

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 \varnothing 12, 15, 18, 22 and 28 mm
→ 3 / 5.1-1
- Suitable for polyamide tubing PAN, PAN-L and polyurethane tubing PUN
Outer \varnothing 12 mm
→ 3 / 5.2-1
- 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 release 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

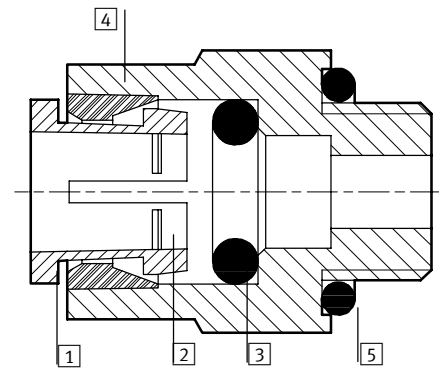
Technical data



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



Piping, tubing and fittings
Push-in fittings










5.4

	CQ...	CQ-1-28H
1 Release ring	Polyacetal	Polyacetal
2 Retaining teeth	Stainless steel	Stainless steel
3 O-ring	Nitrile rubber	Nitrile rubber
4 Housing	Polyacetal	Polyacetal
5 Connector thread seal	Nitrile rubber	Polyvinyl chloride

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





Product range overview



Design	Version	Type	Connection D1			Connection D2		→ Page
			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	-	3 / 5.4-123
			G1/2			12, 15, 18		
			G3/4			22		
	Push-in fitting with sleeve							
		CQ-...H	G3/8	-	-	12, 15	-	3 / 5.4-123
			G1/2			12, 15, 18, 22		
			G3/4			22		
			G1			28		
	Push-in connector							
	CQ	-	12	-	-	-	3 / 5.4-124	
			15					
			18					
			22					
			28					
Push-in connector with sleeve								
	CQ-...H	-	12	-	-	15	3 / 5.4-124	
			15			18		
			15			22		
			18			22		
			22			28		
Push-in sleeve								
	CQH-...-QS	-	-	15	-	12	3 / 5.4-125	
				18		16		
				22		16		
Blanking plug								
	CQC-...H	-	-	12	-	-	3 / 5.4-125	
				15				
				18				
				22				
				28				
L-shape	Push-in L-connector							
		CQL	-	12	-	-	-	3 / 5.4-126
	15							
	18							
	22							
	28							
T-shape	Push-in T-connector							
		CQT	-	12	-	-	-	3 / 5.4-126
	15							
	18							
	22							
	28							
	CQT Reducing	-	18	-	15	-	3 / 5.4-126	
			22		15			

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

Product range overview

Design	Version	Type	Connection D1			Connection D2		→ Page
			G thread	Tube/piping O.D.	Push-in sleeve ∅	Tube/piping O.D.	Push-in sleeve ∅	
Straight design	Distributor							
		CQD	-					3 / 5.4-127
	Water separator							
		CQA	-	22 28	-	-	-	3 / 5.4-127
	Retaining ring							
		CQSR	-					3 / 5.4-128
Release tool								
	CQO	-					3 / 5.4-128	

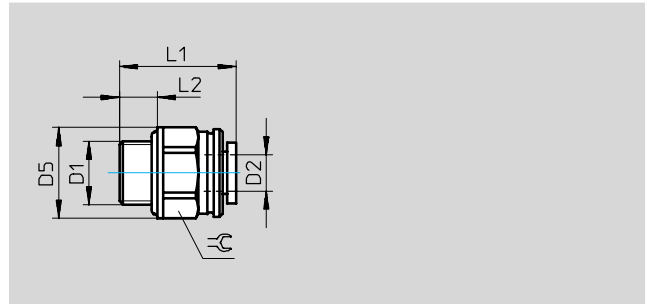
Piping, tubing and fittings
Push-in fittings

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

Technical data

Push-in fitting CQ with sealing ring

Material:
Housing: Polyacetal

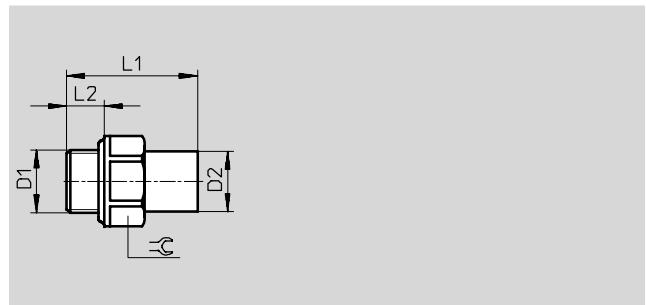


Dimensions and ordering data										
Connection	Nominal size	Pipe/tubing O.D.	D5	L1	L2	∅C	Weight/piece	Part No.	Type	PU*
D1	[mm]	D2					[g]			
G3/8	8.6	12	26.4	30.6	9.3	24	8	177 682	CQ-3/8-12	1
G1/2	8.6	12	29.8	34	12.5	27	12	177 683	CQ-1/2-12	1
	12	15	29.7	38	12.5	27	14	177 684	CQ-1/2-15	1
	12.7	18	34	54.8	12.5	-	24	177 685	CQ-1/2-18	1
G3/4	22	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:
Housing: Polyacetal
(G1 connection: Brass)



Dimensions and ordering data										
Connection	Nominal size	Pipe/tubing O.D.	L1	L2	∅C	Weight/piece	Part No.	Type	PU*	
D1	[mm]	D2				[g]				
G3/8	8.6	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	8.6	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	
	12.7	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

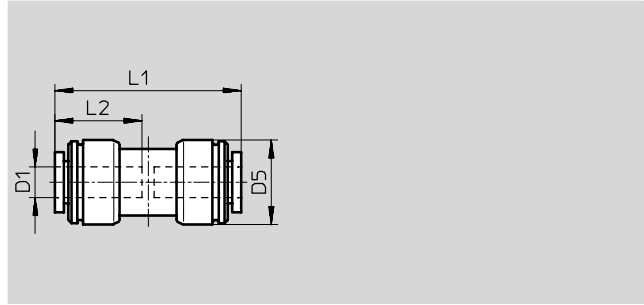
Push-in fittings CQ, for push-fit piping systems

Technical data



Push-in connector CQ

Material:
Polyacetal

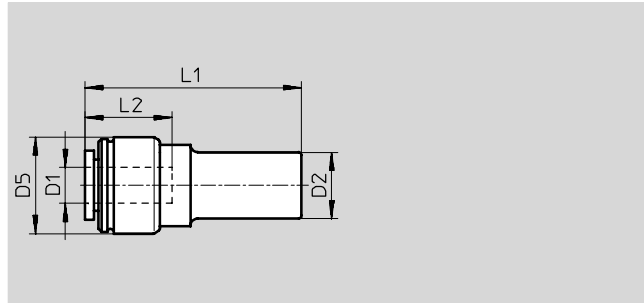


Dimensions and ordering data								
Pipe/tubing	Nominal size	D5	L1	L2	Weight/piece	Part No.	Type	PU*
O.D.		∅						
D1	[mm]	±0.5		±1	[g]			
12	8.6	23	54.4 ±0.5	25	16	177 695	CQ-12	1
15	12	26.8	57.8 ±0.5	27.5	18	177 696	CQ-15	1
18	16	31.1	64.1 ±0.5	30.5	26	177 697	CQ-18	1
22	19.2	35.5	69.6 ±0.5	33	36	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



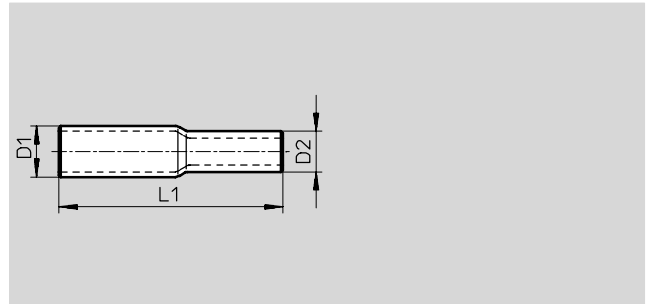
Dimensions and ordering data									
Pipe/tubing	Nominal size	Push-in sleeve	D5	L1	L2	Weight/piece	Part No.	Type	PU*
O.D.		∅	∅						
D1	[mm]	D2	±0.5		±1	[g]			
12	9.1	15	27.5	60.2 ±0.5	25	12	177 701	CQ-15H-12	1
15	12.1	18	26.8	70.5 ±0.5	27.5	16	177 702	CQ-18H-15	1
15	12.1	22	26.8	71.5 ±0.5	27.5	16	177 703	CQ-22H-15	1
18	17.3	22	31.1	70.7 ±0.5	30.5	22	177 704	CQ-22H-18	1
22	19.2	28	35.5	81.8 ±1	33	34	196 231	CQ-28H-22	1

* Packaging unit quantity

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

Technical data

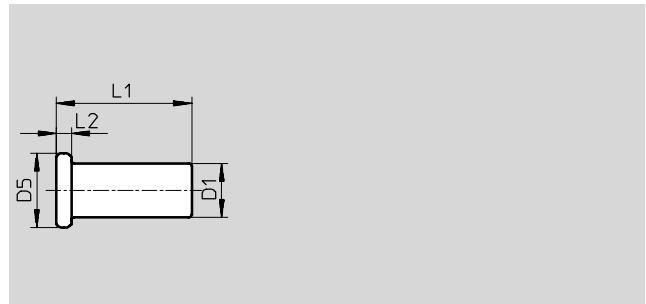
Push-in sleeve CQH-...-QS
reducer for connecting CQ to QS



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

* Packaging unit quantity

Blanking plug CQC-...H



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 -0.1	28	72 ± 0.3	5	42	194 590	CQC-28H	1

* Packaging unit quantity

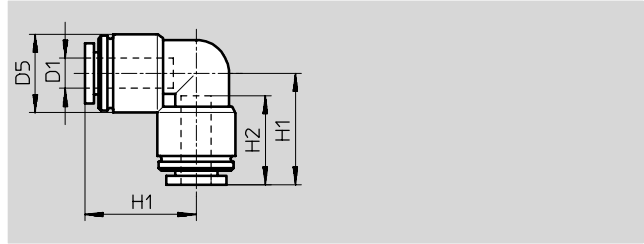
Push-in fittings CQ, for push-fit piping systems

Technical data



Push-in L-connector CQL

Material:
Polyacetal

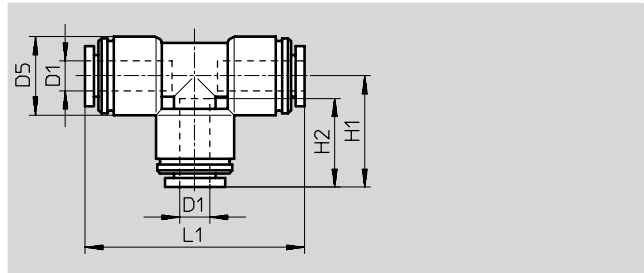


Dimensions and ordering data								
Pipe/tubing O.D. D1	Nominal size [mm]	D5 \varnothing ± 0.5	H1	H2 ± 1	Weight/piece [g]	Part No.	Type	PU*
12	8.6	23	32.2 ± 0.5	25	16	177 691	CQL-12	1
15	12	26.8	37.2 ± 0.5	27.5	20	177 692	CQL-15	1
18	16	31.1	44.1 ± 0.5	30.5	32	177 693	CQL-18	1
22	19.2	35.5	48.3 ± 0.5	33	46	177 694	CQL-22	1
28	24.9	49.2	61.4 ± 1	44	106	194 587	CQL-28	1

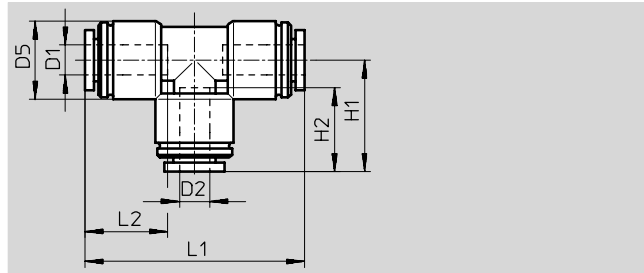
* Packaging unit quantity

Push-in T-connector CQT

Material:
Polyacetal



Reducing



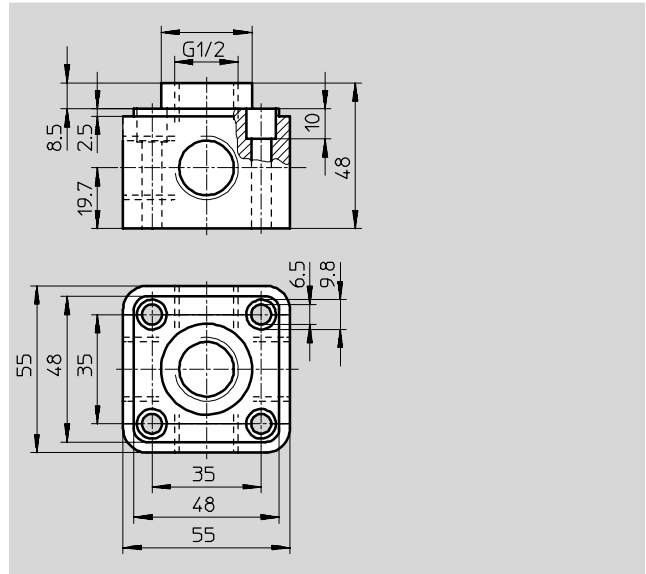
Dimensions and ordering data											
Pipe/tubing O.D. D1	Nominal size [mm]	Pipe/tubing O.D. D2	D5 \varnothing	H1	H2 ± 1	L1	L2	Weight/piece [g]	Part No.	Type	PU*
12	8.6	-	23	32.2 ± 0.5	25	64.4 ± 0.5	-	26	177 687	CQT-12	1
15	12	-	26.8	37.2 ± 0.5	27.5	74.4 ± 0.5	-	30	177 688	CQT-15	1
18	16	-	31.1	44.1 ± 0.5	30.5	88.2 ± 0.5	-	46	177 689	CQT-18	1
22	19.2	-	35.5	48.3 ± 0.5	33	96.6 ± 0.5	-	66	177 690	CQT-22	1
28	24.9	-	49.2	61.4 ± 1	44	121 ± 1	-	152	194 588	CQT-28	1
Reducing											
18	-	15	31.1	37.9	27.5	84.5	30.5	42	177 699	CQT-18-15	1
22	-	15	35.5	41.6	27.5	89.6	33	56	177 700	CQT-22-15	1

* Packaging unit quantity

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Technical data

Distributor CQD with 3 blanking plugs



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

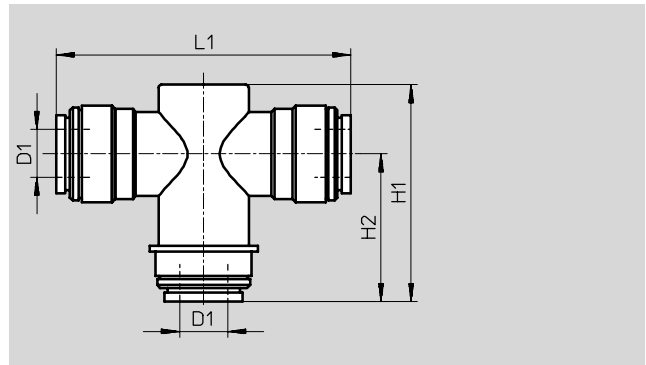
* Packaging unit quantity

Water separator CQA

for removing water at extraction rates of up to 300 l/min.

The use of this component, which includes a water separator, prevents water from entering branch lines. The correct mounting position is identified.

Material:
Polyacetal



Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	H1	H2	L1	Weight/piece [g]	Part No.	Type	PU*
D1	[mm]							
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

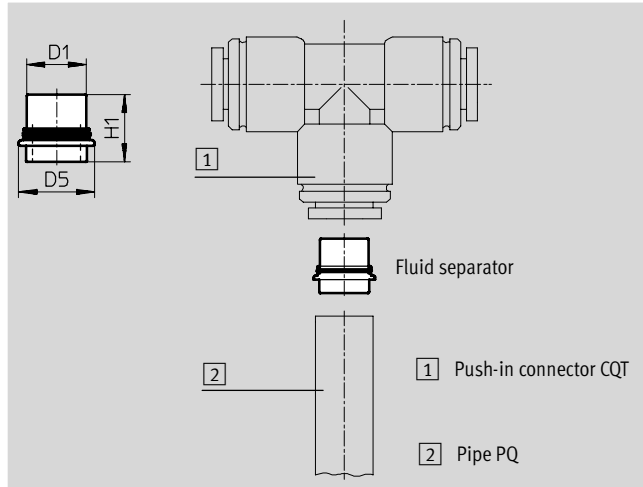
Technical data



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



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

Retaining ring CQSR

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

Material:
Polyacetal



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

Release tool CQO

Material:
Polyacetal



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

* Packaging unit quantity