

Self-closing/rotary push-in fittings QS




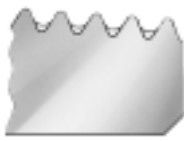
FESTO





Self-closing/rotary push-in fittings QS






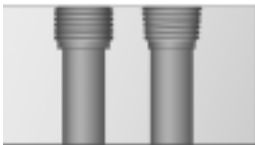
Key features



Application	Simply "plug and work"	Reliably connected	Captive seal
 <p>Effortless selection of the right fitting. Festo offers a secure solution for every connection. The convenient push-in fitting system includes well over 1000 types of standard and function fittings.</p>	 <p>The stainless steel retaining ring within the fitting holds the tubing securely without damaging its surface. Vibration and pressure surges are safely absorbed. The tubing can be detached easily by pressing down the blue release ring. For your convenience, the appropriate outside tubing diameter is marked on the release ring.</p>	 <p>A nitrile rubber sealing ring guarantees a perfect seal between standard OD tubing and the body of the fitting. Standard tubing is suitable for use with compressed air and vacuum.</p>	 <p>All of the brass components included in Festo's push-in fittings are nickel plated and are thus highly resistant to corrosion. The tapered ISO R threads have a self-sealing PTFE coating, which allows the fitting to be re-used up to five times without the need for additional sealing components.</p>

Orientable	360° rotatable, with ball bearing
 <p>The fitting can be aligned after assembly.</p>	 <p>Permits rotating motion of up to 500 rpm during use.</p>

Which fitting fits which thread?

Metric thread	G thread to DIN ISO 228-1	R thread to DIN 2999-1 und ISO 7/1
<ul style="list-style-type: none"> Cylindrical metric thread is comparable with G-thread Sealing is guaranteed by a clip-on O-ring 	<ul style="list-style-type: none"> Shorter thread Constant installation depth Replaceable sealing ring Sealing at front Can be re-used a number of times thanks to replaceable sealing ring 	<ul style="list-style-type: none"> Self-sealing thread Sealing on the threads No additional sealing surface required Smaller installation dimensions since there is no need for a rebate for the sealing surface Can be re-used up to five times
 <p>Metric male thread</p>  <p>Metric female thread</p>	 <p>G male thread</p>  <p>G female thread</p>	 <p>R male thread</p>  <p>G female thread R female thread</p>

Self-closing/rotary push-in fittings QS

Technical data

General technical data		
Type	Self-closing push-in fitting QSK	Rotary push-in fitting QSR
Size	Standard	
Design	Push-pull principle	
Mounting position	Any	
Type of seal on threaded plug	Sealing ring (metric thread, G thread) Coating (R thread)	
Nominal tightening torque [Nm]	1.33 ±20% at connecting thread M5	
	7 ±20% at connecting thread G1/8	
	9 ±20% at connecting thread G1/4	
	15.5 ±20% at connecting thread G3/8	
	26 ±20% at connecting thread G1/2	
Max. tightening torque [Nm]	1.5 at connecting thread M5	
	7 at connecting thread R1/8	
	12 at connecting thread R1/4	
	22 at connecting thread R3/8	
	28 at connecting thread R1/2	
	10 at connecting thread G1/8	
	15 at connecting thread G1/4	
	25 at connecting thread G3/8	
Max. speed [1/min]	-	
	500 at tubing O.D. Ø 4 mm	
	500 at tubing O.D. Ø 6 mm	
	400 at tubing O.D. Ø 8 mm	
	300 at tubing O.D. Ø 10 mm	
	250 at tubing O.D. Ø 12 mm and R thread	
Max. radial moment [Nm]	-	
	0.006 at tubing O.D. Ø 4 mm	
	0.012 at tubing O.D. Ø 6 mm	
	0.015 at tubing O.D. Ø 8 mm	
	0.020 at tubing O.D. Ø 10 mm	
Permitted type of tubing	PAN, PAN-MF, PAN-R, PAN-VO, PEN, PFAN, PLN, PTFEN, PUN, PUN-CM, PUN-DUO, PUN-H, PUN-H-DUO, PUN-S, PUN-S-DUO, PUN-VO	
	-	

Operating and environmental conditions		
Type	Self-closing push-in fitting QSK	Rotary push-in fitting QSR
Operating pressure [bar]	-0.95 ... +6	
complete temperature range		
Temperature-dependent operating pressure [bar]	-0.95 ... +14 → diagram	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]	
	Water as per manufacturer's declaration ¹⁾ (only with push-in bulkhead connector QSSK)	-
Note on operating/pilot medium	Operation with lubricated medium possible	
Ambient temperature [°C]	-10 ... +80	0 ... +60
Corrosion resistance class CRC ²⁾	1	
Certification	Germanischer Lloyd	

1) Additional information www.festo.com/sp → User documentation.

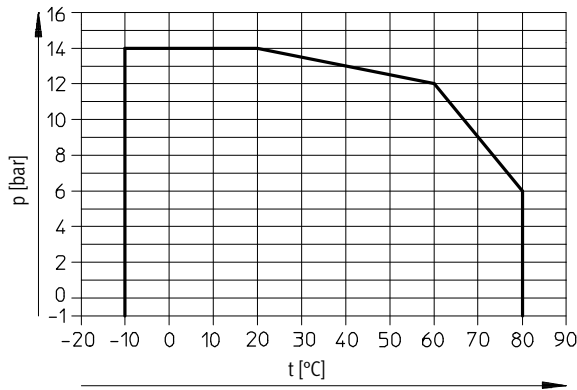
2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Self-closing/rotary push-in fittings QS

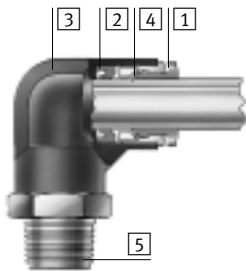
Technical data

Operating pressure p as a function of temperature t



Materials

Sectional view



Type	Self-closing push-in fitting QSK	Rotary push-in fitting QSR
1 Release ring	POM (colour: blue)	
2 Seal	NBR	
3 Housing	PBT, nickel plated brass	
4 Tube clamping segment	High alloy stainless steel	
5 Threaded coupling	Nickel plated brass	Chrome plated brass
Note on materials	RoHS-compliant	

Possible push-in fitting/tubing combinations







Thread	Tubing O.D. [mm]				
	4	6	8	10	12
M5	++	+	-	-	-
R1/8	+	++	+	+	-
R1/4	+	+	++	+	+
R3/8	-	+	+	++	+
R1/2	-	-	-	+	++
G1/8	+	++	+	-	-
G1/4	-	+	++	+	+
G3/8	-	-	+	++	+

- + Possible thread/tubing O.D. combinations
- ++ Optimum thread/tubing O.D. combinations (with regard to flow)

Self-closing/rotary push-in fittings QS

Product range overview



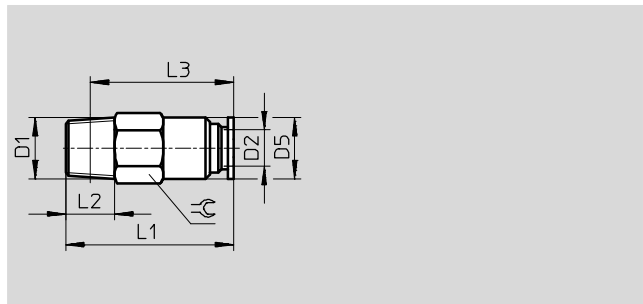
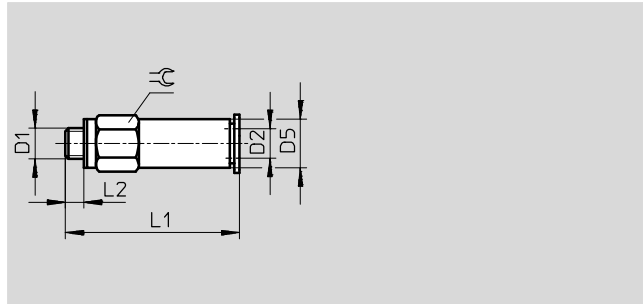
Shape	Design	Type	Connection D1				Connection D2 Tubing O.D.	→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.		
Straight	Self-closing push-in fitting – Male thread with external hex							
		QSK	M5	–	–	–	4, 6	6
			–	R $\frac{1}{8}$	G $\frac{1}{8}$		4, 6, 8	
			–	R $\frac{1}{4}$	G $\frac{1}{4}$		6, 8, 10	
			–	R $\frac{3}{8}$	G $\frac{3}{8}$		8, 10, 12	
			–	R $\frac{1}{2}$	G $\frac{1}{2}$		12	
	Self-closing push-in connector							
		QSK	–	–	–	4	–	7
			–	–	–	6		
			–	–	–	8		
			–	–	–	10		
			–	–	–	12		
Push-in bulkhead connector								
	QSSK	–	–	–	4	–	8	
		–	–	–	6			
		–	–	–	8			
		–	–	–	10			
		–	–	–	12			
Rotary push-in fitting, 360° rotatable with ball bearing – Male thread with external hex								
	QSR	M5	–	–	–	4, 6	11	
		–	R $\frac{1}{8}$	G $\frac{1}{8}$		4, 6, 8		
		–	R $\frac{1}{4}$	G $\frac{1}{4}$		6, 8		
		–	R $\frac{3}{8}$	G $\frac{3}{8}$		8, 10, 12		
		–	R $\frac{1}{2}$	G $\frac{1}{2}$		12		
L-shape	Self-closing push-in L-fitting, orientable – Male thread with external hex							
		QSKL	M5	–	–	–	4, 6	9
			–	R $\frac{1}{8}$	G $\frac{1}{8}$		4, 6, 8	
			–	R $\frac{1}{4}$	G $\frac{1}{4}$		6, 8, 10	
			–	R $\frac{3}{8}$	G $\frac{3}{8}$		8, 10, 12	
			–	R $\frac{1}{2}$	G $\frac{1}{2}$		12	
	Rotary push-in L-fitting, 360° rotatable with ball bearing – Male thread with external hex							
		QSRL	M5	–	–	–	4, 6	10
			–	R $\frac{1}{8}$	G $\frac{1}{8}$		4, 6, 8	
			–	R $\frac{1}{4}$	G $\frac{1}{4}$		6, 8	
			–	R $\frac{3}{8}$	G $\frac{3}{8}$		8, 10, 12	
			–	R $\frac{1}{2}$	G $\frac{1}{2}$		12	

Self-closing push-in fittings QSK

Technical data

Self-closing push-in fitting QSK

Male thread with external hex



Dimensions and ordering data												
Pneumatic connection		Nominal size	D5 Ø	L1	L2	L3	≈	Tubing insertion depth [mm]	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread	For tubing O.D.	[mm]										
D1	D2 [mm]											
Metric thread with sealing ring												
M5	4	1.4	8	29.5	3.5	-	8	12.7	7.1	153291	QSK-M5-4	1
	6	1.7	10	32.5	3.5	-	10	13.7	12	153292	QSK-M5-6	1
R thread												
R ¹ / ₈	4	1.6	9	25	8	20	10	12.5	9.5	153419	QSK- ¹ / ₈ -4	1
	6	3	10	27.5	8	23	10	13.5	9.5	153420	QSK- ¹ / ₈ -6	1
	8	3.4	14	36	8	32	14	18.5	22.5	153422	QSK- ¹ / ₈ -8	1
R ¹ / ₄	6	3	12	27.5	11	21	14	13.5	21	153421	QSK- ¹ / ₄ -6	1
	8	4.3	14	36	11	30	14	18.5	22.5	153423	QSK- ¹ / ₄ -8	1
	10	4.8	17	38.5	11	32.5	17	21	32	153425	QSK- ¹ / ₄ -10	1
R ³ / ₈	8	4.5	15	36	12	29.5	17	18.5	39	153424	QSK- ³ / ₈ -8	1
	10	5.6	17	40	12	33.5	17	21	35	153426	QSK- ³ / ₈ -10	1
	12	6.1	21	46	12	39.5	21	23.5	63.5	153427	QSK- ³ / ₈ -12	1
R ¹ / ₂	12	6.4	21	46	15	38	21	23.5	65.5	153428	QSK- ¹ / ₂ -12	1

1) Packaging unit quantity

Self-closing push-in fittings QSK

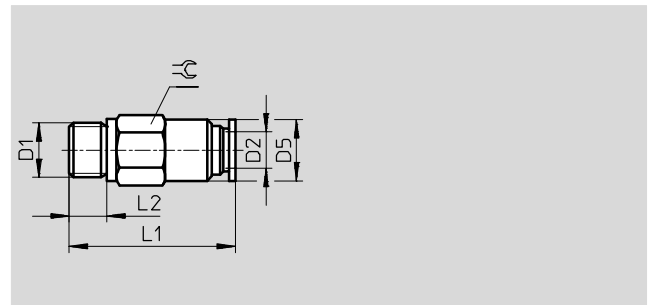
Technical data

Self-closing push-in fitting QSK

Male thread with external hex



G thread



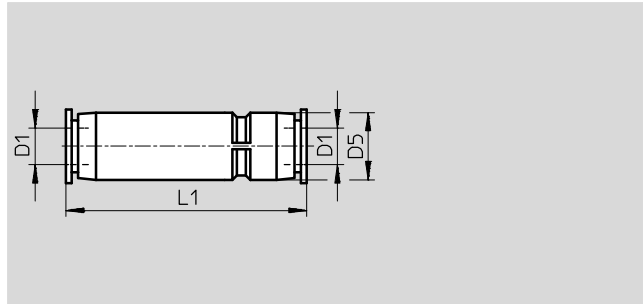
Dimensions and ordering data											
Pneumatic connection		Nominal size [mm]	D5 Ø	L1	L2	=	Tubing insertion depth [mm]	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]										
G thread with sealing ring											
G ¹ / ₈	4	1.6	8.8	23.5	5.1	13	12.1	14	186294	QSK-G¹/₈-4	1
	6	3	10	26.2	5.1	13	13.4	14	186295	QSK-G¹/₈-6	1
	8	3.4	14	34.7	5.1	14	22.3	23	186297	QSK-G¹/₈-8	1
G ¹ / ₄	6	3	12	25.6	5.6	17	13.4	26	186296	QSK-G¹/₄-6	1
	8	4.3	14	34.5	5.6	17	18.3	30	186298	QSK-G¹/₄-8	1
	10	4.8	17	36.8	5.6	17	24.7	33	186300	QSK-G¹/₄-10	1
G ³ / ₈	8	4.5	15	34.5	6.6	19	18.3	43	186299	QSK-G³/₈-8	1
	10	5.6	17	38.3	6.6	19	20.7	41	186301	QSK-G³/₈-10	1
	12	6.1	20.8	43.3	6.6	21	29.1	63	186302	QSK-G³/₈-12	1
G ¹ / ₂	12	6.4	20.8	44.9	7.6	24	23.1	78	186303	QSK-G¹/₂-12	1

1) Packaging unit quantity

Self-closing push-in fittings QSK/QSSK

Technical data

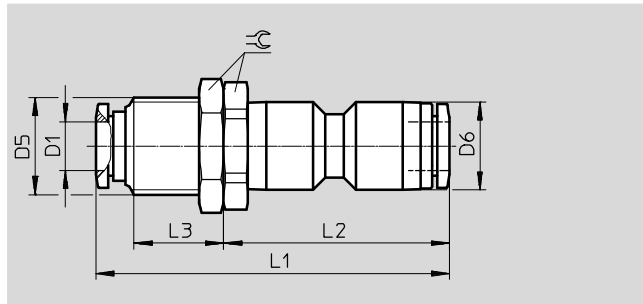
Self-closing push-in connector QSK



Dimensions and ordering data								
Pneumatic connection	Nominal size	D5	L1	Tubing insertion depth	Weight/ piece	Part No.	Type	PU ¹⁾
For tubing O.D. D1 [mm]	[mm]	∅		[mm]	[g]			
4	1.6	8.5	36	11.5	3.5	153439	QSK-4	1
6	3	11	39.5	12	6	153440	QSK-6	1
8	4.4	14.5	54.5	18.5	16	153441	QSK-8	1
10	5.3	17.5	60.5	20.5	26	153442	QSK-10	1
12	6.2	21	70.5	23.5	40.5	153443	QSK-12	1

1) Packaging unit quantity

Push-in bulkhead connector QSSK



Dimensions and ordering data												
Pneumatic connection	Nominal size	D5	D6	L1	L2	L3	≅	Tubing insertion depth	Weight/ piece	Part No.	Type	PU ¹⁾
For tubing O.D. D1 [mm]	[mm]	∅	∅					[mm]	[g]			
4	1.5	M10x1	10	43.1	29.6	10	12	12.7	14	130637	QSSK-4	1
6	3	M12x1	12.5	47.6	34.2	9.9	14	13.7	20	130638	QSSK-6	1
8	4.3	M16x1	14.5	58.1	37.1	14.7	19	18.3	38	130639	QSSK-8	1
10	5.4	M20x1	17.5	64.5	41.4	16.2	24	20.7	68	130640	QSSK-10	1
12	6.3	M22x1	21	75.5	48.6	20.7	27	23.1	98	130641	QSSK-12	1

1) Packaging unit quantity

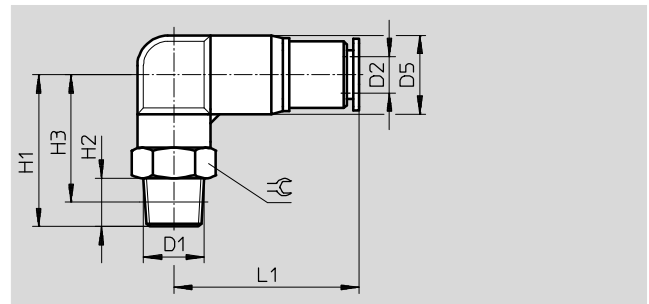
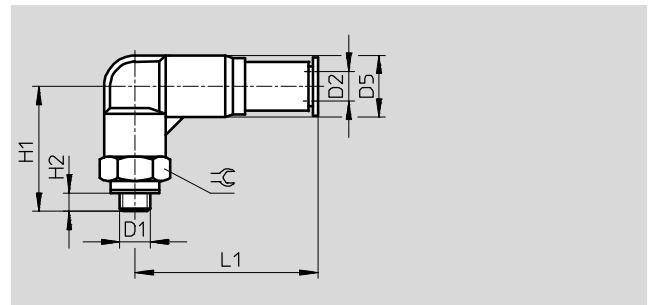
Self-closing push-in fittings QSKL

Technical data

Self-closing push-in L-fitting QSKL

Orientable

Male thread with external hex



Dimensions and ordering data													
Pneumatic connection		Nominal size	D5 Ø	H1	H2	H3	L1	⊕	Tubing insertion depth	Weight/ piece	Part No.	Type	PU ¹⁾
Male thread	For tubing O.D.	[mm]							[mm]	[g]			
D1	D2 [mm]												
Metric thread with sealing ring													
M5	4	1.4	10	20.8	3.5	-	30.3	10	12.7	13	153294	QSKL-M5-4	1
	6	1.7	12.5	22.5	3.5	-	30.4	12	13.7	20	153295	QSKL-M5-6	1
R thread													
R ¹ / ₈	4	1.5	10	23.5	8	19.5	30.5	10	12.5	17	153429	QSKL- ¹ / ₈ -4	1
	6	3	12.5	25	8	21	30.5	12	13.5	22	153430	QSKL- ¹ / ₈ -6	1
	8	4.2	14.5	28	8	24	43	14	18.5	34	153432	QSKL- ¹ / ₈ -8	1
R ¹ / ₄	6	3.2	12.5	28	11	22	30.5	14	13.5	29.5	153431	QSKL- ¹ / ₄ -6	1
	8	4.1	14.5	31	11	25	43	14	18.5	40	153433	QSKL- ¹ / ₄ -8	1
	10	5.2	17.5	36	11	30	49.5	17	21	58.5	153435	QSKL- ¹ / ₄ -10	1
R ³ / ₈	8	4.3	14.5	33	12	26.5	43	17	18.5	53	153434	QSKL- ³ / ₈ -8	1
	10	5.3	17.5	37	12	30.5	49.5	17	21	67	153436	QSKL- ³ / ₈ -10	1
	12	6.2	21	39	12	32.5	57.5	21	22.9	92.5	153437	QSKL- ³ / ₈ -12	1
R ¹ / ₂	12	6.2	21	42	15	34	57.5	21	22.9	107	153438	QSKL- ¹ / ₂ -12	1

1) Packaging unit quantity

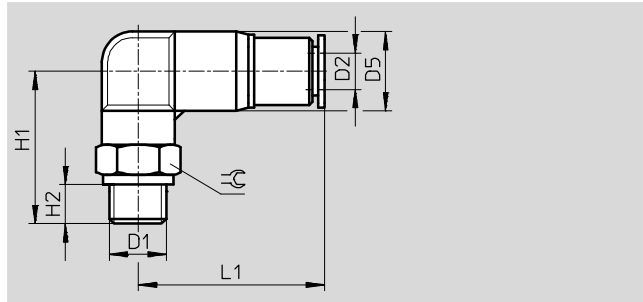
Self-closing push-in fittings QSKL

Technical data

Self-closing push-in L-fitting QSKL

Orientable

Male thread with external hex



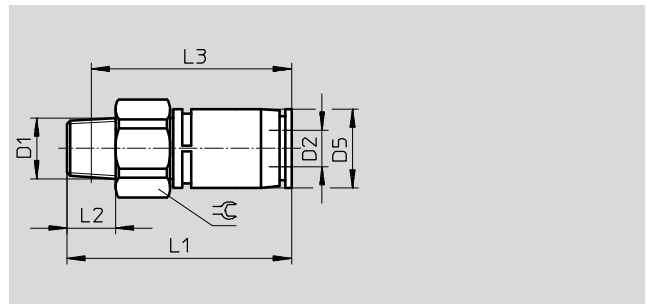
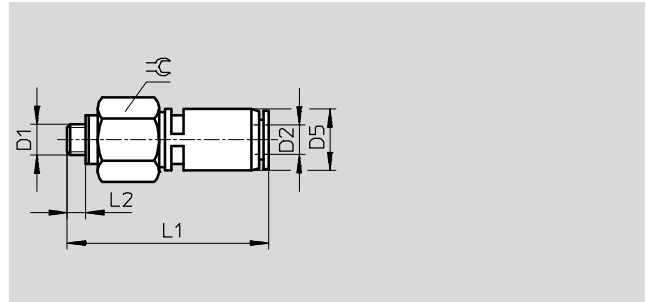
Dimensions and ordering data												
Pneumatic connection		Nominal size	D5 Ø	H1	H2	L1	⌀	Tubing insertion depth [mm]	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]	[mm]										
G thread with sealing ring												
G ¹ / ₈	4	1.5	10	23.3	5.1	30.3	13	12.7	19	186304	QSKL-G ¹ / ₈ -4	1
	6	2.9	12.5	24	5.1	30.4	13	13.7	22	186305	QSKL-G ¹ / ₈ -6	1
	8	4.2	14.5	27	5.1	43	14	18.3	34	186307	QSKL-G ¹ / ₈ -8	1
G ¹ / ₄	6	3.2	12.5	25.5	5.6	30.4	17	13.7	31	186306	QSKL-G ¹ / ₄ -6	1
	8	4.1	14.5	28.5	5.6	43	17	18.3	43	186308	QSKL-G ¹ / ₄ -8	1
	10	5.2	17.5	32.5	5.6	49.3	17	20.7	57	186310	QSKL-G ¹ / ₄ -10	1
G ³ / ₈	8	4.3	14.5	30	6.6	43	19	18.3	56	186309	QSKL-G ³ / ₈ -8	1
	10	5.3	17.5	34	6.6	49.3	19	20.7	66	186311	QSKL-G ³ / ₈ -10	1
	12	6.2	21	36	6.6	57.1	21	22.9	86	186312	QSKL-G ³ / ₈ -12	1
G ¹ / ₂	12	6.2	21	39	7.6	57.1	24	22.9	112	186313	QSKL-G ¹ / ₂ -12	1

1) Packaging unit quantity

Rotary push-in fittings QSR

Technical data

Rotary push-in fitting QSR
 360° rotatable with ball bearing
 Male thread with external hex



Dimensions and ordering data											
Pneumatic connection		Nominal size [mm]	D5 Ø	L1	L2	L3	≈	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]										
Metric thread with sealing ring											
M5	4	1.6	10	33.1	3.5	-	12	13	153526	QSR-M5-4	1
	6	1.6	12.5	36.7	3.5	-	14	19	153527	QSR-M5-6	1
R thread											
R ¹ / ₈	4	2.1	10	34.1	8	30.1	12	14	153401	QSR- ¹ / ₈ -4	1
	6	3.4	12.5	36.9	8	32.9	14	18	153402	QSR- ¹ / ₈ -6	1
	8	5	14.5	45.3	8	41.3	17	34	153404	QSR- ¹ / ₈ -8	1
R ¹ / ₄	6	3.4	12.5	38.9	11	32.8	14	23	153403	QSR- ¹ / ₄ -6	1
	8	5	14.5	44.3	11	38.3	17	32	153405	QSR- ¹ / ₄ -8	1
R ³ / ₈	8	5	14.5	44.3	12	38	17	39	153406	QSR- ³ / ₈ -8	1
	10	6.7	18	55.8	12	49.5	22	61	153407	QSR- ³ / ₈ -10	1
	12	8	21	63.2	12	56.9	24	82	153408	QSR- ³ / ₈ -12	1
R ¹ / ₂	12	8	21	63.2	15	55	24	89	153409	QSR- ¹ / ₂ -12	1

1) Packaging unit quantity

Rotary push-in fittings QSR

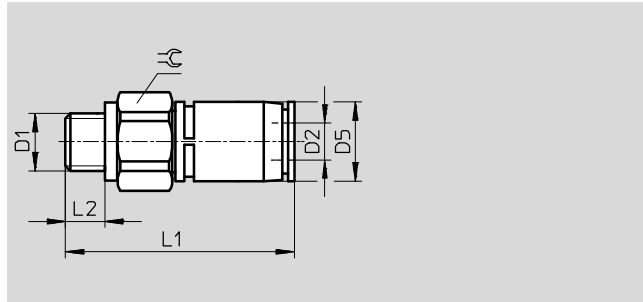
Technical data

FESTO

Rotary push-in fitting QSR

360° rotatable with ball bearing

Male thread with external hex



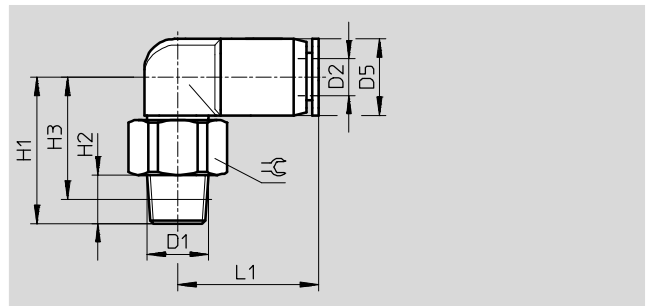
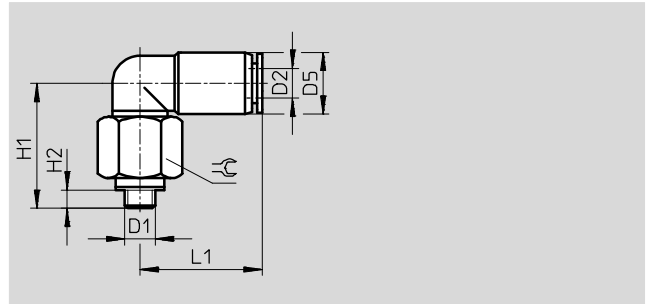
Dimensions and ordering data										
Pneumatic connection		Nominal size [mm]	D5 \varnothing	L1	L2	\approx	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]									
G thread with sealing ring										
G $\frac{1}{8}$	4	2.1	10	33.1	5.1	13	15	186276	QSR-G $\frac{1}{8}$ -4	1
	6	3.4	12.5	35.9	5.1	14	17	186277	QSR-G $\frac{1}{8}$ -6	1
	8	5	14.5	44.3	5.1	17	34	186279	QSR-G $\frac{1}{8}$ -8	1
G $\frac{1}{4}$	6	3.4	12.5	35.4	5.6	17	24	186278	QSR-G $\frac{1}{4}$ -6	1
	8	5	14.5	40.8	5.6	17	30	186280	QSR-G $\frac{1}{4}$ -8	1
G $\frac{3}{8}$	8	5	14.5	41.3	6.6	19	40	186281	QSR-G $\frac{3}{8}$ -8	1
	10	6.7	18	53.8	6.6	22	59	186282	QSR-G $\frac{3}{8}$ -10	1
	12	8	21	60.2	6.6	23.8	78	186283	QSR-G $\frac{3}{8}$ -12	1
G $\frac{1}{2}$	12	8	21	58.2	7.6	23.8	79	186284	QSR-G $\frac{1}{2}$ -12	1

1) Packaging unit quantity

Rotary push-in fittings QSRL

Technical data

Rotary push-in L-fitting QSRL
 360° rotatable with ball bearing
 Male thread with external hex



Dimensions and ordering data												
Pneumatic connection		Nominal size [mm]	D5 Ø	H1	H2	H3	L1	≈G	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]											
Metric thread with sealing ring												
M5	4	1.4	10	21	3.5	–	19.7	12	13	153529	QSRL-M5-4	1
	6	1.6	12.5	23.8	3.5	–	22.8	14	20	153530	QSRL-M5-6	1
R thread												
R ¹ / ₈	4	1.8	10	23	8	18	20	12	15	153410	QSRL- ¹ / ₈ -4	1
	6	3.1	12.5	24	8	20	23	14	19	153411	QSRL- ¹ / ₈ -6	1
	8	4.6	14.5	31.5	8	27.5	26	17	33	153413	QSRL- ¹ / ₈ -8	1
R ¹ / ₄	6	3.1	12.5	26	11	20	23	14	23	153412	QSRL- ¹ / ₄ -6	1
	8	4.6	14.5	30.5	11	24.5	26	17	32	153414	QSRL- ¹ / ₄ -8	1
R ³ / ₈	8	4.6	14.5	30.5	12	24	26	17	39	153415	QSRL- ³ / ₈ -8	1
	10	6.2	17.5	36	12	29.5	30	22	56	153416	QSRL- ³ / ₈ -10	1
	12	7.4	21	41.5	12	35	33	24	84	153417	QSRL- ³ / ₈ -12	1
R ¹ / ₂	12	7.4	21	41.5	15	33.5	33	24	90	153418	QSRL- ¹ / ₂ -12	1

1) Packaging unit quantity

Rotary push-in fittings QSRL

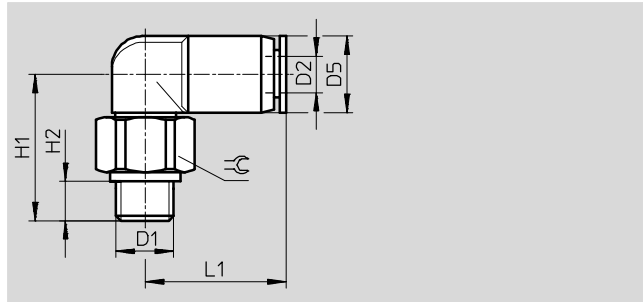
Technical data

FESTO

Rotary push-in L-fitting QSRL

360° rotatable with ball bearing

Male thread with external hex



Dimensions and ordering data											
Pneumatic connection		Nominal size [mm]	D5 Ø	H1	H2	L1	⌀	Weight/ piece [g]	Part No.	Type	PU ¹⁾
Male thread D1	For tubing O.D. D2 [mm]										
G thread with sealing ring											
G ¹ / ₈	4	1.9	10	21	5.1	19.7	13	15	186285	QSRL-G¹/₈-4	1
	6	3.1	12.5	23	5.1	22.8	14	18	186286	QSRL-G¹/₈-6	1
	8	4.6	14.5	30.5	5.1	25.7	17	35	186288	QSRL-G¹/₈-8	1
G ¹ / ₄	6	3.1	12.5	22.5	5.6	22.8	17	25	186287	QSRL-G¹/₄-6	1
	8	4.6	14.5	27	5.6	25.7	17	31	186289	QSRL-G¹/₄-8	1
G ³ / ₈	8	4.6	14.5	27.5	6.6	25.7	19	41	186290	QSRL-G³/₈-8	1
	10	6.2	17.5	33.3	6.6	29.5	22	59	186291	QSRL-G³/₈-10	1
	12	7.4	21	38.5	6.6	32.7	24	81	186292	QSRL-G³/₈-12	1
G ¹ / ₂	12	7.4	21	36.5	7.6	32.7	24	81	186293	QSRL-G¹/₂-12	1

1) Packaging unit quantity