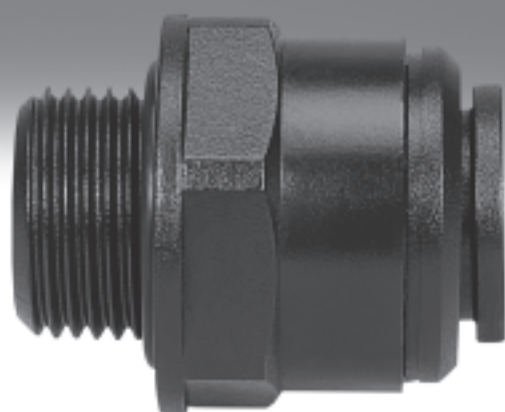


Push-in fittings CQ, for push-fit piping systems

FESTO



Push-in fittings CQ, for push-fit piping systems

Key features

FESTO



General information

- Suitable for polyamide pipes PQ-PA and aluminium pipes PQ-AL
Outer Ø 12, 15, 18, 22 and 28 mm
→ Internet: pq
- Suitable for polyamide tubing PAN, PAN-L and polyurethane tubing PUN
Outer Ø 12 mm
→ Internet: pan, pun
- For compressed air, vacuum or liquids.
- The pipes/tubes are held externally. This ensures that there is no reduction of nominal size.
- Simple, fast installation:
 - cut to length
 - insert
 - and you're done!
- The pipes/tubes can be assembled and dismantled without tools.
- Quick release connection.
- Can be re-used a number of times.
- The releasing tool CQO for size 12 ... 22 is provided for applications requiring frequent dismantling or where the push-in fittings are difficult to access.
- The retaining ring CQSR available as an accessory prevents inadvertent disconnection of the tubing or pipe. Size 28 features an integrated retaining device.
- Screw-in thread cylindrical to DIN ISO 228/1, sealed with chamfered O-ring, size 28 with PVC flat seal.
- No additional thread sealing compound required.
- Plug connector materials approved for use by the FDA (Food and Drug Administration).
Exception: Push-in fitting CQ-1-28-H
- Minimal weight as opposed to steel pipe and die-cast fittings.

Push-in fittings CQ, for push-fit piping systems

FESTO

Technical data

Operating and environmental conditions				
	Push-in fitting	Push-in connector	Water separator	Distributor
Operating pressure [bar]	-0.95 ... +15			
Room temperature [°C]	-25 ... +75			
Temperature of medium [°C]	-		-25 ... +75	
Corrosion resistance class CRC ¹⁾	2			
Food industry approval	FDA			
Approval	Germanischer Lloyd			

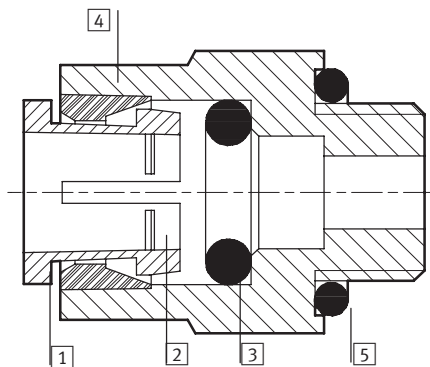
1) Corrosion resistance class 2 to Festo standard 940 070

Components subject to moderate corrosion stress. 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

Operating pressure [bar]							
	Push-in fitting					Water separator	
	CQ...-12	CQ...-15	CQ...-18	CQ...-22	CQ...-28	CQA-22	CQA-28
Room temperature [°C]							
-20	-0.95 ... 15				-0.95 ... 10	-0.95 ... 15	-0.95 ... 10
+23	-0.95 ... 15				-0.95 ... 10	-0.95 ... 15	-0.95 ... 10
+70	-0.95 ... 7					-0.95 ... 7	–
Temperature of medium [°C]							
1 ... 23	10				10	–	
1 ... 65	10				7	–	

Materials

Sectional view












	CQ...	CQ-1-28H
1 Release ring	Polyacetal	Polyacetal
2 Tube retaining claw	High-alloy stainless steel	High-alloy stainless steel
3 O-ring	Nitrile rubber	Nitrile rubber
4 Housing	Polyacetal	Polyacetal
5 Connector thread seal	Nitrile rubber	Polyvinyl chloride
Material note	Contains paint wetting impairment substances	

Push-in fittings CQ, for push-fit piping systems

FESTO





Product range overview

Design	Version	Type	Connection D1		Connection D2			→ Page/ Internet
			G thread	Tube/piping O.D.	Push-in sleeve ∅	Tube/piping O.D.	Push-in sleeve ∅	
Straight design	Push-in fitting – Male thread							
		CQ	G3/8	–	–	12	–	5
			G1/2			12, 15, 18		
			G3/4			22		
	Push-in fitting with sleeve							
		CQ-...H	G3/8	–	–	12, 15	–	5
			G1/2			12, 15, 18, 22		
			G3/4			22		
			G1			28		
	Push-in connector							
		CQ	–	12	–	–	–	6
				15				
				18				
				22				
28								
Push-in connector with sleeve								
	CQ-...H	–	12	–	–	15	6	
			15			18		
			15			22		
			18			22		
			22			28		
Push-in sleeve								
	CQH-...-QS	–	–	15	–	12	7	
				18		16		
				22		16		
Blanking plug								
	CQC-...H	–	–	12	–	–	7	
				15				
				18				
				22				
				28				
L-shape	Push-in L-connector							
		CQL	–	12	–	–	–	8
				15				
				18				
				22				
				28				
T-shape	Push-in T-connector							
		CQT	–	12	–	–	–	8
				15				
				18				
				22				
				28				
		CQT Reducing	–	18	–	15	–	8
				22		15		

Push-in fittings CQ, for push-fit piping systems

Product range overview

FESTO

Design	Version	Type	Connection D1		Connection D2			→ Page/ Internet
			G thread	Tube/piping O.D.	Push-in sleeve Ø	Tube/piping O.D.	Push-in sleeve Ø	
Straight design	Distributor							
		CQD	–					9
	Water separator							
		CQA	–	22	–	–	–	9
				28				
	Retaining ring							
	CQSR	–					10	
Releasing tool								
	CQO	–					10	

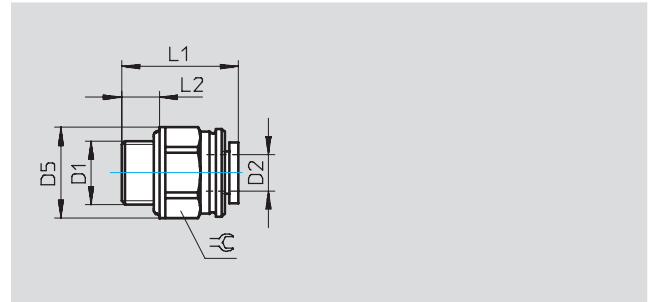
Push-in fittings CQ, for push-fit piping systems

FESTO

Technical data

Push-in fitting CQ with sealing ring

Material:
Polyacetal

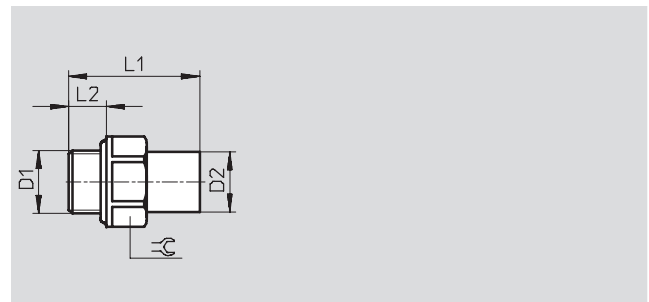



Dimensions and ordering data										
Connection	Nominal size	Pipe/tubing O.D.	D5	L1	L2	⌀	Weight/piece	Part No.	Type	PU*
D1	[mm]	D2					[g]			
G3/8	8.65	12	26.4	30.6	9.3	24	8	177 682	CQ-3/8-12	1
G1/2	8.65	12	29.8	34	12.5	27	12	177 683	CQ-1/2-12	1
	12	15	29.7	38	12.5	27	14	177 684	CQ-1/2-15	1
	12.7	18	34	54.8	12.5	–	24	177 685	CQ-1/2-18	1
G3/4	17	22	40	60.7	13.4	–	36	177 686	CQ-3/4-22	1

* Packaging unit quantity

Push-in fitting CQ-...H with push-in sleeve and sealing ring

Material:
Polyacetal
(G1 connection: Brass)



Dimensions and ordering data									
Connection	Nominal size	Push-in sleeve Ø	L1	L2		Weight/piece	Part No.	Type	PU*
D1	[mm]	D2				[g]			
G3/8	8.65	12	39.8	9.3	24	4	177 705	CQ-3/8-12H	1
	9.4	15	43.3	12.5	27	10	177 707	CQ-3/8-15H	1
G1/2	8.65	12	54.4	11.3	22	8	177 706	CQ-1/2-12H	1
	10	15	57.9	14.5	27	14	177 708	CQ-1/2-15H	1
	12.7	18	62.9	14.5	27	18	177 709	CQ-1/2-18H	1
	12.15	22	64.9	14.5	27	18	177 710	CQ-1/2-22H	1
G3/4	17	22	69	17	37	28	177 711	CQ-3/4-22H	1
G1	23	28	80	15	36	200	194 589	CQ-1-28H	1

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

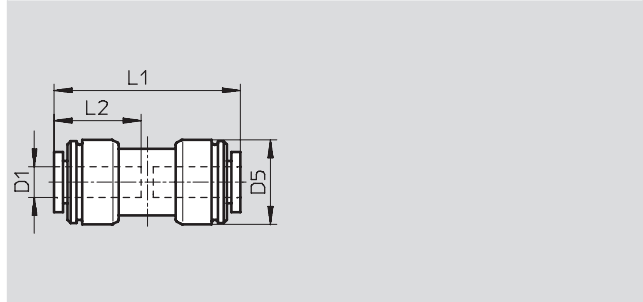
FESTO

Technical data

Push-in connector CQ

Material:

Polyacetal



Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	D5 Ø	L1	L2	Weight/piece	Part No.	Type	PU*
D1	[mm]	±0.5		±1	[g]			
12	8.65	23	54.4 ±0.5	25	16	177 695	CQ-12	1
15	12	26.8	57.8 ±0.5	27.5	18	177 696	CQ-15	1
18	16	31.1	64.1 ±0.5	30.5	26	177 697	CQ-18	1
22	19.2	35.5	69.6 ±0.5	33	36	177 698	CQ-22	1
28	24.9	49.5	91 ±1	44	90	194 586	CQ-28	1

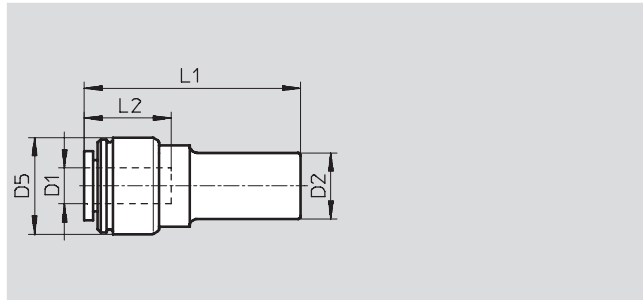
* Packaging unit quantity

Push-in connector CQ-...H

with push-in sleeve

Material:

Polyacetal



Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	Push-in sleeve Ø	D5 Ø	L1	L2	Weight/piece	Part No.	Type
D1	[mm]	D2	±0.5		±1	[g]		PU*
12	9.15	15	27.5	60.2 ±0.5	25	12	177 701	CQ-15H-12
15	12.15	18	26.8	70.5 ±0.5	27.5	16	177 702	CQ-18H-15
15	12.15	22	26.8	71.5 ±0.5	27.5	16	177 703	CQ-22H-15
18	17.3	22	31.1	70.7 ±0.5	30.5	22	177 704	CQ-22H-18
22	19.2	28	35.5	81.8 ±1	33	34	196 231	CQ-28H-22

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

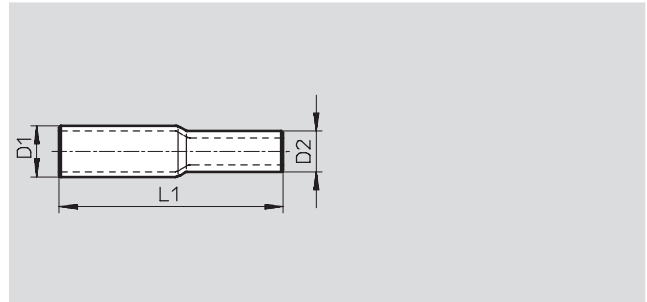
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Technical data

Push-in sleeve CQH-...-QS
reducer for connecting CQ to QS

Material:
Polyacetal
Contains paint wetting impairment
substances

Approval:
Germanischer Lloyd



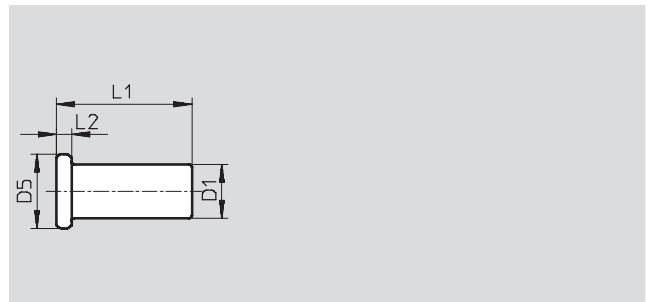
Dimensions and ordering data							
Push-in sleeve \varnothing D1	Push-in sleeve \varnothing D2	Nominal size [mm]	L1	Weight/piece [g]	Part No.	Type	PU*
15	12	8	66.5	4	177 721	CQH-15-QS-12	1
18	16	11	71.5	8	177 722	CQH-18-QS-16	1
22	16	11	80	10	177 723	CQH-22-QS-16	1

* Packaging unit quantity

Blanking plug CQC-...H

Material:
Polyacetal
Contains paint wetting impairment
substances

Approval:
Germanischer Lloyd



Dimensions and ordering data							
Push-in sleeve \varnothing D1	D5 \varnothing	L1	L2	Weight/piece [g]	Part No.	Type	PU*
12 ± 0.15	21.6	38.8 ± 0.5	4.7	4	177 712	CQC-12H	1
15 ± 0.15	25	45 ± 0.3	5	6	177 713	CQC-15H	1
18 ± 0.15	30	41.5 ± 0.3	4	8	177 714	CQC-18H	1
22 ± 0.15	32	45 ± 0.3	4.7	10	177 715	CQC-22H	1
28 ± 0.15	40	56	4	22	194 590	CQC-28H	1

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

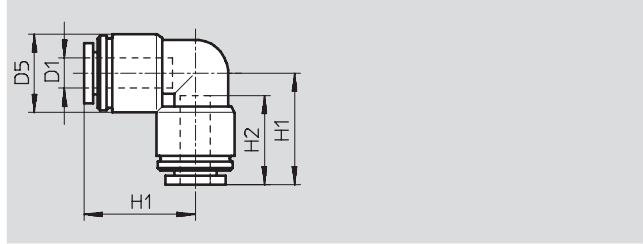
FESTO

Technical data

Push-in L-connector CQL

Material:

Polyacetal



Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	D5 Ø	H1	H2	Weight/piece [g]	Part No.	Type	PU*
D1	[mm]	±0.5		±1				
12	8.65	23	32.2 ±0.5	25	16	177 691	CQL-12	1
15	12	26.8	37.2 ±0.5	27.5	20	177 692	CQL-15	1
18	16	31.1	44.1 ±0.5	30.5	32	177 693	CQL-18	1
22	19.2	35.5	48.3 ±0.5	33	46	177 694	CQL-22	1
28	24.9	49.2	61.4 ±1	44	106	194 587	CQL-28	1

* Packaging unit quantity

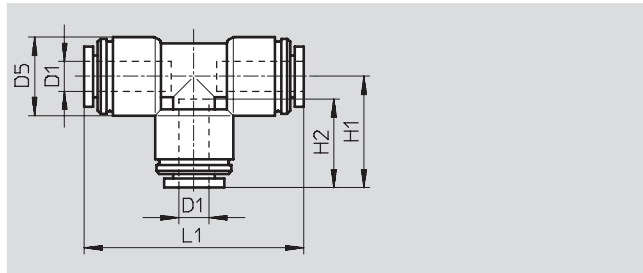
Push-in T-connector CQT

Outlets: 2

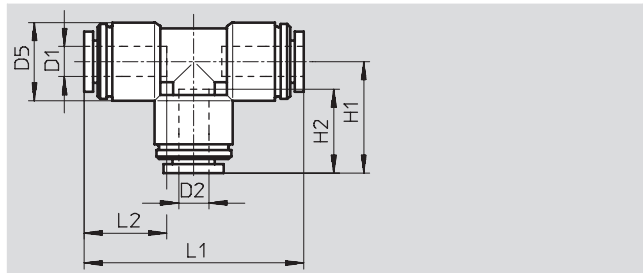
Supply lines: 1

Material:

Polyacetal



Reducing



Dimensions and ordering data										
Pipe/tubing O.D.	Nominal size	Pipe/tubing O.D.	D5 Ø	H1	H2	L1	L2	Weight/piece [g]	Part No.	Type
D1	[mm]	D2			±1					PU*
12	8.65	–	23	32.2 ±0.5	25	64.4 ±0.5	–	26	177 687	CQT-12
15	12	–	26.8	37.2 ±0.5	27.5	74.4 ±0.5	–	30	177 688	CQT-15
18	16	–	31.1	44.1 ±0.5	30.5	88.2 ±0.5	–	46	177 689	CQT-18
22	19.2	–	35.5	48.3 ±0.5	33	96.6 ±0.5	–	66	177 690	CQT-22
28	24.9	–	49.2	61.4 ±1	44	121 ±1	–	152	194 588	CQT-28
Reducing										
18	12	15	31.1	37.9	27.5	84.5	30.5	42	177 699	CQT-18-15
22	12,15	15	35.5	41.6	27.5	89.6	33	56	177 700	CQT-22-15

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

FESTO

Technical data

Distributor CQD

with 3 blanking plugs

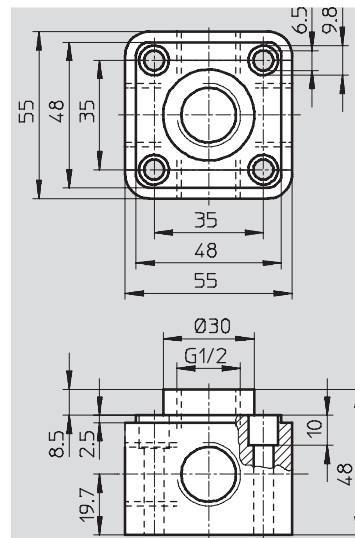
Outlets: 2

Supply lines: 1

Material:

Polyacetal

Contains paint wetting impairment substances



Dimensions and ordering data				
Connection	Weight/piece	Part No.	Type	PU*
D1	[g]			
G1/2	181	177 717	CQD-12/15/18/22	1

* Packaging unit quantity

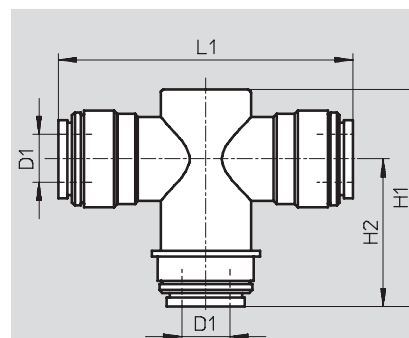
Water separator CQA

The water separator has been designed for air flows up to 300 l/min. The condensate remains in the ring line and does not enter the branch line vertically downwards.

Material:

Polyacetal

Contains paint wetting impairment substances



Dimensions and ordering data								
Pipe/tubing	Nominal size	H1	H2	L1	Weight/piece	Part No.	Type	PU*
O.D.								
D1	[mm]				[g]			
22	12	71.8	48.3	97.8	76	177 716	CQA-22	1

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

FESTO

Technical data

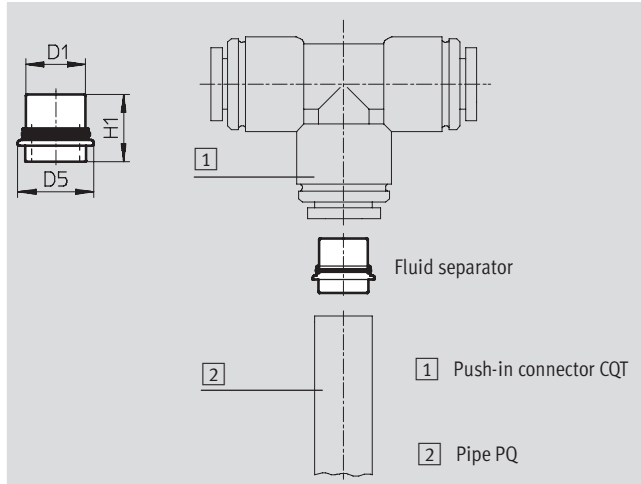
Water separator CQA

A water separator is created through the introduction of a fluid separator CQA-28 into a standard push-in T-connector. The fluid separator consists of a brass insert with an O-ring. The short section of the brass insert is pushed into the PA or aluminium pipe. This assembly is then joined to the push-in T-connector.

Material:

Brass

Contains paint wetting impairment substances



Dimensions and ordering data							
Pipe/tubing O.D.	Nominal size	D5	H1	Weight/piece	Part No.	Type	PU*
D1	[mm]			[g]			
22	20	28	24.8	18	196 984	CQA-28	1

* Packaging unit quantity

Retaining ring CQSR

The retaining ring prevents inadvertent disconnection of the tubing or pipe.

Material:

Polycetal

Contains paint wetting impairment substances



Dimensions and ordering data				
Pipe/tubing O.D.	Weight/piece	Part No.	Type	PU*
D1	[g]			
12	1	175 727	CQSR-12	10
15	0.5	175 728	CQSR-15	10
18	0.5	175 729	CQSR-18	10
22	0.4	175 730	CQSR-22	10

* Packaging unit quantity

Push-in fittings CQ, for push-fit piping systems

Technical data

FESTO

Releasing tool CQ0

Material:
Polyacetal
Contains paint wetting impairment
substances

Approval:
Germanischer Lloyd



Dimensions and ordering data				
Pipe/tubing O.D. D1	Weight/piece [g]	Part No.	Type	PU*
15	2	175 725	CQ0-15	1
22	4	175 726	CQ0-22	1

* Packaging unit quantity

Product Range and Company Overview

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Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
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Pneumatics
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PLCs and I/O Devices
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Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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