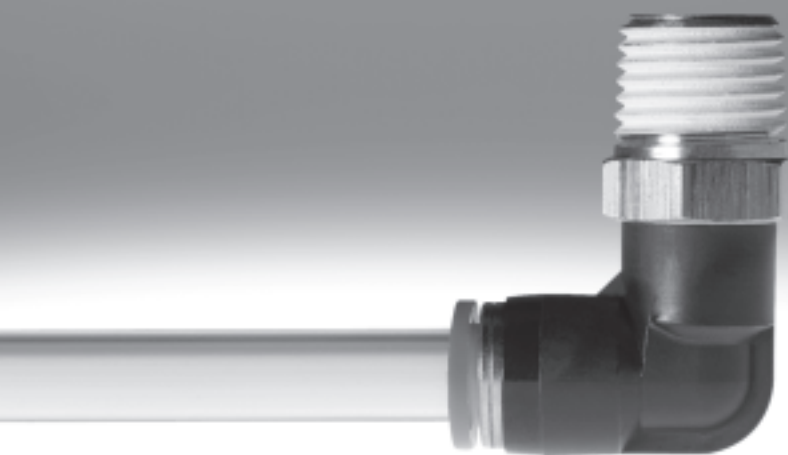


Tubing/threaded fitting combinations
PEN/QS-B and PUN-E/QS-B

FESTO



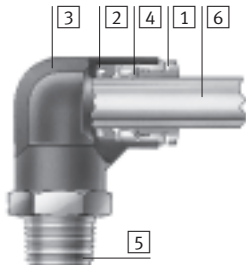
Push-in fittings QS, Quick Star

Technical data



Materials

Sectional view



	Mini QSM Standard QS	Mini QSM-B Standard QS-B
1 Release ring	Polyacetate	Polyacetate
2 Seal	Nitrile rubber	Nitrile rubber
3 Body	Polybuteneterephthalate Nickel plated brass	Polybuteneterephthalate Nickel plated brass
4 Tube retaining claw	High alloy stainless steel	High alloy stainless steel
5 Threaded coupling	Nickel plated brass	Nickel plated brass M3: Stainless steel
6 Plastic tubing with standard O.D.	PAN PEN PUN PUN-H PUN-E	PAN PEN PUN PUN-H PUN-E
Note on materials	RoHS-conform	RoHS-conform

	Metal QS-F	Stainless steel CRQS	Flame-retardant QS-V0
1 Release ring	Nickel plated, chromated brass	High alloy stainless steel	Polybutylene terephthalate (flame-retardant)
2 Seal	Fluorocarbon rubber	Fluorocarbon rubber	Nitrile rubber
3 Body	Nickel plated, chromated brass	High alloy stainless steel	Polybutylene terephthalate (flame-retardant)
4 Tube retaining claw	Stainless steel	High alloy stainless steel	Stainless steel
5 Threaded coupling	Nickel plated, chromated brass (threaded seal: fluorocarbon rubber)	High alloy stainless steel	Nickel plated brass
6 Plastic tubing with standard O.D.	PAN PFAN PUN PUN-H PUN-V0 PLN	PFAN PUN-H PLN PUN-V0	PAN-V0
Note on materials	–	RoHS-conform	–

Tubing insertion depth



Tubing O.D. [mm]	3	4	6	8	10	12	16
Mini QSM	9.5	11.5	12	–	–	–	–
Standard QS	–	15 (QSW: 12)	17 (QSW: 12)	18	20.5	23.5	24.5
Mini QSM-B	–	11.5	12	–	–	–	–
Standard QS-B	–	14.9	16.9	18.3	20.7	23.2	–

Push-in fittings QS, Quick Star

Technical data

FESTO

Recommended tightening torque/screw-in depth



When using Quick Star push-in fittings with internal hex, ensure that the Allen key is not inserted too far into

the fitting to prevent the risk of damage to components behind the fitting.

Note
Malfunctions may occur with function fittings when screwed too far into the connecting thread. The insertion depth and the recommended tightening torque must be observed. Damage may otherwise occur if the recommended tightening torque is exceeded by more than 50%.

Connecting thread	Tightening torque [Nm]	Approx. screw-in depth [mm]
M thread		
M3	0.7	2.5
M5	1.5	3
M7	2	5.5
R thread		
R1/8	7	4
R1/4	12	6
R3/8	22	6.5
R1/2	28	8
G thread		
G1/8	10	4.6
G1/4	15	6.6
G3/8	25	8.1
G1/2	40	11.1

Operating and environmental conditions

	Mini QSM	Standard QS	Mini QSM-B	Standard QS-B
Temperature dependent operating pressure [bar]	-0.95 ... +14		-0.95 ... +10	
Ambient temperature [°C]	-10 ... +80		0 ... 60	
Corrosion resistance CRC ¹⁾	1		1	
Certification	Germanischer Lloyd		Germanischer Lloyd	

	Metal QS-F	Stainless steel CRQS	Flame-retardant QS-V0
Temperature dependent operating pressure [bar]	-0.95 ... +16	-0.95 ... +10	-0.95 ... +10
Ambient temperature [°C]	0 ... 150 (-20 ... +150) ²⁾	-15 ... +120	0 ... 60
Corrosion resistance CRC ¹⁾	3	4	2
Food industry approval	FDA	-	-
Certification	Germanischer Lloyd	Germanischer Lloyd	Germanischer Lloyd
	-	-	UL - Recognized (OL)

1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.
Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
Corrosion resistance class 3 according to Festo standard 940 070
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface.
Corrosion resistance class 4 according to Festo standard 940 070
Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

2) Value range in brackets for screw connectors QS-F in conjunction with tubing PLN.

Push-in fittings QS, Quick Star

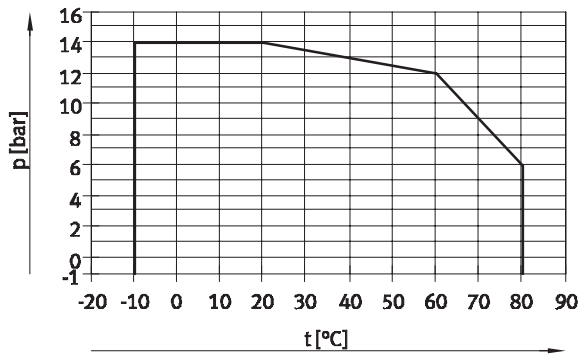
Technical data

FESTO

Operating pressure p as a function of temperature t

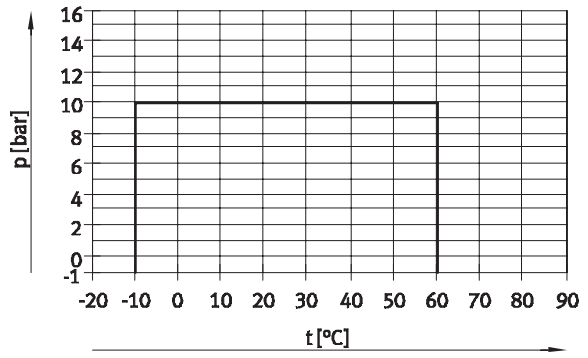
Mini QSM

Standard QS



Mini QSM-B

Standard QS-B



Push-in fittings QS, Quick Star

Technical data

FESTO






Possible push-in fitting/tubing combinations								
Type	Thread	Tubing O.D. [mm]						
		3	4	6	8	10	12	16
Mini QSM	M3	++	+	-	-	-	-	-
	M5	+	++	+	-	-	-	-
	M6	-	++	-	-	-	-	-
	M7	-	+	++	-	-	-	-
	M8	-	-	++	-	-	-	-
	R $\frac{1}{8}$	-	+	++	-	-	-	-
	G $\frac{1}{8}$	-	+	++	-	-	-	-
Standard QS	M5	-	++	+	-	-	-	-
	R $\frac{1}{8}$	-	+	++	+	+	-	-
	R $\frac{1}{4}$	-	+	+	+	+	+	-
	R $\frac{3}{8}$	-	-	+	+	++	+	+
	R $\frac{1}{2}$	-	-	-	-	-	++	-
	G $\frac{1}{8}$	-	+	++	+	-	-	-
	G $\frac{1}{4}$	-	-	+	++	+	+	-
	G $\frac{3}{8}$	-	-	-	+	++	+	+
G $\frac{1}{2}$	-	-	-	-	-	++	+	
Mini QSM-B	M3	++	+	-	-	-	-	-
	M5	+	++	+	-	-	-	-
	M7	-	+	++	-	-	-	-
Standard QS-B	R $\frac{1}{8}$	-	+	++	+	+	-	-
	R $\frac{1}{4}$	-	+	+	++	+	+	-
	R $\frac{3}{8}$	-	-	+	+	++	+	+
	R $\frac{1}{2}$	-	-	-	-	+	++	+
Flame-retardant QS-V0	R $\frac{1}{8}$	-	-	++	+	-	-	-
	R $\frac{1}{4}$	-	-	+	++	+	+	-
	R $\frac{3}{8}$	-	-	-	+	++	+	-
	R $\frac{1}{2}$	-	-	-	-	+	++	-
	G $\frac{1}{8}$	-	-	++	+	-	-	-
	G $\frac{1}{4}$	-	-	+	++	+	+	-
	G $\frac{3}{8}$	-	-	-	+	++	+	-
G $\frac{1}{2}$	-	-	-	-	+	++	-	
Metal QS-F	M5	-	++	+	-	-	-	-
	M7	-	+	++	-	-	-	-
	G $\frac{1}{8}$	-	+	++	+	-	-	-
	G $\frac{1}{4}$	-	-	+	++	+	-	-
	G $\frac{3}{8}$	-	-	-	+	++	+	-
	G $\frac{1}{2}$	-	-	-	-	+	++	-
Stainless steel CRQS	M5	-	++	+	-	-	-	-
	R $\frac{1}{8}$	-	-	++	+	-	-	-
	R $\frac{1}{4}$	-	-	-	++	+	-	-
	R $\frac{3}{8}$	-	-	-	-	++	+	-
	R $\frac{1}{2}$	-	-	-	-	-	++	+

+ Possible thread/tubing O.D. combinations

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

Push-in fittings QSM-B, Quick Star, mini









Product range overview

Design	Version	Type	Connection D1		Connection D2	→ Page/ Internet
			M thread	R thread	Tubing O.D.	
Straight design	Push-in fitting – Male thread with external hex					
		QSM-B	M3	–	3, 4	9
			M5		3, 4, 6	
			–	R $\frac{1}{8}$	4, 6	
			Push-in fitting – Male thread with internal hex			
		QSM-B-...-I	M3	–	3, 4	10
M5			3, 4, 6			
M7			4, 6			
–			R $\frac{1}{8}$	4, 6		
L-shape	Push-in L-fitting, rotatable 360° – Male thread with external hex					
		QSML-B	M3	–	3, 4	11
			M5		3, 4, 6	
			M7		4, 6	
			–	R $\frac{1}{8}$	4, 6	
T-shape	Push-in T-fitting, rotatable 360° – Male thread with external hex					
		QSMT-B	M3	–	3, 4	12
			M5		3, 4, 6	
			–	R $\frac{1}{8}$	4, 6	

Push-in fittings QS-B, Quick Star

Product range overview








Design	Version	Type	Connection D1			Connection D2		→ Page/ Internet
			M thread	R thread	Tubing O.D.	Tubing O.D.		
Straight design	Push-in fitting – Male thread with external hex							
		QS-B	–	R1/8	–	–	4, 6, 8, 10	13
				R1/4			4, 6, 8, 10, 12	
				R3/8			6, 8, 10, 12, 16	
				R1/2			10, 12, 16	
	Push-in fitting – Male thread with internal hex							
		QS-B-...-I	–	R1/8	–	–	4, 6, 8, 10	14
				R1/4			6, 8, 10, 12	
				R3/8			8, 10, 12	
				R1/2			10, 12	
Push-in connector								
	QS-B	–	–	–	4	4	15	
					6	6		
					8	8		
					10	10		
					12	12		
					16	16		
	QS-B Reducing	–	–	–	6	4	15	
					8	4, 6		
					10	6, 8		
					12	8, 10		
L-shape	Push-in L-fitting, rotatable 360° – Male thread with external hex							
		QSL-B	–	R1/8	–	–	4, 6, 8, 10	16
				R1/4			4, 6, 8, 10, 12	
				R3/8			6, 8, 10, 12, 16	
				R1/2			10, 12, 16	
	Push-in long L-fitting, rotatable 360° – Male thread with external hex							
		QSL-B	–	R1/8	–	–	4, 6, 8	17
				R1/4			6, 8, 10	
				R3/8			6, 8, 10, 12	
				R1/2			10, 12	
Push-in L-connector								
	QSL-B	–	–	–	4	–	17	
					6			
					8			
					10			
					12			
					16			
T-shape	Push-in T-fitting, rotatable 360° – Male thread with external hex							
		QST-B	–	R1/8	–	–	4, 6, 8, 10	18
				R1/4			4, 6, 8, 10, 12	
				R3/8			6, 8, 10, 12, 16	
				R1/2			10, 12, 16	

Push-in fittings QS-B, Quick Star

Product range overview



Design	Version	Type	Connection D1			Connection D2		→ Page/ Internet
			M thread	R thread	Tubing O.D.	Tubing O.D.		
T-shape	Push-in T-connector							
		QST-B	-	-	-	4	4	19
						6	6	
						8	8	
						10	10	
						12	12	
						16	16	
	Push-in T-fitting, rotatable 360° – Male thread with external hex							
		QSTL-B	-	-	R1/8	-	4, 6, 8	20
					R1/4		4, 6, 8	
R3/8					6, 8, 10, 12			
R1/2					10, 12, 16			
Y-shape	Push-in Y-fitting, rotatable 360° – Male thread with external hex							
		QSY-B	M5	-	-	4, 6	21	
			-			R1/8		4, 6, 8
						R1/4		4, 6, 8, 10
						R3/8		6, 8, 10, 12
						R1/2		10, 12
	Push-in Y-connector							
		QSY-B	-	-	-	4	4	22
						6	6	
						8	8	
10						10		
12						12		
16						16		
	QSY-B Reducing	-	-	-	6	4	22	
					8	4, 6		
					10	6, 8		
					12	8, 10		
					16	12		

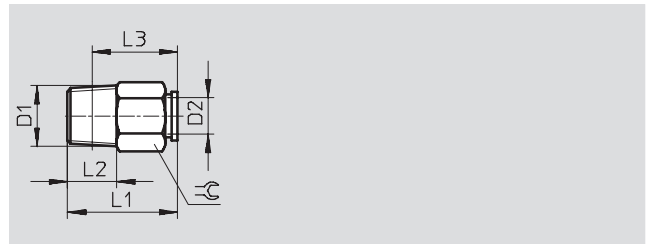
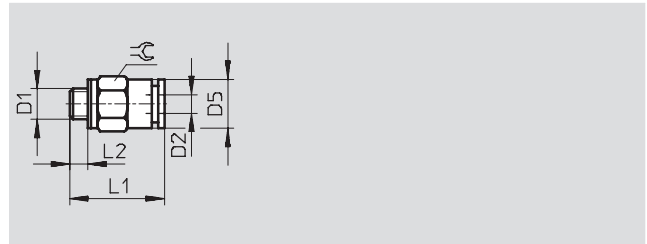
Push-in fittings QSM-B, Quick Star, mini






Technical data



Push-in fitting QSM-B

Male thread
with external hex



Dimensions and ordering data												
Connection	Nominal size	Tubing O.D.	D5	L1	L2	L3		Weight/ piece	Part No.	Type	PU*	
D1	[mm]	D2	∅					[g]				
Metric thread with sealing ring												
M3	0.9	3	6.0	13.3	2.5	-	5.5	1.1	132102	QSM-B-M3-3-20	 New	20
	1.1	4	7.8	15.7	2.5	-	8	2.4	130894	QSM-B-M3-4-20		20
M5	2.0	3	7.8	16.2	3	-	8	3.5	132103	QSM-B-M5-3-20	 New	20
	2.2	4	7.8	16.2	3	-	8	3.2	130895	QSM-B-M5-4-20		20
	2.1	6	9.8	17.3	3	-	10	4.5	130896	QSM-B-M5-6-20		20
R thread												
R $\frac{1}{8}$	2.9	4	7.8	16.2	8	12.3	10	6	132104	QSM-B- $\frac{1}{8}$ -4-20	 New	20
	4.5	6	9.8	17.9	8	14	10	6	132105	QSM-B- $\frac{1}{8}$ -6-20	 New	20

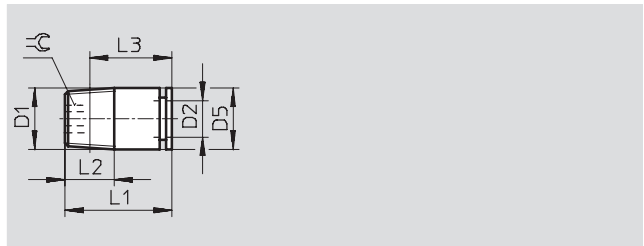
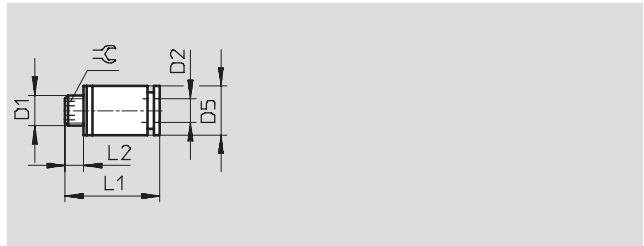
* Packaging unit quantity






Push-in fittings QSM-B, Quick Star, mini

Technical data

Push-in fitting QSM-B-...-I

Male thread
with internal hex



Dimensions and ordering data													
Connection	Nominal size	Tubing O.D.	D5	L1	L2	L3		Weight/ piece	Part No.	Type			PU*
D1	[mm]	D2	∅					[g]					
Metric thread with sealing ring													
M3	1.6	3	8	15.7	2.5	–	1.5	2.3	132116	QSM-B-M3-3-I-20	 New		20
	1.5	4	8	15.7	2.5	–	1.5	2.2	130909	QSM-B-M3-4-I-20			20
M5	1.9	3	8	16.2	3.0	–	2.0	3.3	132117	QSM-B-M5-3-I-20	 New		20
	2.5	4	8	16.2	3.0	–	2.5	3	130910	QSM-B-M5-4-I-20			20
	2.6	6	9.8	17.8	3.0	–	2.5	4.4	130911	QSM-B-M5-6-I-20			20
M7	2.3	4	9.8	18.9	5.5	–	3.0	6	130912	QSM-B-M7-4-I-20			20
	2.9	6	9.8	20.9	5.5	–	4.0	6.4	130913	QSM-B-M7-6-I-20			20
R thread													
R1/8	3.1	4	10	16.4	8.0	12.5	3.0	6	132118	QSM-B-1/8-4-I-20	 New		20
	4.1	6	10	18.2	8.0	14.3	4.0	6	132119	QSM-B-1/8-6-I-20	 New		20

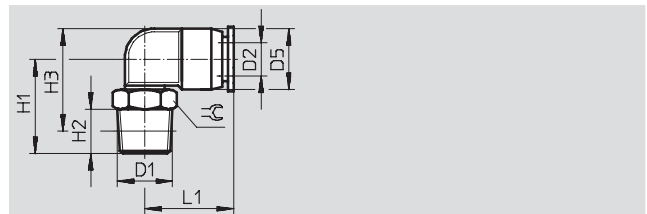
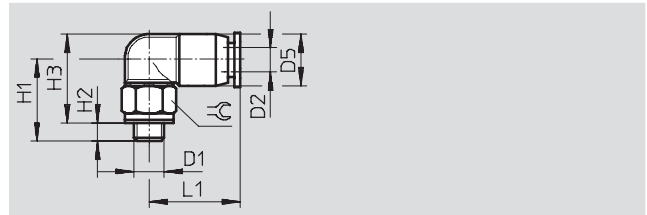
* Packaging unit quantity







Push-in fittings QSM-B, Quick Star, mini

Technical data

Push-in L-fitting QSML-B

360° rotatable
Male thread
with external hex



Dimensions and ordering data													
Connection	Nominal size	Tubing O.D.	D5	H1	H2	H3	L1	\approx	Weight/ piece	Part No.	Type	PU*	
D1	[mm]	D2	Ø						[g]				
Metric thread with sealing ring													
M3	0.8	3	6	12	3.3	12.5	11	5.5	1.5	132106	QSML-B-M3-3-20	 New	20
	1.3	4	8	14	2.5	15.5	15.7	8	3	130899	QSML-B-M3-4-20		20
M5	1.5	3	6	13.5	3.5	13.5	11	8	2.8	132107	QSML-B-M5-3-20	 New	20
	1.7	4	8	13.5	3	14.5	15.7	8	3.4	130900	QSML-B-M5-4-20		20
	2.1	6	10.5	14.5	3	16.8	16.3	8	4.1	130901	QSML-B-M5-6-20		20
M7	2.0	4	8	17	5.5	15.5	15.7	10	5.6	132108	QSML-B-M7-4-20	 New	20
	2.4	6	10.5	18	5.5	17.5	16.3	10	6.2	132109	QSML-B-M7-6-20	 New	20
R thread													
R $\frac{1}{8}$	2.5	4	8	16	8	16.3	15.7	10	6	132110	QSML-B- $\frac{1}{8}$ -4-20	 New	20
	3.3	6	10.5	17	8	18.8	16.3	10	7	132111	QSML-B- $\frac{1}{8}$ -6-20	 New	20

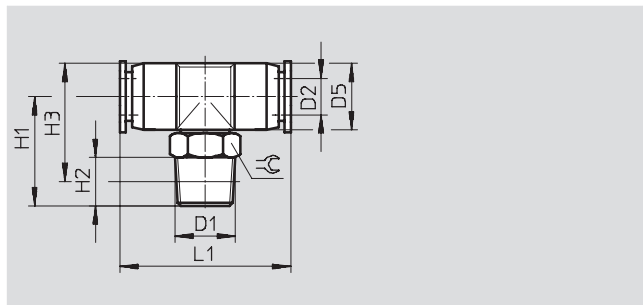
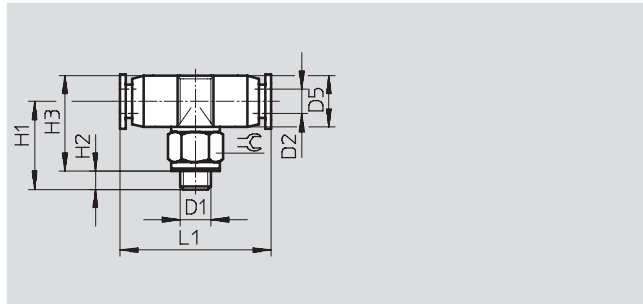
* Packaging unit quantity






Push-in fittings QSM-B, Quick Star, mini

Technical data

Push-in T-fitting QSMT-B

360° rotatable
Male thread
with external hex



Dimensions and ordering data													
Connection	Nominal size	Tubing O.D.	D5 ∅	H1	H2	H3	L1		Weight/ piece [g]	Part No.	Type	PU*	
D1	[mm]	D2											
Metric thread with sealing ring													
M3	0.9	3	6	12	3.3	12.5	22	5.5	2	132112	QSMT-B-M3-3-20	 New	20
	1.3	4	8	15	2.5	15.5	26.2	8	3.9	130904	QSMT-B-M3-4-20		20
M5	1.6	3	6	13,5	3	13.5	22	8	3.3	132113	QSMT-B-M5-3-20	 New	20
	2.2	4	8	14.5	3	14.5	26.2	8	4.3	130905	QSMT-B-M5-4-20		20
	2.1	6	10.5	15.5	3	17.8	28.4	8	5.6	130906	QSMT-B-M5-6-20		20
R thread													
R $\frac{1}{8}$	2.4	4	8	17	8	17.1	26.2	10	7	132114	QSMT-B- $\frac{1}{8}$ -4-20	 New	20
	3.3	6	10.5	18	8	19.3	28.4	10	8	132115	QSMT-B- $\frac{1}{8}$ -6-20	 New	20

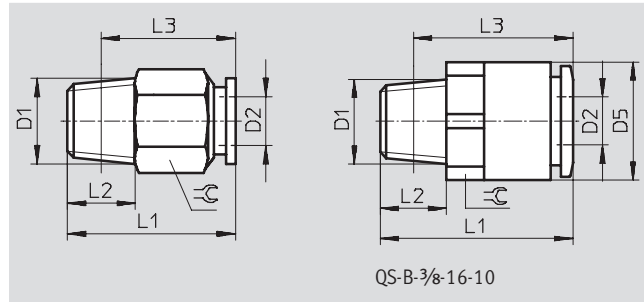
* Packaging unit quantity







Push-in fittings QS-B, Quick Star

Technical data

Push-in fitting QS-B

Male thread
with external hex



Dimensions and ordering data											
Connection	Nominal size	Tubing O.D.	D5	L1	L2	L3	$\approx \text{C}$	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2						[g]			
R thread											
R $\frac{1}{8}$	2.6	4	–	21	8	17	10	8.3	130914	QS-B- $\frac{1}{8}$ -4-20	20
	4	6	–	22.6	8	18.6	12	9.3	130915	QS-B- $\frac{1}{8}$ -6-20	20
	5	8	–	27.9	8	23.9	14	16	130916	QS-B- $\frac{1}{8}$ -8-20	20
	5.4	10	–	30.3	8	26.4	17	22.5	132120	QS-B-x-10-20	 New 20
R $\frac{1}{4}$	2.6	4	–	21	11	15	14	16	130917	QS-B- $\frac{1}{4}$ -4-20	20
	4	6	–	24.6	11	18.5	14	18	130918	QS-B- $\frac{1}{4}$ -6-20	20
	5	8	–	26.6	11	20.6	14	16	130919	QS-B- $\frac{1}{4}$ -8-20	20
	6.7	10	–	29.8	11	23.8	17	20	132121	QS-B- $\frac{1}{4}$ -10-20	 New 20
	8.7	12	–	35.9	11	29.9	21	43.7	132122	QS-B- $\frac{1}{4}$ -12-20	 New 20
R $\frac{3}{8}$	4	6	–	23.6	12	17.2	17	28	130920	QS-B- $\frac{3}{8}$ -6-10	10
	5	8	–	23.9	12	17.6	17	24	130921	QS-B- $\frac{3}{8}$ -8-10	10
	6.7	10	–	29.3	12	23	17	27	130922	QS-B- $\frac{3}{8}$ -10-10	10
	8.7	12	–	31.9	12	25.6	21	35.5	132123	QS-B- $\frac{3}{8}$ -12-10	 New 10
	10.3	16	23.8	41.9	12	34.8	22	59.5	132124	QS-B- $\frac{3}{8}$ -16-10	 New 10
R $\frac{1}{2}$	6.7	10	–	30.3	15	22.1	21	50	130924	QS-B- $\frac{1}{2}$ -10-10	10
	8.7	12	–	33.9	15	25.7	21	50	130925	QS-B- $\frac{1}{2}$ -12-10	10
	12	16	–	41.3	15	33.2	24	67	132125	QS-B- $\frac{1}{2}$ -16-10	 New 10

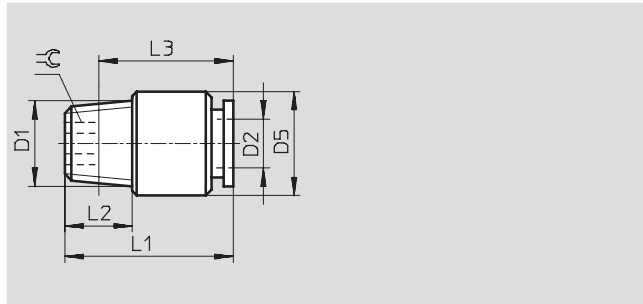
* Packaging unit quantity






Push-in fittings QS-B, Quick Star

Technical data

Push-in fitting QS-B-...-I

Male thread
with internal hex



Dimensions and ordering data											
Connection	Nominal size	Tubing O.D.	D5	L1	L2	L3		Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅					[g]			
R thread											
R $\frac{1}{8}$	2.1	4	9.7	21	8	17	2.5	7.6	130990	QS-B- $\frac{1}{8}$ -4-I-20	20
	3.7	6	11.8	22.6	8	18.6	4	8.1	130991	QS-B- $\frac{1}{8}$ -6-I-20	20
	4.7	8	13.7	27.9	8	23.9	5	14	130992	QS-B- $\frac{1}{8}$ -8-I-20	20
	5	10	17.7	30.3	8	26.4	5	25	132151	QS-B- $\frac{1}{8}$ -10-I-20 	20
R $\frac{1}{4}$	3.7	6	14	22.6	11	16.5	4	15	130994	QS-B- $\frac{1}{4}$ -6-I-20	20
	5	8	14	26.6	11	20.6	6	15	130995	QS-B- $\frac{1}{4}$ -8-I-20	20
	5	10	17.7	29.8	11	23.8	7	22	132152	QS-B- $\frac{1}{4}$ -10-I-20 	20
	6.8	12	20.8	35.9	11	29.9	6	40	132153	QS-B- $\frac{1}{4}$ -12-I-20 	20
R $\frac{3}{8}$	5	8	16.8	23.9	12	17.6	6	23	130997	QS-B- $\frac{3}{8}$ -8-I-10	10
	5	10	17.8	29.3	12	23	6	28	130998	QS-B- $\frac{3}{8}$ -10-I-10	10
	7.1	12	20.8	31.9	12	25.6	8	33.5	132154	QS-B- $\frac{3}{8}$ -12-I-10 	10
R $\frac{1}{2}$	5	10	20.8	30.3	15	22.1	6	49	132000	QS-B- $\frac{1}{2}$ -10-I-10	10
	7.1	12	20.8	33.9	15	25.7	8	49	132001	QS-B- $\frac{1}{2}$ -12-I-10	10

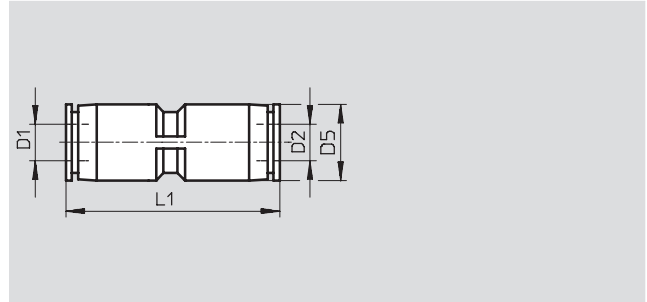
* Packaging unit quantity





Push-in fittings QS-B, Quick Star

Technical data

FESTO

Push-in connector QS-B



Dimensions and ordering data								
Tubing O.D.	Nominal size	Tubing O.D.	D5	L1	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅		[g]			
4	2.6	4	10	30.8	4.7	130964	QS-B-4-20	20
6	4	6	12.5	34.9	6.5	130965	QS-B-6-20	20
8	5	8	14.5	37.8	9.4	130966	QS-B-8-20	20
10	6.7	10	17.5	43.4	16	130967	QS-B-10-10	10
12	8.7	12	21	47.8	22	130968	QS-B-12-10	10
16	13.7	16	25	49.4	25	132144	QS-B-16-10	 New 10
Reducing								
6	2.6	4	12.5	34.4	6.4	130969	QS-B-6-4-20	20
8	2.1	4	14.5	38.8	11	132145	QS-B-8-4-20	 New 20
	4	6	14.5	37.9	8.8	130970	QS-B-8-6-20	20
10	3.6	6	17.5	45.2	16	132146	QS-B-10-6-20	 New 20
	5	8	17.5	43.1	14	130971	QS-B-10-8-20	20
12	5.4	8	21	49.4	24	132147	QS-B-12-8-10	 New 10
	6.7	10	21	47.6	21	130972	QS-B-12-10-10	10

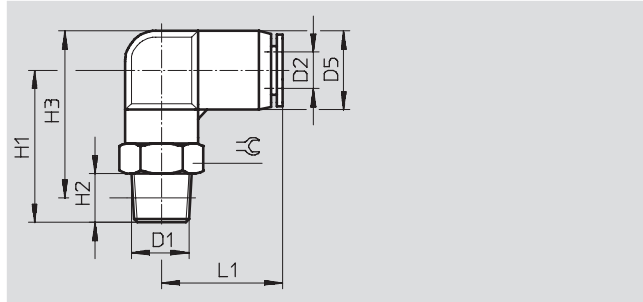
* Packaging unit quantity







Push-in fittings QS-B, Quick Star

Technical data

Push-in L-fitting QSL-B

360° rotatable
Male thread
with external hex



Dimensions and ordering data												
Connection	Nominal size	Tubing O.D.	D5	H1	H2	H3	L1	\pm	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅						[g]			
R thread												
R $\frac{1}{8}$	2.2	4	10	18.9	8	19.9	16.8	10	6.9	130926	QSL-B- $\frac{1}{8}$ -4-20	20
	3.2	6	12.5	19.5	8	21.8	19.7	10	7.8	130927	QSL-B- $\frac{1}{8}$ -6-20	20
	4.6	8	14.5	24.2	8	27.5	21.9	12	12	130928	QSL-B- $\frac{1}{8}$ -8-20	20
	4.5	10	17.5	26.1	8	30.9	25	12	16	132126	QSL-B- $\frac{1}{8}$ -10-20	 New 20
R $\frac{1}{4}$	2.2	4	10	24.4	11	23.4	16.8	14	14	130929	QSL-B- $\frac{1}{4}$ -4-20	20
	3.4	6	12.5	26	11	26.2	19.7	14	15	130930	QSL-B- $\frac{1}{4}$ -6-20	20
	4.8	8	14.5	27.2	11	28.4	21.9	14	16	130931	QSL-B- $\frac{1}{4}$ -8-20	20
	6.0	10	17.5	28.1	11	30.8	25	14	20	132127	QSL-B- $\frac{1}{4}$ -10-20	 New 20
	5.8	12	21	29.8	11	34.3	29.2	14	24	132128	QSL-B- $\frac{1}{4}$ -12-20	 New 20
R $\frac{3}{8}$	3.3	6	12.5	26.5	12	26.4	19.7	17	21	130932	QSL-B- $\frac{3}{8}$ -6-10	10
	4.8	8	14.5	27.7	12	28.6	21.9	17	23	130933	QSL-B- $\frac{3}{8}$ -8-10	10
	6.4	10	17.5	29.6	12	32	25	17	26	130934	QSL-B- $\frac{3}{8}$ -10-10	10
	6.6	12	21	31.3	12	35.5	29.2	17	30	132129	QSL-B- $\frac{3}{8}$ -12-10	 New 10
	10.1	16	25	47	11	53.2	33.1	22	81.5	132130	QSL-B- $\frac{3}{8}$ -16-10	 New 10
R $\frac{1}{2}$	6.2	10	17.5	32.6	15	33.2	25	21	42	130936	QSL-B- $\frac{1}{2}$ -10-10	10
	7.1	12	21	34.3	15	36.6	29.2	21	46	130937	QSL-B- $\frac{1}{2}$ -12-10	10
	10.9	16	25	51	15	55.4	33.1	22	85.5	132131	QSL-B- $\frac{1}{2}$ -16-10	 New 10

* Packaging unit quantity

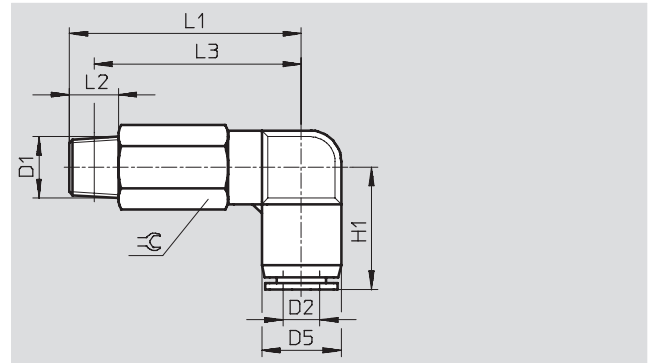
Push-in fittings QS-B, Quick Star




Technical data

FESTO

Push-in long L-fitting QSL-B

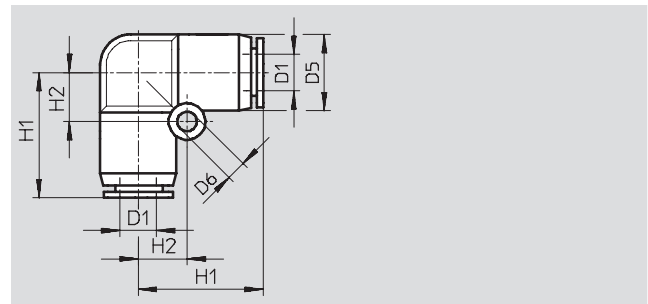
360° rotatable
Male thread
with external hex




Dimensions and ordering data												
Connection	Nominal size	Tubing O.D.	D5	H1	L1	L2	L3	⌀	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅						[g]			
R thread												
R $\frac{1}{8}$	2.2	4	10	16.8	31.7	8	32.7	10	12	132002	QSL-B- $\frac{1}{8}$ -4-20	20
	3.3	6	12.5	19.7	34.8	8	37.1	10	13	132003	QSL-B- $\frac{1}{8}$ -6-20	20
	4.3	8	14.5	21.9	41.5	8	44.8	12	19	132004	QSL-B- $\frac{1}{8}$ -8-20	20
R $\frac{1}{4}$	2.2	4	10	16.8	38.1	11	37.1	14	24	132155	QSL-B- $\frac{1}{4}$ -4-20	 New 20
	3.3	6	12.5	19.7	42.2	11	42.4	14	25	132006	QSL-B- $\frac{1}{4}$ -6-20	20
	4.9	8	14.5	21.9	45.4	11	46.6	14	27	132007	QSL-B- $\frac{1}{4}$ -8-20	20
	5.9	10	17.5	25.0	49.3	11	52.0	14	30	132156	QSL-B- $\frac{1}{4}$ -10-20	 New 20
R $\frac{3}{8}$	3.3	6	12.5	19.7	42.7	12	42.6	17	37	132008	QSL-B- $\frac{3}{8}$ -6-10	10
	4.9	8	14.5	21.9	45.9	12	46.8	17	39	132009	QSL-B- $\frac{3}{8}$ -8-10	10
	6.0	10	17.5	25.0	50.8	12	53.2	17	43	132010	QSL-B- $\frac{3}{8}$ -10-10	10
	6.3	12	21	29.2	56.0	12	60.2	17	47	132157	QSL-B- $\frac{3}{8}$ -12-10	 New 10
R $\frac{1}{2}$	6.0	10	17.5	25.0	54.7	15	55.3	21	74	132012	QSL-B- $\frac{1}{2}$ -10-10	10
	7.0	12	21	29.2	59.9	15	62.2	21	78	132013	QSL-B- $\frac{1}{2}$ -12-10	10

* Packaging unit quantity

Push-in L-connector QSL-B



Dimensions and ordering data									
Tubing O.D.	Nominal size	D5	D6	H1	H2	Weight/ piece	Part No.	Type	PU*
D1	[mm]	∅	∅			[g]			
4	2.3	10	3.2	16.9	6.5	5.1	130950	QSL-B-4-20	20
6	3.6	12.5	3.2	20.1	8	7.3	130951	QSL-B-6-20	20
8	4.6	15	4.2	22.4	10	11	130952	QSL-B-8-20	20
10	6.2	17.5	4.2	26.2	12	17	130953	QSL-B-10-10	10
12	7.7	21	4.2	29.4	14	25	130954	QSL-B-12-10	10
16	10.8	25	4.2	33.1	12	30	132138	QSL-B-16-10	 New 10

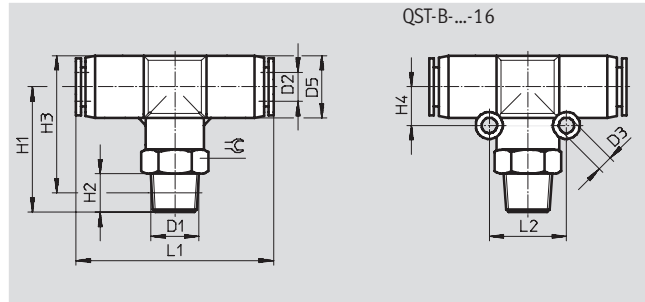
* Packaging unit quantity







Push-in fittings QS-B, Quick Star

Technical data

Push-in T-fitting QST-B

360° rotatable
Male thread
with external hex



Dimensions and ordering data															
Connection	Nominal size	Tubing O.D.	D3	D5 ∅	H1	H2	H3	H4	L1	L2	⊖	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2										[g]			
R thread															
R ¹ / ₈	2.1	4	-	10	18.9	8	19.9	-	33.6	-	10	10	130938	QST-B- ¹ / ₈ -4-20	20
	3.2	6	-	12.5	21.8	8	19.5	-	39.3	-	10	11	130939	QST-B- ¹ / ₈ -6-20	20
	4.6	8	-	14.5	24.2	8	27.5	-	43.8	-	12	17	130940	QST-B- ¹ / ₈ -8-20	20
	4.9	10	-	17.5	26.1	8	30.9	-	50.0	-	12	23	132132	QST-B- ¹ / ₈ -10-20	 New 20
R ¹ / ₄	2.2	4	-	10	24.4	11	23.4	-	33.6	-	14	16	130941	QST-B- ¹ / ₄ -4-20	20
	3.3	6	-	12.5	26.0	11	26.2	-	39.3	-	14	18	130942	QST-B- ¹ / ₄ -6-20	20
	4.9	8	-	14.5	27.2	11	28.4	-	43.8	-	14	21	130943	QST-B- ¹ / ₄ -8-20	20
	5.9	10	-	17.5	28.1	11	30.8	-	50.0	-	14	27	132133	QST-B- ¹ / ₈ -10-20	 New 20
	5.9	12	-	21	29.8	11	34.3	-	58.4	-	14	34	132134	QST-B- ¹ / ₈ -12-20	 New 20
R ³ / ₈	3.3	6	-	12.5	26.5	12	26.4	-	39.3	-	17	25	130944	QST-B- ³ / ₈ -6-10	10
	4.8	8	-	14.5	27.7	12	28.6	-	43.8	-	17	27	130945	QST-B- ³ / ₈ -8-10	10
	6.2	10	-	17.5	29.6	12	32.0	-	50.0	-	17	34	130946	QST-B- ³ / ₈ -10-10	10
	6.7	12	-	21	31.3	12	35.5	-	58.4	-	17	41	132135	QST-B- ³ / ₈ -12-10	 New 10
	10.1	16	4.2	25	47	11	53.2	12	66.2	24	22	95	132136	QST-B- ³ / ₈ -16-10	 New 10
R ¹ / ₂	6.3	10	-	17.5	32.6	15	33.2	-	50.0	-	21	50	130948	QST-B- ¹ / ₂ -10-10	10
	7.1	12	-	21	34.3	15	36.6	-	58.4	-	21	57	130949	QST-B- ¹ / ₂ -12-10	10
	11.2	16	4.2	25	51	15	55.4	12	66.2	24	22	99	132137	QST-B- ¹ / ₂ -16-10	 New 10

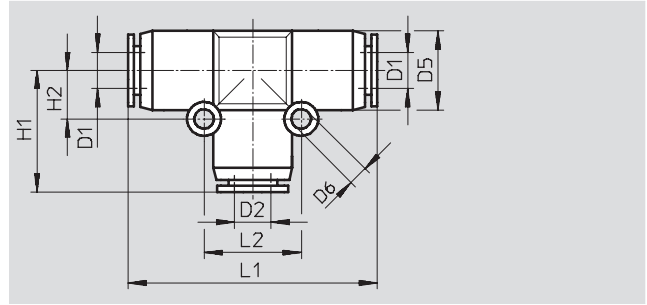
* Packaging unit quantity


Push-in fittings QS-B, Quick Star

Technical data

FESTO

Push-in T-connector QST-B



Dimensions and ordering data												
Tubing O.D.	Nominal size	Tubing O.D.	D5	D6	H1	H2	L1	L2	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅	∅					[g]			
4	2.6	4	10	3.2	16.9	6.5	33.8	13	7.5	130973	QST-B-4-20	20
6	4	6	13	3.5	20.1	8	40.1	16	11	130974	QST-B-6-20	20
8	5	8	15	3.5	22.2	9	44.4	18	16	130975	QST-B-8-20	20
10	6.7	10	17.5	4.2	25.2	12	50.4	24	25	130976	QST-B-10-10	10
12	8.7	12	21	4.2	28.2	14	56.8	28	36	130977	QST-B-12-10	10
16	10.7	16	25	4.2	33.1	12	66.2	24	43.5	132148	QST-B-16-10	 New 10

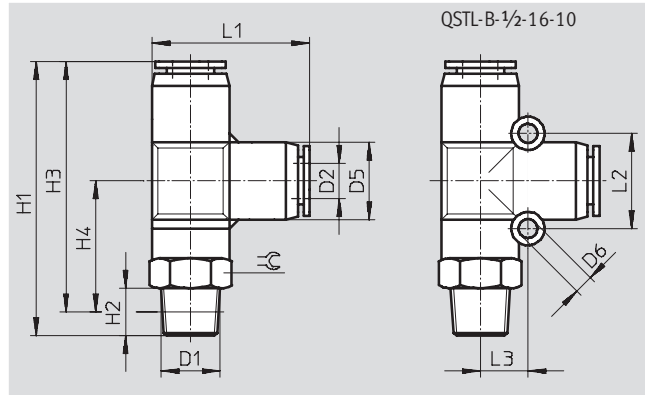
* Packaging unit quantity




Push-in fittings QS-B, Quick Star

Technical data

Push-in T-fitting QSTL-B

360° rotatable
Male thread
with external hex



Dimensions and ordering data															
Connection	Nominal size	Tubing O.D.	D5 ∅	H1	H2	H3	H4	L1	L2	L3		Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2										[g]			
R thread															
R $\frac{1}{8}$	2.2	4	10	36.1	8	32.1	14.9	16.8	-	-	10	10	130978	QSTL-B- $\frac{1}{8}$ -4-20	20
	3.4	6	12.5	40.0	8	36.0	15.5	19.7	-	-	10	11	130979	QSTL-B- $\frac{1}{8}$ -6-20	20
	4.7	8	14.5	46.6	8	42.6	20.2	21.9	-	-	14	17	130980	QSTL-B- $\frac{1}{8}$ -8-20	20
R $\frac{1}{4}$	2.0	4	10	41.6	11	35.6	18.4	16.8	-	-	14	16	130981	QSTL-B- $\frac{1}{4}$ -4-20	20
	3.4	6	12.5	46.5	11	40.4	20.0	19.7	-	-	14	18	130982	QSTL-B- $\frac{1}{4}$ -6-20	20
	4.7	8	14.5	49.6	11	43.6	21.2	21.9	-	-	14	21	130983	QSTL-B- $\frac{1}{4}$ -8-20	20
R $\frac{3}{8}$	3.4	6	12.5	47.0	12	40.6	20.2	19.7	-	-	17	24	130984	QSTL-B- $\frac{3}{8}$ -6-10	10
	4.7	8	14.5	50.1	12	43.8	21.4	21.9	-	-	17	27	130985	QSTL-B- $\frac{3}{8}$ -8-10	10
	5.9	10	17.5	55.1	12	48.8	23.3	25.0	-	-	17	34	130986	QSTL-B- $\frac{3}{8}$ -10-10	10
	6.5	12	21	61.4	12	55.1	25.0	29.2	-	-	17	41	132149	QSTL-B- $\frac{3}{8}$ -12-10  New	10
R $\frac{1}{2}$	5.9	10	17.5	58.1	15	49.9	24.4	25.2	-	-	21	50	130988	QSTL-B- $\frac{1}{2}$ -10-10	10
	6.8	12	21	64.4	15	56.2	26.1	29.2	-	-	21	57	130989	QSTL-B- $\frac{1}{2}$ -12-10	10
	10.9	16	25	84.1	15	76.0	42.9	33.1	24	12	22	99	132150	QSTL-B- $\frac{1}{2}$ -16-10  New	10

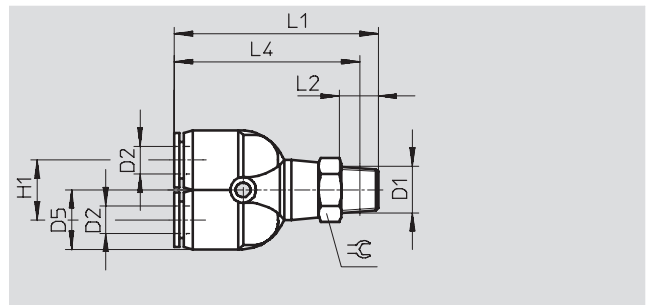
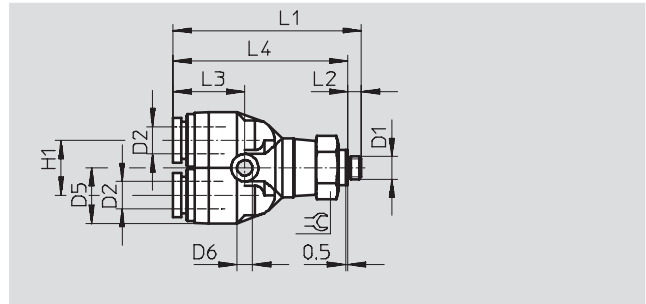
* Packaging unit quantity





Push-in fittings QS-B, Quick Star

Technical data

Push-in Y-fitting QSY-B

360° rotatable
Male thread
with external hex



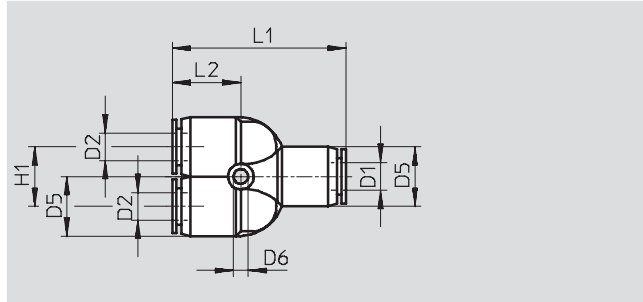
Dimensions and ordering data														
Connection	Nominal size	Tubing O.D.	D5 ∅	D6 ∅	H1	L1	L2	L3	L4	\pm	Weight/ piece [g]	Part No.	Type	PU*
D1	[mm]	D2												
Metric thread with sealing ring														
M5	1.4	4	10	3.4	11	37.6	3	14.1	34.6	10	11	132158	QSY-B-M5-4-20	 New 20
	1.4	6	12.5	3.4	12	41.4	3	15.8	38.4	12	16	132159	QSY-B-M5-6-20	 New 20
R thread														
R $\frac{1}{8}$	2.1	4	10	-	10.3	36.1	8	-	32.1	10	10	132014	QSY-B- $\frac{1}{8}$ -4-20	20
	3.5	6	12.5	-	12.5	42.1	8	-	38.1	12	14	132015	QSY-B- $\frac{1}{8}$ -6-20	20
	4.4	8	14.5	-	14.5	46.0	8	-	42.0	12	17	132016	QSY-B- $\frac{1}{8}$ -8-20	20
R $\frac{1}{4}$	2.1	4	10	-	10.3	41.6	11	-	35.6	14	16	132017	QSY-B- $\frac{1}{4}$ -4-20	20
	3.6	6	12.5	-	12.5	44.1	11	-	38.0	14	18	132018	QSY-B- $\frac{1}{4}$ -6-20	20
	4.9	8	14.5	-	14.5	48.0	11	-	42.0	14	21	132019	QSY-B- $\frac{1}{4}$ -8-20	20
	5.7	10	17.5	-	17.5	51.2	11	-	45.2	14	28	132160	QSY-B- $\frac{1}{4}$ -10-20	 New 20
R $\frac{3}{8}$	3.6	6	12.5	-	12.5	44.6	12	-	38.2	17	25	132020	QSY-B- $\frac{3}{8}$ -6-10	10
	4.9	8	14.5	-	14.5	48.5	12	-	42.2	17	28	132021	QSY-B- $\frac{3}{8}$ -8-10	10
	5.7	10	17.5	-	17.5	51.7	12	-	45.4	17	34	132022	QSY-B- $\frac{3}{8}$ -10-10	10
	6.4	12	21	-	21	56.9	12	-	50.6	17	42	132161	QSY-B- $\frac{3}{8}$ -12-10	 New 10
R $\frac{1}{2}$	5.7	10	17.5	-	17.5	54.7	15	-	46.5	21	50	132024	QSY-B- $\frac{1}{2}$ -10-10	10
	6.5	12	21	-	21	59.9	15	-	51.7	21	58	132025	QSY-B- $\frac{1}{2}$ -12-10	10

* Packaging unit quantity

Push-in fittings QS-B, Quick Star

Technical data

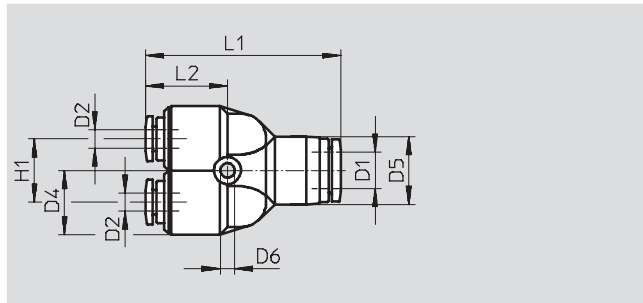
Push-in Y-connector QSY-B








2 reducing outlets



Reducing



Dimensions and ordering data												
Tubing O.D.	Nominal size	Tubing O.D.	D4	D5	D6	H1	L1	L2	Weight/ piece	Part No.	Type	PU*
D1	[mm]	D2	∅	∅	∅				[g]			
4	2.3	4	-	10	3.4	11	32.8	14.1	7.6	130955	QSY-B-4-20	20
6	3.6	6	-	13	3.4	12	37.7	15.8	11	130956	QSY-B-6-20	20
8	4.6	8	-	15	3.4	14	42.4	17.2	16	130957	QSY-B-8-20	20
10	5.9	10	-	18	4.5	18	48.4	19.5	26	130958	QSY-B-10-10	10
12	7	12	-	21.5	4.2	20	54.8	22.2	37	130959	QSY-B-12-10	10
16	8.5	16	-	25	4.5	24	62.2	22.1	45	132139	QSY-B-16-10	 New 10
Reducing												
6	2.3	4	12.5	13	3.4	12	37.2	15.2	11	130960	QSY-B-6-4-20	20
8	2.1	4	14.5	15	3.4	14	43.4	18.2	17	132140	QSY-B-8-4-20	 New 20
	3.6	6	14.5	15	3.4	14	42.5	17.3	15	130961	QSY-B-8-6-20	20
10	3.6	6	18	18	4.5	18	50.2	21.3	27	132141	QSY-B-10-6-10	 New 10
	4.7	8	18	18	4.5	18	48.1	19.2	23	130962	QSY-B-10-8-10	10
12	5.4	8	21	21.5	4.2	20	56.4	23.8	40	132142	QSY-B-12-8-10	 New 10
	5.9	10	21	21.5	4.2	20	54.6	22	36	130963	QSY-B-12-10-10	10
16	7.8	12	25	25	4.5	24	66.5	26.4	77	132143	QSY-B-16-12-10	 New 10



* Packaging unit quantity

Plastic tubing PEN, standard O.D.

Technical data

Plastic tubing PEN

Polyethylene tubing is distinguished by its high resistance to chemicals and hydrolysis. It is also resistant to most cleaning agents and lubricants.

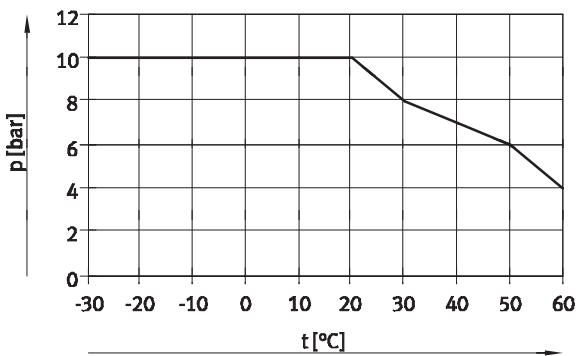
-  - Ambient temperature
-30 ... +60 °C
-  - Temperature dependent operating pressure
-0.95 ... +10 bar

Material:
Polyethylene

Note on material:
Free of copper and PTFE
RoHS-conform



Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS-B,
Quick Star¹⁾
→ Internet: qs-b



Barbed fitting CN
→ Internet: cn











Push-in fitting QS-F,
Quick Star, metal
→ Internet: qs-f



Quick connector CK
→ Internet: ck

1) Recommended fitting

Dimensions and ordering data









































O.D.	I.D.	Min. bending radius	Flow-relevant bending radius	Weight	Colour	Part No.	Type	PU ¹⁾	
[mm]	[mm]	[mm]	[mm]	[kg/m]				[m]	
4	2.7	10	20	0.0064	Black	543240	PEN-4x0,75-SW	50	
					Black	551438	PEN-4x0,75-SW-500	 New	500
					Blue	551456	PEN-4x0,75-BL	 New	50
					Blue	551444	PEN-4x0,75-BL-500	 New	500
					Silver	551462	PEN-4x0,75-SI	 New	50
					Silver	551450	PEN-4x0,75-SI-500	 New	500
					Natural	543246	PEN-4x0,75-NT		50
					Green	551468	PEN-4x0,75-GN	 New	50
					Red	551474	PEN-4x0,75-RT	 New	50
					Yellow	551480	PEN-4x0,75-GE	 New	50

1) Packaging unit

Plastic tubing PEN, standard O.D.

Technical data



Dimensions and ordering data									
O.D.	I.D.	Min. bending radius	Flow-relevant bending radius	Weight	Colour	Part No.	Type	PU ¹⁾	
[mm]	[mm]	[mm]	[mm]	[kg/m]				[m]	
6	4	13.5	26	0.0148	Black	543241	PEN-6x1-SW	50	
					Black	551439	PEN-6x1-SW-500	 New	500
					Blue	551457	PEN-6x1-BL	 New	50
					Blue	551445	PEN-6x1-BL-500	 New	500
					Silver	551463	PEN-6x1-SI	 New	50
					Silver	551451	PEN-6x1-SI-500	 New	500
					Natural	543247	PEN-6x1-NT		50
					Green	551469	PEN-6x1-GN	 New	50
					Red	551475	PEN-6x1-RT	 New	50
					Yellow	551481	PEN-6x1-GE	 New	50
8	5.7	22.5	35	0.0233	Black	543242	PEN-8x1,25-SW	50	
					Black	551440	PEN-8x1,25-SW-400	 New	400
					Blue	551458	PEN-8x1,25-BL	 New	50
					Blue	551446	PEN-8x1,25-BL-400	 New	400
					Silver	551464	PEN-8x1,25-SI	 New	50
					Silver	551452	PEN-8x1,25-SI-400	 New	400
					Natural	543248	PEN-8x1,25-NT		50
					Green	551470	PEN-8x1,25-GN	 New	50
					Red	551476	PEN-8x1,25-RT	 New	50
					Yellow	551482	PEN-8x1,25-GE	 New	50
10	7	23.5	40	0.0377	Black	543243	PEN-10x1,5-SW	50	
					Black	551441	PEN-10x1,5-SW-300	 New	300
					Blue	551459	PEN-10x1,5-BL	 New	50
					Blue	551447	PEN-10x1,5-BL-300	 New	300
					Silver	551465	PEN-10x1,5-SI	 New	50
					Silver	551453	PEN-10x1,5-SI-300	 New	300
					Natural	543249	PEN-10x1,5-NT		50
					Green	551471	PEN-10x1,5-GN	 New	50
					Red	551477	PEN-10x1,5-RT	 New	50
					Yellow	551483	PEN-10x1,5-GE	 New	50
12	8.4	33	58	0.0542	Black	543244	PEN-12x1,75-SW	50	
					Black	551442	PEN-12x1,75-SW-200	 New	200
					Blue	551460	PEN-12x1,75-BL	 New	50
					Blue	551448	PEN-12x1,75-BL-200	 New	200
					Silver	551466	PEN-12x1,75-SI	 New	50
					Silver	551454	PEN-12x1,75-SI-200	 New	200
					Natural	543250	PEN-12x1,75-NT		50
					Green	551472	PEN-12x1,75-GN	 New	50
					Red	551478	PEN-12x1,75-RT	 New	50
					Yellow	551484	PEN-12x1,75-GE	 New	50
16	10.8	57.5	122	0.1029	Black	543245	PEN-16x2,5-SW	50	
					Black	551443	PEN-16x2,5-SW-100	 New	100
					Blue	551461	PEN-16x2,5-BL	 New	50
					Blue	551449	PEN-16x2,5-BL-100	 New	100
					Silver	551467	PEN-16x2,5-SI	 New	50
					Silver	551455	PEN-16x2,5-SI-100	 New	100
					Natural	543251	PEN-16x2,5-NT		50
					Green	551473	PEN-16x2,5-GN	 New	50
					Red	551479	PEN-16x2,5-RT	 New	50
					Yellow	551485	PEN-16x2,5-GE	 New	50

1) Packaging unit

Plastic tubing PEN, standard O.D.

Ordering data – Modular products



[M] Mandatory data

Module No.	Function	Tubing O.D.	Colour	Packaging unit	Packaging
553769	PEN	4 6 8 10 12 16	SI BL SW GE GN RT BR WS NT	25 50 100 200 300 400 500	CB HA
Order example					
553769	PEN	- 4	- SI	- 25	- CB

Ordering table (minimum order quantity 3000 m, rounding-off value 25 m)

Size	4	6	8	10	12	16	Condi- tions	Code	Enter code	
[M] Module No.	553769									
Function	Polyethylene tubing, standard O.D., economical								PEN	PEN
Tubing O.D. [mm]	4	-	-	-	-	-		-4		
	-	6	-	-	-	-		-6		
	-	-	8	-	-	-		-8		
	-	-	-	10	-	-		-10		
	-	-	-	-	12	-		-12		
	-	-	-	-	-	16		-16		
Colour	Silver								-SI	
	Blue								-BL	
	Black								-SW	
	Yellow								-GE	
	Green								-GN	
	Red								-RT	
	Brown								-BR	
	White								-WS	
	Neutral								-NT	
Packaging unit [m]	25								-25	
	50								-50	
	100								-100	
	200							-	-200	
	300							-	-300	
	400							-	-400	
	500							-	-500	
Packaging	Cardboard box							1	-CB	
	Reel							2	-HA	

- 1 CB Only with packaging unit 25, 50
- 2 HA Not with packaging unit 25, 50

Transfer order code

553769 - PEN - - - - -

Plastic tubing PUN-E, standard O.D.

Technical data



Plastic tubing PUN-E

Highly flexible, hydrolysis and microbe resistant tubing

Food certification FDA for blue and black design.

- - Ambient temperature
-35 ... +50 °C

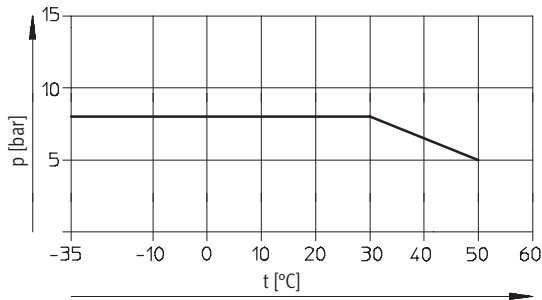
- - Temperature dependent operating pressure
-0.95 ... +8 bar

Material:
Polyurethane

Note on material:
Free of copper and PTFE
RoHS-conform



Operating pressure p as a function of temperature t



Possible fittings



Push-in fittings QS-B, Quick Star¹⁾
→ Internet: qs-b



Push-in fittings QS-F, Quick Star, metal
→ Internet: qs-f

1) Recommended fittings

Dimensions and ordering data

O.D. [mm]	I.D. [mm]	Min. bending radius [mm]	Flow-relevant bending radius [mm]	Weight [kg/m]	Colour	Part No.	Type	PU ¹⁾ [m]
4	2.8	8	30	0.008	Silver	535320	PUN-E-4x0,6-SI	50
						534170	PUN-E-4x0,6-SI-500	500
					Blue	535325	PUN-E-4x0,6-BL	50
						534171	PUN-E-4x0,6-BL-500	500
					Black	538465	PUN-E-4x0,6-SW	50
						538460	PUN-E-4x0,6-SW-500	500
6	4.4	15	45	0.018	Silver	535321	PUN-E-6x0,8-SI	50
						534172	PUN-E-6x0,8-SI-500	500
					Blue	535326	PUN-E-6x0,8-BL	50
						534173	PUN-E-6x0,8-BL-500	500
					Black	538466	PUN-E-6x0,8-SW	50
						538461	PUN-E-6x0,8-SW-500	500
8	6	23	50	0.026	Silver	535322	PUN-E-8x1-SI	50
						534174	PUN-E-8x1-SI-400	400
					Blue	535327	PUN-E-8x1-BL	50
						534175	PUN-E-8x1-BL-400	400
					Black	538467	PUN-E-8x1-SW	50
						538462	PUN-E-8x1-SW-400	400
10	7.5	26	60	0.044	Silver	535323	PUN-E-10x1,25-SI	50
						534176	PUN-E-10x1,25-SI-300	300
					Blue	535328	PUN-E-10x1,25-BL	50
						534177	PUN-E-10x1,25-BL-300	300
					Black	538468	PUN-E-10x1,25-SW	50
						538463	PUN-E-10x1,25-SW-300	300

1) Packaging unit

Plastic tubing PUN-E, standard O.D.



Technical data

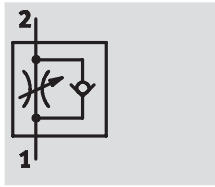
Dimensions and ordering data								
O.D.	I.D.	Min. bending radius	Flow-relevant bending radius	Weight	Colour	Part No.	Type	PU ¹⁾
[mm]	[mm]	[mm]	[mm]	[kg/m]				[m]
12	8.8	36	80	0.069	Silver	535324	PUN-E-12x1,6-SI	50
						534178	PUN-E-12x1,6-SI-200	200
					Blue	535329	PUN-E-12x1,6-BL	50
						534179	PUN-E-12x1,6-BL-200	200
					Black	538469	PUN-E-12x1,6-SW	50
						538464	PUN-E-12x1,6-SW-200	200

1) Packaging unit

Flow control and non-return valves

Technical data – Standard flow control valve with QS push-in fitting, series B, in bulk packs of 20

Function



One-way flow control valve for exhaust air
GRLA

Series B:

- High flow: Precision adjustment for high speed
- QS push-in fitting
- Rotatable connection, rotatable 360° after installation
- Adjustment via slotted head screw
- Bulk pack of 20 pieces



General technical data			
Screw-in thread		G1/8	G1/4
Valve function	One-way flow control function for exhaust air		
Setting component	Slotted head screw		
Type of mounting	Threaded		
Assembly position	Any		
Special features	Freely rotatable around the screw-in axis after installation		
Max. tightening torque	[Nm]	4	11
Permissible actuation torque for the regulating screw	[Nm]	0.4	

Operating and environmental conditions			
Screw-in thread		G1/8	G1/4
Operating medium	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm		
Operating pressure	[bar]	0.2 ... 10	
Storage temperature	[°C]	-10 ... +40	
Ambient temperature	[°C]	-10 ... +60	
Temperature of medium	[°C]	-10 ... +60	

Flow control and non-return valves

Technical data – Standard flow control valve with QS push-in fitting, series B, bulk packs of 20

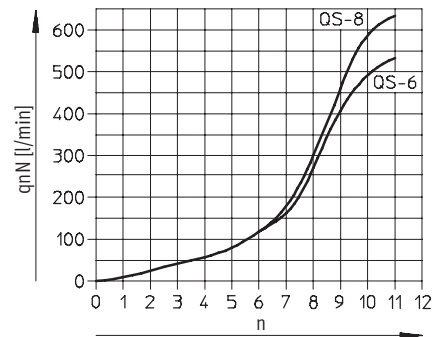
Standard nominal flow rate qnN [l/min] at 6 bar → 5 bar				
Screw-in thread		G1/8	G1/4	
One-way flow control function for exhaust air				
GRLA	QS-6	D ¹⁾	0 ... 520	–
		R ²⁾	400 ... 550	–
	QS-8	D	0 ... 650	0 ... 650
		R	600 ... 750	600 ... 750

- 1) D: Flow control direction
- 2) R: Non-return direction

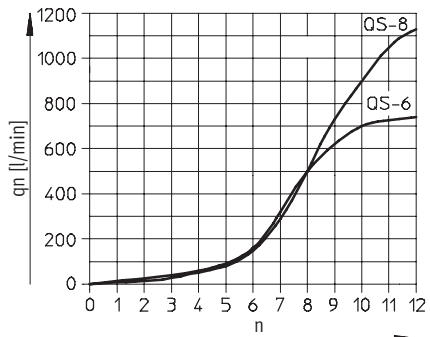
Standard flow rate qn [l/min] at 6 bar → 0 bar				
Screw-in thread		G1/8	G1/4	
One-way flow control function for exhaust air				
GRLA	QS-6	D ¹⁾	0 ... 720	–
		R ²⁾	600 ... 750	–
	QS-8	D	0 ... 1,080	0 ... 1,130
		R	800 ... 1,250	900 ... 1,260

- 1) D: Flow control direction
- 2) R: Non-return direction

Standard nominal flow rate qnN at 6 bar → 5 bar as a function of turns of the adjusting screw n
Screw-in thread G1/8, G1/4

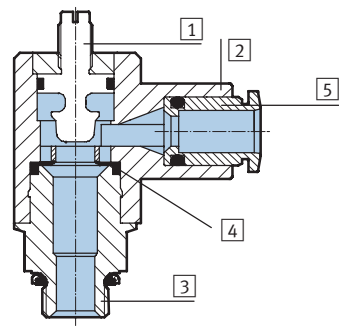


Standard flow rate qn at 6 bar → 0 bar as a function of turns of the adjusting screw n
Screw-in thread G1/8, G1/4



Materials

Sectional view



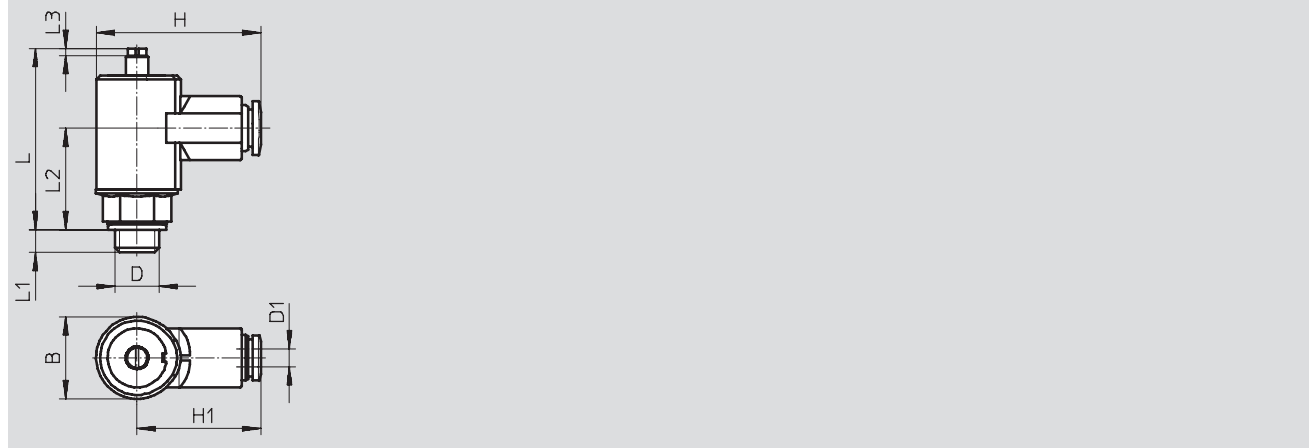
Flow control valve		
1	Regulating screw	Brass
2	Rotatable connection	Polybutylene terephthalate, reinforced
3	Threaded spigot	Wrought aluminium alloy
4	Seal	Nitrile rubber
5	Release ring	Polyacetate

Flow control and non-return valves

Technical data – Standard flow control valve with QS push-in fitting, series B, bulk packs of 20

Dimensions Download CAD data → www.festo.com

Rotatable connection, elbow outlet, slotted head screw



Screw-in thread D	Tubing O.D. D1	B Ø -0.1	H	H1	L max.	L1	L2
G ¹ / ₈	6	17.9	36.2	27.2	40.1	4.7	22.8
	8		44.4	35.4			
G ¹ / ₄	8				39.6	5.8	22.8

Ordering data Bulk packs of 20

Design	Screw-in thread	For tubing O.D. [mm]	One-way flow control function for exhaust air Part No. Type
--------	-----------------	----------------------	---

Rotatable connection, elbow outlet, slotted head screw

	G ¹ / ₈	6	540 358 GRLA-¹/₈-QS-6-B-20
		8	540 359 GRLA-¹/₈-QS-8-B-20
	G ¹ / ₄	8	540 360 GRLA-¹/₄-QS-8-B-20

What must be observed when using Festo components?

Specified limit values for technical data and any specific instructions must be adhered to by the user in order to ensure recommended operating conditions.

When pneumatic components are used, the user shall ensure that they are operated using correctly prepared compressed air without aggressive media.

When Festo components are used in safety-oriented applications, the user shall ensure that all applicable

national and local safety laws and regulations, for example the machine directive, together with the relevant references to standards are observed. Unauthorised conversions or modifications to products and systems from Festo involve a safety risk and are thus not permissible.

Festo does not accept any liability for resulting damages.

You should contact Festo's advisors if one of the following apply to your application:

- The ambient conditions and conditions of use or the operating medium differ from the specified technical data.
- The product is to perform a safety function.
- A risk or safety analysis is required.
- You are unsure about the product's suitability for use in the planned application.
- You are unsure about the product's suitability for use in safety-oriented applications.

All technical data applies at the time of going to print.

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