4.3	10.6	954V-6-4FF	367608	o. r.
6	6	16	10	3	19	19	8.3	16.5	12.4	12.4	4.3	10.9	954V-6FF	367610	o. r.
6	8	16	8	3	21.6	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	21.6	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	24.9	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.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

**Plastic PVDF**

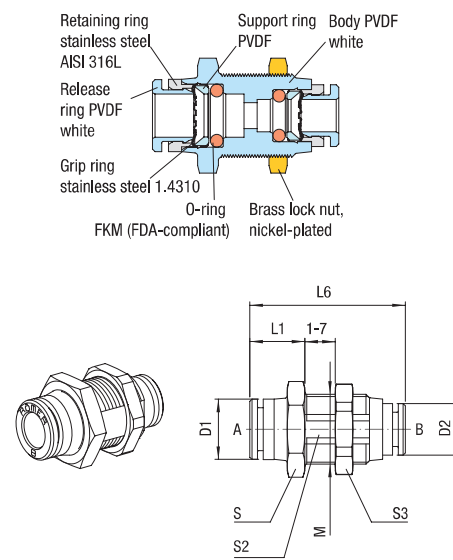
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	120 °C										
4	4	16	10	3	37.2	12.5	22.6	12.4	12.5	3.3	10.5	982V-4FF	367654	o. r.
6	4	16	10	3	37.6	12.5	23	12.4	12.5	3.3	10.6	982V-6-4FF	367658	o. r.
6	6	16	10	3	38	12.5	23	12.4	12.5	3.3	10.7	982V-6FF	367660	o. r.
8	6	16	8	3	42.7	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.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

**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	31.8	11.4	9.4	17	12.5	17	10.1	959V-6-4FF	367708	o. r.
6	6	16	10	3	M14x1	11	32.2	11.4	11.4	17	12.5	17	10.2	959V-6FF	367710	o. r.
8	6	16	8	3	M16x1	12.7	35.7	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**

<b>Plastic PPSU</b>	<p><b>Polyphenylsulfone.</b> 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.</p> <p><b>Caution!</b> 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!</p>
<b>Other materials</b>	see relevant products
<b>Approval</b>	NSF/ANSI 169, PPSU body conforms to KTW-BWGL

**TUBE**

<b>Outside diameter [mm]</b>	4, 6, 8 and 10
<b>Permitted tolerance [mm]</b>	±0.1
<b>Permitted grades</b>	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)

**THREAD**

<b>External thread</b>	“M” cylindrical thread: Metric ISO thread M5
<b>External thread</b>	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8
<b>Internal thread</b>	“G” cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/4

**OPERATING PRESSURE / TEMPERATURE**

<b>Plastic version</b>	<table border="1"> <tr> <td>Max. Operating pressure OP at the stated ambient temp. and medium temp. according to table</td> <td>Means that the allowable operating pressure OP within the allowable ambient temperature also depends on the medium temperature in accordance with the specification table.</td> </tr> </table>	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.
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.		
<b>Allowable operating pressure and operating temperature of pipe/tube must be observed!</b>			

**THREAD SEAL**

<b>Cylindrical threaded nipple</b>	<table border="1"> <tr> <td>Thread sealed by a FKM O-Ring in recess</td> <td>applies to all cylindrical threaded nipples</td> </tr> </table>	Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples
Thread sealed by a FKM O-Ring in recess	applies to all cylindrical threaded nipples		

**“ROTATABLE” VERSION**

<b>90° elbow-, T- and Y-adaptors, male</b>	<table border="1"> <tr> <td>not suitable for rotating or oscill. movements</td> <td>Some types of fittings rotate 360° in order to facilitate alignment during assembly.</td> </tr> </table>	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.
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 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

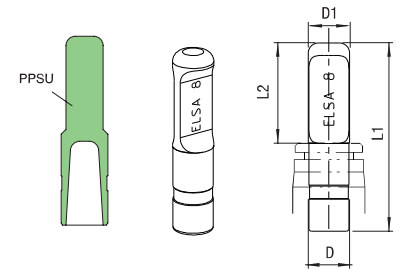
Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} -20\text{ °C}$ ,  $T_{max} +60\text{ °C}$



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	16.7	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

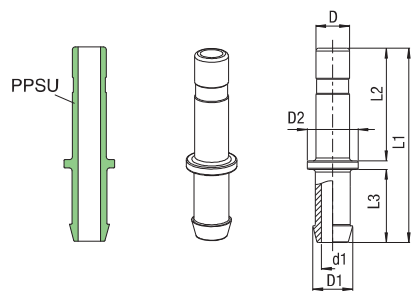
Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} -20\text{ °C}$ ,  $T_{max} +60\text{ °C}$



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.  
 $T_{min} 0\text{ °C}$ ,  $T_{max} +60\text{ °C}$

Thread cylindrical

Thread sealed by a FKM O-Ring in recess

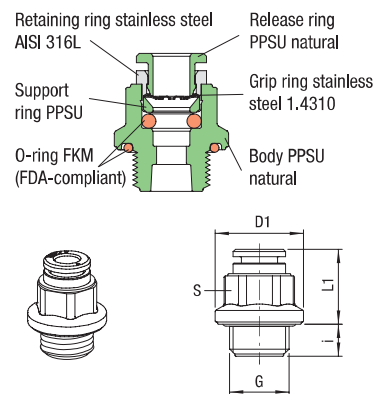
Tightening torque 3-3.5 Nm



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.  
 $T_{min} 0\text{ °C}$ ,  $T_{max} +60\text{ °C}$

Thread cylindrical

Thread sealed by a FKM O-Ring in recess

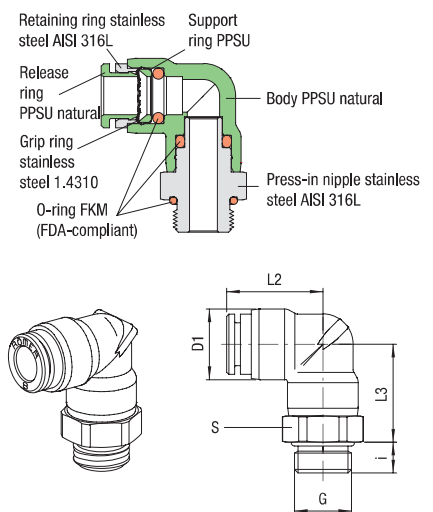
not suitable for rotating or oscill. movement



Plastic  
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

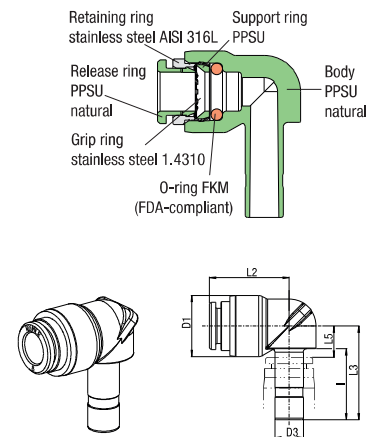


**90° Elbow Connector with Stem**

 Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

**Plastic PPSU**

for tube D	Stem D3	Max. allow. OP [bar] at medium temp.			l	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**

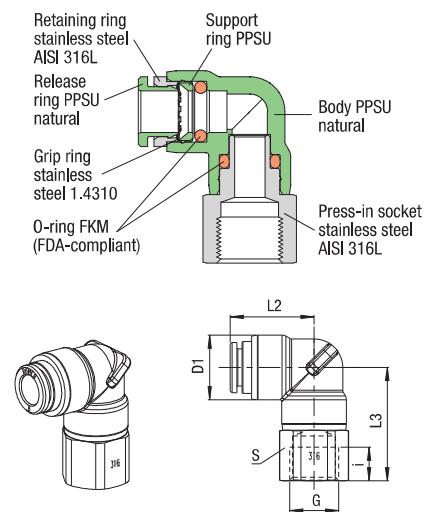
 Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

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	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.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

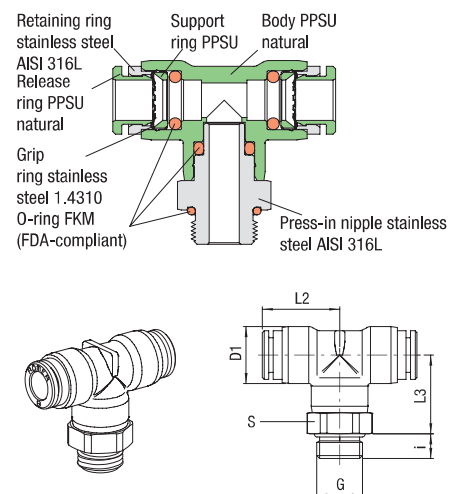
Thread cylindrical

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.

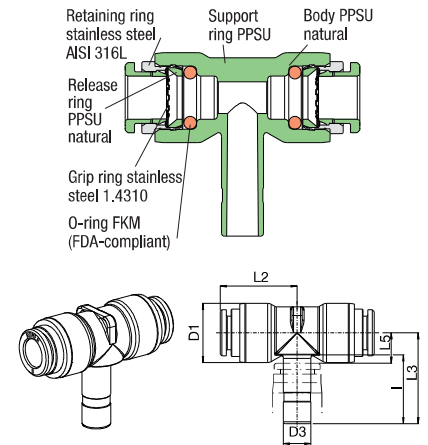
**Illustration**


**T-Stem Connector**

 Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

**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**

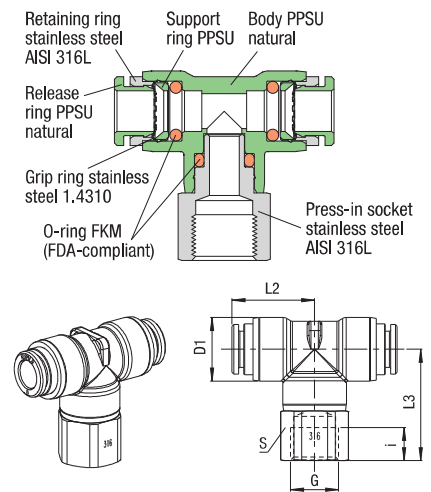
 Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

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.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$ 

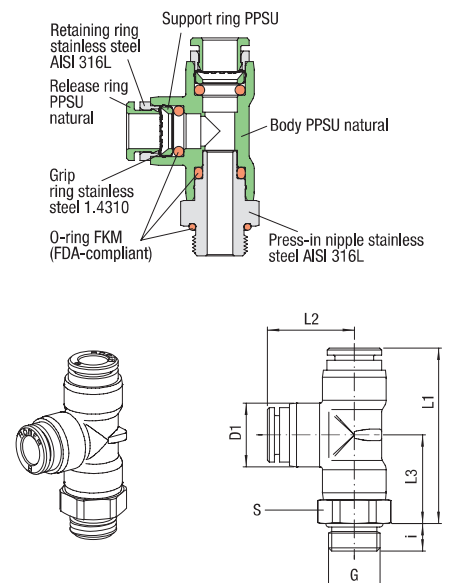
Thread cylindrical

Thread sealed by a FKM O-Ring in recess

not suitable for rotating or oscill. movement

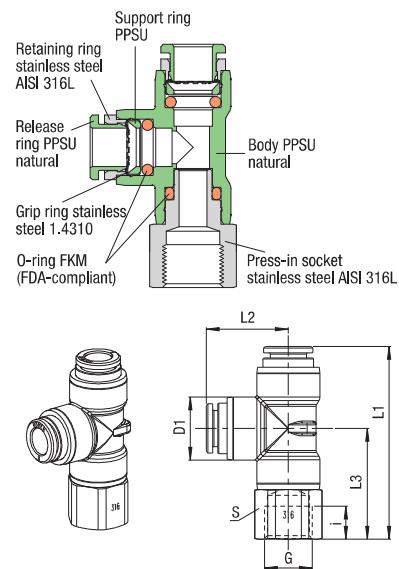

**Plastic PPSU**

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.

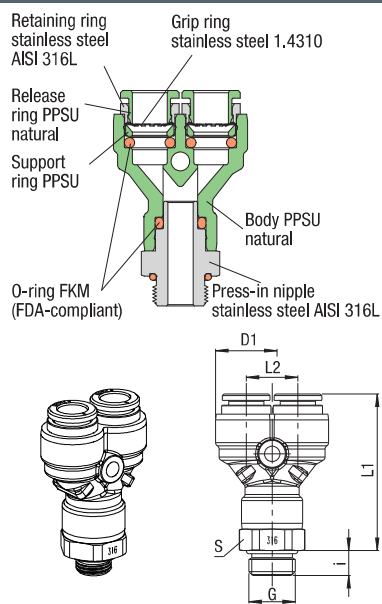
**Illustration**


**Side T-Adaptor - Female - Positionable**

for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C										
Price group <b>15</b>   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														
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.

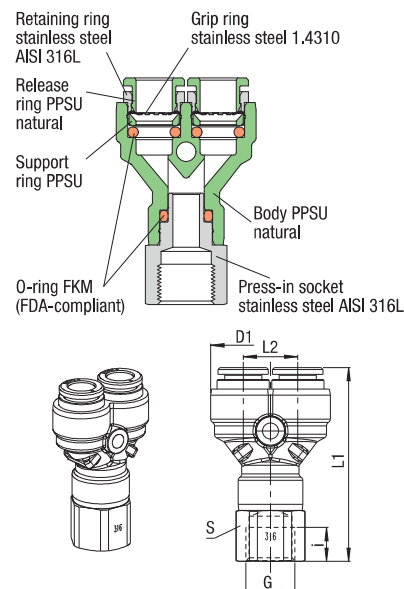
**Illustration**

**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									
Price group <b>15</b>   Max. allow. OP at ambient temp. $T_{min}$ 0 °C, $T_{max}$ +60 °C   Thread cylindrical   Thread sealed by a FKM O-Ring in recess   not suitable for rotating or oscill. movement   NSF   Plastic PPSU													
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.

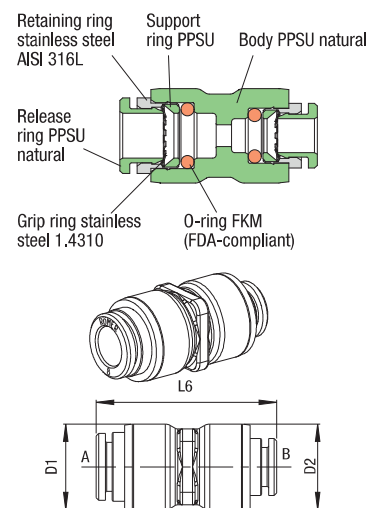
**Illustration**


**Y-Adaptor - Female - Positionable**

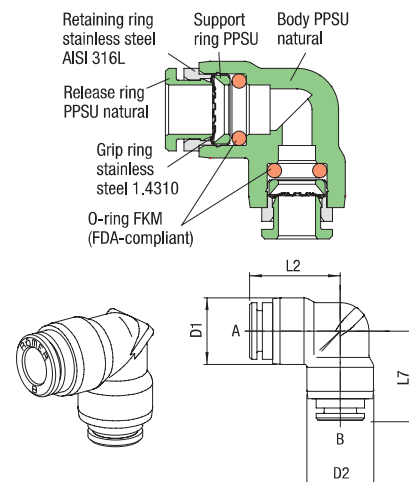
Price group	<b>15</b>	Max. allow. OP at ambient temp. $T_{min}$ 0 °C, $T_{max}$ +60 °C			Thread cylindrical	not suitable for rotating or oscill. movement					<b>Plastic PPSU</b>		
for tube D	G	Max. allow. OP [bar] at medium temp.			i	L1	L2	D1	S	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °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	<b>15</b>	Max. allow. OP at ambient temp. $T_{min}$ 0 °C, $T_{max}$ +60 °C								<b>Plastic PPSU</b>	
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	<b>15</b>	Max. allow. OP at ambient temp. $T_{min}$ 0 °C, $T_{max}$ +60 °C								<b>Plastic PPSU</b>		
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	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

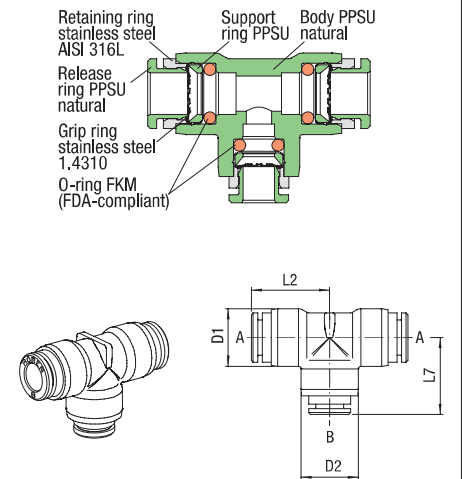
Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$



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

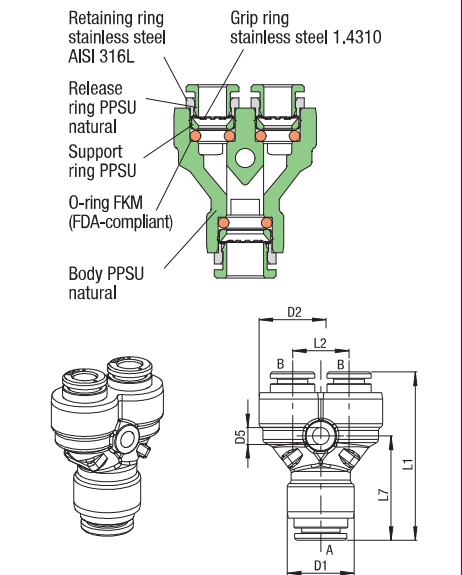
Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$



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

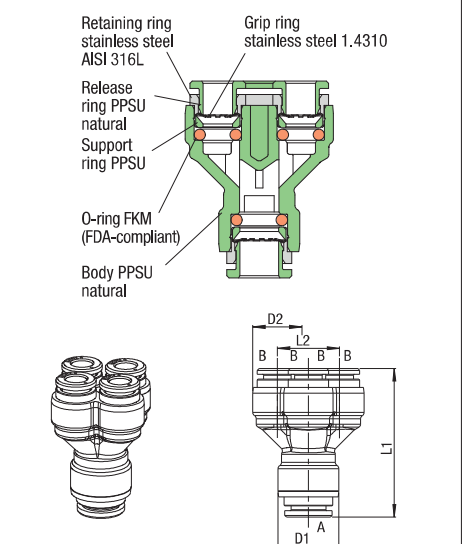
Price group **15** Max. allow. OP at ambient temp.  
 $T_{min} 0\text{ }^{\circ}\text{C}$ ,  $T_{max} +60\text{ }^{\circ}\text{C}$



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

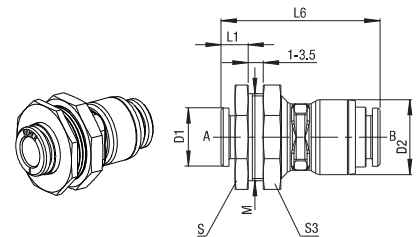
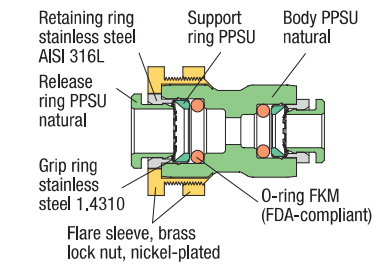


**Straight Bulkhead Connector**

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

**Plastic PPSU**

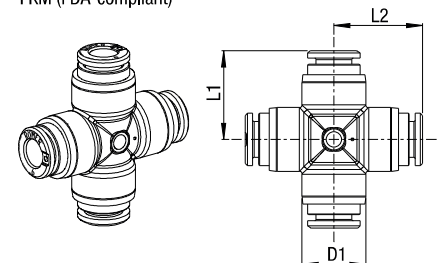
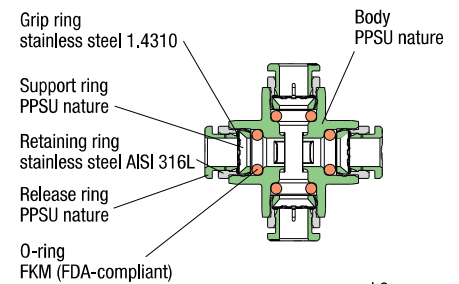
for tube AD	for tube BD	Max. allow. OP [bar] at medium temp.			M	L1	L6	D2	S	S3	Weight in [g]	Type	Order number	Price
		20 °C	100 °C	140 °C										
4	4	20	16	10	M16x1	5.4	31.8	11.7	19	19	17.8	959P3-4FF	366794	o. r.
6	6	20	16	10	M16x1	6	32.6	13.6	19	19	17.7	959P3-6FF	366795	o. r.
8	8	16	12	6	M20x1	7.8	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.  
 $T_{min} 0\text{ °C}, T_{max} +60\text{ °C}$ 

**Plastic PPSU**

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**


**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**

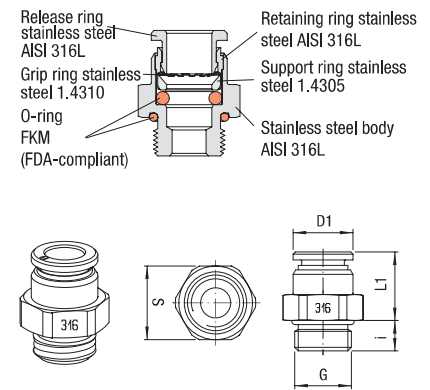
ELSA push-in fittings made of stainless steel 1.4404 are used in particular for aggressive gases and liquid media under harsh operating conditions. These push-in fittings are equipped with FDA-compliant FKM sealing rings as standard, on request, these are also available with FDA-compliant EPDM sealing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

**CHARACTERISTICS**
**BODY MATERIAL / SUITABILITY**

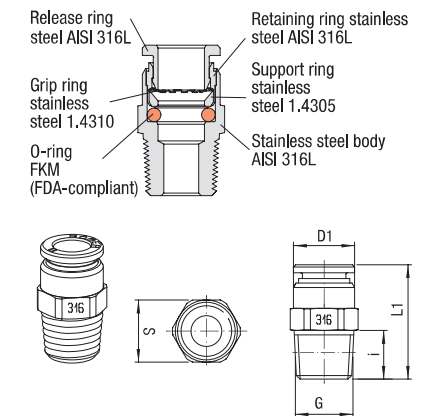
<b>Stainless steel AISI 316L</b>	Corresponds to <b>1.4404 stainless steel</b> . Suitable for many aggressive media, in particular at higher pressures. The FKM seal is FDA-compliant and can be used in the food and pharmaceutical industries.							
<b>Other materials</b>	see relevant products							
<b>Approval</b>	NSF/ANSI 169							
<b>TUBE</b>								
<b>Outside diameter [mm]</b>	4, 6 and 8	10, 12						
<b>Permitted tolerance [mm]</b>	±0.1	±0.15						
<b>Permitted grades</b>	Polyamide (PA), polyurethane (PU), fluorine polymer (FEP and PFA)							
<b>THREAD</b>								
<b>External thread</b>	"M" cylindrical thread: Metric ISO thread M5							
<b>External thread</b>	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 3/8							
<b>External thread</b>	"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.							
<b>Internal thread</b>	"G" cylindrical thread: Whitworth pipe thread DIN ISO 228-1 G 1/8 up to G 1/2							
<b>OPERATING PRESSURE / TEMPERATURE</b>								
<b>Metal version</b>	<table border="1"> <tr> <td>PN</td> <td>T<sub>min</sub></td> <td>0 °C</td> </tr> <tr> <td>20</td> <td>T<sub>max</sub></td> <td>+140 °C</td> </tr> </table>	PN	T <sub>min</sub>	0 °C	20	T <sub>max</sub>	+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)
PN	T <sub>min</sub>	0 °C						
20	T <sub>max</sub>	+140 °C						
<b>Allowable operating pressure and operating temperature of pipe/tube must be observed!</b>								
<b>THREAD SEAL</b>								
<b>Cylindrical threaded nipple</b>	Thread seal FKM O-ring	applies to all cylindrical threaded nipples						
<b>Conical threaded nipple</b>	Seal with Teflon tape winding (FDA-compliant) on request							
<b>"ROTATABLE" VERSION</b>								
<b>90° elbow- and T- adaptor, male</b>	not suitable for rotating or oscill. movements	Some types of fittings rotate 360° in order to facilitate alignment during assembly.						
<b>SPECIAL VERSIONS (NOT INCLUDED IN THE CATALOG)</b>								
We also manufacture ELSA push-in fittings in various customer-specific versions. <ul style="list-style-type: none"> <li>• other O-ring materials such as EPDM, FDA-compliant</li> <li>• for pipe/tube with inch dimensions</li> <li>• threaded connection, metric</li> <li>• Versions according to ASTM G93 and EN ISO 15001 for oxygen use</li> <li>• PVDF/PPSU release ring</li> </ul>								

**Straight Adaptor - Male**

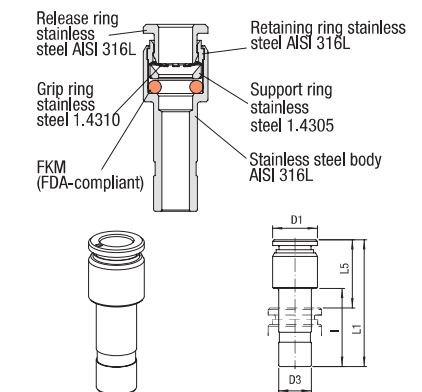
Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	cylindrical	Thread sealed by a	FKM O-Ring in recess		Stainless steel	AISI 316L
for tube D	G	i	L1	D1	D2	S	Weight in [g]	Typ	Order number	Price				
4	M 5	3,5	16,8	8	9,4	8	4,4	951X44-4FF-M5	385021	o. r.				
4	G 1/8	5	14	9,8	-	13	9,9	951X44-4FF-1/8	385022	o. r.				
4	G 1/4	7	11,8	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	14,7	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	15,9	13,8	-	19	26,8	951X44-8FF-3/8	385029	o. r.				
10	G 1/4	7	22,3	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	15,6	16,4	-	24	43,6	951X44-10FF-1/2	385032	o. r.				
12	G 1/4	7	25	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	18,5	19,8	-	24	45,21	951X44-12FF-1/2	385035	o. r.				

**Illustration**

**Straight Adaptor - Male**

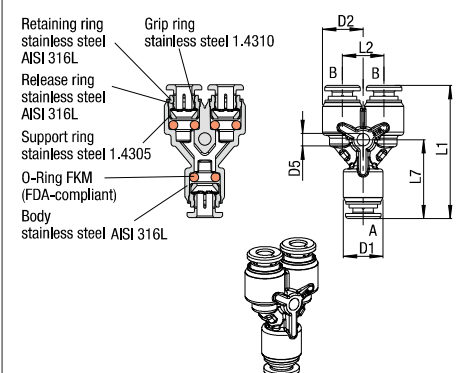
Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	conical		Stainless steel	AISI 316L
for tube D	G	i	L1	D1	S	Weight in [g]	Type	Order number	Price			
4	R 1/8	7,5	20,5	9,8	10	8,3	951X44-4FF-1/8K	385040	o. r.			
4	R 1/4	11	22,8	9,8	14	17,9	951X44-4FF-1/4K	385041	o. r.			
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	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C		Stainless steel	AISI 316L	
for tube D	D3	I	L1	L5	D1	Weight in [g]	Type	Order number	Price		
4	6	18	31,3	15,7	9,8	7,26	947X44-4FF-D6	385390	o. r.		
6	8	20	34,2	16,6	11,8	10,8	947X44-6FF-D8	385391	o. r.		
8	10	24	39,1	19	13,8	15,4	947X44-8FF-D10	385392	o. r.		
10	12	26	42,6	20,6	16,4	21,9	947X44-10FF-D12	385393	o. r.		
4	8	20	34	16,5	9,8	11,5	947X44-4FF-D8	385396	o. r.		
6	10	24	39	18,9	11,8	17,7	947X44-6FF-D10	385397	o. r.		
8	12	26	42	13,9	13,8	23,8	947X44-8FF-D12	385398	o. r.		

**Illustration**

**Y-Connector**

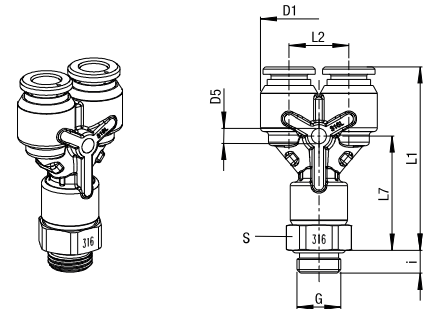
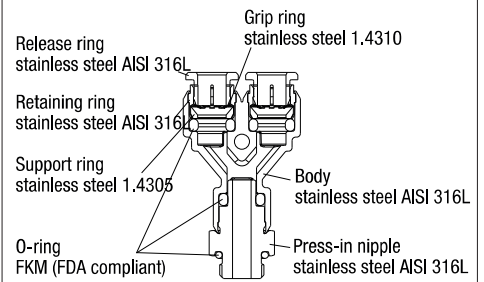
Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C		Stainless steel	AISI 316L	
for tube D	D3	L1	L2	L7	D1	D2	D5	Weight in [g]	Type	Order number	Price
4	4	35,2	11	20,9	10,5	10,5	3,3	19,5	982X44M-4FF	385230	o. r.
6	6	39,1	13	24,1	12,5	12,5	3,3	28,5	982X44M-6FF	385232	o. r.
8	8	45,5	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**


**Y-Adaptor - Male - Positionable**

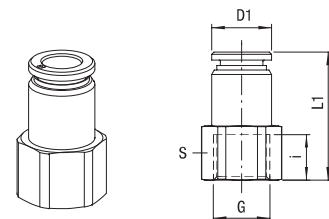
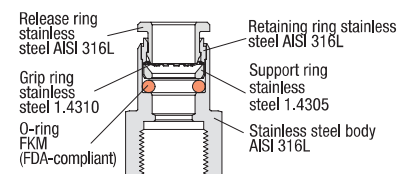
Preis Gruppe	<b>13</b>	PN	16	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	cylindrical	Thread sealed by a	FKM O-Ring in recess	not suitable for rotating or oscill. movement		Edelstahl	AISI 316L
--------------	-----------	----	----	------------------	------	------------------	---------	--------	-------------	--------------------	----------------------	---	--	-----------	-----------

für Schlauch D	G	D1	D5	L1	L2	L7	S	i	Gewicht in [g]	Typ	Bestellnummer
4	G 1/8	10.5	3.3	35.7	11	21.4	13	5	27.6	992X44M-4FF-1/8	385420
4	G 1/4	10.5	3.3	37	11	22	17	7	37.9	992X44M-4FF-1/4	385421
6	G 1/8	12.5	3.3	39.9	13	24.9	13	5	36.5	992X44M-6FF-1/8	385422
6	G 1/4	12.5	3.3	39.6	13	24.6	17	7	45.5	992X44M-6FF-1/4	385423
6	G 3/8	12.5	3.3	39.6	13	24.6	19	8	54.6	992X44M-6FF-3/8	385424
8	G 1/8	14.5	4.3	44.1	15.5	27.4	15	5	49.6	992X44M-8FF-1/8	385425
8	G 1/4	14.5	4.3	45.6	15.5	28.9	17	7	56.9	992X44M-8FF-1/4	385426
8	G 3/8	14.5	4.3	45.6	15.5	28.9	19	8	65.8	992X44M-8FF-3/8	385427
10	G 1/4	17	4.3	51.2	18	33.1	17	7	74.3	992X44M-10FF-1/4	385428
10	G 3/8	17	4.3	52	18	33.9	19	8	84.2	992X44M-10FF-3/8	385429
10	G 1/2	17	4.3	52.9	18	34.8	24	9	105.6	992X44M-10FF-1/2	385430
12	G 1/2	20.5	4.3	56.7	21.5	36.9	22	7	124.9	992X44M-12FF-1/4	385431
12	G 3/8	20.5	4.3	56.7	21.5	36.9	22	8	128.1	992X44M-12FF-3/8	385432
12	G 1/2	20.5	4.3	58.2	21.5	38.4	24	9	143	992X44M-12FF-1/2	385433

**Illustration**

**Straight Adaptor - Female**

Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+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.

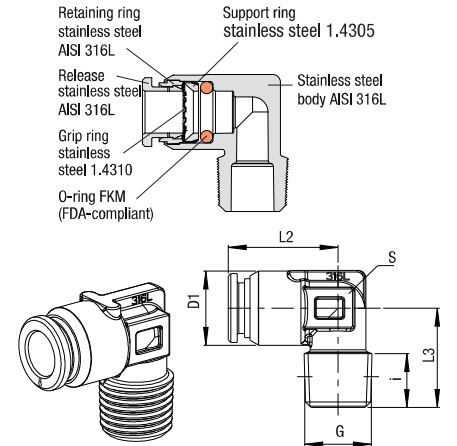
**Illustration**


**90° Elbow Adaptor - Male**

Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+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**

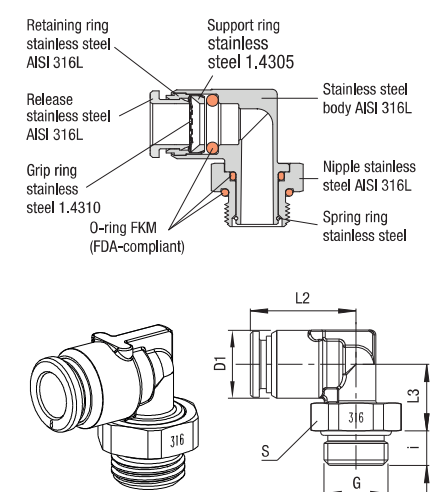
Price group	<b>13</b>	PN	16	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	cylindrical
-------------	-----------	----	----	------------------	------	------------------	---------	--------	-------------

 Thread sealed by a  
FKM O-Ring in recess

 not suitable for rotating  
or oscill. movement

 Stainless steel  
AISI 316L

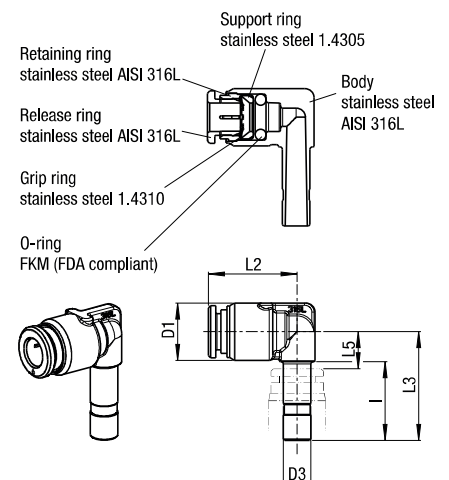
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	M 5	3.5	16.6	11.1	10.5	8	10.7	930X44M-4FF-M5	385101	o. r.
4	G 1/8	5	16.8	11.5	10.5	13	15.2	930X44M-4FF-1/8	385102	o. r.
4	G 1/4	7	16.8	11.6	10.5	17	21.3	930X44M-4FF-1/4	385103	o. r.
6	M 5	3.5	17.6	12.1	12.5	8	13.4	930X44M-6FF-M5	385104	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	13.1	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**

**Elbow Straight Stem**

Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C
-------------	-----------	----	----	------------------	------	------------------	---------


 Edelstahl  
AISI 316L

for tube D	i	D1	D3	L2	L3	L5	Weight in [g]	Type	Order number	Price
4	16.3	10.5	4	17.3	21.8	7	8.0	911X44M-4FF-D4	385250	o. r.
6	17.2	12.5	6	19.4	23.7	8	12.2	911X44M-6FF-D6	385253	o. r.
8	19.1	14.5	8	22.3	26.6	9	19.4	911X44M-8FF-D8	385255	o. r.
10	21.6	17	10	25.8	30.35	10	29.3	911X44M-10FF-D10	385257	o. r.
12	23.5	20.5	12	28.8	34	12	44.3	911X44M-12FF-D12	385259	o. r.

**Illustration**


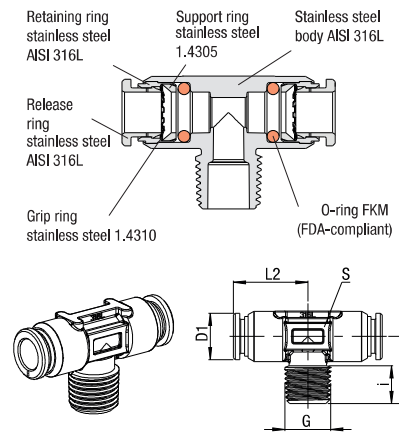


**T-Adaptor - Male**

Price group	<b>13</b>	PN	20	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	conical
-------------	-----------	----	----	------------------	------	------------------	---------	--------	---------


**Stainless steel  
AISI 316L**

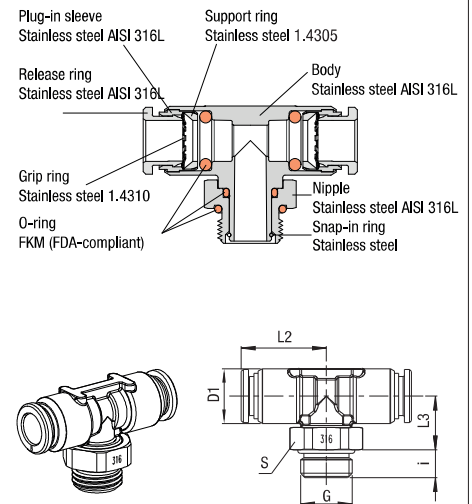
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	R 1/8	7.5	16.8	14.4	10.5	8	15.2	941X44M-4FF-1/8K	385305	o. r.
4	R 1/4	10.5	16.8	17.4	10.5	8	20	941X44M-4FF-1/4K	385306	o. r.
6	R 1/8	7.5	18.4	15.4	12.5	8	20.4	941X44M-6FF-1/8K	385307	o. r.
6	R 1/4	10.5	18.5	18.4	12.5	9	25.4	941X44M-6FF-1/4K	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	<b>13</b>	PN	16	T <sub>min</sub>	0 °C	T <sub>max</sub>	+140 °C	Thread	cylindrical	Thread sealed by a	FKM O-Ring in recess	not suitable for rotating	or oscill. movement
-------------	-----------	----	----	------------------	------	------------------	---------	--------	-------------	--------------------	----------------------	---------------------------	---------------------


**Stainless steel  
AISI 316L**

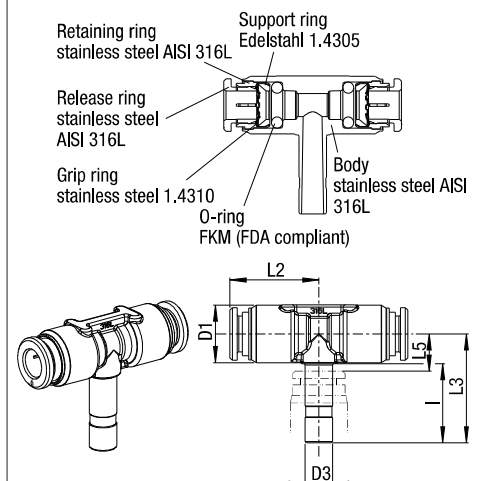
for tube D	G	i	L2	L3	D1	S	Weight in [g]	Type	Order number	Price
4	M 5	3.5	16.6	11.1	10.5	8	15.7	921X44M-4FF-M5	385121	o. r.
4	G 1/8	5	17.3	11.5	10.5	13	19.8	921X44M-4FF-1/8	385122	o. r.
4	G 1/4	7	17.3	11.6	10.5	17	26.3	921X44M-4FF-1/4	385123	o. r.
6	M 5	3.5	17.6	12.1	12.5	8	19.9	921X44M-6FF-M5	385124	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**

**T-Straight-Stem**

Price group	<b>13</b>	PN	16	T <sub>min</sub>	0 °C	T <sub>max</sub>	+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	i	L2	L3	L5	D1	D3	Weight in [g]	Type	Order number	Price
4	16.3	17.3	21.8	7	10.5	4	13.7	912X44M-4FF-D4	385265	o. r.
6	17.2	19	23.7	8	12.5	6	19.8	912X44M-6FF-D6	385268	o. r.
8	19.1	22.3	26.6	9	14.5	8	29.9	912X44M-8FF-D8	385270	o. r.
10	21.6	25.8	30.4	10	17	10	44.8	912X44M-10FF-D10	385272	o. r.
12	23.5	28.8	34	12	20.5	12	69.4	912X44M-12FF-D12	385274	o. r.

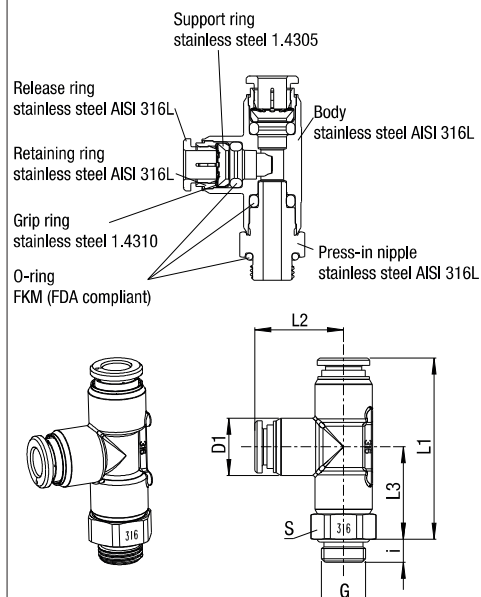
**Illustration**


**Side T-Adaptor - Male - Positionable**

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

 Stainless steel  
AISI 316L

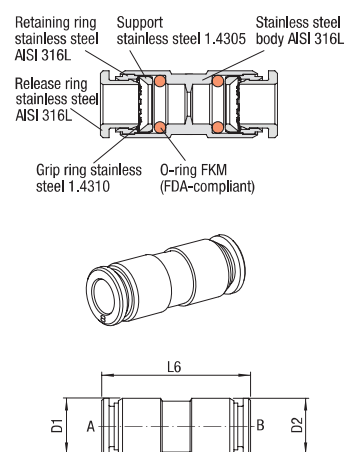
for tube D	G	L1	L2	L3	D1	S	i	Weight in [g]	Type	Order number	Price
4	G1/8	35	17	18	10,5	13	5	25,2	922X44M-4FF-1/8	385280	a. A.
4	G1/4	36	17	19	10,5	17	7	35,5	922X44M-4FF-1/4	385281	a. A.
6	G1/8	40	19	20	12,5	13	5	32,4	922X44M-6FF-1/8	385282	a. A.
6	G1/4	39	19	20	12,5	17	7	41,2	922X44M-6FF-1/4	385283	a. A.
6	G3/8	39	19	20	12,5	19	8	-	922X44M-6FF-3/8	385284	a. A.
8	G1/8	43,1	22	21	14,5	15	6	42,6	922X44M-8FF-1/8	385285	a. A.
8	G1/4	45	22	22	14,5	17	7	49,9	922X44M-8FF-1/4	385286	a. A.
8	G3/8	45	22	22	14,5	19	8	58,8	922X44M-8FF-3/8	385287	a. A.
10	G1/4	51	26	25	17	17	7	64,4	922X44M-10FF-1/4	385288	a. A.
10	G3/8	52	26	26	17	19	8	73,7	922X44M-10FF-3/8	385289	a. A.
10	G1/2	53	26	27	17	24	9	91,8	922X44M-10FF-1/2	385290	a. A.
12	G1/4	57	29	28	20,5	22	8	101,2	922X44M-12FF-1/4	385291	a. A.
12	G3/8	57	29	28	20,5	22	9	104,4	922X44M-12FF-3/8	385292	a. A.
12	G1/2	59	29	30	20,5	24	9	119,3	922X44M-12FF-1/2	385293	a. A.

**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.
4	6	33	9.8	11.8	11.2	958X44-6-4FF	385162	o. r.
6	6	33	11.8	11.8	10.4	958X44-6FF	385163	o. r.
6	8	35	11.8	13.8	18.7	958X44-8-6FF	385164	o. r.
8	8	36.7	13.8	13.8	17.7	958X44-8FF	385165	o. r.
8	10	40	13.8	16.4	24.5	958X44-10-8FF	385166	o. r.
10	10	41.7	16.4	16.4	27.3	958X44-10FF	385167	o. r.
10	12	46	16.4	19.8	39.8	958X44-12-10FF	385168	o. r.
12	12	45.6	19.8	19.8	49	958X44-12FF	385169	o. r.

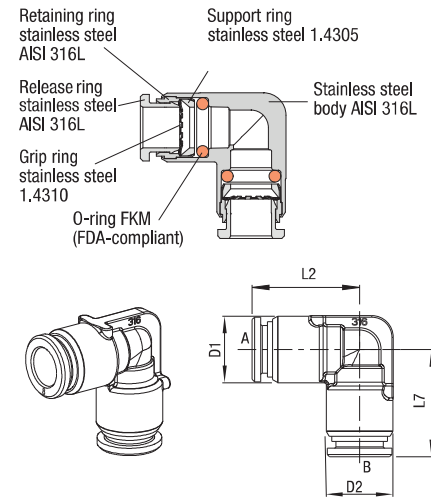
**Illustration**


**90° Elbow Connector**

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

 Stainless steel  
AISI 316L

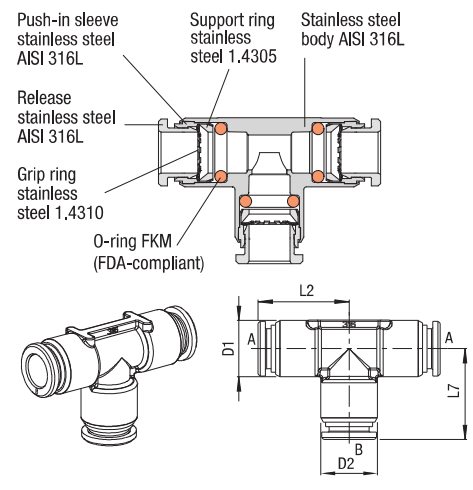
for tube AD	for tube BD	L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
4	4	17.5	17.5	10.5	10.5	12.2	955X44M-4FF	385141	o. r.
6	6	19.4	19.4	12.5	12.5	17.6	955X44M-6FF	385142	o. r.
8	8	22.3	22.3	14.5	14.5	24.7	955X44M-8FF	385143	o. r.
10	10	25.8	25.8	17	17	37.2	955X44M-10FF	385144	o. r.
12	12	28.8	28.8	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

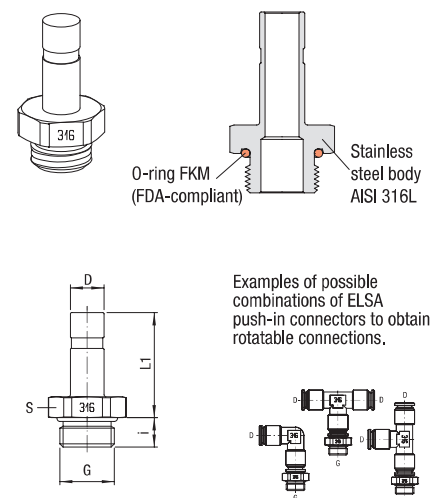
for tube AD	for tube BD	L2	L7	D1	D2	Weight in [g]	Type	Order number	Price
4	4	17.5	17.5	10.5	10.5	17.1	954X44M-4FF	385151	o. r.
6	6	19.4	19.4	12.5	12.5	24.3	954X44M-6FF	385152	o. r.
8	8	22.3	22.3	14.5	14.5	34.1	954X44M-8FF	385153	o. r.
10	10	25.8	25.8	17	17	51.4	954X44M-10FF	385154	o. r.
12	12	28.8	28.8	20.5	20.5	79.6	954X44M-12FF	385155	o. r.

**Illustration**

**Straight Stem Adaptor**

 Price group **13** PN 20  $T_{min}$  -20 °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.

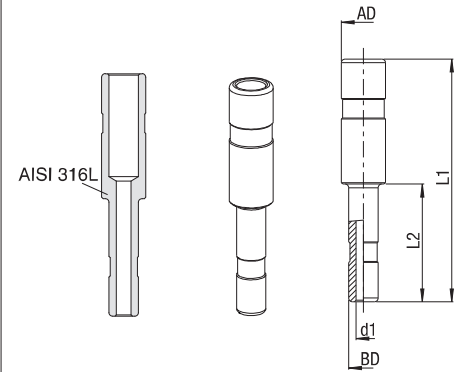
**Illustration**


**Straight Double Stem Connector**

 Price group **13** PN 20  $T_{min}$  -40 °C  $T_{max}$  +200 °C

 Stainless steel  
AISI 316L

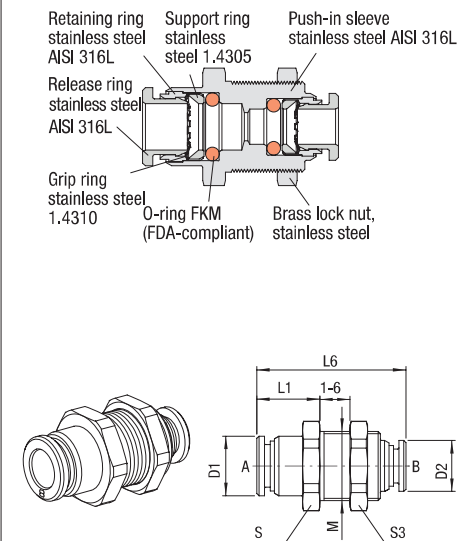
Connection AD	Connection BD	d1	L1	L2	Weight in [g]	Type	Order number	Price
6	4	2	33	16	3,3	904X4-D6-D4	283852	o. r.
6	6	4	34,5	-	4,2	904X4-D6	283853	o. r.
8	6	4	37,5	18	6,5	904X4-D8-D6	283858	o. r.
8	8	6	37,5	-	6,2	904X4-D8	283854	o. r.
10	8	6	45,5	18	10,9	904X4-D10-D8	283859	o. r.
10	10	8	45,5	-	9,7	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**
