Push-in fittings and connectors QS

FESTO

Push-in fittings QS

Features

Application

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.

Summary of tubing/fitting combinations

Applications	Fitting	Tubing	Description
Standard	QS-B	PEN	Suitable for a wide range of tasks and attractively priced. Flexible thanks to highly resistant materials, easy to install thanks to optimised bending radii. High level of abrasion resistance in dynamic applications.
	QS	PUN	Maximum flexibility in standard applications thanks to an extremely wide range of options for combining the different types.
	QS	PAN	Meets all requirements, even for standard applications with increased pressure and temperature ranges.
High pressures	NPQM	PAN-MF	Meets DIN standard 73378: ideal for use in mobile pneumatics. Suitable for increased temperature ranges combined with high pressure ranges.
	NPQH	PAN-R	Powerful in pressure ranges up to 20 bar, for example in applications with the pressure booster DPA.
Resistant to chemicals, food safe and hydrolysis resistant	NPQP	PLN	Resistant to cleaning agents, FDA compliant and economical. Can be used instead of the combination with stainless steel fittings.
	NPKA	PUN-H	Hydrolysis resistant and suitable for water applications. Combination suitable for use in clean rooms, FDA compliant and corrosion resistant thanks to 100% polymer construction. Very easy to install thanks to the “one click principle”.
	NPQH	PFAN	For high temperatures up to 150 °C. Suitable for use in the food industry, FDA compliant and resistant to cleaning agents.
	NPCK	PFAN	Easy to clean thanks to the union nut’s edge-free design. Maximum resistance to corrosion (CRC 4) and FDA compliant. Suitable for a wide range of media.
	CRQS	PFAN	Maximum resistance to corrosion (CRC 4) and to aggressive acids and lyes.
Anti-static	NPQM	PUN-CM	Anti-static tubing plus solid metal fitting: maximum protection for electrical and electronic components.
Flame retardant	NPQM	PUN-V0	Very safe in areas where there is a risk of fire thanks to flame-retardant properties. The tubing has been tested to DIN 5510-2.
Resistant to welding spatter	NPQH	PUN-V0-C	Ideal for applications involving welding spatter. Reliable thanks to a tubing wall thickness of 2 mm for all diameters.
	QS-V0	PAN-V0	Safe even in the immediate vicinity of welding spatter thanks to the double-walled tubing with special fitting.

Push-in fittings QS

Features

Push-in fittings product range

QSM, mini series

Technical data ➔ Internet: qsm

Miniature push-in fittings for maximum component density in confined spaces. For pneumatic applications with a temperature range up to 80 °C and a pressure range up to 14 bar.
Tubing O.D.∅ of 2, 3, 4 and 6 mm with connecting threads M3, M5, M6, M7, R⅛ and G⅛.

QS, standard series

Technical data ➔ Internet: qs

Wide selection of push-in fittings for pneumatic applications with a temperature range up to 80 °C and a pressure range up to 14 bar.
Tubing O.D.∅ of 4, 6, 8, 10, 12, 16 and 22 mm with connecting threads R⅛ ... R½ and G⅛ ... G¾.

QSM-B, mini series, core function

Technical data ➔ Internet: qsm-b

Miniature push-in fittings for maximum component density in confined spaces. For core pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.
Tubing O.D.∅ of 3, 4 and 6 mm with connecting threads M3, M5, M7 and R⅛.

QS-B, standard series, core function

Technical data ➔ Internet: qs-b

Push-in fittings for core pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.
Tubing O.D.∅ of 4, 6, 8, 10, 12 and 16 mm with connecting threads M5 and R⅛ ... R½.

CRQS, stainless steel

Technical data ➔ Internet: crqs

Stainless steel push-in fitting. High corrosion resistance (CRC4) and chemical resistance with approval for use in the food and packaging industry. For pneumatic applications with a temperature range up to 120 °C and a pressure range up to 10 bar.
Tubing O.D.∅ of 4, 6, 8, 10, 12 and 16 mm with connecting threads M5 and R⅛ ... R½ .

QS-V0, weld spatter resistant

Technical data ➔ Internet: qs-v0

Flame-retardant push-in fitting for use in all areas where there is a risk of fire, for example welding systems in the automotive industry and in the construction industry. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.
Tubing O.D.∅ of 4, 6, 8, 10 and 12 mm with connecting threads R⅛ ... R½ and G⅛ ... G½ .

Push-in fittings QS

Features

Push-in fittings product range

NPQH — Technical data ➔ Internet: npqh

All metal push-in fitting made of chemically nickel-plated brass. High corrosion resistance (CRC3) and chemical resistance. For pneumatic applications with a temperature range up to 150 °C and a pressure range up to 20 bar.
Tubing O.D.∅ of 4, 6, 8, 10, 12 and 14 mm with connecting threads M5, M7 and G1⁄8 ... G1⁄2 .

NPQM — Technical data ➔ Internet: npqm

Attractively priced metal push-in fitting for pneumatic applications with a temperature range up to 70 °C and a pressure range up to 16 bar.
Tubing O.D.∅ of 3, 4, 6, 8, 10, 12 and 14 mm with connecting threads M5, M7 and G1⁄8 ... G1⁄2 .

NPQP — Technical data ➔ Internet: npqp

Polypropylene fitting for use in applications with extreme media influences. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.
Tubing O.D.∅ of 4, 6, 8, 10 and 12 mm with connecting threads R1⁄8 ... R1⁄2.

Functional push-in fittings product range

QSK, self-sealing push-in fitting — Technical data ➔ Internet: qsk

Push-in fitting that blocks the air flow after the tubing is disconnected. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 14 bar.
Tubing O.D.∅ of 4, 6, 8, 10 and 12 mm with connecting threads M5, R1⁄8 ... R1⁄2 and G1⁄8 ... G1⁄2.

QSR, rotary push-in fitting — Technical data ➔ Internet: qsr

Push-in fitting with swivel connection, rotatable by 360°. The ball bearing enables rotating movements in the application up to max. 500 rpm. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 14 bar.
Tubing O.D.∅ of 4, 6, 8, 10 and 12 mm with connecting threads M5, R1⁄8 ... R1⁄2 and G1⁄8 ... G1⁄2.

Quick connectors product range

NPCK — Technical data ➔ Internet: npck

Stainless steel fitting for use in areas subject to intensive cleaning. Highest level of corrosion resistance (CRC 4). For pneumatic applications with a temperature range up to 120 °C and a pressure range up to 12 bar.
Tubing O.D.∅ of 4, 6, 8 and 10 mm with connecting thread M5 and G1⁄8 ... G3⁄8.

Click fittings product range

NPKA — Technical data ➔ Internet: npka

Plastic fitting for easy installation with one-hand operation. Hydrolysis resistant, FDA compliant and easy to clean. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.
Tubing O.D. 6 mm with connecting thread G1⁄8.

Push-in fittings QS

Key features

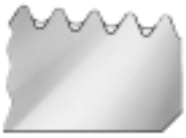
Simply "plug and work"

The stainless steel retaining claw within the fitting holds the tubing securely without damaging its surface. Vibration and pressure surges are safely absorbed.

Reliably connected

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.

Captive seal



All brass parts of 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.

Orientable

The fitting can be aligned after assembly.

Tube assembly/disassembly

Mounting

The prerequisite for ensuring that the inside seal is securely held and protected against damage is that the tube be cut to straight lengths and deburred.

1) Insert tubing until the end stop. It is important to ensure that the tubing is inserted into the inside seal. Depending on the tolerance position of the tubing and the seal, the contact of the tubing with the seal may be wrongly interpreted as the end stop.
2) Check that the tubing connector is securely held by pulling gently on the tube.

Dismantling

1) The tubing can be detached easily by pressing down and holding the releasing ring. Remove the tubing carefully from the threaded connector.
2) Before re-using the tubing, remove the damaged part by cutting it off.

Push-in fittings QS

Key features

Which fitting fit which thread?

Metric parallel thread

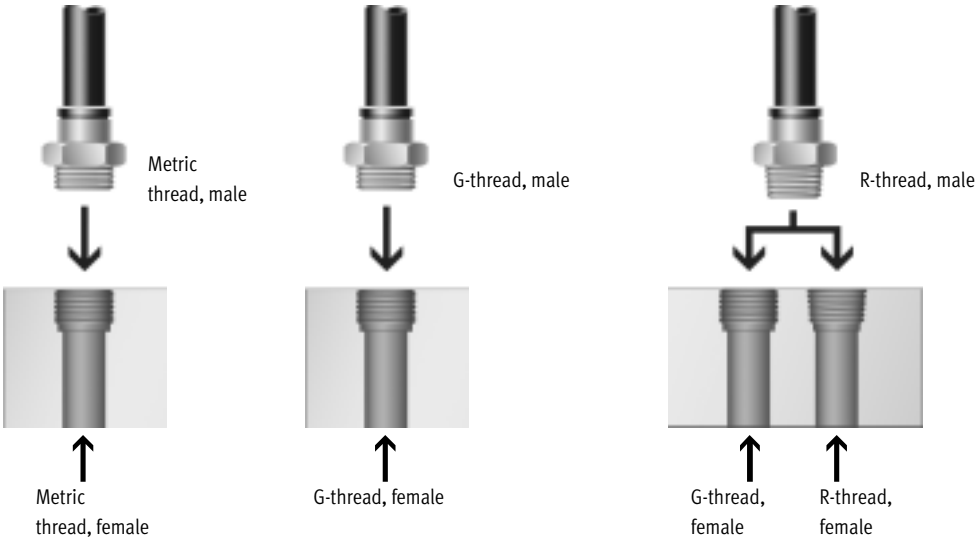
- Cylindrical metric thread is comparable with G thread
- Sealing is guaranteed via a sealing ring
- Sealing on front face

G parallel thread to ISO 228-1

- Shorter thread
- Constant installation depth
- Replaceable sealing ring
- Sealing on front face
- Can be re-used a number of times thanks to replaceable sealing ring

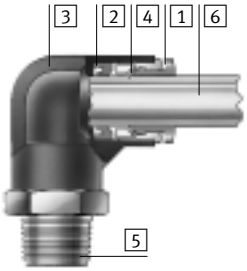
R tapered thread to EN 10226-1 and ISO 7/1

- Self-sealing thread
- Sealing via coated 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



Materials

Sectional view



Size	QSM, mini series QS, standard series	QSM-B, mini series, core function QS-B, standard series, core function
1 Release ring	POM (colour: blue)	POM (colour: blue)
2 Seal	NBR	NBR
3 Body	Nickel-plated brass, PBT QSM-M3-3/4: Nickel-plated steel	Nickel-plated brass, PBT
4 Tube retaining claw	High-alloy stainless steel	High-alloy stainless steel
5 Threaded coupling	Nickel-plated brass M3: Nickel-plated steel	Nickel-plated brass M3: Nickel-plated steel
6 Plastic tubing with standard O.D.	PAN PEN PUN PUN-H	PAN PEN PUN PUN-H
Note on materials	RoHS-compliant	RoHS-compliant

Size	QS-V0, weld spatter resistant
1 Release ring	PBT-reinforced (colour: black)
2 Seal	NBR
3 Body	PBT-reinforced
4 Tube retaining claw	High-alloy stainless steel Brass
5 Threaded coupling	Nickel-plated brass
6 Plastic tubing with standard O.D.	PAN-V0
Note on materials	RoHS-compliant

Push-in fittings QS

Technical data

Tubing insertion depth

Tubing O.D. [mm]	2	3	4	6	8	10	12	14	16	22
QSM, mini series	8.4	9.5	11.5	12	–	–	–	–	–	–
QS, standard series	–	–	15 (QSW: 12)	17 (QSW: 12)	18	20.5	23.5	–	24.5	28
QSM-B, mini series, core function	–	9.5	11.5	12	–	–	–	–	–	–
QS-B, standard series, core function	–	–	14.9	16.9	18.3	20.7	23.2	–	24.5	–
QS-V0, weld spatter resistant	–	–	20	22	23.5	26	28.5	–	–	–

Recommended tightening torque

When using 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

All R-threads are coated with a sealing material. This coating replaces the conventional sealing ring. Simply screw in the R-thread by hand and tighten it with 1 or 2 turns of a spanner. The fitting can be reinstalled up to five times. When screwing in R-threads several times, you must make sure that the abraded particles from the sealing material coating cannot enter the compressed air system.

Connecting thread	Nominal tightening torque [Nm]
M thread	
M3	0.48 ±55%
M5	1.33 ±20%
M7	3.35 ±20%
G thread	
G1/8	7 ±20%
G1/4	9 ±20%
G3/8	15.5 ±20%
G1/2	26 ±20%
G3/4	20 ±20%

General technical data	
Design	Push-pull principle
Mounting position	Any
Type of seal on threaded plug	Sealing ring (metric thread, G thread)
	Coating (R thread)

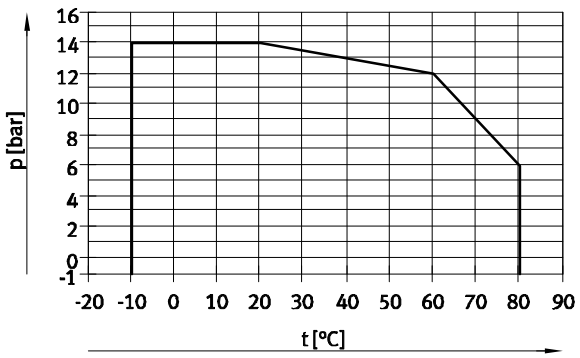
Operating and environmental conditions					
Size	QSM, mini series	QS, standard series		QSM-B, mini series, core function	QS-B, standard series, core function
		Except QS-G¾-22	QS-G¾-22		
Operating pressure complete temperature range [bar]	–0.95 … +6		–0.95 … +14	–0.95 … +10	
Temperature dependent operating pressure [bar]	–0.95 … +14			–	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:–:–]				
	–	Water as per manufacturer's declaration[1)2)]		–	
Note on operating/pilot medium	Operation with lubricated medium possible				
Ambient temperature [°C]	–10 … +80		–20 … +80	–10 … +60	
Corrosion resistance class CRC[3)]	1				
Certification	Germanischer Lloyd		–	Germanischer Lloyd	

Size	QS-V0, weld spatter resistant
Operating pressure complete temperature range [bar]	–0.95 … +10
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:–:–]
	Water as per manufacturer's declaration[1)]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	0 … +60
Corrosion resistance class CRC[3)]	2
Material fire test	UL94 V-0 (body, release ring)
Certification	UL - Recognized (OL)
	Germanischer Lloyd

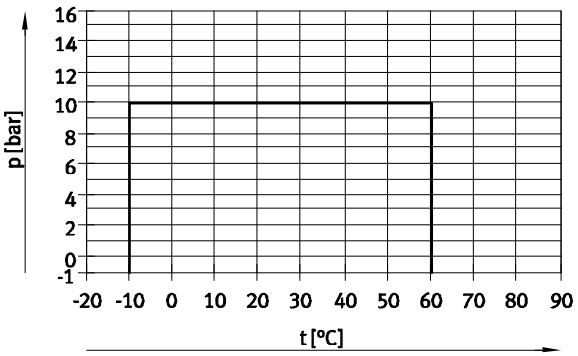
1) Additional information www.festo.com/sp ➔ User documentation.
2) The supplied sealing ring must be replaced with an OL sealing ring on push-in fittings with a G-thread ➔ Internet: ol
3) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or 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).
Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Operating pressure p as a function of temperature t

QSM, mini series
QS (except QS-G¾-22), standard series



QSM-B, mini series, core function
QS-B, standard series, core function



Push-in fittings QS

Technical data

Possible push-in fitting/tubing combinations											
Type	Thread	Tubing O.D. [mm]									
		2	3	4	6	8	10	12	14	16	22
QSM, mini series	M3	+	++	+	–	–	–	–	–	–	–
	M5	+	+	++	+	–	–	–	–	–	–
	M6	–	–	++	+	–	–	–	–	–	–
	M7	–	–	+	++	–	–	–	–	–	–
	M8	–	–	–	++	–	–	–	–	–	–
	R1/8	–	–	+	++	–	–	–	–	–	–
	G1/8	–	–	+	++	–	–	–	–	–	–
QS, standard series	M5	–	–	++	+	–	–	–	–	–	–
	R1/8	–	–	+	++	+	+	–	–	–	–
	R1/4	–	–	+	+	++	+	+	–	–	–
	R3/8	–	–	–	+	+	++	+	–	+	–
	R1/2	–	–	–	–	–	+	++	–	+	–
	G1/8	–	–	+	++	+	+	–	–	–	–
	G1/4	–	–	+	+	++	+	+	–	–	–
	G3/8	–	–	–	+	+	++	+	–	+	–
	G1/2	–	–	–	–	–	–	++	–	+	–
	G3/4	–	–	–	–	–	–	–	–	–	++
QSM-B, mini series, core function	M3	–	++	+	–	–	–	–	–	–	–
	M5	–	+	++	+	–	–	–	–	–	–
	M7	–	–	+	++	–	–	–	–	–	–
	R1/8	–	–	+	++	–	–	–	–	–	–
QS-B, standard series, core function	M5	–	–	++	+	–	–	–	–	–	–
	R1/8	–	–	+	++	+	+	–	–	–	–
	R1/4	–	–	+	+	++	+	+	–	–	–
	R3/8	–	–	–	+	+	++	+	–	+	–
	R1/2	–	–	–	–	–	+	++	–	+	–
QS-V0, weld spatter resistant	R1/8	–	–	+	++	+	–	–	–	–	–
	R1/4	–	–	–	+	++	+	+	–	–	–
	R3/8	–	–	–	–	+	++	+	–	–	–
	R1/2	–	–	–	–	–	+	++	–	–	–
	G1/8	–	–	–	++	+	–	–	–	–	–
	G1/4	–	–	–	+	++	+	+	–	–	–
	G3/8	–	–	–	–	+	++	+	–	–	–
	G1/2	–	–	–	–	–	+	++	–	–	–

\+ Possible thread/tubing O.D. combinations

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

Push-in fittings QSM, mini series

Product range overview

Design	Version	Type	Connection D1					Connection D2	→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	
Straight design	**Push-in fitting – Male thread with external hex**								
		**QSM**	M3	–	–	–	–	2, 3, 4	24
			M5					2, 3, 4, 6	
			M6					6	
		**QSM**	–	R⅛	G⅛	–	–	4, 6	
	Push-in fitting – Male thread with internal hex								
		**QSM-...-I**	M3	–	–	–	–	2, 3, 4	25
			M5					3, 4, 6	
			M7	R⅛	G⅛			4, 6	
	Push-in fitting – Male thread with internal hex, round release ring								
		**QSM-...-I-R**	M3	–	–	–	–	3, 4	26
			M5					3, 4, 6	
			M7					6	
	Push-in fitting – Female thread with external hex								
		**QSMF**	M3	–	–	–	–	3, 4	27
			M5					3, 4	
	Push-in fitting – Male thread with internal hex								
		**QSMP**	M6x0.75	–	–	–	–	4	27
			M8x0.75					6	
	Push-in connector								
		**QSM**	–	–	–	3	–	3	28
						4		4	
						6		6	
		**QSM** Reducing	–	–	–	3	–	2	28
						4		3	
						6		4	
	Push-in bulkhead connector								
		**QSMS**	–	–	–	3	–	–	28
						4			
						6			
	Push-in cap								
		**QSMC**	–	–	–	3	–	–	29
	Push-in connector with sleeve								
		**QSM-...H**	–	–	–	–	3	2	29
							4	3	
							6	4	
	Blanking plug								
		**QSMC-...H**	–	–	–	–	2	–	29
							3		

Push-in fittings QSM, mini series

Product range overview

Design	Version	Type	Connection D1					Connection D2	→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	
L-shape	**Push-in L-fitting, orientable – Male thread with external hex**								
		**QSML**	M3	–	–	–	–	2, 3, 4	30
			M5					2, 3, 4, 6	
			M7	R⅛	G⅛			4, 6	
	Push-in long L-fitting, orientable – Male thread with external hex								
		**QSMLL**	M3	–	–	–	–	2, 3, 4	31
			M5					2, 3, 4, 6	
			M7	R⅛	G⅛			4, 6	
	Push-in L-fitting, orientable – Male thread with internal hex								
		**QSMLV-...-I**	M5	–	–	–	–	3, 4	32
			M7					4, 6	
	Push-in long L-fitting, orientable – Male thread with internal hex								
		**QSMLLV-...-I**	M5	–	–	–	–	3, 4	32
			M7					4, 6	
	Push-in L-connector								
		**QSML**	–	–	–	3	–	–	33
						4			
						6			
	Push-in L-connector with sleeve								
		**QSML-...H**	–	–	–	–	3	3	33
							4	4	
							6	6	
		**QSML-...H** Reducing	–	–	–	–	4	3	33
							6	4	
T-shape	**Push-in T-fitting, orientable – Male thread with external hex**								
		**QSMT**	M3	–	–	–	–	3, 4	34
			M5					3, 4, 6	
			–	R⅛	G⅛			4, 6	
		**QSMTL**	M3	–	–	–	–	3, 4	35
			M5					3, 4, 6	
			–	R⅛	G⅛			4, 6	
	Push-in T-connector								
		**QSMT**	–	–	–	2	–	2	36
						3		3	
						4		4	
						6		6	
		**QSMT** Reducing	–	–	–	4	–	3	36
						6		4	
X-shape	**Push-in X-connector**								
		**QSMX**	–	–	–	3	–	–	37
						4			
						6			

Push-in fittings QSM, mini series

Product range overview

Design	Version	Type	Connection D1					Connection D2	➔ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	
Y-shape	**Push-in Y-connector**								
		**QSMY**	–	–	–	2	–	2	37
						3		3	
						4		4	
						6		6	
		**QSMY** Reducing	–	–	–	4	–	3	37
						6		4	

Push-in fittings QS, standard series

Product range overview

Design	Version	Type	Connection D1					Connection D2		→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
Straight design	**Push-in fitting – Male thread with external hex**									
		**QS**	–	R⅛	G⅛	–	–	4, 6, 8, 10[1]	–	38
				R¼	G¼			4[1], 6, 8, 10, 12		
				R⅜	G⅜			6[1], 8, 10, 12, 16		
				R½	G½			10[1], 12, 16		
				–	G¾			22		40
	Push-in fitting – Male thread with internal hex									
		**QS-...-I**	–	R⅛	G⅛	–	–	4, 6, 8, 10	–	41
				R¼	G¼			6, 8, 10, 12[1]		
				R⅜	G⅜			8, 10, 12		
				R½	G½			10[1], 12		
	Push-in fitting – Female thread with external hex									
		**QSF**	–	–	G⅛	–	–	4, 6, 8	–	43
					G¼			4, 6, 8, 10, 12		
					G⅜			6, 8, 10, 12		
					G½			12, 16		
	Push-in connector									
		**QS**	–	–	–	4	–	4	–	44
						6		6		
						8		8		
						10		10		
						12		12		
						16		16		
		**QS** Reducing	–	–		6	–	4	–	44
						8		4, 6		
						10		6, 8		
						12		8, 10		
	Push-in bulkhead connector									
		**QSS**	–	–	–	4	–	–	–	45
						6				
						8				
						10				
						12				
	Push-in bulkhead connector with fixed collar									
		**QSS-...-F**	–	–	–	4	–	–	–	45
						6				
						8				
						10				
						12				
	Push-in bulkhead fitting with female thread									
		**QSSF**	–	–	G⅛	–	–	4, 6, 8	–	46
					G¼			4, 6, 8, 10		
					G⅜			6, 8, 10, 12		
					G½			12, 16		

1) Only in conjunction with R thread

Push-in fittings QS, standard series

Product range overview

Design	Version	Type	Connection D1					Connection D2		➔ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
Straight design	**Push-in cap**									
		**QSC**	–	–	–	4	–	–	–	47
						6				
						8				
						10				
						12				
	Push-in connector with sleeve									
		**QS-...H**	–	–	–	–	6	4	–	47
							8	4, 6		
							10	6, 8		
							12	6, 8, 10		
	Push-in sleeve									
		**QSH**	–	–	–	–	4	–	–	48
							6			
							8			
							10			
							12			
							16			
		**QSH** Reducing	–	–	–	–	6	–	4	48
							8		4, 6	
							10		6, 8	
							12		8, 10	
							16		12	
	Blanking plug									
		**QSC-...H**	–	–	–	–	4	–	–	49
							6			
							8			
							10			
							12			
							16			
L-shape	**Push-in L-fitting, orientable – Male thread with external hex**									
		**QSL**	–	R⅛	G⅛	–	–	4, 6, 8, 10[1]	–	50
				R¼	G¼			4[1], 6, 8, 10, 12		
				R⅜	G⅜			6[1], 8, 10, 12, 16		
				R½	G½			10[1], 12, 16		
	Push-in long L-fitting, orientable – Male thread with external hex									
		**QSLL**	–	R⅛	G⅛	–	–	4, 6, 8	–	52
				R¼	G¼			4[1], 6, 8, 10, 12[2]		
				R⅜	G⅜			6[1], 8, 10, 12		
				R½	G½			10[1], 12, 16[2]		
	Push-in L-fitting – Female thread with external hex									
		**QSLF**	–	–	G⅛	–	–	4, 6, 8	–	54
					G¼			6, 8, 10		
					G⅜			8, 10		

1) Only in conjunction with R thread
2) Only in conjunction with G thread

Push-in fittings QS, standard series

Product range overview

Design	Version	Type	Connection D1					Connection D2		→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
L-shape	**Push-in L-fitting, orientable – Male thread with internal hex**									
		**QSLV-...-I**	–	R1/8	G1/8	–	–	6, 8	–	55
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12		
	Push-in L-fitting, orientable – Male thread with external hex									
		**QSLV**	M5	–	–	–	–	6	–	56
			–	R1/8	G1/8	–	–	4, 6, 8	–	
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12, 16		
	Multiple distributor, orientable – 2 outlets									
		**QSLV2**	–	R1/8	G1/8	–	–	4, 6, 8	–	qslv
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12		
	Multiple distributor, orientable – 3 outlets									
		**QSLV3**	–	R1/8	G1/8	–	–	4, 6, 8	–	qslv
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12		
	Multiple distributor, orientable – 4 outlets									
		**QSLV4**	–	R1/8	G1/8	–	–	4, 6, 8	–	qslv
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12		
	Multiple distributor, orientable – 6 outlets									
		**QSLV6**	–	R1/8	G1/8	–	–	4, 6, 8	–	qslv
				R1/4	G1/4			6, 8, 10		
				R3/8	G3/8			8, 10, 12		
				R1/2	G1/2			12		
	Multiple distributor, orientable – 4 outlets									
		**QSQ**	–	R1/8	G1/8	–	–	4, 6	–	qsq
				R1/4	G1/4			4, 6		
		**QSQ** Reducing	–	–	–	6	–	4	–	qsq
						8		6		

Push-in fittings QS, standard series

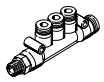
Product range overview

Design	Version	Type	Connection D1					Connection D2		➔ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
L-shape	**Push-in L-connector**									
		**QSL**	–	–	–	4	–	–	–	58
						6				
						8				
						10				
						12				
						16				
	Push-in L-connector with sleeve									
		**QSL-...H**	–	–	–	–	4	4	–	59
							6	6		
							8	8		
							10	10		
							12	12		
		**QSL-...H** Reducing	–	–	–	–	6	4	–	59
							8	6		
							10	8		
							12	10		
		**QSL-...HL** Long push-in sleeve	–	–	–	–	4	4	–	59
							6	6		
							8	8		
							10	10		
							12	12		
T-shape	**Push-in T-fitting, orientable – Male thread with external hex**									
		**QST**	–	R⅛	G⅛	–	–	4, 6, 8, 10[1]	–	60
				R¼	G¼			4[1], 6, 8, 10, 12		
				R⅜	G⅜			6[1], 8, 10, 12, 16		
				R½	G½			10,[1] 12, 16		
	Push-in T-connector									
		**QST**	–	–	–	4	–	4	–	62
						6		6		
						8		8		
						10		10		
						12		12		
						16		16		
		**QST** Reducing	–	–	–	6	–	4	–	62
						8		4, 6		
						10		6, 8		
						12		8, 10		
						16		12		

1) Only in conjunction with R thread

Push-in fittings QS, standard series

Product range overview

Design	Version	Type	Connection D1				Connection D2		Connection D3	→ Page/ Internet
			R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	
T-shape	**Multiple distributor, orientable – 3 outlets**									
		**QST3**	R⅛	G⅛	–	–	6	–	4	qst
			R¼	G¼			8		6	
			R⅜	G⅜			10		8	
		**QST3** Reducing	–	–	6	–	6	–	4	qst
					8		8		6	
					10		10		8	

Design	Version	Type	Connection D1					Connection D2		→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
T-shape	**Push-in T-fitting, orientable – Male and female thread with external hex**									
		**QSTF**	–	R⅛	G⅛	–	–	4, 6, 8	–	63
				R¼	G¼			6, 8, 10		
				R⅜	G⅜			8, 10, 12		
				R½	G½			12		
	Push-in T-fitting, orientable – Male thread with external hex									
		**QSTL**	–	R⅛	G⅛	–	–	4, 6, 8	–	64
				R¼	G¼			6, 8, 10		
				R⅜	G⅜			8, 10, 12		
				R½	G½			12, 16		
Angled design	**Push-in fitting, orientable – Male thread with external hex**									
		**QSW**	–	R⅛	–	–	–	4, 6, 8	–	66
				R¼				6, 8, 10		
				R⅜				10, 12		
				R½				12, 16		
	Push-in connector with sleeve									
		**QSW-HL**	–	–	–	–	4	4	–	67
							6	6		
							8	8		
							10	10		
							12	12		
X-shape	**Push-in X-connector**									
		**QSX**	–	–	–	8	–	–	–	67
						10				
						12				

Push-in fittings QS, standard series

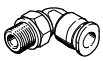
Product range overview

Design	Version	Type	Connection D1					Connection D2		➔ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
Y-shape	Push-in Y-fitting, orientable – Male thread with external hex									
		QSY	M5	–	–	–	–	4, 6	–	68
			–	R⅛	G⅛			4, 6, 8		
				R¼	G¼			4[1], 6, 8,10		
				R⅜	G⅜			8, 10, 12		
				R½	G½			12		
	Push-in Y-connector									
		QSY	–	–	–	4	–	4	–	70
						6		6		
						8		8		
						10		10		
						12		12		
						16		16		
		QSY Reducing	–	–	–	6	–	4	–	70
						8		4, 6		
						10		6, 8		
						12		8, 10		
						16		12		
	Push-in Y-connector with sleeve									
		QSY-...H(-B)	–	–	–	–	4	4	–	71
							6	6		
							8	8		
							10	10		
							12	12		
		QSY-...H(-B) Reducing	–	–	–	–	6	4	–	71
							8	6		
							10	8		
							12	10		
	Push-in Y-fitting, orientable – Male thread with external hex									
		QSYL	–	R⅛	G⅛	–	–	4, 6, 8	–	72
				R¼	G¼			6, 8, 10		
				R⅜	G⅜			8, 10, 12		
				R½	G½			12		
	Push-in Y-fitting, orientable – Male thread with external hex									
		QSYLV	–	R⅛	G⅛	–	–	6	–	73
				R¼	G¼			8		
				R⅜	G⅜			10		
				R½	G½			12		
	Push-in Y-fitting, orientable – Male and female thread with external hex									
		QSYTF	–	R⅛	G⅛	–	–	6	–	74
				R¼	G¼			8		
				R⅜	G⅜			10		
				R½	G½			12		
Release tool	Quick-release tool for QS push-in fittings and connectors									
		QSO	–							95

1) Only in conjunction with R thread

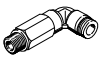
Push-in fittings QSM-B, mini series, core function

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	75
			M5		3, 4, 6	
			–	R1/8	4, 6	
	Push-in fitting – Male thread with internal hex					
		**QSM-B-...-I**	M3	–	3, 4	76
			M5		3, 4, 6	
			M7		4, 6	
			–	R1/8	4, 6	
L-shape	**Push-in L-fitting, orientable – Male thread with external hex**					
		**QSML-B**	M3	–	3, 4	77
			M5		3, 4, 6	
			M7		4, 6	
			–	R1/8	4, 6	
T-shape	**Push-in T-fitting, orientable – Male thread with external hex**					
		**QSMT-B**	M3	–	3, 4	78
			M5		3, 4, 6	
			–	R1/8	4, 6	

Push-in fittings QS-B, standard series, core function

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**	–	R⅛	–	4, 6, 8, 10	79
				R¼		4, 6, 8, 10, 12	
				R⅜		6, 8, 10, 12, 16	
				R½		10, 12, 16	
	Push-in fitting – Male thread with internal hex						
		**QS-B-...-I**	–	R⅛	–	4, 6, 8, 10	80
				R¼		6, 8, 10, 12	
				R⅜		8, 10, 12	
				R½		10, 12	
	Push-in connector						
		**QS-B**	–	–	4	4	81
					6	6	
					8	8	
					10	10	
					12	12	
					16	16	
		**QS-B** Reducing	–	–	6	4	81
					8	4, 6	
					10	6, 8	
					12	8, 10	
L-shape	**Push-in L-fitting, orientable – Male thread with external hex**						
		**QSL-B**	–	R⅛	–	4, 6, 8, 10	82
				R¼		4, 6, 8, 10, 12	
				R⅜		6, 8, 10, 12, 16	
				R½		10, 12, 16	
	Push-in long L-fitting, orientable – Male thread with external hex						
		**QSLL-B**	–	R⅛	–	4, 6, 8	83
				R¼		6, 8, 10	
				R⅜		6, 8, 10, 12	
				R½		10, 12	
	Push-in L-connector						
		**QSL-B**	–	–	4	–	83
					6		
					8		
					10		
					12		
					16		
T-shape	**Push-in T-fitting, orientable – Male thread with external hex**						
		**QST-B**	–	R⅛	–	4, 6, 8, 10	84
				R¼		4, 6, 8, 10, 12	
				R⅜		6, 8, 10, 12, 16	
				R½		10, 12, 16	

Push-in fittings QS-B, standard series, core function

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	85
					6	6	
					8	8	
					10	10	
					12	12	
					16	16	
	Push-in T-fitting, orientable – Male thread with external hex						
		**QSTL-B**	–	R1/8	–	4, 6, 8	86
				R1/4		4, 6, 8	
				R3/8		6, 8, 10, 12	
				R1/2		10, 12, 16	
Y-shape	**Push-in Y-fitting, orientable – Male thread with external hex**						
		**QSY-B**	M5	–	–	4, 6	87
			–	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	88
					6	6	
					8	8	
					10	10	
					12	12	
					16	16	
		**QSY-B** Reducing	–	–	6	4	88
					8	4, 6	
					10	6, 8	
					12	8, 10	
					16	12	

Push-in fittings QS-V0, weld spatter resistant

Product range overview

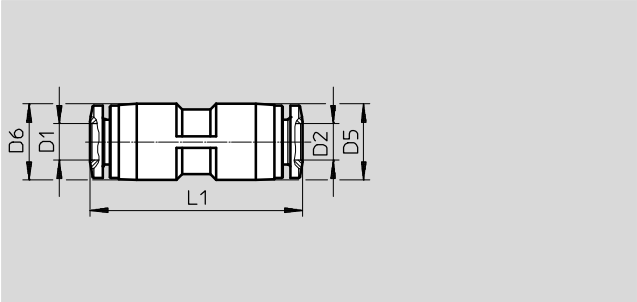
Design	Version	Type	Connection D1					Connection D2		→ Page/ Internet
			M thread	R thread	G thread	Tubing O.D.	Push-in sleeve ∅	Tubing O.D.	Push-in sleeve ∅	
To UL94 V-0 – For plastic tubing PAN/PUN-V0										
Straight design	**Push-in fitting – Male thread with external hex**									
		**QS-V0**	–	R⅛	G⅛	–	–	4[1], 6, 8	–	89
				R¼	G¼			6, 8, 10, 12		
				R⅜	G⅜			8, 10, 12		
				R½	G½			10, 12		
	Push-in connector									
		**QS-V0**	–	–	–	4	–	–	–	90
						6				
						8				
						10				
						12				
L-shape	**Push-in L-fitting – Male thread with external hex**									
		**QSL-V0**	–	R⅛	G⅛	–	–	4[1], 6, 8	–	91
				R¼	G¼			6, 8, 10, 12		
				R⅜	G⅜			8, 10, 12		
				R½	G½			10, 12		
	Push-in L-connector									
		**QSL-V0**	–	–	–	4	–	–	–	92
						6				
						8				
						10				
						12				
T-shape	**Push-in T-fitting – Male thread with external hex**									
		**QST-V0**	–	R⅛	G⅛	–	–	4[1], 6, 8	–	93
				R¼	G¼			6, 8, 10, 12		
				R⅜	G⅜			8, 10, 12		
				R½	G½			10, 12		
	Push-in T-connector									
		**QST-V0**	–	–	–	4	–	–	–	94
						6				
						8				
						10				
						12				

1) Only in conjunction with R thread

Push-in fittings QS, standard series

Technical data

Push-in connector QS



Dimensions and ordering data									
Tubing O.D. D1	Nominal size [mm]	Tubing O.D. D2	D5 ∅	D6	L1	Weight/piece [g]	Part No.	Type	PU*
4	2.6	4	10	–	30.8	5	**153031**	**QS-4**	**10**
							130686	**QS-4-100**	**100**
6	4	6	12.5	–	34.9	6.5	**153032**	**QS-6**	**10**
							130687	**QS-6-100**	**100**
8	5	8	14.5	–	37.8	9.5	**153033**	**QS-8**	**10**
							130688	**QS-8-50**	**50**
10	6.7	10	17.5	–	41.4	16	**153034**	**QS-10**	**10**
							130689	**QS-10-50**	**50**
12	8.7	12	21	–	47.8	22	**153035**	**QS-12**	**10**
							130690	**QS-12-20**	**20**
16	13.7	16	25	–	50	25	**153036**	**QS-16**	**1**
							133195	**QS-16-20**	**20**
Reducing									
6	2.6	4	12.5	12.5	34.4	6.4	**153037**	**QS-6-4**	**10**
							130691	**QS-6-4-100**	**100**
8	2.3	4	10.7	14.5	36.6	7.2	**130606**	**QS-8-4**	**10**
	4	6	14.5	14.5	37.9	8.8	**153038**	**QS-8-6**	**10**
							130692	**QS-8-6-50**	**50**
10	3.7	6	13	17.5	39.8	12	**130607**	**QS-10-6**	**10**
	5	8	17.5	17.5	41.1	14	**153039**	**QS-10-8**	**10**
							130693	**QS-10-8-50**	**50**
12	5.2	8	14.5	21	44	16	**130608**	**QS-12-8**	**10**
	6.7	10	21	21	47.6	21	**153040**	**QS-12-10**	**10**
							130694	**QS-12-10-20**	**20**

* Packaging unit quantity