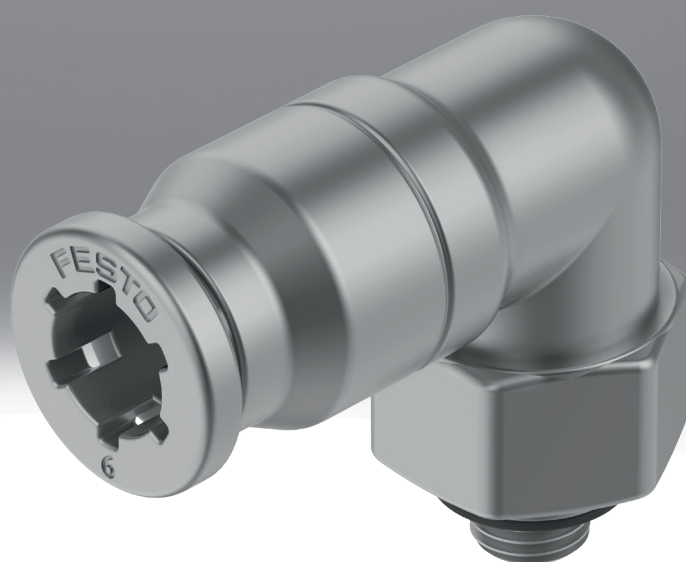


Push-in fitting, stainless steel CRQS

FESTO



Characteristics

At a glance

For pneumatic applications with a temperature range up to 120°C and a pressure range up to 10 bar.

Maximum corrosion resistance and chemical resistance with approval for use in the food and packaging industry.

- Corrosion resistance class CRC 4 according to Festo standard 940 070
- Unlimited use in the food industry
- Operating media: compressed air, vacuum, (water)

The push-in fitting CRQS can be used in combination with the food-safe plastic tubing PFAN in all areas of the food & packaging industry, e.g. in areas where the use of stainless steel is stipulated. Used together, they easily resist all cleaning agents and lubricants.

For further information, see the downloadable additional document.

Additional documents

[Link](#)  [crqs](#)



The additional document CRQS-ADD contains further information on tubing/fitting combinations and thread types.

Diagrams

[Link](#)  [crqs](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

Pneumatic connection 1

Metric threads have a constant installation depth. Sealing is guaranteed by the chambered O-ring. This can be replaced, so that the screw connection can be reused several times.

Self-locking R threads according to EN 10226-1 and ISO 7/1 require a suitable sealing agent. They can be reused up to 5 times (care must be taken to ensure that the sealing agent layer cannot enter the compressed air system due to abrasion). Simply screw in the R thread by hand and tighten it by turning it 1 or 2 times using an open-ended spanner.

Note: When using push-in fittings with an internal hex, ensure that the Allen key is not inserted too far into the fitting when tightening it to prevent the risk of damaging the components behind the fitting.

Type code

001	Series	
CRQS	Push-in fitting, stainless steel	
CRQSY	Push-in Y-connector, stainless steel	
CRQSS	Push-in bulkhead connector, stainless steel	
CRQST	Push-in T-connector, stainless steel	
CRQSL	Push-in L-connector, stainless steel	

002	Pneumatic connection 1	
1/8	Male thread R1/8	
1/4	Male thread R1/4	
3/8	Male thread R3/8	
1/2	Male thread R1/2	
4	Push-in connector 4 mm	
6	Push-in connector 6 mm	
8	Push-in connector 8 mm	
10	Push-in connector 10 mm	
12	Push-in connector 12 mm	
16	Push-in connector mm	
M5	Male thread M5	

003	Pneumatic connection 2	
4	For tubing O.D. 4 mm	
6	For tubing O.D. 6 mm	
8	For tubing O.D. 8 mm	
10	For tubing O.D. 10 mm	
12	For tubing O.D. 12 mm	
16	For tubing O.D. 16 mm	

004	Mounting method	
	Standard	
I	Internal hexagon	

Datasheet

General technical data – Push-in fittings

Pneumatic connection, port 1	Male thread M5	Male thread R1/8	Male thread R1/4	Male thread R3/8	Male thread R1/2
Design	Push-pull principle				
Mounting position	optional				
Type of seal on screwed plug	Sealing ring	–			
Nominal torque	1.33 Nm	–			
Tolerance for nominal tightening torque	± 20%	–			
Nominal size	2 mm	2.2 ... 5.2 mm	3.6 ... 6 mm	6 ... 8.1 mm	7.9 ... 10.1 mm
Size of pack	1				

General technical data – Push-in connectors

Pneumatic connection, port 1	For tubing outer diameter of 4 mm	For tubing outside diameter of 6 mm	For tubing outer diameter of 8 mm	For tubing outer diameter of 10 mm	For tubing outer diameter of 12 mm	For tubing outer diameter of 16 mm
Design	Push-pull principle					
Mounting position	optional					
Nominal size	2 ... 2.4 mm	2.4 ... 3.7 mm	3.7 ... 5.8 mm	5.6 ... 6.7 mm	6.6 ... 8 mm	7.9 ... 10.4 mm
Size of pack	1					

Tubing insertion depths

Pneumatic connection, port 1	For tubing outer diameter of 4 mm	For tubing outside diameter of 6 mm	For tubing outer diameter of 8 mm	For tubing outer diameter of 10 mm	For tubing outer diameter of 12 mm	For tubing outer diameter of 16 mm
Tubing insertion depth ¹⁾	18 mm	19.5 mm	21.5 mm	25.5 mm	27 mm	32 mm

¹⁾ The indicated tubing insertion depths are reference values and may vary slightly depending on the type.

Operating and environmental conditions

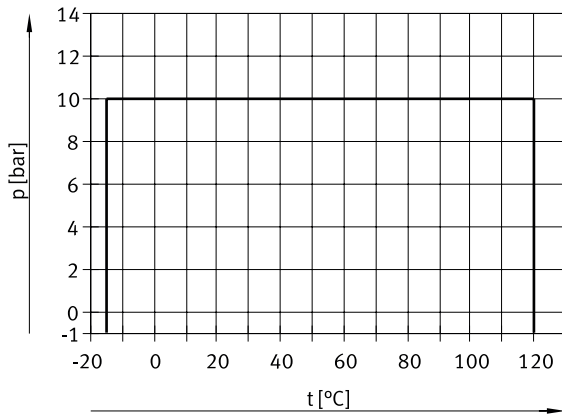
Operating pressure complete temperature range	-0.095 ... 1 MPa
Operating pressure complete temperature range	-0.95 ... 10 bar
Operating pressure complete temperature range	-13.775 ... 145 psi
Temperature-dependent operating pressure	-0.095 ... 1 MPa
Temperature-dependent operating pressure	-0.95 ... 10 bar
Temperature-dependent operating pressure	-13.775 ... 145 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:::] Water (liquid, ice-free)
Note on operating and pilot medium	Lubricated operation possible
Ambient temperature	-15 ... 120°C
Corrosion resistance class CRC ¹⁾	4 - Very high corrosion stress
Suitable for use with food ²⁾	See supplementary material information
Note on operating pressure	Water: max. 0.6 MPa at max. 50°C

¹⁾ More information www.festo.com/x/topic/kbk

²⁾ Next information www.festo.com/catalogue/crqs → Support/Downloads.

Datasheet

Operating pressure p as a function of temperature t



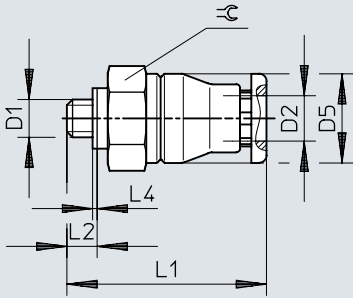
Materials

Material housing	High-alloy stainless steel
Material screwed plug	High-alloy stainless steel
Material release ring	High-alloy stainless steel
Colour of release ring	Silver
Thrust ring material	High-alloy stainless steel
Material tubing seal	FPM
Material thread seal	FPM High-alloy stainless steel
Material tubing clamp component	High-alloy stainless steel
Material nut	High-alloy stainless steel
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

Dimensions – Push-in fitting CRQS, M thread

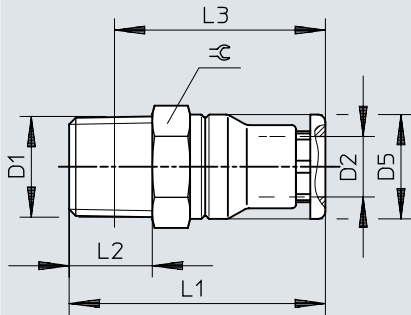
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	D1	D2 ∅	D5 ∅	L1	L2	L4	≡
CRQS-M5-4	M5x0,8	4	9,8	24,4	3	0,5	10
CRQS-M5-6		6	11,8	25,6	3	0,5	12

Dimensions

Dimensions – Push-in fitting CRQS, R thread

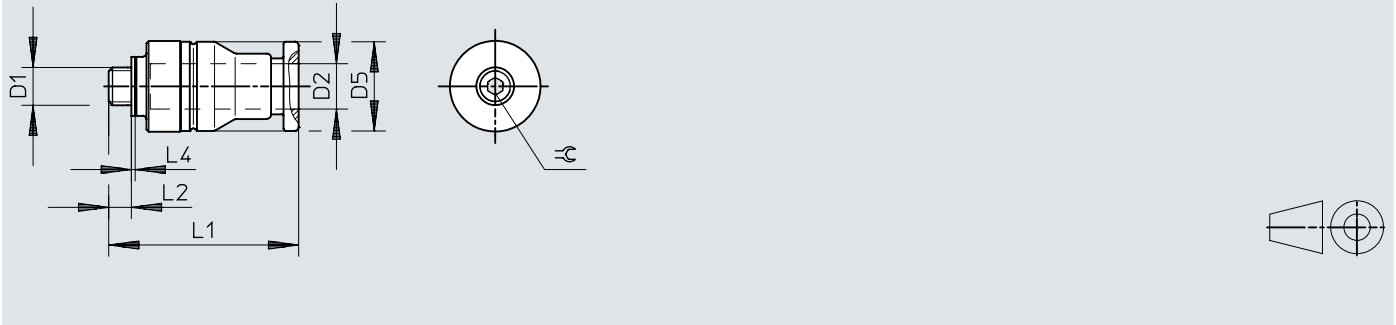
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	D1	D2 ø	D5 ø	L1	L2	L3	≡
CRQS-1/8-4	R1/8	4	9,8	27,4	8	23,4	10
CRQS-1/8-6		6	11,8	27,6	8	23,7	12
CRQS-1/8-8		8	13,8	30,9	8	27	14
CRQS-1/4-6	R1/4	6	11,8	31,6	11	25,6	14
CRQS-1/4-8		8	13,8	33,9	11	27,9	14
CRQS-1/4-10		10	16,8	36	11	30	17
CRQS-3/8-10	R3/8	10	16,8	38	12	31,7	17
CRQS-3/8-12		12	19,8	39,9	12	33,6	21
CRQS-1/2-12	R1/2	12	19,8	42,9	15	34,7	22
CRQS-1/2-16		16	23,7	49,7	15	41,6	24

Dimensions

Dimensions – Push-in fitting CRQS- ...-I, M thread

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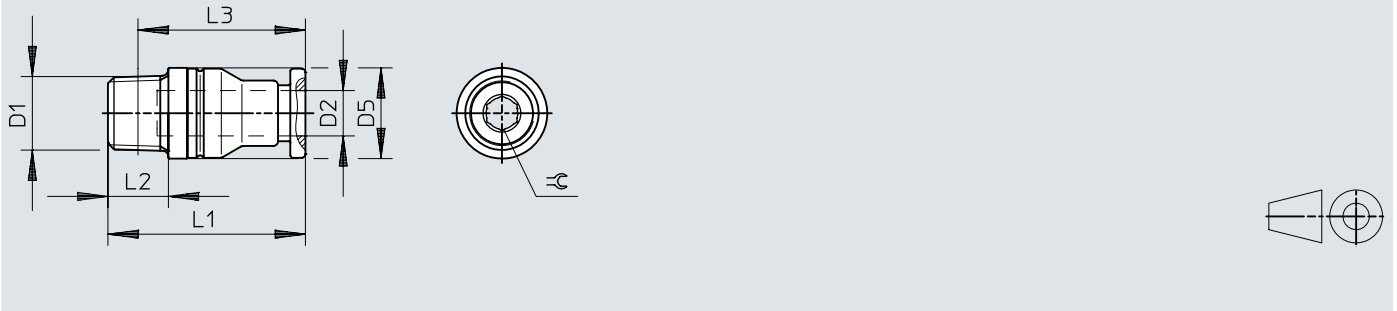


	D1	D2 ∅	D5 ∅	L1	L2	L4	≅
CRQS-M5-4-I	M5	4	10	22,9	3	0,5	2
CRQS-M5-6-I		6	12	25,1	3	0,5	2

Dimensions

Dimensions – Push-in fitting CRQS- ...-I, R thread

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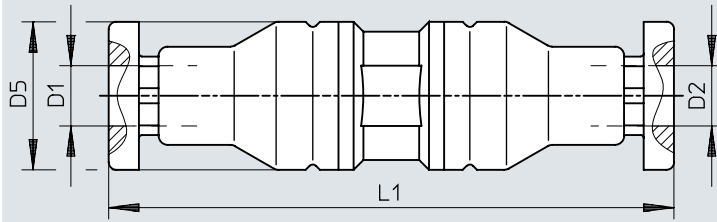


	D1	D2 ∅	D5 ∅	L1	L2	L3	⊕
CRQS-1/8-6-I	R1/8	6	4,1	12	26,1	8	4
CRQS-1/8-8-I		8	5,1	14	30,4	8	5
CRQS-1/4-8-I	R1/4	8	5,8	14	31,4	11	6
CRQS-1/4-10-I		10	5,9	17	36	11	6
CRQS-3/8-10-I	R3/8	10	6	17	34	12	6
CRQS-3/8-12-I		12	7,6	20	36,4	12	8
CRQS-1/2-12-I	R1/2	12	8,1	22	39,4	15	8
CRQS-1/2-16-I		16	10,1	24	46,7	15	12

Dimensions

Dimensions – Push-in connector CRQS

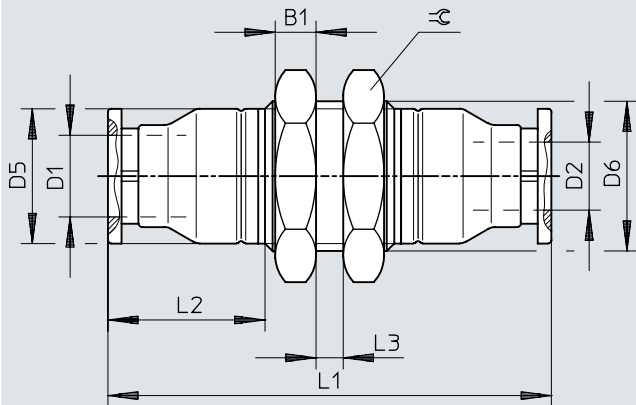
Download CAD data www.festo.com



	D1 ø	D2 ø	D5 ø	L1
CRQS-4	4	4	9,8	37,7
CRQS-6	6	6	11,8	40,3
CRQS-8	8	8	13,8	44,9
CRQS-10	10	10	16,8	52
CRQS-12	12	12	19,8	55,8
CRQS-16	16	16	23,7	66,5
CRQS-6-4	6	4	12	38,8
CRQS-8-6	8	6	14	42,4
CRQS-10-8	10	8	17	48,5
CRQS-12-10	12	10	20	53,9
CRQS-16-12	16	12	24	61,1

Dimensions

Dimensions – Push-in bulkhead connector CRQSS

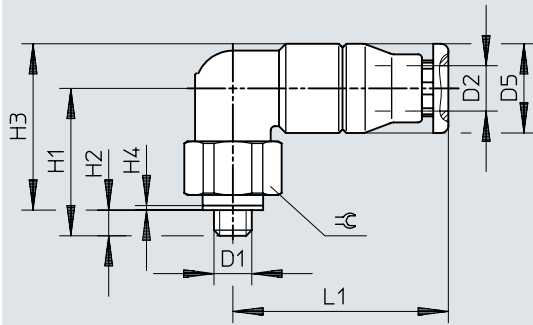
Download CAD data www.festo.com

	D1 ∅	D2 ∅	B1	D5 ∅	D6 ∅	L1	L2	L3 max.	≅
CRQSS-4	4	4	4	9,8	M12x1	43,7	15,4	4	14
CRQSS-6	6	6	4	11,8	M14x1	46,3	15,6	6	17
CRQSS-8	8	8	4	13,8	M16x1	50,9	17,9	6	19
CRQSS-10	10	10	5	16,8	M20x1	57	20	6	24
CRQSS-12	12	12	6	19,8	M22x1	62,8	21,9	6	27
CRQSS-16	16	16	6	23,7	M27x1,5	72,6	26,7	6	32

Dimensions

Dimensions – Push-in L-fitting CRQSL, M thread

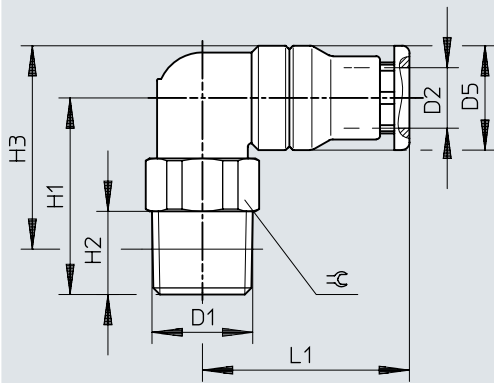
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	D1	D2	D5 ∅	H1	H2	H3	H4	L1	☉
CRQSL-M5-4	M5x0,8	4	9,8	17	3	18,9	0,5	22,4	10
CRQSL-M5-6		6	11,8	19	3	21,9	0,5	23,6	12

Dimensions

Dimensions – Push-in L-fitting CRQSL, R thread

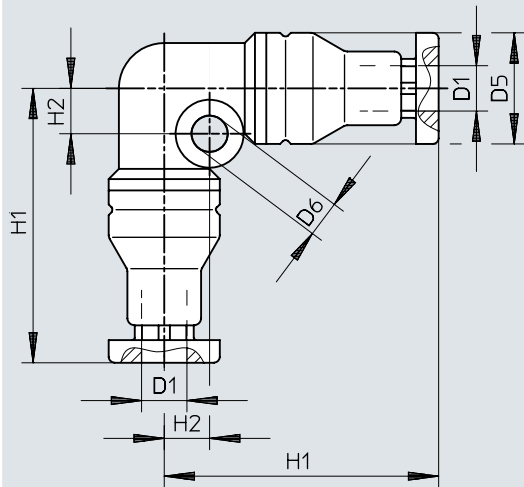
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	D1	D2 ø	D5 ø	H1	H2	H3	L1	☞
CRQSL-1/8-4	R1/8	4	9,8	19	8	19,9	22,4	10
CRQSL-1/8-6		6	11,8	20,5	8	22,4	23,6	12
CRQSL-1/8-8		8	13,8	23	8	25,9	26,4	14
CRQSL-1/4-6	R1/4	6	11,8	23	11	22,9	23,6	14
CRQSL-1/4-8		8	13,8	25	11	25,9	26,4	14
CRQSL-1/4-10		10	16,8	28,5	11	30,9	30,5	17
CRQSL-3/8-10	R3/8	10	16,8	28,5	12	30,6	30,5	17
CRQSL-3/8-12		12	19,8	30	12	33,6	33,4	21
CRQSL-1/2-12	R1/2	12	19,8	34	15	35,7	33,4	22
CRQSL-1/2-16		16	23,7	36	15	39,7	40,7	24

Dimensions

Dimensions – Push-in L-connector CRQSL

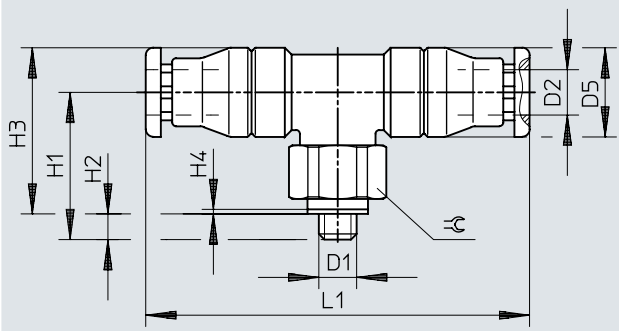
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	D1 Ø	D5 Ø	D6 Ø	H1	H2
CRQSL-4	4	9,8	3,2	24,4	4
CRQSL-6	6	11,8	3,2	26,6	5
CRQSL-8	8	13,8	3,2	29,9	6
CRQSL-10	10	16,8	4,2	35	7
CRQSL-12	12	19,8	4,2	37,9	8
CRQSL-16	16	23,7	4,2	45,2	9,5

Dimensions

Dimensions – Push-in T-fitting CRQST, M thread Download CAD data www.festo.com

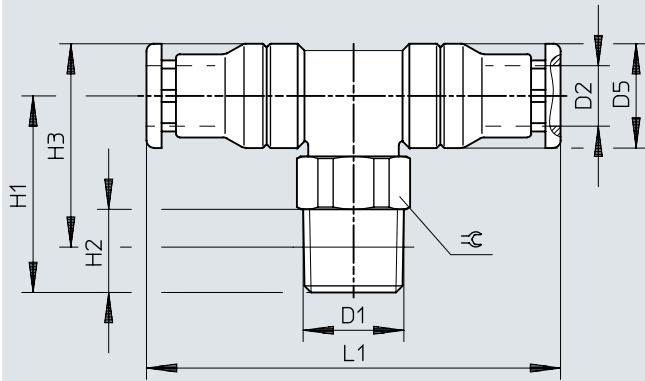


	D1	D2 ∅	D5 ∅	H1	H2	H3	H4	L1	☉
CRQST-M5-4	M5x0,8	4	9,8	17	3	18,9	0,5	44,4	10
CRQST-M5-6		6	11,8	19	3	21,9	0,5	47,3	12

Dimensions

Dimensions – Push-in T-fitting CRQST, R thread

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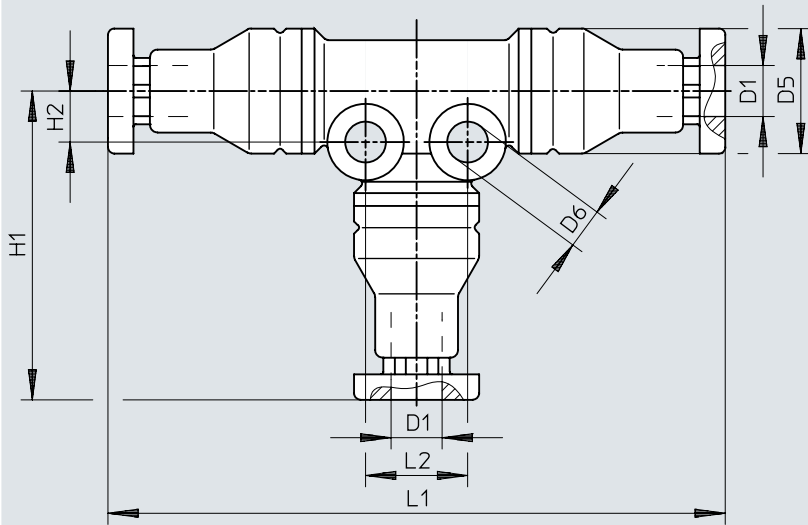


	D1	D2 ø	D5 ø	H1	H2	H3	L1	⊕
CRQST-1/8-6	R1/8	6	11,8	20,5	8	22,4	47,3	12
CRQST-1/8-8		8	13,8	23	8	25,9	52,5	14
CRQST-1/4-8	R1/4	8	13,8	25	11	25,9	52,5	14
CRQST-1/4-10		10	16,8	28,5	11	30,9	61	17
CRQST-3/8-10	R3/8	10	16,8	28,5	12	30,6	61	17
CRQST-3/8-12		12	19,8	30	12	33,6	66,6	21
CRQST-1/2-12	R1/2	12	19,8	34	15	35,7	66,6	22
CRQST-1/2-16		16	23,7	36	15	39,7	81,4	24

Dimensions

Dimensions – Push-in T-connector CRQST

Download CAD data www.festo.com

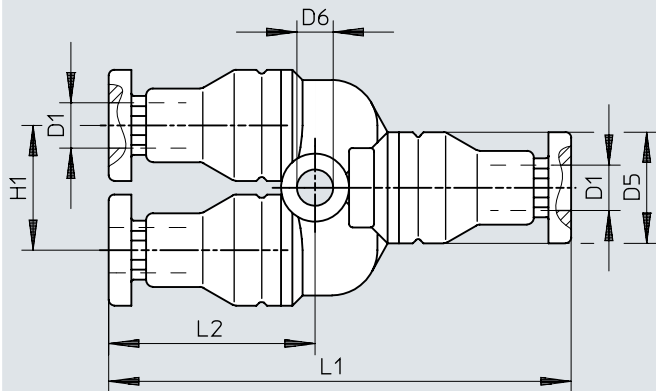


	D1 ∅	D5 ∅	D6 ∅	H1	H2	L1	L2
CRQST-4	4	9,8	3,2	24,4	4	48,4	8
CRQST-6	6	11,8	3,2	26,6	5	53,3	10
CRQST-8	8	13,8	3,2	29,9	6	59,5	12
CRQST-10	10	16,8	4,2	35	7	69,9	14
CRQST-12	12	19,8	4,2	37,9	8	75,6	16
CRQST-16	16	23,7	4,2	45,2	9,5	90,4	19

Dimensions

Dimensions – Push-in Y-connector CRQSY

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	D1 ∅	D5 ∅	D6 ∅	H1	L1	L2
CRQSY-4	4	9,8	3,2	11	41,1	18,4
CRQSY-6	6	11,8	3,2	13	44,3	18,6
CRQSY-8	8	13,8	3,2	15	51,4	20,9
CRQSY-10	10	16,8	4,3	18	58,5	23,5
CRQSY-12	12	19,8	4,3	21	64,8	25,4
CRQSY-16	16	23,7	4,3	25	78,5	30,2

Ordering data


Ordering information – Push-in fitting CRQS(male thread with external hex)						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	Male thread M5	For tubing outside diameter of 4 mm	2 mm	6 g	162860	CRQS-M5-4
		For tubing outside diameter of 6 mm		8.4 g	162861	CRQS-M5-6
	Male thread R1/8	For tubing outside diameter of 4 mm	2.5 mm	8.7 g	132643	CRQS-1/8-4
		For tubing outside diameter of 6 mm	4.1 mm	9.9 g	162862	CRQS-1/8-6
		For tubing outside diameter of 8 mm	5.1 mm	12 g	162863	CRQS-1/8-8
	Male thread R1/4	For tubing outside diameter of 6 mm	4.2 mm	18 g	132644	CRQS-1/4-6
		For tubing outside diameter of 8 mm	5.8 mm		162864	CRQS-1/4-8
		For tubing outside diameter of 10 mm	5.9 mm	22 g	162865	CRQS-1/4-10
	Male thread R3/8	For tubing outside diameter of 10 mm	6 mm	29 g	162866	CRQS-3/8-10
		For tubing outside diameter of 12 mm	7.6 mm	37 g	162867	CRQS-3/8-12
	Male thread R1/2	For tubing outside diameter of 12 mm	8.1 mm	55 g	162868	CRQS-1/2-12
		For tubing outside diameter of 16 mm	10.1 mm	59 g	162869	CRQS-1/2-16

Ordering data – Push-in fitting CRQS-...-(male thread with hex socket)						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	Male thread M5	For tubing outside diameter of 4 mm	2 mm	5 g	132328	CRQS-M5-4-I
		For tubing outside diameter of 6 mm		7.7 g	132329	CRQS-M5-6-I
	Male thread R1/8	For tubing outside diameter of 6 mm	4.1 mm	8.4 g	132330	CRQS-1/8-6-I
		For tubing outside diameter of 8 mm	5.1 mm	12 g	132331	CRQS-1/8-8-I
	Male thread R1/4	For tubing outside diameter of 8 mm	5.8 mm	15 g	132332	CRQS-1/4-8-I
		For tubing outside diameter of 10 mm	5.9 mm	21 g	132333	CRQS-1/4-10-I
	Male thread R3/8	For tubing outside diameter of 10 mm	6 mm	24 g	132334	CRQS-3/8-10-I
		For tubing outside diameter of 12 mm	7.6 mm	28 g	132335	CRQS-3/8-12-I
	Male thread R1/2	For tubing outside diameter of 12 mm	8.1 mm	45 g	132336	CRQS-1/2-12-I
		For tubing outside diameter of 16 mm	10.1 mm	47 g	132337	CRQS-1/2-16-I


Ordering information – Push-in connector CRQS						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outer diameter of 4 mm	For tubing outside diameter of 4 mm	2.4 mm	9.1 g	130645	CRQS-4

Ordering data


Ordering information – Push-in connector CRQS

	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outside diameter of 6 mm	For tubing outside diameter of 4 mm	2.4 mm	11 g	130651	CRQS-6-4
		For tubing outside diameter of 6 mm	3.7 mm	14 g	130646	CRQS-6
	For tubing outer diameter of 8 mm	For tubing outside diameter of 6 mm		15 g	130652	CRQS-8-6
		For tubing outside diameter of 8 mm	5.8 mm	18 g	130647	CRQS-8
	For tubing outer diameter of 10 mm	For tubing outside diameter of 8 mm		22 g	130653	CRQS-10-8
		For tubing outside diameter of 10 mm	6.6 mm	29 g	130648	CRQS-10
For tubing outer diameter of 12 mm	For tubing outside diameter of 10 mm		35 g	130654	CRQS-12-10	
	For tubing outer diameter of 12 mm	7.9 mm	44 g	130649	CRQS-12	
For tubing outer diameter of 16 mm	For tubing outer diameter of 12 mm		50 g	130655	CRQS-16-12	


Ordering data – Push-in bulkhead connector CRQSS


	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outer diameter of 4 mm	For tubing outside diameter of 4 mm	2.4 mm	19 g	164210	CRQSS-4
	For tubing outside diameter of 6 mm	For tubing outside diameter of 6 mm	3.7 mm	27 g	164211	CRQSS-6
	For tubing outer diameter of 8 mm	For tubing outside diameter of 8 mm	5.7 mm	35 g	164213	CRQSS-8
	For tubing outer diameter of 10 mm	For tubing outside diameter of 10 mm	6.7 mm	60 g	164215	CRQSS-10
	For tubing outer diameter of 12 mm	For tubing outer diameter of 12 mm	7.9 mm	87 g	164217	CRQSS-12
	For tubing outer diameter of 16 mm	For tubing outside diameter of 16 mm	10.4 mm	118 g	164219	CRQSS-16


Ordering data – Push-in L-fitting CRQSL (male thread with external hex)

	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	Male thread M5	For tubing outside diameter of 4 mm	2 mm	12 g	162870	CRQSL-M5-4
		For tubing outside diameter of 6 mm		18 g	162871	CRQSL-M5-6
	Male thread R1/8	For tubing outside diameter of 4 mm	2.2 mm	14 g	132598	CRQSL-1/8-4
		For tubing outside diameter of 6 mm	3.9 mm	19 g	162872	CRQSL-1/8-6
		For tubing outside diameter of 8 mm	5.2 mm	26 g	162873	CRQSL-1/8-8

Ordering data


Ordering data – Push-in L-fitting CRQSL (male thread with external hex)						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	Male thread R1/4	For tubing outside diameter of 6 mm	3.6 mm	26 g	132599	CRQSL-1/4-6
		For tubing outside diameter of 8 mm	5.1 mm	30 g	162874	CRQSL-1/4-8
		For tubing outside diameter of 10 mm	6 mm	42 g	162875	CRQSL-1/4-10
	Male thread R3/8	For tubing outside diameter of 10 mm		49 g	162876	CRQSL-3/8-10
	Male thread R1/2	For tubing outer diameter of 12 mm	8.1 mm	65 g	162877	CRQSL-3/8-12
		For tubing outer diameter of 12 mm	7.9 mm	85 g	162878	CRQSL-1/2-12
		For tubing outside diameter of 16 mm	9.4 mm	99 g	162879	CRQSL-1/2-16

Ordering data – Push-in L-connector CRQSL						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outer diameter of 4 mm	For tubing outside diameter of 4 mm	2.1 mm	13 g	130662	CRQSL-4
	For tubing outside diameter of 6 mm	For tubing outside diameter of 6 mm	3.5 mm	20 g	130663	CRQSL-6
	For tubing outer diameter of 8 mm	For tubing outside diameter of 8 mm	5.1 mm	27 g	130664	CRQSL-8
	For tubing outer diameter of 10 mm	For tubing outside diameter of 10 mm	6.1 mm	42 g	130665	CRQSL-10
	For tubing outer diameter of 12 mm	For tubing outer diameter of 12 mm	7.8 mm	62 g	130666	CRQSL-12
	For tubing outer diameter of 16 mm	For tubing outside diameter of 16 mm	9.4 mm	91 g	130667	CRQSL-16


Ordering data – Push-in T-fitting CRQST (male thread with external hex)						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	Male thread M5	For tubing outside diameter of 4 mm	2 mm	17 g	164200	CRQST-M5-4
		For tubing outside diameter of 6 mm		24 g	164201	CRQST-M5-6
	Male thread R1/8	For tubing outside diameter of 6 mm	3.7 mm	25 g	164202	CRQST-1/8-6
		For tubing outside diameter of 8 mm		33 g	164203	CRQST-1/8-8
	Male thread R1/4	For tubing outside diameter of 8 mm	5 mm	38 g	164204	CRQST-1/4-8
		For tubing outside diameter of 10 mm		56 g	164205	CRQST-1/4-10
	Male thread R1/2	For tubing outside diameter of 16 mm	9.5 mm	128 g	164209	CRQST-1/2-16

Ordering data

Ordering data – Push-in T-connector CRQST

	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outer diameter of 4 mm	For tubing outside diameter of 4 mm	2.1 mm	18 g	130668	CRQST-4
	For tubing outside diameter of 6 mm	For tubing outside diameter of 6 mm	3.5 mm	27 g	130669	CRQST-6
	For tubing outer diameter of 8 mm	For tubing outside diameter of 8 mm	5 mm	37 g	130670	CRQST-8
	For tubing outer diameter of 10 mm	For tubing outside diameter of 10 mm	6.1 mm	59 g	130671	CRQST-10
	For tubing outer diameter of 12 mm	For tubing outer diameter of 12 mm	8 mm	87 g	130672	CRQST-12
	For tubing outer diameter of 16 mm	For tubing outside diameter of 16 mm	9.7 mm	126 g	130673	CRQST-16

Ordering data – Push-in Y-connector CRQSY

	Pneumatic connection, port 1	Pneumatic connection, port 2	Nominal size	Product weight	Part no.	Type
	For tubing outer diameter of 4 mm	For tubing outside diameter of 4 mm	2 mm	15 g	130656	CRQSY-4
	For tubing outside diameter of 6 mm	For tubing outside diameter of 6 mm	3.3 mm	24 g	130657	CRQSY-6
	For tubing outer diameter of 8 mm	For tubing outside diameter of 8 mm	4.9 mm	34 g	130658	CRQSY-8
	For tubing outer diameter of 10 mm	For tubing outside diameter of 10 mm	5.6 mm	52 g	130659	CRQSY-10
	For tubing outer diameter of 12 mm	For tubing outer diameter of 12 mm	7 mm	80 g	130660	CRQSY-12