

## 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

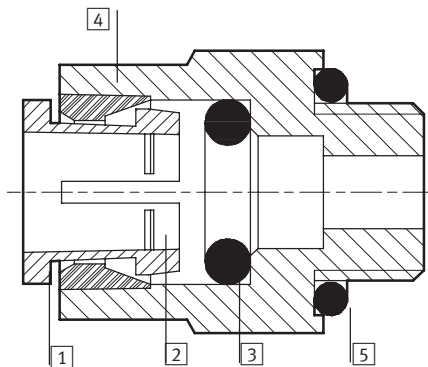
Technical data

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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 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

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Product range overview





Piping, tubing and fittings  
Push-in fittings

5.4

Design	Version	Type	Connection D1			Connection D2		→ Page
			G thread	Tube/piping O.D.	Push-in sleeve Ø	Tube/piping O.D.	Push-in sleeve Ø	
Straight design	<b>Push-in fitting – Male thread</b>							
		CQ	G3/8	–	–	12	–	3 / 5.4-130
			G1/2			12, 15, 18		
			G3/4			22		
	<b>Push-in fitting with sleeve</b>							
		CQ-...H	G3/8	–	–	12, 15	–	3 / 5.4-130
			G1/2			12, 15, 18, 22		
			G3/4			22		
			G1			28		
	<b>Push-in connector</b>							
	CQ	–	12	–	–	–	3 / 5.4-131	
			15					
			18					
			22					
			28					
<b>Push-in connector with sleeve</b>								
	CQ-...H	–	12	–	–	15	3 / 5.4-131	
			15			18		
			15			22		
			18			22		
			22			28		
<b>Push-in sleeve</b>								
	CQH-...-QS	–	–	15	–	12	3 / 5.4-132	
				18		16		
				22		16		
<b>Blanking plug</b>								
	CQC-...H	–	–	12	–	–	3 / 5.4-132	
				15				
				18				
				22				
				28				
L-shape	<b>Push-in L-connector</b>							
		CQL	–	12	–	–	–	3 / 5.4-133
	15							
	18							
	22							
	28							
T-shape	<b>Push-in T-connector</b>							
		CQT	–	12	–	–	–	3 / 5.4-133
	15							
	18							
	22							
	28							
	CQT Reducing	–	18	–	15	–	3 / 5.4-133	
			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 Ø	Tube/piping O.D.	Push-in sleeve Ø	
Straight design	<b>Distributor</b>							
		CQD	-					3 / 5.4-134
	<b>Water separator</b>							
		CQA	-	22 28	-	-	-	3 / 5.4-134
	<b>Retaining ring</b>							
		CQSR	-					3 / 5.4-135
<b>Release tool</b>								
	CQO	-					3 / 5.4-135	

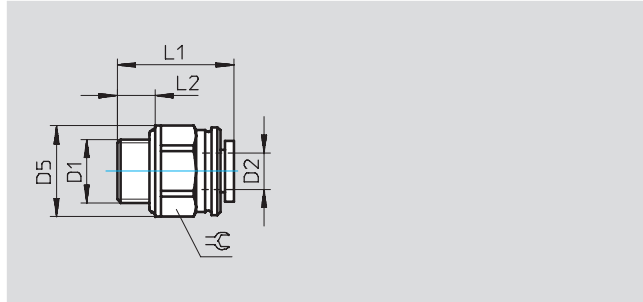
# Push-in fittings CQ, for push-fit piping systems

Technical data



## Push-in fitting CQ with sealing ring

Material:  
Housing: Polyacetal

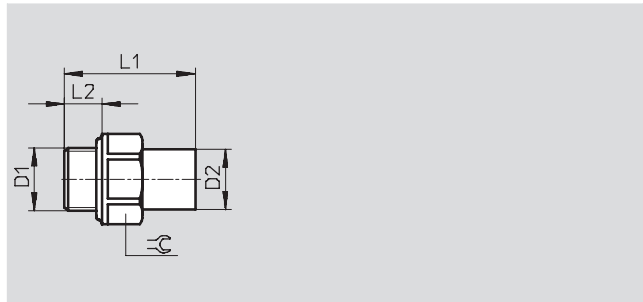


Dimensions and ordering data										
Connection	Nominal size	Pipe/tubing O.D.	D5	L1	L2	⌀	Weight/piece	Part No.	Type	PU*
D1	[mm]	D2					[g]			
G $\frac{3}{8}$	8.6	12	26.4	30.6	9.3	24	8	177 682	CQ- $\frac{3}{8}$ -12	1
G $\frac{1}{2}$	8.6	12	29.8	34	12.5	27	12	177 683	CQ- $\frac{1}{2}$ -12	1
	12	15	29.7	38	12.5	27	14	177 684	CQ- $\frac{1}{2}$ -15	1
	12.7	18	34	54.8	12.5	-	24	177 685	CQ- $\frac{1}{2}$ -18	1
G $\frac{3}{4}$	22	22	40	60.7	13.4	-	36	177 686	CQ- $\frac{3}{4}$ -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	⌀	Weight/piece	Part No.	Type	PU*
D1	[mm]	D2				[g]			
G $\frac{3}{8}$	8.6	12	39.8	9.3	24	4	177 705	CQ- $\frac{3}{8}$ -12H	1
	9.4	15	43.3	12.5	27	10	177 707	CQ- $\frac{3}{8}$ -15H	1
G $\frac{1}{2}$	8.6	12	54.4	11.3	22	8	177 706	CQ- $\frac{1}{2}$ -12H	1
	10	15	57.9	14.5	27	14	177 708	CQ- $\frac{1}{2}$ -15H	1
	12.7	18	62.9	14.5	27	18	177 709	CQ- $\frac{1}{2}$ -18H	1
	12.7	22	64.9	14.5	27	18	177 710	CQ- $\frac{1}{2}$ -22H	1
G $\frac{3}{4}$	17	22	69	17	37	28	177 711	CQ- $\frac{3}{4}$ -22H	1
G1	23	28	80	15	36	200	194 589	CQ-1-28H	1

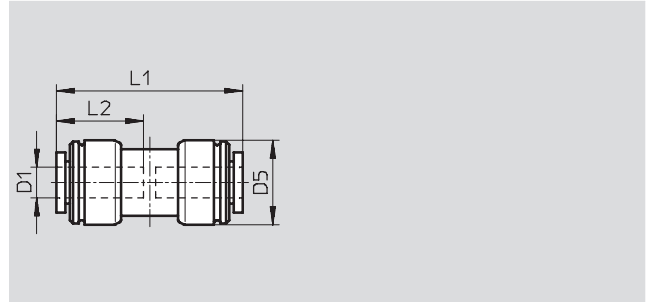
\* Packaging unit quantity

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

Technical data

## Push-in connector CQ

Material:  
Polyacetal

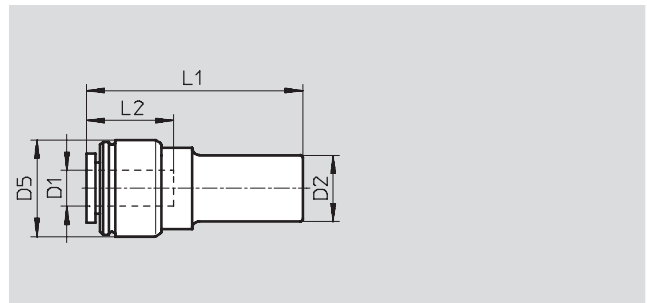


Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	D5	L1	L2	Weight/piece	Part No.	Type	PU*
D1	[mm]	∅ ±0.5		±1	[g]			
12	8.6	23	54.4 ±0.5	25	16	177 695	CQ-12	1
15	12	26.8	57.8 ±0.5	27.5	18	177 696	CQ-15	1
18	16	31.1	64.1 ±0.5	30.5	26	177 697	CQ-18	1
22	19.2	35.5	69.6 ±0.5	33	36	177 698	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 O.D.	Nominal size	Push-in sleeve	D5	L1	L2	Weight/piece	Part No.	Type	PU*
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

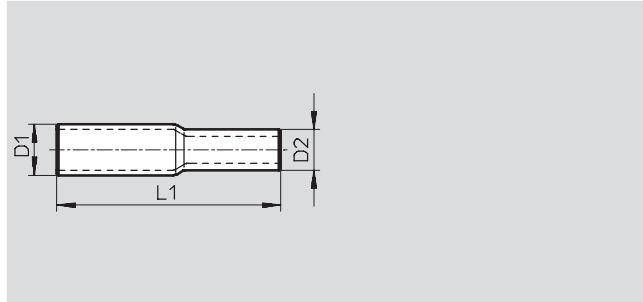
\* Packaging unit quantity

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



Technical data

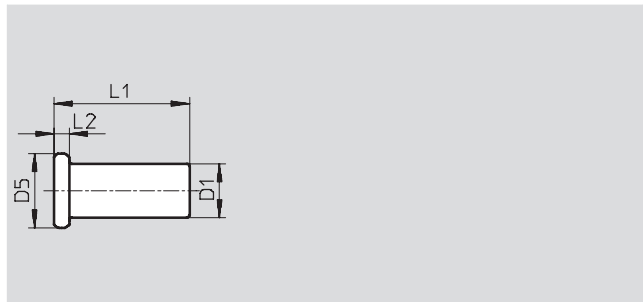
**Push-in sleeve CQH-...-QS**  
reducer for connecting CQ to QS



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 $\pm 0.15$	21.6	38.8 $\pm 0.5$	4.7	4	177 712	CQC-12H	1
15 $\pm 0.15$	25	45 $\pm 0.3$	5	6	177 713	CQC-15H	1
18 $\pm 0.15$	30	41.5 $\pm 0.3$	4	8	177 714	CQC-18H	1
22 $\pm 0.15$	32	45 $\pm 0.3$	4.7	10	177 715	CQC-22H	1
28 $-0.1$	28	72 $\pm 0.3$	5	42	194 590	CQC-28H	1

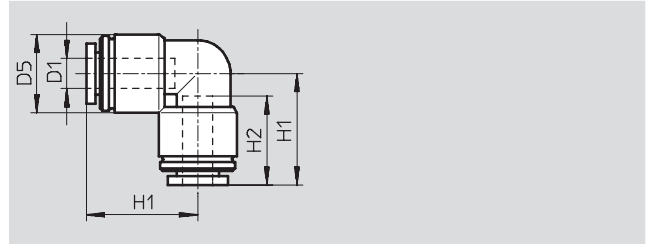
\* Packaging unit quantity

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

Technical data

## Push-in L-connector CQL

Material:  
Polyacetal

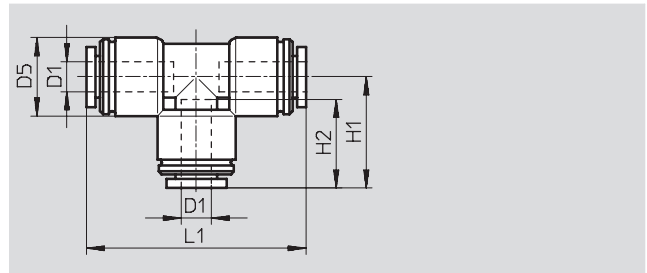


Dimensions and ordering data								
Pipe/tubing O.D.	Nominal size	D5	H1	H2	Weight/piece	Part No.	Type	PU*
D1	[mm]	∅		±1	[g]			
12	8.6	23	32.2 ±0.5	25	16	177 691	CQL-12	1
15	12	26.8	37.2 ±0.5	27.5	20	177 692	CQL-15	1
18	16	31.1	44.1 ±0.5	30.5	32	177 693	CQL-18	1
22	19.2	35.5	48.3 ±0.5	33	46	177 694	CQL-22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

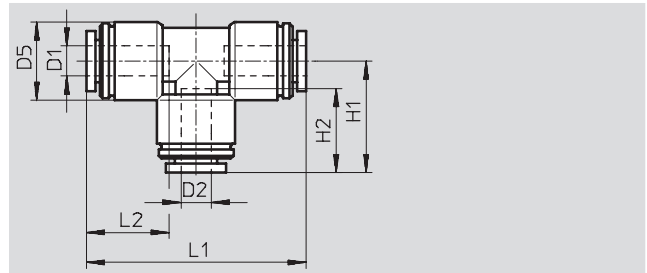
\* Packaging unit quantity

## Push-in T-connector CQT

Material:  
Polyacetal



## Reducing



Dimensions and ordering data											
Pipe/tubing O.D.	Nominal size	Pipe/tubing O.D.	D5	H1	H2	L1	L2	Weight/piece	Part No.	Type	PU*
D1	[mm]	D2	∅		±1			[g]			
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

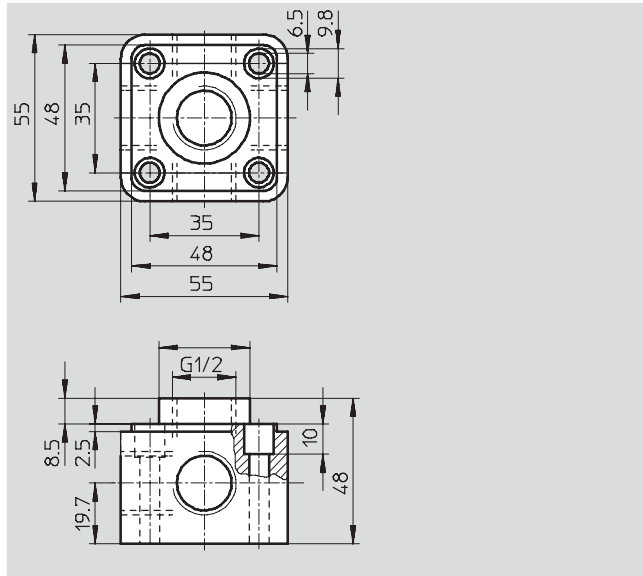


# Push-in fittings CQ, for push-fit piping systems

Technical data



## Distributor CQD with 3 blanking plugs



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

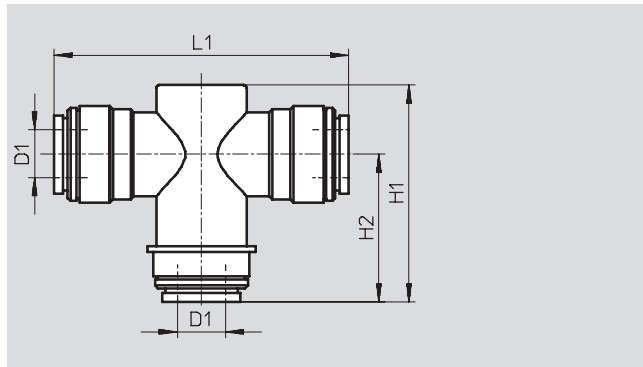
\* Packaging unit quantity

Piping, tubing and fittings  
Push-in fittings

## 5.4

## 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	Nominal size	H1	H2	L1	Weight/piece	Part No.	Type	PU*
D1	[mm]				[g]			
22	12	71.8	48.3	97.8	76	177 716	CQA-22	1

\* Packaging unit quantity

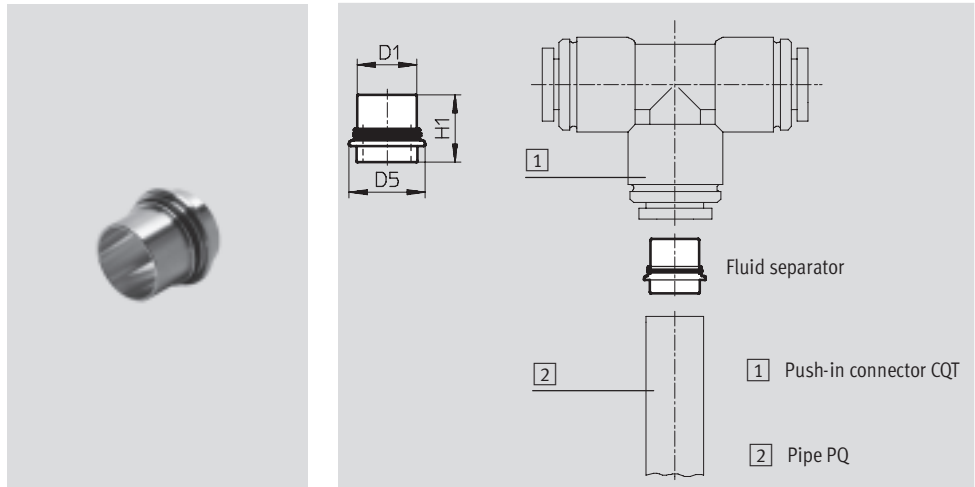
# Push-in fittings CQ, for push-fit piping systems

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