

Push-in fittings CRQS, stainless steel



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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	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/PTFEN	For high temperatures up to 150 °C. Suitable for use in the food industry, FDA compliant and resistant to cleaning agents.
	NPCK	PFAN/PTFEN	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/PTFEN	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 mediate vicinity of welding spatter thanks to the double-walled tubing with special fitting.

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Features

## CRQS, the stainless steel fitting

### Highest process reliability in every case

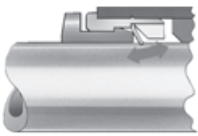
Highest corrosion resistance and maximum robustness: the CRQS stays leak-proof even when subjected to extreme temperature, pressure and resistance.

### Unlimited use in the food industry

The push-in fitting CRQS can be used in combination with the plastic tubing PFAN, which is approved for use in the food industry, in all areas of the Food & Packaging industry, e.g. wherever

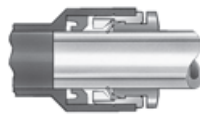
the use of stainless steel is stipulated. Used together, they easily resist all cleaning agents and lubricants and can also be used with highly aggressive acids and lyes.

## 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 fluoro elastomer sealing ring guarantees a perfect seal between the standard tubing and the body of the fitting. Standard tubing is suitable for use with compressed air and vacuum.

## Orientable



The fitting can be aligned after assembly.

## Tube assembly/disassembly

### Mounting

The prerequisite for ensuring that the inside seal [3] is securely held and protected against damage is that the tube be cut to straight lengths and deburred.

- 1) Pull out releasing ring [1].
- 2) Insert tubing until the end stop [2].

It is important to ensure that the

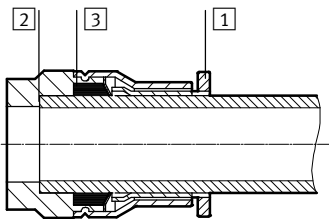
tubing is inserted into the inside seal [3]. Depending on the tolerance position of the tubing and the seal, the contact of the tubing with the seal may be wrongly interpreted as the end stop.

- 3) 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 [1]. Remove the tubing carefully from the threaded connector.

- 2) Before re-using the tubing, remove the damaged part by cutting it off.



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## Which fitting fits which thread?

### Metric thread

- 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

- Sealing is guaranteed as the O-ring sits in a groove that seals against the tube

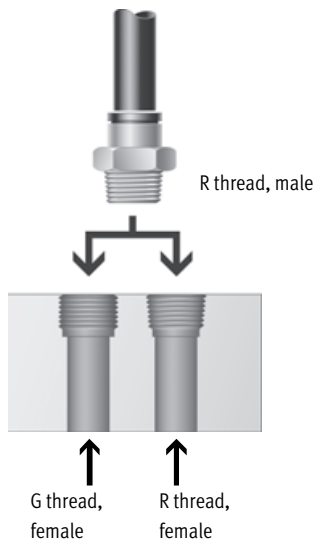
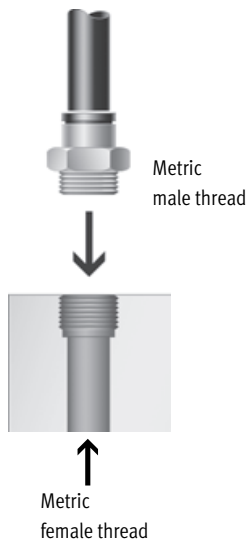
### R thread to EN 10226-1 and ISO 7/1

- Self-sealing thread
- No additional sealing surface required
- Smaller installation dimensions since there is no need for an offset for the sealing surface
- Can be reused up to 5 times



Note







An appropriate sealing material is required to seal the push-in fitting CRQS with R thread.



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Product range overview



Design	Version	Type	Connection D1			Connection D2		→ Page/ Internet	
			M thread	R thread	Tubing O.D.	Tubing O.D.			
Straight design	<b>Push-in fitting – Male thread with internal/external hex</b>								
		CRQS	M5xQ8	–	–	–	4, 6		11
			–	R $\frac{1}{8}$			4, 6, 8		
			–	R $\frac{1}{4}$			6, 8, 10		
			–	R $\frac{3}{8}$			10, 12		
			–	R $\frac{1}{2}$			12, 16		
	<b>Push-in connector</b>								
		CRQS	–	–	–	4	4	13	
			–	–		6	6		
			–	–		8	8		
			–	–		10	10		
			–	–		12	12		
		CRQS reducing	–	–	–	6	4	13	
			–	–		8	6		
			–	–		10	8		
–			–	12		10			
–			–	16		12			
<b>Push-in bulkhead connector</b>									
	CRQSS	–	–	–	4	4	13		
		–	–		6	6			
		–	–		8	8			
		–	–		10	10			
		–	–		12	12			
L-shape	<b>Push-in L-fitting, orientable – male thread with external hex</b>								
		CRQSL	M5xQ8	–	–	–	4, 6		14
			–	R $\frac{1}{8}$			4, 6, 8		
			–	R $\frac{1}{4}$			6, 8, 10		
			–	R $\frac{3}{8}$			10, 12		
			–	R $\frac{1}{2}$			12, 16		
	<b>Push-in L-connector</b>								
		CRQSL	–	–	–	4	–	15	
			–	–		6			
			–	–		8			
			–	–		10			
–			–	12					
–	–	16							

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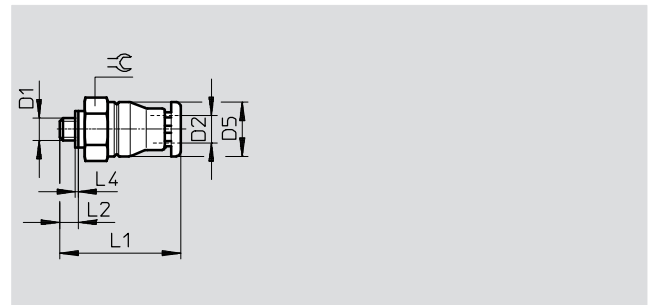
Technical data

## Push-in fitting CRQS

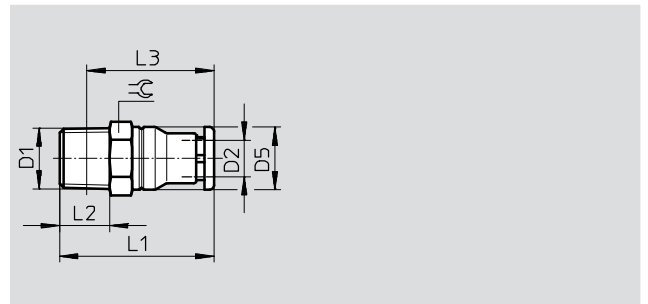
Male thread with external hex



M thread



R thread



Dimensions and ordering data													
Pneumatic connection		Nominal size [mm]	Dimensions [mm]							Weight/ piece [g]	Part No.	Type	PU <sup>1)</sup>
Male thread	For tubing O.D.		D5 Ø	L1	L2	L3	L4	☞					
D1	D2												
Metric thread with sealing ring													
M5x08	4	2	9.8	24.4	3	-	0.5	10	6	162860	CRQS-M5-4	1	
	6	2	11.8	25.6	3	-	0.5	12	8.4	162861	CRQS-M5-6	1	
R thread													
R1/8	4	2.5	9.8	27.4	8	23.4	-	10	8.7	132643	CRQS-1/8-4	1	
	6	4.1	11.8	27.6	8	23.7	-	12	9.9	162862	CRQS-1/8-6	1	
	8	5.1	13.8	30.9	8	27	-	14	12	162863	CRQS-1/8-8	1	
R1/4	6	4.2	11.8	31.6	11	25.6	-	14	18	132644	CRQS-1/4-6	1	
	8	5.8	13.8	33.9	11	27.9	-	14	18	162864	CRQS-1/4-8	1	
	10	5.9	16.8	36	11	30	-	17	22	162865	CRQS-1/4-10	1	
R3/8	10	6	16.8	38	12	31.7	-	17	29	162866	CRQS-3/8-10	1	
	12	7.6	19.8	39.9	12	33.6	-	21	37	162867	CRQS-3/8-12	1	
R1/2	12	8.1	19.8	42.9	15	34.7	-	22	55	162868	CRQS-1/2-12	1	
	16	10.1	23.7	49.7	15	41.6	-	24	59	162869	CRQS-1/2-16	1	

1) Packaging unit