



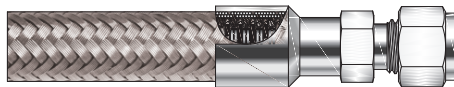
Hose

MF, PH, NH, PB and HPH Series

Contents

Metal Flexible Hose (MF1 Series)

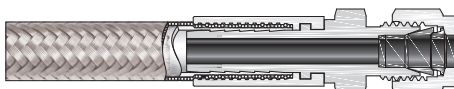
- ❖ Maximum working pressure up to 3100 psig (213 bar)
- ❖ Working temperature from -325°F to 850°F (-200°C to 454°C)
- ❖ Hose sizes from 1/4 to 1 in.
- ❖ 316L core tube and 304 stainless steel overbraid



4-3

PTFE Lined Hose (PH1 Series)

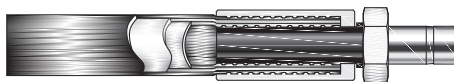
- ❖ Maximum working pressure up to 2800 psig (193 bar)
- ❖ Working temperature from -65°F to 450°F (-53°C to 232°C)
- ❖ Hose sizes from 5/16 to 1 in.
- ❖ PTFE core tube and woven 304 stainless steel wire mesh



4-8

Nylon Hose (NH1 Series)

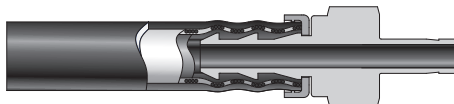
- ❖ Maximum working pressure: 5000 psig (344 bar)
- ❖ Operating temperature range: -40°F to 200°F (-40°C to 93°C)
- ❖ Hose size: 1/4" to 1"
- ❖ Inner Core : Thermoplastic elastomer
- ❖ Interlayer: Internal fiber reinforced layer
- ❖ Outer Cover: Polyurethane



4-11

Push-Lock Hose (PB1 Series)

- ❖ Maximum working pressure up to 300 psig (20.7 bar)
- ❖ Working temperature from -40°F to 190 °F (-40 °C to 88 °C)
- ❖ Hose size: 1/4" to 1"
- ❖ Core tube: highly oil-resistant rubber



4-13

High Pressure Thermoplastic Hose (10/15/20HPH Series)

- ❖ Maximum working pressure up to 20000 psig (1379 bar)
- ❖ Working temperature from -40°F to 158°F (-40°C to 70°C)
- ❖ Core: Thermoplastic Elastomer
- ❖ Interlayer: Double steel wire braids



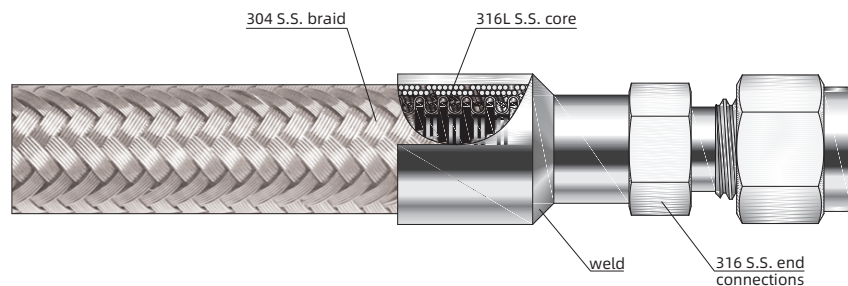
4-16

Metal Flexible Hose

MF1 Series

Features

- ❖ Maximum working pressure up to 3100 psig (213 bar)
- ❖ Working temperature from -325°F to 850°F (-200°C to 454°C)
- ❖ 316L core tube and 304 stainless steel overbraid
- ❖ Hose sizes from 1/4 to 1 in.
- ❖ Standard and custom-length assemblies



Hose Technical Data

Hose Size	Inside Diameter	Outside Diameter	Min. Bend Radius		Temperature Range °F(°C)	Working Pressure at 70°F (20°C)	Min. Burst pressure at 70°F (20°C)
			Static	Dynamic			
in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)		psig (bar)	psig (bar)
1/4 (6.4)	0.28 (7.1)	0.53 (13.5)	2.25 (57.2)	10.0 (254.0)	-325 to 850 (-200 to 454)	3100 (213)	12400 (854)
3/8 (9.5)	0.42 (10.6)	0.69 (17.5)	3.00 (76.2)	12.0 (305.0)		2000 (137)	8000 (551)
1/2 (12.7)	0.53 (13.5)	0.85 (21.6)	4.50 (114.0)	16.0 (406.0)		1800 (124)	7200 (496)
3/4 (19.0)	0.80 (20.3)	1.15 (29.1)	6.00 (152.0)	17.0 (432.0)		1500 (103)	6000 (413)
1 (25.4)	1.03 (26.0)	1.45 (36.9)	6.75 (171.0)	20.0 (508.0)		1200 (82.6)	4800 (330)

Pressure vs. Temperature

Hose Size	1/4 (6.4)	3/8 (9.5)	1/2(12.7)	3/4(19.0)	1(25.4)
Temperature, °F(°C)	Working Pressure, psig (bar)				
-325 (-200) to 100 (37)	3100 (213)	2000 (137)	1800 (124)	1500 (103)	1200 (82.6)
200 (93)	2604 (179)	1680 (115)	1512 (104)	1260 (86.8)	1008 (69.4)
300 (148)	2356 (162)	1520 (104)	1368 (94.2)	1140 (78.5)	912 (62.8)
400 (204)	2170 (149)	1400 (96.4)	1260 (86.8)	1050 (72.3)	840 (57.8)
500 (260)	2015 (138)	1300 (89.5)	1170 (80.6)	975 (67.1)	780 (53.7)
600 (315)	1922 (132)	1240 (85.4)	1116 (76.8)	930 (64.0)	744 (51.2)
700 (371)	1829 (126)	1180 (81.3)	1062 (73.1)	885 (60.9)	708 (47.8)
800 (426)	1767 (121)	1140 (78.5)	1026 (70.6)	855 (58.9)	684 (47.1)
850 (454)	1736 (119)	1120 (77.1)	1008 (69.4)	840 (57.8)	672 (46.3)

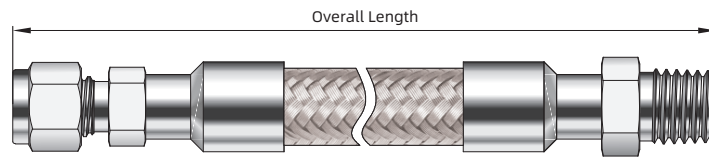
Testing

- ❖ Every CIR-LOK MF1 series hose assembly is factory tested with pure water at the maximum working pressure.

Cleaning and Packaging

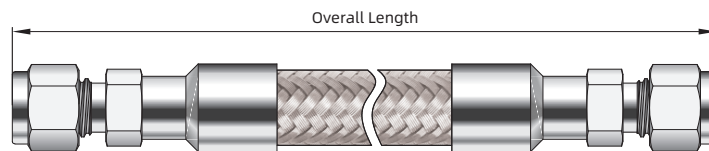
- ❖ CIR-LOK MF1 series hose components are cleaned in accordance with CIR-LOK standard cleaning (CP-01) for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

Standard Assemblies



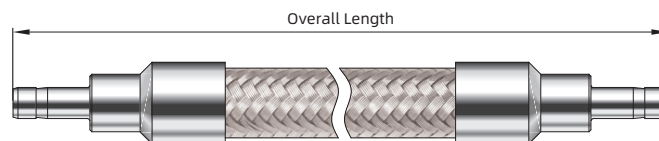
Tube Fitting to Male NPT End

Nominal Hose Size	Tube Fitting Size	NPT Size	Overall Length	Ordering Number in.(mm)	Minimum Inside Diameter	Maximum Outside Dimension	Working Pressure
in.	in.	in.	in.(mm)		in.(mm)	in.(mm)	psig(bar)
1/4	1/4	1/4	12 (305)	MF1-4-F4-NPT4-F12-	0.19 (4.8)	0.94 (23.8)	3100 (213)
3/8	3/8	3/8	18 (457)	MF1-6-F6-NPT6-F18-	0.28 (7.1)	1.09 (27.7)	2000 (137)
1/2	1/2	1/2	18 (457)	MF1-8-F8-NPT8-F18-	0.41 (10.4)	1.23 (31.3)	1800 (124)
3/4	3/4	3/4	18 (457)	MF1-12-F12-NPT12-F18-	0.66 (16.0)	1.74 (44.2)	1500 (103)
1	1	1	24 (610)	MF1-16-F16-NPT16-F24-	0.88 (22.4)	1.82 (46.3)	1200 (82.6)



Tube Fitting End

Nominal Hose Size	Tube Fitting Size	Overall Length	Ordering Number	Minimum Inside Diameter	Maximum Outside Dimension	Working Pressure
in.	in.	in.(mm)		in.(mm)	in.(mm)	psig(bar)
1/4	1/4	12 (305)	MF1-4-F4-F12-	0.19 (4.8)	0.94 (23.8)	3100 (213)
3/8	3/8	18 (457)	MF1-6-F6-F18-	0.28 (7.1)	1.09 (27.7)	2000 (137)
1/2	1/2	18 (457)	MF1-8-F8-F18-	0.41 (10.4)	1.23 (31.3)	1800 (124)
3/4	3/4	18 (457)	MF1-12-F12-F18-	0.66 (16.0)	1.74 (44.2)	1500 (103)
1	1	24 (610)	MF1-16-F16-F24-	0.88 (22.4)	1.82 (46.3)	1200 (82.6)



Tube Adapter End

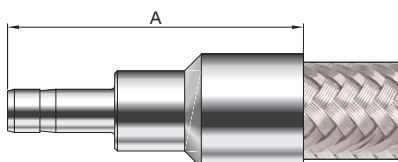
Tube Adapter Size	Tube Fitting Size	Overall Length	Ordering Number	Minimum Inside Diameter	Maximum Outside Dimension	Working Pressure
in.	in.	in.(mm)		in.(mm)	in.(mm)	psig(bar)
1/4	1/4	12 (305)	MF1-4-FT4-F12-	0.18 (4.6)	0.87 (22.1)	3100 (213)
3/8	3/8	18 (457)	MF1-6-FT6-F18-	0.28 (7.1)	1.09 (27.7)	2000 (137)
1/2	1/2	18 (457)	MF1-8-FT8-F18-	0.40 (10.2)	1.23 (31.3)	1800 (124)
3/4	3/4	18 (457)	MF1-12-T12-F18-	0.65 (16.5)	1.74 (44.2)	1500 (103)
1	1	24 (610)	MF1-16-FT16-F24-	0.87 (22.1)	2.03 (51.6)	1200 (82.6)

❖ All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or CIR-LOK Group.

❖ Types listed are standard. Other types are available upon request, refer to the ordering information.

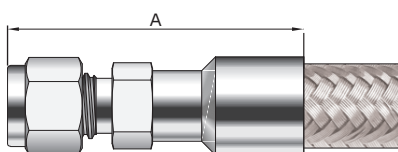
End Connections

Tube Adapters



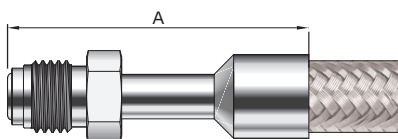
Tube Adapters Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	FT4	1.71(43.5)	0.16(4.1)	0.81(20.6)	3100(213)
3/8	3/8	FT6	2.03(51.6)	0.27(6.9)	1.01(25.6)	2000(137)
1/2	1/2	FT8	2.34(59.4)	0.37(9.4)	1.23(31.3)	1800(124)
3/4	3/4	FT12	2.40(60.9)	0.58(14.7)	1.53(38.8)	1500(103)
1	1	FT16	2.76(70.0)	0.80(20.3)	1.82(46.3)	1200(82.6)
mm	in.	—	mm(in.)			
6	1/4	MT6	43.5(1.71)	4.1(0.16)	20.6(0.81)	3100(213)
10	3/8	MT10	51.6(2.03)	7.1(0.28)	25.6(1.01)	2000(137)
12	1/2	MT12	58.1(2.34)	8.9(0.35)	31.3(1.23)	1800(124)

Tube Fittings



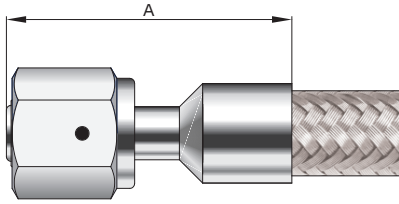
Tube Fitting Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	F4	1.98(50.4)	0.19(4.8)	0.94(23.8)	3100(213)
3/8	3/8	F6	2.41(61.3)	0.28(7.1)	1.09(27.7)	2000(137)
1/2	1/2	F8	2.52(63.9)	0.41(10.4)	1.23(31.3)	1800(124)
3/4	3/4	F12	2.59(65.7)	0.63(16.0)	1.74(44.2)	1500(103)
1	1	F16	2.89(73.4)	0.88(22.4)	1.82(46.3)	1200(82.6)
mm	in.	—	mm(in.)			
6	1/4	M6	1.98(50.3)	4.8(0.19)	20.6(0.81)	3100(213)
8	1/4	M8	1.98(50.3)	6.4(0.25)	20.6(0.81)	3100(213)
10	3/8	M10	2.42(61.6)	7.9(0.31)	31.3(1.23)	2000(137)
12	1/2	M12	2.52(64.0)	9.7(0.38)	38.8(1.53)	1800(124)

Male GFS Metal Gasket Face Seal Fittings Swivel



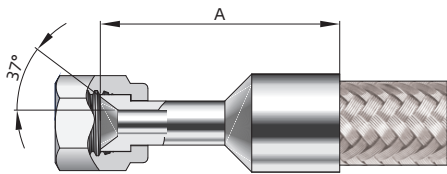
VCR Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	RGFS4	2.21(56.3)	0.18(4.6)	0.81(20.6)	3100(213)
1/2	1/2	RGFS8	2.45(62.4)	0.40(10.2)	1.23(31.3)	1800(124)
3/4	3/4	RGFS12	2.69(68.5)	0.65(16.5)	1.52(38.7)	1500(103)
1	1	RGFS16	2.92(74.3)	0.87(22.1)	1.53(38.8)	1200(82.6)

Female GFS Metal Gasket Face Seal Fittings Swivel



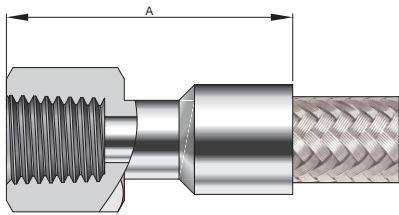
VCR Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	FGFS4	1.89(48.0)	0.18(4.6)	0.87(22.1)	3100(213)
1/2	1/2	FGFS8	1.97(50.0)	0.40(10.2)	1.23(31.3)	1800(124)
3/4	3/4	FGFS12	2.21(56.2)	0.65(16.5)	1.74(44.2)	1500(103)
1	1	FGFS16	2.65(67.3)	0.87(22.1)	2.03(51.6)	1200(82.6)

SAE 37°(JIC) Female Swivel



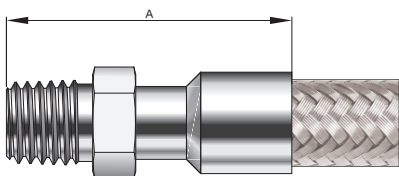
Swivel Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	SAN4	1.61(40.8)	0.17(4.3)	0.81(20.6)	3100(213)
3/8	3/8	SAN6	1.72(43.8)	0.28(7.1)	1.01(25.6)	2000(137)
1/2	1/2	SAN8	1.80(45.8)	0.42(10.7)	1.23(31.3)	1800(124)

Female Pipe Threads, NPT



NPT Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	FNPT4	1.72(43.7)	0.28(7.1)	0.94(23.9)	3100(213)
3/8	3/8	FNPT6	2.01(51.0)	0.38(9.7)	1.09(27.7)	2000(137)
1/2	1/2	FNPT8	2.31(58.8)	0.47(11.9)	1.23(31.3)	1800(124)
3/4	3/4	FNPT12	2.56(65.0)	0.72(18.3)	1.74(44.2)	1500(103)
1	1	FNPT16	2.80(71.2)	0.88(22.4)	1.82(46.3)	1200(82.6)

Male Pipe Threads, NPT



NPT Size (in.)	Nominal Hose Size (in.)	End Connection Designator	Dimensions in.(mm)			Working Pressure psig(bar)
			A	Minimum Inside Diameter	Maximum Outside Dimension	
1/4	1/4	NPT4	1.85(47.0)	0.28(7.1)	0.94(23.9)	3100(213)
3/8	3/8	NPT6	2.21(56.2)	0.38(9.7)	1.09(27.7)	2000(137)
1/2	1/2	NPT8	2.40(61.0)	0.47(11.9)	1.23(31.3)	1800(124)
3/4	3/4	NPT12	2.46(62.6)	0.63(16.0)	1.74(44.2)	1500(103)
1	1	NPT16	2.79(70.9)	0.88(22.4)	1.82(46.3)	1200(82.6)

How to Order

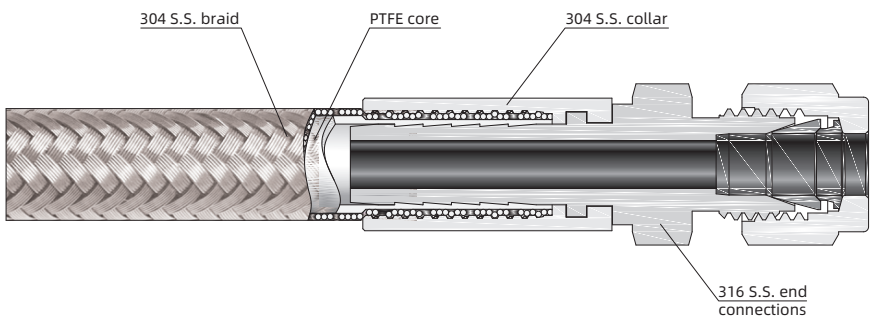
MF1 — 6 — M10 — NPT4 — F36 — 316						
Hose Series	Nominal Hose Size	End Connection 1 Type	End Connection 1 Size	End Connection 2 Type and Size	Overall Length	End Connection Material
MF1	4 1/4 in.	FNPT Female NPT	4 1/4 in.	Same as port 1 type and port 1 size	F** ** in	316 316 S.S.
	6 3/8 in.	NPT Male NPT	6 3/8 in. or 6 mm		M** ** mm	304 304 S.S.
	8 1/2 in.	FBT Female BSPT	8 1/2 in. or 8 mm	If port 2 and port 1 are the same, eliminate the port 2 designator		
	12 3/4 in.	MBT Male BSPT	10 5/8 in. or 10 mm			
	16 1 in.	MS Male Metric (for BG)	12 3/4 in. or 12 mm			
		F Fractional Tube Fitting	14 M14 x 1.5			
		M Metric Tube Fitting	16 1 in. or 16 mm			
		FT Fractional Tube Adapter	18 M18 x 1.5			
		MT Metric Tube Adapter	20 M20 x 1.5			
		SAN Swivel Female SAE 37°(JIC)				
		SFMS Female Metric Swivel				
		SFBP Female BSPP Swivel				
		RGFS Rotatable Male GFS Metal				
		FGFS Female GFS Metal				

PTFE Lined Hose

PH1 Series

Features

- ❖ Maximum working pressure up to 2800 psig (193 bar)
- ❖ Working temperature from -65°F to 450°F (-53°C to 232°C)
- ❖ PTFE core tube and woven 304 stainless steel wire mesh
- ❖ Hose sizes from 5/16 to 1 in.
- ❖ Standard and custom-length assemblies



Hose Technical Data

Hose Size	Inside Diameter	Outside Diameter	Min. Bend Radius		Temperature Range °C(°F)	Working Pressure at 20°C (70°F)	Min. Burst Pressure at 20°C (70°F)
			Static	Dynamic		psig (bar)	psig (bar)
in. (mm)	in. (mm)	in. (mm)	in. (cm)	in. (cm)			
5/16 (7.9)	0.31 (8.0)	0.43 (11.0)	2.9 (7.3)	3.62 (9.2)	-53 to 232 (-65 to 450)	2800 (193)	11200 (772)
3/8 (9.5)	0.38 (9.7)	0.50 (12.7)	4.12 (10.5)	5.15 (13.1)		2500 (172)	10000 (689)
1/2 (12.7)	0.50 (12.7)	0.62 (15.9)	5.72 (14.5)	7.16 (18.2)		2000 (137)	8800 (606)
5/8 (15.8)	0.63 (16.0)	0.75 (19.2)	6.64 (16.9)	8.30 (21.1)		1500 (103)	7200 (496)
1 (25.4)	0.98 (25.0)	1.15 (29.3)	16.97 (43.1)	21.22 (53.9)		600 (41.3)	2400 (165)

Pressure vs. Temperature

Hose Size	5/16 (7.9)	3/8 (9.5)	1/2 (12.7)	5/8 (15.8)	1 (25.4)
Temperature, °F(°C)	Working Pressure, psig (bar)				
-65 (-53)	2100 (144)	1875 (129)	1650 (113)	1350 (93.1)	450 (31.0)
0(-17) to 100 (37)	2800 (193)	2500 (172)	2000 (137)	1500 (103)	600 (41.3)
200 (93)	1624 (112)	1566 (108)	1276 (88.0)	1044 (72.0)	348 (24.0)
300 (148)	1456 (100)	1404 (96.8)	1144 (78.8)	936 (64.5)	312 (21.5)
400 (204)	1344 (92.6)	1296 (89.3)	1056 (72.8)	864 (59.5)	288 (19.8)
450 (230)	1288 (88.8)	1242 (85.6)	1012 (69.7)	828 (57.1)	276 (19.0)

- ❖ Every CIR-LOK PTFE-lined hose assembly is factory tested with pure water at the maximum working pressure.

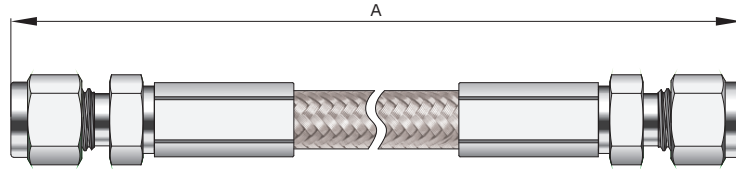
Cautions

- ❖ PTFE is a kind of permeable material, gas, steam and liquid may penetrate, the permeability is affected by many factors.

Cleaning and Packaging

- ❖ CIR-LOK PTFE-lined hose components are cleaned in accordance with CIR-LOK standard cleaning (CP-01) for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

PTFE-lined Hose Standard Assemblies



Tube Adapters

Tube OD in.	Nominal Hose Size	Min. ID in.(mm)	Max. OD in.(mm)	A in. (mm)	Ordering Number	Working Pressure psig (bar)
1/4	5/16	0.31 (8.0)	0.43 (11.0)	6.0 (153)	PH1-4-FT4-F6	2800 (193)
				12.0 (305)	PH1-4-FT4-F12	
				18.0 (458)	PH1-4-FT4-F18	
				24.0 (610)	PH1-4-FT4-F24	
				36.0 (915)	PH1-4-FT4-F36	
				48.0 (1220)	PH1-4-FT4-F48	
				60.0 (1530)	PH1-4-FT4-F60	
				72.0 (1829)	PH1-4-FT4-F72	
				120.0 (3048)	PH1-4-FT4-F120	
3/8	3/8	0.38 (9.7)	0.50 (12.7)	12.0 (305)	PH1-6-FT6-F12	2500 (172)
				18.0 (458)	PH1-6-FT6-F18	
				24.0 (610)	PH1-6-FT6-F24	
				36.0 (915)	PH1-6-FT6-F36	
				48.0 (1220)	PH1-6-FT6-F48	
				60.0 (1530)	PH1-6-FT6-F60	
				72.0 (1829)	PH1-6-FT6-F72	
				96.0 (2439)	PH1-6-FT6-F96	
				120.0 (3048)	PH1-6-FT6-F120	
1/2	1/2	0.50 (12.7)	0.62 (15.9)	12.0 (305)	PH1-8-FT8-F12	2000 (137)
				24.0 (610)	PH1-8-FT8-F24	
				36.0 (915)	PH1-8-FT8-F36	
				48.0 (1220)	PH1-8-FT8-F48	
				60.0 (1530)	PH1-8-FT8-F60	
				72.0 (1829)	PH1-8-FT8-F72	
3/4	5/8	0.63 (16.0)	0.75 (19.2)	24.0 (610)	PH1-12-FT12-F24	1500 (103)
				36.0 (915)	PH1-12-FT12-F36	
1	1	0.98 (25.0)	1.15 (29.3)	36.0 (915)	PH1-16-FT16-F36	600 (41.3)
				48.0 (1220)	PH1-16-FT16-F48	
mm	—	mm	mm	—	—	
6	5/16	0.31 (8.0)	0.43 (11.0)	12.0 (305)	PH1-4-MT6-F12	2800 (193)
				24.0 (610)	PH1-4-MT6-F24	
				36.0 (915)	PH1-4-MT6-F36	
12	1/2	0.50 (12.7)	0.62 (15.9)	24.0 (610)	PH1-8-MT12-F24	2200 (151)
				36.0 (915)	PH1-8-MT12-F36	



Protection Spring:

❖ If the total length of the hose is less than or equal to 11.8 in. (300 mm), it is not equipped with a spring, and all other hoses exceeding this size use this spring by default.

How to Order

PH1 — 6 — M10 — NPT4 — F36 — 316

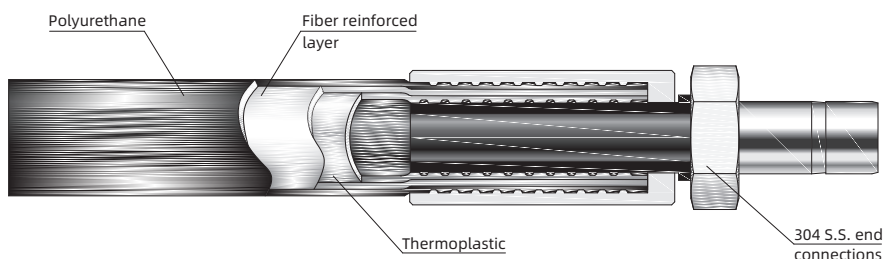
Hose Series	Nominal Hose Size	End Connection 1 Type	End Connection 1 Size	End Connection 2 Type and Size	Overall Length	End Connection Material
PH1	4 5/16 in.	FNPT Female NPT	4 1/4 in.	Same as End 1	F** ** in	316 316 S.S.
	6 3/8 in.	NPT Male NPT	6 3/8 in. or 6 mm		M** ** mm	304 304 S.S.
	8 1/2 in.	FBT Female BSPT	8 1/2 in. or 8 mm			
	12 5/8 in.	MBT Male BSPT	10 5/8 in. or 10 mm			
	16 1 in.	MS Male Metric (for BG)	12 3/4 in. or 12 mm			
		F Fractional Tube Fitting	14 M14 x 1.5			
		M Metric Tube Fitting	16 1 in. or 16 mm			
		FT Fractional Tube Adapter	18 M18 x 1.5			
		MT Metric Tube Adapter	20 M20 x 1.5			
		SAN Swivel Female SAE 37°(JIC)				
		SFMS Female Metric Swivel				
		SFBP Female BSPP Swivel				
		RGFS Rotatable Male GFS Metal				
		FGFS Female GFS Metal				

Nylon Hose

NH1 Series

Features

- ❖ Maximum working pressure: 5000 psig (344 bar)
- ❖ Operating temperature range: - 40°F to 200°F (- 40°C to 93°C)
- ❖ Inner Core : Thermoplastic elastomer
- ❖ Interlayer: Internal fiber reinforced layer
- ❖ Outer Cover: Polyurethane
- ❖ Application: due to the characteristics of oil resistance, wear resistance and smoothness, it can be used for hydraulic oil, water-based compound or water, and also for industrial gas
- ❖ Hose size: 1/4" to 1"



Technical data (SAE 100R7)

Series	Hose Size in. (mm)	ID in. (mm)	OD in. (mm)	Minimum Bending Radius in.(mm)	Temperature Range °F(°C)	Working Pressure psi(bar)	Minimum Burst Pressure psi(bar)	Hose code
NH1-4	1/4(6.4)	0.25(6.4)	0.49(12.4)	1.25(32)	-40 to 200 (-40 to 93)	2750(189)	11000(757)	SAE J517 100R7
NH1-6	3/8(9.6)	0.38(9.6)	0.62(15.7)	2.00(51)		2250(155)	9000(620)	
NH1-8	1/2(12.7)	0.50(12.7)	0.76(19.3)	3.00(76)		2000(137)	8000(551)	

Technical data (SAE 100R8)

Series	Hose Size in. (mm)	ID in. (mm)	OD in. (mm)	Minimum Bending Radius in.(mm)	Temperature Range °F(°C)	Working Pressure psi(bar)	Minimum Burst Pressure psi(bar)	Hose code
NH1-4	1/4(6.4)	0.25(6.4)	0.49(12.4)	2.00(51)	-40 to 200 (-40 to 93)	5000(344)	20000(1378)	SAE J517 100R8
NH1-6	3/8(9.6)	0.38(9.6)	0.62(15.7)	2.50(64)		4000(275)	16000(1102)	
NH1-8	1/2(12.7)	0.50(12.7)	0.76(19.3)	4.00(102)		3500(241)	14000(964)	
NH1-12	3/4(19.0)	0.75(19.0)	1.04(26.4)	5.51(140)		2250(155)	9000(620)	
NH1-16	1(25.4)	1.00(25.4)	1.31(33.3)	7.87(200)		2000(137)	8000(551)	

Note: when the medium is water or air, the operating temperature of all NH1 hoses shall not exceed 158°F(70°C)

How to Order

NH1 — 8 — F8 — FT8 — F36 — R7 — 316

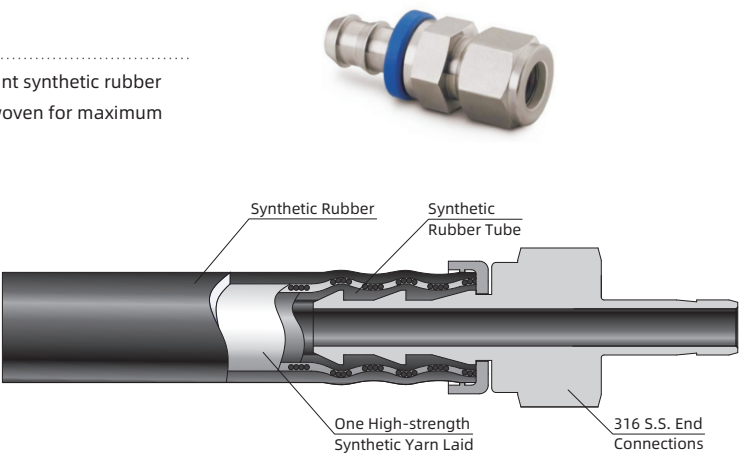
Hose Series	Nominal Hose Size	End Connection 1 Type	End Connection 1 Size	End Connection 2 Type and Size	Overall Length	Hose Color	End Connection Material
NH1	4 1/4 in.	FNPT Female NPT	4 1/4 in.	Same as port 1 type and port 1 size	F** ** in	R7 100R7	316 316 S.S.
	6 3/8 in.	NPT Male NPT	6 3/8 in. or 6 mm	If port 2 and port 1 are the same, eliminate the port 2 designator	M** ** mm	R8 100R8	316L 316L S.S.
	8 1/2 in.	MBP Male BSPP (for BG)	8 1/2 in. or 8 mm				304 304 S.S.
	12 3/4 in.	FBP Female BSPP	10 5/8 in. or 10 mm				304L 304L S.S.
	16 1 in.	FBT Female BSPT	12 3/4 in. or 12 mm				
		MBT Male BSPT	14 M14 x 1.5				
		MS Male Metric (for BG)	16 1 in. or 16 mm				
		F Fractional Tube Fitting	18 M18 x 1.5				
		M Metric Tube Fitting	20 M20 x 1.5				
		FT Fractional Tube Adapter					
		MT Metric Tube Adapter					

Push-Lock Hose

PB1 Series

Features

- ❖ Cover: weatherproof, abrasion withstanding and oil-resistant synthetic rubber
- ❖ Reinforcement: single-braid high-strength synthetic fiber woven for maximum strength and end connection retention
- ❖ Core tube: highly oil-resistant rubber
- ❖ Hose size: 1/4" to 1"
- ❖ Maximum working pressure up to 300 psig (20.7 bar)
- ❖ Working temperature from -40 °F to 200 °F (-40 °C to 93°C)
- ❖ End connection materials: stainless steel
- ❖ End connections reusable
- ❖ Custom-length available



Hose Technical Data

Nominal Hose Size	Inside Diameter	Outside Diameter	Min. Inside Bend Radius	Temperature Range	Working Pressure at -40 to 70°F (-40 to 20°C)	Min. Burst pressure at 70°F (20°C)
in. (mm)	in. (mm)	in. (mm)	in. (mm)	°F(°C)	psig (bar)	psig (bar)
1/4 (6.4)	0.26 (6.6)	0.51 (12.8)	2.50 (63.5)	-40 to 200 (-40 to 93)	300 (20.6)	1200 (82.7)
3/8 (9.5)	0.39 (9.9)	0.67 (17.0)	3.00 (76.2)			
1/2 (12.7)	0.50 (12.7)	0.75 (19.0)	5.00 (127)			
3/4 (19.0)	0.76 (19.3)	1.07 (27.2)	7.00 (178)			
1 (25.4)	1.00 (25.4)	1.34 (34.0)	8.00 (203)			

Pressure vs. Temperature

Nominal Hose Size, in.	1/4, 3/8, 1/2, 3/4	1
Temperature range °F(°C)	Working pressure psi(bar)	
-40 (-40)	300 (20.7)	—
-20 (-28) to 70 (20)	300 (20.7)	300 (20.7)
100 (37)	270 (18.6)	270 (18.6)
150 (65)	180 (12.4)	180 (12.4)
200 (93)	80 (5.5)	80 (5.5)

Testing

- ❖ Every CIR-LOK Push-Lock Hose assembly is factory tested with pure water at the maximum working pressure.

Cleaning and Packaging

- ❖ CIR-LOK Push-Lock Hose components are cleaned in accordance with CIR-LOK standard cleaning (CP-01) for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

Cautions

- ❖ Do not reuse hose.

Ordering Information and Dimensions

- ❖ PB Series hose can be sold separately.
- ❖ Ordering information: Ordering Number- Color - F(M)+length
- ❖ For example: **PB1-4-B-M500**
PB1-4-B-F19.7
- ❖ Unit: F (in.), M (mm)

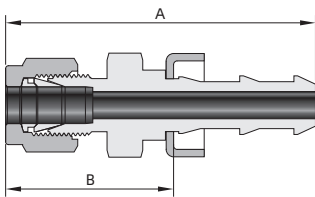
Hose Size	Ordering Number
1/4	PB1-4
3/8	PB1-6
1/2	PB1-8
3/4	PB1-12
1	PB1-16

Hose Color	Designator
Black	-B
Blue	-J
Gray	-W
Green	-G
Red	-R
Yellow	-Y

❖ Note: default color is black

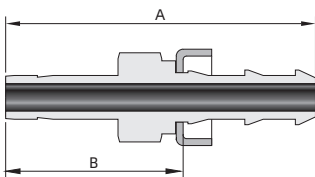
Push-Lock Hose End Connections

Tube Fittings



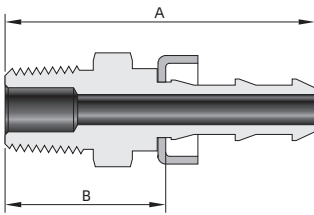
Nominal Hose Size	Tube Fitting Size	Basic Ordering Number	Dimensions, in.(mm)			
			A	B	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.					
1/4	1/4	F4-PB-F4-	1.97 (50.0)	1.21 (30.7)	0.16 (4.1)	0.67 (17.0)
3/8	3/8	F6-PB-F6-	2.11 (53.6)	1.24 (31.5)	0.27 (6.9)	0.87 (22.1)
1/2	1/2	F8-PB-F8-	2.47 (62.7)	1.42 (36.1)	0.37 (9.5)	1.02 (25.8)

Tube Adapters



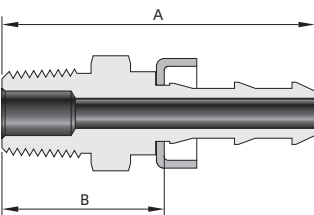
Nominal Hose Size	Tube Adapter Size	Basic Ordering Number	Dimensions, in.(mm)			
			A	B	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.					
1/4	1/4	F4-PB-FT4-	1.93 (49.0)	1.17 (29.7)	0.15 (3.8)	0.67 (17.0)
3/8	3/8	F6-PB-FT6-	2.03 (51.6)	1.16 (29.5)	0.24 (6.1)	0.83 (21.1)
1/2	1/2	F8-PB-FT8-	2.47 (62.7)	1.42 (36.1)	0.34 (8.7)	0.98 (24.9)
3/4	3/4	F12-PB-FT12-	3.14 (79.8)	1.48 (37.6)	0.57 (14.5)	1.23 (31.3)
1	1	F16-PB-FT16-	4.13 (105.0)	1.90 (48.3)	0.79 (20.1)	1.58 (40.1)
in.	mm		mm(in.)			
1/4	6	F4-PB-MT6-	49.0 (1.93)	29.7 (1.17)	3.8 (0.15)	17.0 (0.67)
1/4	8	F4-PB-MT8-	48.8 (1.92)	29.5 (1.16)	4.1 (0.16)	17.0 (0.67)
3/8	8	F6-PB-MT8-	52.1 (2.05)	30.0 (1.18)	5.6 (0.22)	21.1 (0.83)
3/8	10	F6-PB-MT10-	51.6 (2.03)	29.5 (1.16)	6.9 (0.27)	21.1 (0.83)
1/2	12	F8-PB-MT12-	62.7 (2.47)	36.1 (1.42)	8.1 (0.32)	24.9 (0.98)
3/4	18	F12-PB-MT18-	79.8 (3.14)	37.3 (1.47)	8.6 (0.34)	31.3 (1.23)
1	25	F16-PB-MT25-	105.0 (4.13)	48.3 (1.90)	19.8 (0.78)	40.1 (1.58)

Male NPT



Nominal Hose Size	NPT Size	Basic Ordering Number	Dimensions, in.(mm)			
			A	B	Minimum Inside Diameter	Maximum Outside Diameter
1/4	1/4	F4-PB-NPT4-	1.68 (42.7)	0.92 (23.4)	0.16 (4.1)	0.67 (17.0)
3/8	1/4	F6-PB-NPT4-	1.80 (45.7)	0.93 (23.6)	0.27 (6.9)	0.83 (21.1)
3/8	3/8	F6-PB-NPT6-	1.80 (45.7)	0.93 (23.6)	0.27 (6.9)	0.83 (21.1)
1/2	1/2	F8-PB-NPT8-	2.19 (55.6)	1.14 (29.0)	0.37 (9.5)	1.02 (25.9)
3/4	3/4	F12-PB-NPT12-	2.81 (71.4)	1.14 (29.0)	0.61 (15.6)	1.31 (33.3)
1	1	F16-PB-NPT16-	3.78 (96.0)	1.55 (39.4)	0.79 (20.1)	1.58 (40.1)

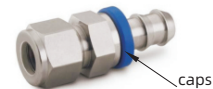
Male BSPT



Nominal Hose Size	BSPT Size	Basic Ordering Number	Dimensions, in.(mm)			
			A	B	Minimum Inside Diameter	Maximum Outside Diameter
1/4	1/4	F4-PB-MBT4-	1.68 (42.7)	0.92 (23.4)	0.16 (4.1)	0.67 (17.0)
3/8	1/4	F6-PB-MBT4-	1.80 (45.7)	0.93 (23.6)	0.27 (6.9)	0.83 (21.1)
3/8	3/8	F6-PB-MBT6-	1.80 (45.7)	0.93 (23.6)	0.27 (6.9)	0.83 (21.1)
1/2	1/2	F8-PB-MBT8-	2.19 (55.6)	1.14 (29.0)	0.37 (9.5)	1.02 (25.9)
3/4	3/4	F12-PB-MBT12-	2.81 (71.4)	1.14 (29.0)	0.61 (15.6)	1.31 (33.3)
1	1	F16-PB-MBT16-	3.78 (96.0)	1.55 (39.4)	0.79 (20.1)	1.58 (40.1)

Protective Cap:

❖ Note: all 1" fitting are not equipped with protective caps



How to Order

PB1 — 4 — F4 — NPT4 — M500 — J — 316

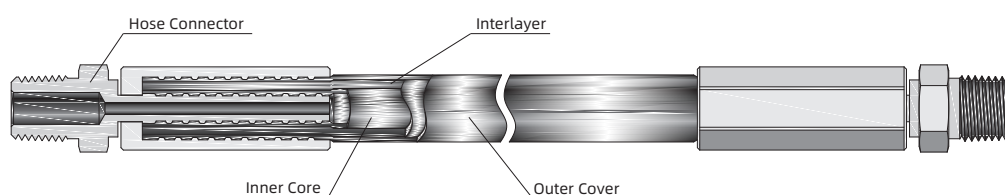
Hose Series	Nominal Hose Size	End Connection 1 Type	End Connection 1 Size	End Connection 2 Type and Size	Overall Length	Hose Color	End Connection Material
PB1	4 1/4 in.	FNPT Female NPT	4 1/4 in.	Same as port 1 type and port 1 size	F** ** in M** ** mm	Black	316 316 S.S. 304 304 S.S.
	6 3/8 in.	NPT Male NPT	6 3/8 in. or 6 mm			J Blue	
	8 1/2 in.	FBT Female BSPT	8 1/2 in. or 8 mm	If port 2 and port 1 are the same, eliminate the port 2 designator		R Red	
	12 3/4 in.	MBT Male BSPT	10 5/8 in. or 10 mm			G Green	
	16 1 in.	MS Male Metric (for BG)	12 3/4 in. or 12 mm			W Gray	
		F Fractional Tube Fitting	14 M14 x 1.5			Y Yellow	
		M Metric Tube Fitting	16 1 in. or 16 mm				
		FT Fractional Tube Adapter	18 M18 x 1.5				
		MT Metric Tube Adapter	20 M20 x 1.5				
		SAN Swivel Female SAE 37°(JIC)					
		SFMS Female Metric Swivel					
		SFBP Female BSPP Swivel					
		RGFS Rotatable Male GFS Metal					
		FGFS Female GFS Metal					
		SF24C Swivel Female SAE 24°C Cone Connection					
		24C 24°C Cone Connection					

High Pressure Thermoplastic Hose

HPH Series

Features

- ❖ Maximum working pressure up to 10000 psig (690 bar)
- ❖ Working temperature from -40°F to 158°F (-40°C to 70°C)
- ❖ Core: Thermoplastic Elastomer
- ❖ Interlayer: Double steel wire braids
- ❖ Cover: Polyurethane
- ❖ 316 stainless steel end connections
- ❖ Standard and custom-length assemblies



Hose Technical Data

Hose Size	Inside Diameter	Outside Diameter	Min. Bend Radius	Temperature Range °F(°C)	Working Pressure at 20°C (70°F)	Burst pressure
in. (mm)	in. (mm)	in. (mm)	in. (mm)		psig (bar)	psig (bar)
1/4	0.25 (6.35)	0.55 (14.1)	4.0 (100)	-40 to 158 (-40 to 70)	10000 (690)	25000 (1750)
3/8	0.375 (9.53)	0.69 (17.5)	6.0 (150)			
1/2	0.50 (12.7)	0.83 (21.2)	8.0 (200)			

Testing

- ❖ Every CIR-LOK 10HPH series hose assembly is factory tested with pure water at the maximum working pressure.

Cleaning and Packaging

- ❖ CIR-LOK 10HPH series hose components are cleaned in accordance with CIR-LOK standard cleaning for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

How to Order

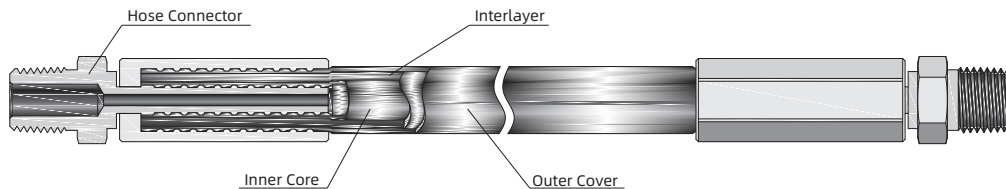
10HPH		6	MBT4		NPT4	F36	316		
Hose Series	Nominal Hose Size		End Connection 1 Type		End Connection 1 Size	End Connection 2 Type and Size	Overall Length	End Connection Material	
10HPH	4	1/4 in.	FNPT	Female NPT	4	1/4 in.	Same as port 1 type and port 1 size	F** ** in	316 316 S.S.
	6	3/8 in.	NPT	Male NPT	6	3/8 in.		M** ** mm	304 304 S.S.
	8	1/2 in.	FBT	Female BSPT	8	1/2 in.	If port 2 and port 1 are the same, eliminate the port 2 designator		
			MBT	Male BSPT	12	3/4 in.			
			SAN	Swivel Female SAE 37°(JIC)	16	1 in.			
			37CMS	Male Metric 37°					
			QJFMS	Female Metric Swivel 37°					

High pressure Hose

15HPH Series

Features

- ❖ Maximum working pressure up to 15000 psig (1034 bar)
- ❖ Working temperature from -22°F to 140°F (-30°C to 60°C)
- ❖ Inner Core : Thermoplastic Elastomer (TEP) / Polyamide (PA)
(Note: Thermoplastic Elastomer is used for 1/4" hose)
- ❖ Interlayer: 4 layers of high-strength steel wire woven mesh
(Note: Single / double braids of aramid fiber with single steel wire braid used for 1/4" hose)
- ❖ Outer Cover: Polyurethane (TPU) / Polyamide (PA)
(Note: Polyurethane (TPU) is used for 1/4" and 3/8" hose)
- ❖ Application: high pressure water spraying equipment, hydraulic control, handling control of subsea hydraulic components and oil-gas conversion, etc.



Hose Technical Data

Hose Size	ID in.(mm)	OD in.(mm)	Minimum bending radius in.(mm)	Temperature range °F(°C)	Working pressure psi(bar)	Burst pressure
15HPH-4	0.252 (6.4)	0.539 (13.7)	1.496 (38)	-22 to 140 (-30 to 60)	15000 (1034)	40000 (2760)
15HPH-6	0.394 (10.0)	0.677 (17.2)	4.921 (125)			40000 (2760)
15HPH-8	0.504 (12.8)	0.866 (22.0)	7.874 (200)			40000 (2760)
15HPH-12	0.740 (18.8)	1.134 (28.8)	9.843 (250)			37700 (2600)

Testing

- ❖ Every CIR-LOK 15HPH series hose assembly is factory tested with pure water at the maximum working pressure.

Cleaning and Packaging

- ❖ CIR-LOK 15HPH series hose components are cleaned in accordance with CIR-LOK standard cleaning for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

How to Order

15HPH		4	FNPT4		NPT4	F36	316
Series	Nominal Hose Size	End Connection 1 Type		End Connection 1 Size	End Connection 2 Type and Size	Overall Length	End Connection Material
15HPH	4 1/4 in.	FNPT	Female NPT	4 1/4 in.	Same as end 1	F** ** in	304 304 S.S.
	6 3/8 in.	NPT	Male NPT	6 3/8 in.		M** ** mm	304L 304L S.S.
	8 1/2 in.	FBT	Female BSPT	8 1/2 in.			316 316 S.S.
	12 3/4 in.	MBT	Male BSPT				316L 316L S.S.
		LPF	UN Male				

20HPH Series

- ❖ Maximum working pressure up to 20000 psig (1379 bar)
- ❖ Working temperature from -22°F to 140°F (-30°C to 60°C)
- ❖ Inner Core: Polyoxymethylene (POM) / Polyamide (PA)
(Note: Polyoxymethylene is used for 1/4" hose and 3/8" hose)
- ❖ Interlayer: 4 layers of high-strength steel wire woven mesh
(Note: 6 layers of high-strength steel wire woven mesh is used for 3/4" hose and 1" hose)
- ❖ Outer Cover: Polyamide (PA)
- ❖ Application: high pressure water spraying equipment, hydraulic control, handling control of subsea hydraulic components and oil-gas conversion. etc.



Hose Size	ID in.(mm)	OD in.(mm)	Minimum bending radius in.(mm)	Temperature range °F(°C)	Working pressure psi(bar)	Burst pressure
20HPH-4	0.248 (6.3)	0.496 (12.6)	7.097 (180)	-22 to 140 (-30 to 60)	20000 (1379)	55000 (3793)
20HPH-6	0.390 (9.9)	0.724 (18.4)	7.874 (200)			55000 (3793)
20HPH-8	0.504 (12.8)	0.866 (22.0)	7.874 (200)			50000 (3448)
20HPH-12	0.740 (18.8)	1.291 (32.8)	13.780 (350)			50000 (3448)
20HPH-16	0.976 (24.8)	1.567 (39.8)	23.622 (600)			43500 (3000)

❖ Every CIR-LOK 20HPH series hose assembly is factory tested with pure water at the maximum working pressure.

- ❖ CIR-LOK 20HPH series hose components are cleaned in accordance with CIR-LOK standard cleaning for general industrial procedures.
- ❖ Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

20HPH— 4 — SAN4 — MPFT4 — F36 — 316

Series	Nominal Hose Size	End Connection 1 Type	End Connection 1 Size	End Connection 2 Type and Size	Overall Length	End Connection Material
20HPH	4 1/4 in. 6 3/8 in. 8 1/2 in. 12 3/4 in. 16 1 in.	SAN SAE 37°(JIC)	4 1/4 in. 6 3/8 in. 8 1/2 in. 10 5/8 in.	Same as end 1	F** ** in M** ** mm	304 304 S.S.
		MPFT UN Male	4 1/4 in. 6 3/8 in. 9 9/16 in. 12 3/4 in. 16 1 in.			304L 304L S.S. 316 316 S.S. 316L 316L S.S.



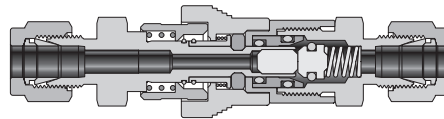
Quick-connects

QC Series

Contents

Instrumentation Quick-Connects (QC1 Series)

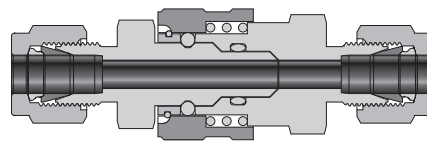
- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Flow coefficient (Cv) from 0.08 to 2.4
- ❖ End connection sizes from 1/8 to 1/2 in. and 6 to 12 mm
- ❖ Single-end shutoff and double-end shutoff stems



4-21

Full-Flow Quick-Connects (QC2 Series)

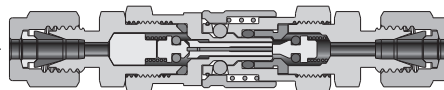
- ❖ Maximum working pressure up to 6000 psig (413 bar)
- ❖ Flow coefficient (Cv) from 1.7 to 45
- ❖ End connection sizes from 1/4 to 1 in. and 6 to 25 mm
- ❖ Single-end shutoff and double-end shutoff stems



4-29

Miniature Quick-Connects (QC3 Series)

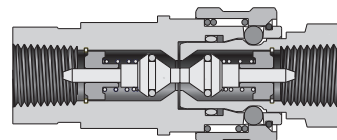
- ❖ Maximum working pressure up to 4000 psig (275 bar)
- ❖ Maximum Flow Rate: 1 u.s.gal/min (3.8L / min) at 70°F (20°C)
- ❖ Spillage and Air Inclusion: 0.1 cm³ (standard DESO and Body)



4-33

General Purpose type Quick-Connects (QC4 Series)

- ❖ Maximum working pressure up to 5000 psig (344.8 bar)
- ❖ Flow coefficient (Cv) from 0.2 to 6.2
- ❖ End connection sizes from 1/8 to 1 in.
- ❖ Single-end shutoff and double-end shutoff stems



4-36

Instrumentation Quick-Connects

QC1 Series

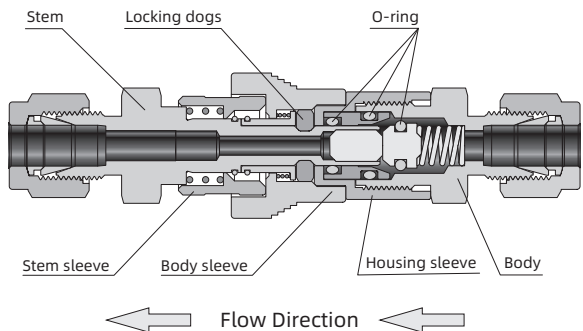
Features

- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -50°F to 500°F (-45°C to 260°C)
- ❖ Push to connect and pull on knurled sleeve to disconnect enables easy operation
- ❖ Minimal spillage upon disconnect and minimal air inclusion upon connect
- ❖ Materials: stainless steel
- ❖ Wide range of seal materials available
- ❖ Single-end shutoff and double-end shutoff stems
- ❖ Large number of Superior locking balls retains stem
- ❖ Interchangeable and intermixable with major

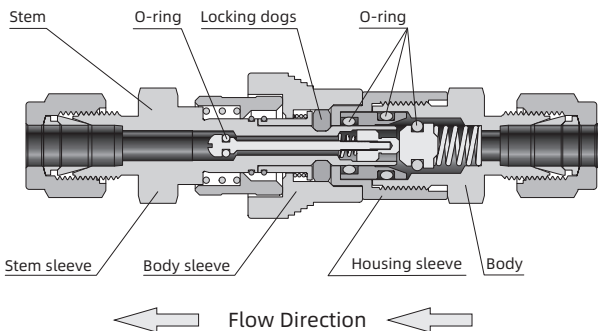


Structure

Single-end Shutoff (SESO)



Double-end Shutoff (DESO)



Materials of Construction

Component	Material	
	316 S.S.	Brass
Body, stem, body valve, body insert, DESO valve, DESO retainer	316 S.S.	Brass C36000
SESO stem insert	316 S.S.	Brass C26000
O-rings	Fluorocarbon FKM, Ethylene propylene, Perfluorocarbon FFKM	Buna N
Springs	316 S.S.	
Snap rings	302 S.S.	
Body sleeve	Powdered metal 300 series S.S.	Brass C36000
Housing	316 S.S.	Brass C36000
DESO stem sleeve	Polyurethane enamel-coated 316 S.S.	Polyurethane enamel-coated brass C36000
SESO stem sleeve	316 S.S.	Brass C36000
Locking dogs	Xylan® -coated 316 S.S. powdered metal	

Spillage and Air Inclusion

Series	Spillage cm ³	Air Inclusion cm ³
-4	0.3	0.3
-6	1.0	1.0
-8	3.0	3.0

Maximum Flow Rate at 70°F (20°C)

Series	Water Flow U.S. gal/min (L /min)
-4	4 (15)
-6	6 (22)
-8	10 (37)

Pressure-Temperature Ratings

-4 Series

Material	316 S.S.			Brass
O-Ring Material	Fluorocarbon FKM	Ethylene propylene	Perfluorocarbon FFKM	Buna N
Temperature °F (°C)	Pressure Rating psig(bar)			
Coupled				
-50 (-45)	—	3000 (206)	—	—
0 (-17)	—	3000 (206)	—	2000 (137)
10 (-12)	3000 (206)	3000 (206)	—	2000 (137)
60 (15)	3000 (206)	3000 (206)	3000 (206)	2000 (137)
100 (37)	3000 (206)	3000 (206)	3000 (206)	2000 (137)
150 (65)	2750 (189)	2750 (189)	2750 (189)	1300 (89.5)
200 (93)	2300 (158)	2300 (158)	2300 (158)	700 (48.0)
250 (121)	1850 (127)	1850 (127)	1850 (127)	300 (20.6)
300 (148)	1400 (96.4)	1400 (96.4)	1400 (96.4)	—
350 (176)	950 (65.4)	—	950 (65.4)	—
400 (204)	500 (34.4)	—	500 (34.1)	—
500 (260)	—	—	150 (10.3)	—
Uncoupled and When Coupling and Uncoupling				
70 (20)	250 (17.2)			

-6 Series

Material	316 S.S.			Brass
O-Ring Material	Fluorocarbon FKM	Ethylene propylene	Perfluorocarbon FFKM	Buna N
Temperature °F (°C)	Pressure Rating psig(bar)			
Coupled				
-50 (-45)	—	1500 (103)	—	—
0 (-17)	—	1500 (103)	—	1000 (68.9)
10 (-12)	1500 (103)	1500 (103)	—	1000 (68.9)
60 (15)	1500 (103)	1500 (103)	1500 (103)	1000 (68.9)
100 (37)	1500 (103)	1500 (103)	1500 (103)	1000 (68.9)
150 (65)	1350 (93.0)	1350 (93.0)	1350 (93.0)	700 (48.2)
200 (93)	1150 (79.2)	1150 (79.2)	1150 (79.2)	450 (31.0)
250 (121)	970 (66.8)	970 (66.8)	970 (66.8)	300 (20.6)
300 (148)	750 (51.6)	750 (51.6)	750 (51.6)	—
350 (176)	580 (39.9)	—	580 (39.9)	—
400 (204)	400 (27.5)	—	400 (27.5)	—
500 (260)	—	—	150 (10.3)	—
Uncoupled and When Coupling and Uncoupling				
70 (20)	250 (17.2)			

-8 Series

Material	316 S.S.			Brass
O-Ring Material	Fluorocarbon FKM	Ethylene propylene	Perfluorocarbon FFKM	Buna N
Temperature °F (°C)	Pressure Rating psig(bar)			
Coupled				
-50 (-45)	—	750 (51.6)	—	—
0 (-17)	—	750 (51.6)	—	500 (34.4)
10 (-12)	750 (51.6)	750 (51.6)	—	500 (34.4)
60 (15)	750 (51.6)	750 (51.6)	750 (51.6)	500 (34.4)
100 (37)	750 (51.6)	750 (51.6)	750 (51.6)	500 (34.4)
150 (65)	680 (46.8)	680 (46.8)	680 (46.8)	400 (27.5)
200 (93)	600 (41.3)	600 (41.3)	600 (41.3)	350 (24.1)
250 (121)	520 (35.8)	520 (35.8)	520 (35.8)	300 (20.6)
300 (148)	440 (30.3)	440 (30.3)	440 (30.3)	—
350 (176)	360 (24.8)	—	360 (24.8)	—
400 (204)	300 (20.6)	—	300 (20.6)	—
500 (260)	—	—	150 (10.3)	—
Uncoupled and When Coupling and Uncoupling				
70 (20)	250 (17.2)			

Sealing Ring Options

❖ All Quick-connects default FKM sealing ring. If you choose other sealing rings, please add designator after order number.

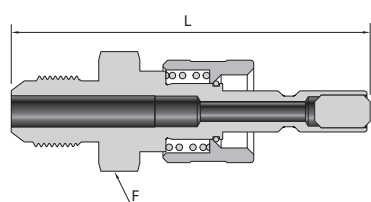
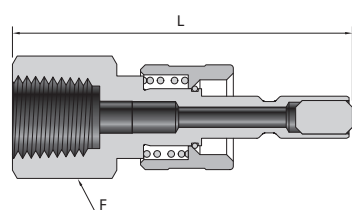
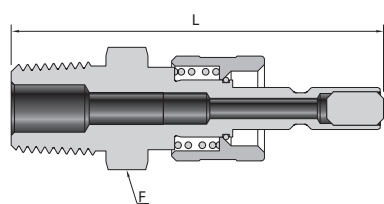
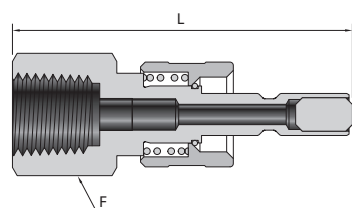
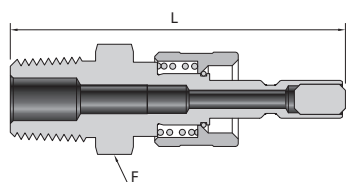
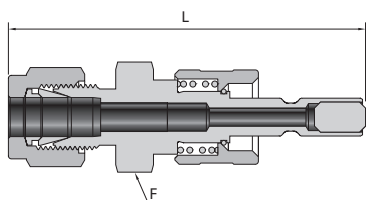
For example: **QC1-4-F4-B-316-E**

QC1-4-F4-D-316-N

Sealing Ring Material	Designator
Ethylene Propylene	-E
Perfluorocarbon FFKM	-Z
Buna N	-N

Dimensions

Single-End Shutoff Stems (SESO)



Tube Fitting

Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/8	QC1-4-F2-S-	0.08	5/8	2.32(58.9)
1/4	QC1-4-F4-S-	0.3	5/8	2.36(59.9)
3/8	QC1-6-F6-S-	1.0	3/4	2.52(64.0)
1/2	QC1-8-F8-S-	2.4	15/16	2.96(75.2)
mm			mm	mm(in.)
6	QC1-4-M6-S-	0.3	16	59.9(2.36)
10	QC1-6-M10-S-	1.0	19	67.3(2.65)
12	QC1-8-M12-S-	2.4	24	75.2(2.96)

Male NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/8	QC1-4-NPT2-S-	0.3	5/8	2.07(52.6)
1/4	QC1-4-NPT4-S-	0.3	5/8	2.22(56.4)
1/4	QC1-6-NPT4-S-	0.8	3/4	2.32(58.9)
3/8	QC1-6-NPT6-S-	0.8	3/4	2.35(59.7)
1/2	QC1-8-NPT8-S-	2.0	15/16	2.84(72.1)

Female NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/8	QC1-4-FNPT2-S-	0.3	5/8	2.01(51.1)
1/4	QC1-4-FNPT4-S-	0.3	3/4	2.26(57.4)
1/4	QC1-6-FNPT4-S-	0.8	3/4	2.35(59.7)
3/8	QC1-6-FNPT6-S-	0.8	7/8	2.35(59.7)
1/2	QC1-8-FNPT8-S-	2.0	1 1/16	2.82(71.6)

Male BSPT

BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/8	QC1-4-MBT2-S-	0.3	5/8	2.07(52.6)
1/4	QC1-4-MBT4-S-	0.3	5/8	2.22(56.4)
1/4	QC1-6-MBT4-S-	0.8	3/4	2.32(58.9)
3/8	QC1-6-MBT6-S-	0.8	3/4	2.35(59.7)
1/2	QC1-8-MBT8-S-	2.0	15/16	2.84(72.1)

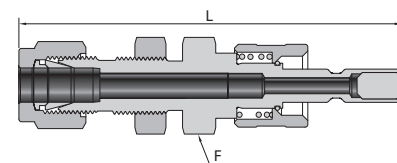
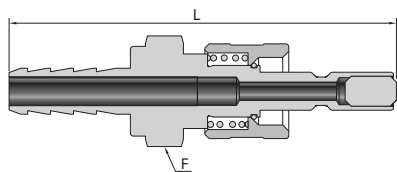
Female BSPT

BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/8	QC1-4-FBT2-S-	0.3	5/8	2.01(51.1)
1/4	QC1-4-FBT4-S-	0.3	3/4	2.26(57.4)
1/4	QC1-6-FBT4-S-	0.8	3/4	2.35(59.7)
3/8	QC1-6-FBT6-S-	0.8	7/8	2.35(59.7)
1/2	QC1-8-FBT8-S-	2.0	1 1/16	2.82(71.6)

Male JIC(AN) 37° Flare

AN Tube Flare Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/4	QC1-4-AN4-S-	0.2	5/8	2.23(56.6)
3/8	QC1-6-AN6-S-	1.0	3/4	2.35(59.7)
1/2	QC1-8-AN8-S-	2.4	15/16	2.79(70.9)

Single-End Shutoff Stems (SESO)



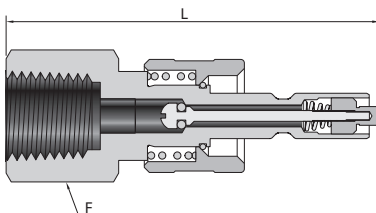
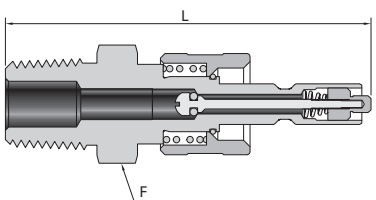
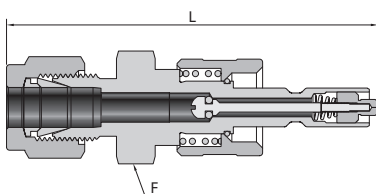
Hose Connector

Hose Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/4	QC1-4-HC4-S-	0.2	5/8	2.47(62.7)
3/8	QC1-6-HC6-S-	1.0	3/4	2.66(67.6)
1/2	QC1-8-HC8-S-	2.4	15/16	3.07(78.0)

Bulkhead Tube Fitting

Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L	Min. Panel Hole	Max. Panel Thickness
in.			in.	in.(mm)	in.(mm)	in.(mm)
1/4	QC1-4-BF4-S-	0.3	5/8	2.74(69.6)	0.47(11.9)	0.25(6.4)
3/8	QC1-6-BF6-S-	1.0	3/4	2.92(74.2)	0.60(15.2)	0.27(6.9)
1/2	QC1-8-BF8-S-	2.4	15/16	3.43(87.1)	0.78(19.8)	0.26(6.6)
mm	—	—	mm	mm(in.)	mm(in.)	mm(in.)
6	QC1-4-BM6-S-	0.3	16	69.6(2.74)	11.7(0.46)	6.4(0.25)
10	QC1-6-BM10-S-	1.0	22	77.7(3.06)	16.8(0.66)	6.9(0.27)
12	QC1-8-BM12-S-	2.4	24	87.1(3.43)	19.6(0.77)	6.6(0.26)

Double-End Shutoff Stems (DESO)



Tube Fitting

Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/8	QC1-4-F2-D-	0.08	5/8	2.77(70.4)
1/4	QC1-4-F4-D-	0.2	5/8	2.42(61.5)
3/8	QC1-6-F6-D-	0.5	3/4	2.64(67.1)
1/2	QC1-8-F8-D-	1.5	15/16	3.16(80.3)
mm	—	—	mm	mm(in.)
6	QC1-4-M6-D-	0.2	16	61.5(2.42)
10	QC1-6-M10-D-	0.5	19	70.4(2.77)
12	QC1-8-M12-D-	1.5	24	80.3(3.16)

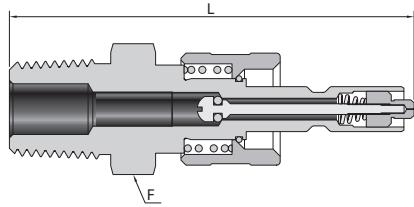
Male NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	QC1-4-NPT2-D-	0.2	5/8	2.13(54.1)
1/4	QC1-4-NPT4-D-	0.2	5/8	2.28(57.8)
1/4	QC1-6-NPT4-D-	0.5	3/4	2.44(61.9)
3/8	QC1-6-NPT6-D-	0.5	3/4	2.47(62.7)
1/2	QC1-8-NPT8-D-	1.3	15/16	3.04(77.2)

Female NPT

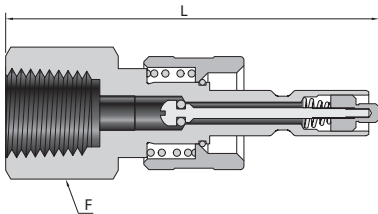
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	QC1-4-FNPT2-D-	0.2	5/8	2.07(52.6)
1/4	QC1-4-FNPT4-D-	0.2	3/4	2.32(58.9)
1/4	QC1-6-FNPT4-D-	0.5	3/4	2.47(62.7)
3/8	QC1-6-FNPT6-D-	0.5	7/8	2.47(62.7)
1/2	QC1-8-FNPT8-D-	1.3	1 1/16	3.04(77.2)

Double-End Shutoff Stems (DESO)



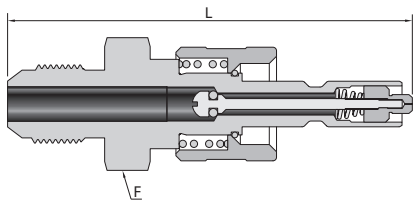
Male BSPT

BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	QC1-4-MBT2-D-	0.2	5/8	2.13(54.1)
1/4	QC1-4-MBT4-D-	0.2	5/8	2.28(57.8)
1/4	QC1-6-MBT4-D-	0.5	3/4	2.44(61.9)
3/8	QC1-6-MBT6-D-	0.5	3/4	2.47(62.7)
1/2	QC1-8-MBT8-D-	1.3	15/16	3.04(77.2)



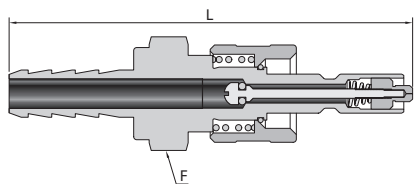
Female BSPT

BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/8	QC1-4-FBT2-D-	0.2	5/8	2.07(52.6)
1/4	QC1-4-FBT4-D-	0.2	3/4	2.32(58.9)
1/4	QC1-6-FBT4-D-	0.5	3/4	2.47(62.7)
3/8	QC1-6-FBT6-D-	0.5	7/8	2.47(62.7)
1/2	QC1-8-FBT8-D-	1.3	1 1/16	3.04(77.2)



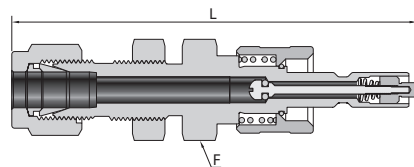
Male JIC(AN) 37° Flare

AN Tube Flare Size in.	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/4	QC1-4-AN4-D-	0.2	5/8	2.29(58.2)
3/8	QC1-6-AN6-D-	0.5	3/4	2.47(62.7)
1/2	QC1-8-AN8-D-	1.5	15/16	2.99(75.9)



Hose Connector

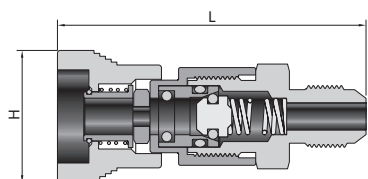
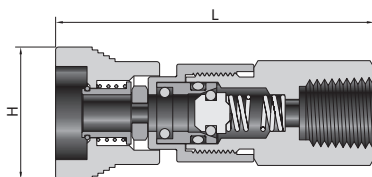
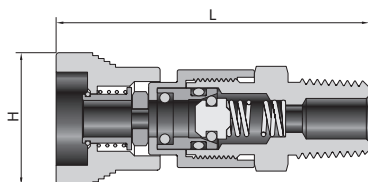
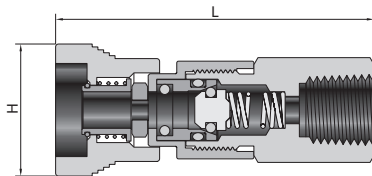
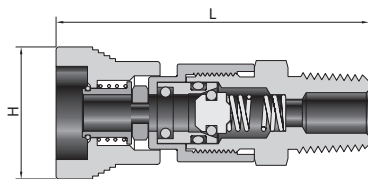
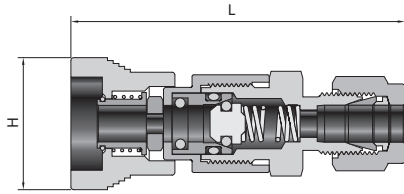
Hose Size in.	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in.(mm)
1/4	QC1-4-HC4-D-	0.2	5/8	2.53(64.3)
3/8	QC1-6-HC6-D-	0.5	3/4	2.78(70.6)
1/2	QC1-8-HC8-D-	1.5	15/16	3.27(83.1)



Bulkhead Tube Fitting

Tube Size in.	Basic Ordering Number	Flow Coefficient (Cv)	F	L	Min. Panel Hole in.(mm)	Max. Panel Thickness in.(mm)
			in.	in.(mm)		
1/4	QC1-4-BF4-D-	0.2	5/8	2.80(71.1)	0.47(11.9)	0.25(6.4)
3/8	QC1-6-BF6-D-	0.5	3/4	3.07(78.0)	0.60(15.2)	0.27(6.9)
1/2	QC1-8-BF8-D-	1.5	15/16	3.63(92.2)	0.78(19.8)	0.26(6.6)
mm	——	——	mm	mm(in.)	mm(in.)	mm(in.)
6	QC1-4-BM6-D-	0.2	16	71.1(2.80)	11.7(0.46)	6.4(0.25)
10	QC1-6-BM10-D-	0.5	22	78.7(3.10)	16.8(0.66)	6.9(0.27)
12	QC1-8-BM12-D-	1.5	24	92.2(3.63)	19.6(0.77)	6.6(0.26)

Bodies



Tube Fitting

Tube Size	Basic Ordering Number	H	L
in.		in.(mm)	in.(mm)
1/8	QC1-4-F2-B-	0.91(23.1)	2.26(57.4)
1/4	QC1-4-F4-B-	0.91(23.1)	2.30(58.4)
3/8	QC1-6-F6-B-	1.03(26.2)	2.58(65.5)
1/2	QC1-8-F8-B-	1.21(30.7)	3.09(78.5)
mm	——	mm(in.)	mm(in.)
6	QC1-4-M6-B-	23.1(0.91)	58.4(2.30)
10	QC1-6-M10-B-	26.2(1.03)	68.1(2.68)
12	QC1-8-M12-B-	30.7(1.21)	78.5(3.09)

Male NPT

NPT Size	Basic Ordering Number	H	L
		in.(mm)	in.(mm)
1/8	QC1-4-NPT2-B-	0.91(23.1)	2.01(51.1)
1/4	QC1-4-NPT4-B-	0.91(23.1)	2.16(54.9)
1/4	QC1-6-NPT4-B-	1.03(26.2)	2.38(60.5)
3/8	QC1-6-NPT6-B-	1.03(26.2)	2.38(60.5)
1/2	QC1-8-NPT8-B-	1.21(30.7)	2.97(75.4)

Female NPT

NPT Size	Basic Ordering Number	H	L
		in.(mm)	in.(mm)
1/8	QC1-4-FNPT2-B-	0.91(23.1)	2.16(54.9)
1/4	QC1-4-FNPT4-B-	0.91(23.1)	2.42(61.5)
1/4	QC1-6-FNPT4-B-	1.03(26.2)	2.54(65.4)
3/8	QC1-6-FNPT6-B-	1.03(26.2)	2.57(65.3)
1/2	QC1-8-FNPT8-B-	1.21(30.7)	3.22(81.8)

Male BSPT

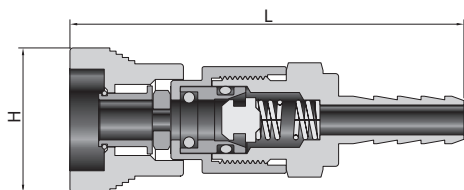
BSPT Size	Basic Ordering Number	H	L
		in.(mm)	in.(mm)
1/8	QC1-4-MBT2-B-	0.91(23.1)	2.01(51.1)
1/4	QC1-4-MB T4-B-	0.91(23.1)	2.16(54.9)
1/4	QC1-6-MB T4-B-	1.03(26.2)	2.38(60.5)
3/8	QC1-6-MB T6-B-	1.03(26.2)	2.38(60.5)
1/2	QC1-8-MB T8-B-	1.21(30.7)	2.97(75.4)

Female BSPT

BSPT Size	Basic Ordering Number	H	L
		in.(mm)	in.(mm)
1/8	QC1-4-FBT2-B-	0.91(23.1)	2.16(54.9)
1/4	QC1-4-FBT4-B-	0.91(23.1)	2.42(61.5)
1/4	QC1-6-FBT4-B-	1.03(26.2)	2.54(65.4)
3/8	QC1-6-FBT6-B-	1.03(26.2)	2.57(65.3)
1/2	QC1-8-FBT8-B-	1.21(30.7)	3.22(81.8)

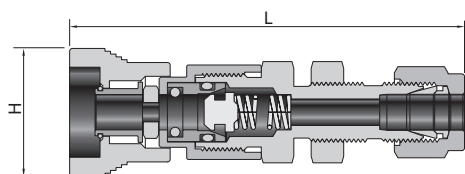
Male JIC (AN) 37° Flare

AN Tube Flare Size	Basic Ordering Number	H	L
in.		in.(mm)	in.(mm)
1/4	QC1-4-AN4-B-	0.91(23.1)	2.17(55.1)
3/8	QC1-6-AN6-B-	1.03(26.2)	2.41(61.2)
1/2	QC1-8-AN8-B-	1.21(30.7)	2.92(74.2)



Hose Connector

Hose Size	Basic Ordering Number	Flow Coefficient (Cv)	H	L
in.			in.(mm)	in.(mm)
1/4	QC1-4-HC4-B-	0.3	0.91(23.1)	2.41(61.2)
3/8	QC1-6-HC6-B-	1.5	1.03(26.2)	2.72(69.1)
1/2	QC1-8-HC8-B-	3.3	1.21(30.7)	3.20(81.3)



Bulkhead Tube Fitting

Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	H	L	Min. Panel Hole	Max. Panel Thickness
in.			in.(mm)	in.(mm)	in.(mm)	in.(mm)
1/4	QC1-4-BF4-B-	0.4	0.91(23.1)	2.67(67.8)	0.47(11.9)	0.25(6.4)
3/8	QC1-6-BF6-B-	1.5	1.03(26.2)	2.98(75.7)	0.60(15.2)	0.27(6.9)
1/2	QC1-8-BF8-B-	3.3	1.21(30.7)	3.56(90.4)	0.78(19.8)	0.26(6.6)
mm			mm(in.)	mm(in.)	mm(in.)	mm(in.)
6	QC1-4-BM6-B-	0.4	23.1(0.91)	67.8(2.67)	11.7(0.46)	6.4(0.25)
10	QC1-6-BM10-B-	1.5	26.2(1.03)	75.9(2.99)	16.8(0.66)	6.9(0.27)
12	QC1-8-BM12-B-	3.3	30.7(1.21)	90.4(3.56)	19.6(0.77)	6.6(0.26)

Keyed QC1 Series

- ❖ CIR-LOK keyed quick-connects provide a positive mechanical lockout system to prevent accidental intermixing of different lines in multifluid or multipressure systems.



QC1 Series Key Numbers and Sleeve Outside Diameters

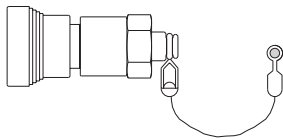
Key Number and Color	QC1-4		QC1-6		QC1-8	
	Body Sleeve	Stem Sleeve	Body Sleeve	Stem Sleeve	Body Sleeve	Stem Sleeve
	in.(mm)	in.(mm)	in.(mm)	in.(mm)	in.(mm)	in.(mm)
K1 black	0.96(24.4)	0.82(20.8)	1.13(28.7)	0.99(25.1)	1.26(32.0)	1.10(27.9)
K2 orange	0.99(25.1)	0.85(21.6)	1.16(29.5)	1.02(25.9)	1.29(32.8)	1.14(29.0)
K3 green	1.02(25.9)	0.88(22.4)	1.19(30.2)	1.05(26.7)	1.32(33.5)	1.17(29.7)
K4 yellow	1.05(26.7)	0.91(23.1)	1.22(31.0)	1.08(27.4)	1.35(34.3)	1.20(30.5)
K5 blue	1.08(27.4)	0.94(23.9)	1.24(31.5)	1.11(28.2)	1.38(35.1)	1.23(31.2)
K6 white	1.11(28.2)	0.97(24.6)	1.28(32.5)	1.14(29.0)	1.41(35.8)	1.26(32.0)
K7 purple	1.14(29.0)	1.00(25.4)	1.31(33.3)	1.17(29.7)	1.44(36.6)	1.29(32.8)
K8 brown	1.17(29.7)	1.03(26.2)	1.34(34.0)	1.20(30.5)	1.47(37.3)	1.32(33.5)

- ❖ To order a Keyed QC1 Series, add key number (K1 to K8) as a prefix to the basic ordering number

Example: **QC1-4-F4-316-K2**

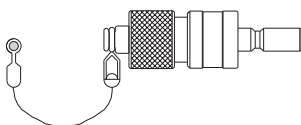
Protector

Stem Protector



Series	Basic Ordering Number
-4	QC1-4-SP-
-6	QC1-6-SP-
-8	QC1-8-SP-

Body Protector



Series	Basic Ordering Number
-4	QC1-4-BP-
-6	QC1-6-BP-
-8	QC1-8-BP-

❖ To order a protector, add material designator (316 or Brass) as a prefix to the basic ordering number

Example: **QC1-4-SP-316**

❖ To order a keyed protector, add material designator (316 or Brass) as a prefix and key designator from the table below as a suffix to the ordering number

Example: **QC1-4-BP-316-K1**

How to Order

QC1 — 6 — M10 — BD — 316					
Series	Size	End Connection Type	End Connection Size	Stem or Body	Body Material
QC1	4	FNPT Female NPT	4 1/4 in.	S Stem without valve remains open when uncoupled D Stem with valve shuts off when uncoupled B Body with valve BS Stem without valve +Body with valve BD Stem with valve +Body with valve	316 316 S.S.
	6	NPT Male NPT	6 3/8 in. or 6 mm		316L 316L S.S.
	8	FBT Female BSPT	8 1/2 in. or 8 mm		304 304 S.S.
		MBT Male BSPT	10 5/8 in. or 10 mm		304L 304L S.S.
		MS Male Metric (for BG)	12 3/4 in. or 12 mm		
		F Fractional Tube Fitting	14 M14 x 1.5		
		M Metric Tube Fitting	16 1 in. or 16 mm		
		FT Fractional Tube Adapter	18 M18 x 1.5		
		MT Metric Tube Adapter	20 M20 x 1.5		

Full-Flow Quick-Connects

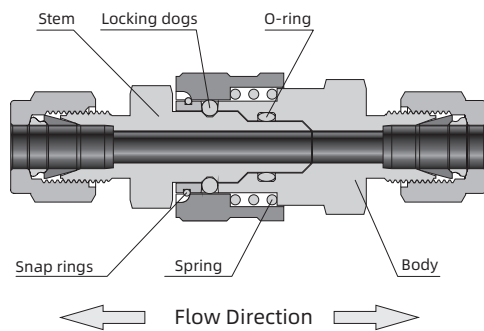
QC2 Series

Features

- ❖ Full flow without orifice restrictions
- ❖ Maximum working pressure up to 6000 psig (413 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ O-ring is easily replaced without disassembling body
- ❖ Stainless steel



Structure



Materials of Construction

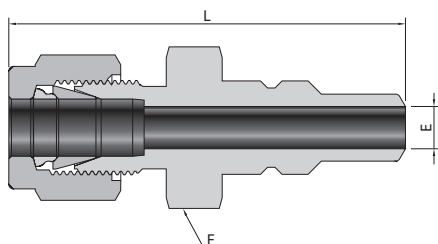
Component	Material	
	316 S.S.	Brass
Body, stem	316 S.S.	Brass C36000
O-rings	Fluorocarbon FKM	Buna N
Springs	316 S.S.	
Snap rings		
Locking ball		

Pressure-Temperature Ratings

Material	316 S.S.				Brass			
Series	-4 Series	-8 Series	-12 Series	-16 Series	-4 Series	-8 Series	-12 Series	-16 Series
Temperature °F (°C)	Pressure Rating psig (bar)							
Coupled								
-10 (-23)	6000 (413)	6000 (413)	4000 (275)	4000 (275)	4000 (275)	3000 (206)	2000 (137)	2000 (137)
70 (20)	6000 (413)	6000 (413)	4000 (275)	4000 (275)	4000 (275)	3000 (206)	2000 (137)	2000 (137)
250 (121)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)
400 (204)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)	100 (6.8)

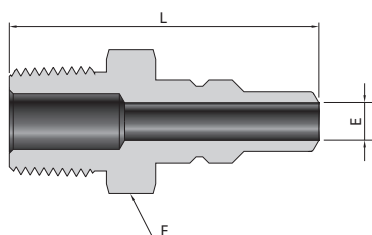
Dimensions

Stems



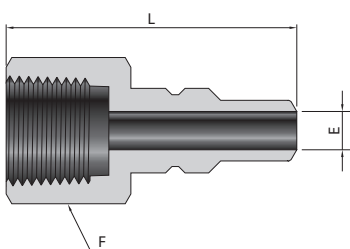
Tube Fitting

Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	E	F	L
in.			in.(mm)	in.	in.(mm)
1/4	QC2-4-F4-S-	2.2	0.19(4.8)	9/16	1.77 (45.0)
3/8	QC2-4-F6-S-	2.8	0.24(6.1)	11/16	1.77 (45.0)
3/8	QC2-8-F6-S-	2.8	0.28(7.1)	7/8	1.88 (47.8)
1/2	QC2-8-F8-S-	13.0	0.41(10.4)	7/8	1.99 (50.5)
3/4	QC2-12-F12-S-	26.0	0.62(15.7)	1 1/16	2.15 (54.6)
1	QC2-16-F16-S-	45.0	0.88(22.4)	1 3/8	2.45 (62.2)
mm	Basic Ordering Number	Flow Coefficient (Cv)	(mm)in.	mm	(mm)in.
6	QC2-4-M6-S-	2.2	4.8(0.19)	15	45.0 (1.77)
10	QC2-8-M10-S-	2.8	7.1(0.28)	22	48.5 (1.91)
12	QC2-8-M12-S-	13.0	9.5(0.37)	22	51.3 (2.02)
20	QC2-12-M20-S-	26.0	15.7(0.62)	30	54.6 (2.15)
25	QC2-16-M25-S-	45.0	22.4(0.88)	36	63.5 (2.50)



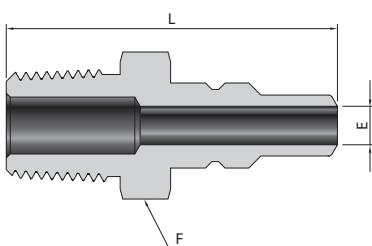
Male NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E	F	L
in. (mm)			in. (mm)	in.	in. (mm)
1/4	QC2-4-NPT4-S-	1.7	0.24 (6.1)	9/16	1.59 (40.4)
3/8	QC2-4-NPT6-S-	1.7	0.24 (6.1)	11/16	1.59 (40.4)
3/8	QC2-8-NPT6-S-	7.1	0.41 (10.4)	7/8	1.65 (41.9)
1/2	QC2-8-NPT8-S-	11.5	0.50 (12.7)	7/8	1.84 (46.7)
3/4	QC2-12-NPT12-S-	23.6	0.72 (18.3)	1 1/16	2.03 (51.6)
1	QC2-16-NPT16-S-	39.0	0.88 (22.4)	1 3/8	2.35 (59.7)



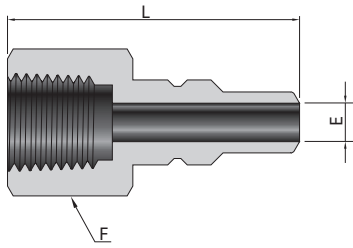
Female NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E	F	L
in. (mm)			in. (mm)	in.	in. (mm)
1/4	QC2-4-FNPT4-S-	1.7	0.24 (6.1)	3/4	1.60 (40.6)
3/8	QC2-4-FNPT6-S-	1.7	0.24 (6.1)	7/8	1.67 (42.4)
3/8	QC2-8-FNPT6-S-	7.1	0.41 (10.4)	1 1/16	1.59 (40.4)
1/2	QC2-8-FNPT8-S-	11.5	0.50 (12.7)	1 1/16	1.82 (46.2)
3/4	QC2-12-FNPT12-S-	23.6	0.72 (18.3)	1 5/16	2.08 (52.8)
1	QC2-16-FNPT16-S-	39.0	0.88 (22.4)	1 5/8	2.49 (63.2)



Male BSPT

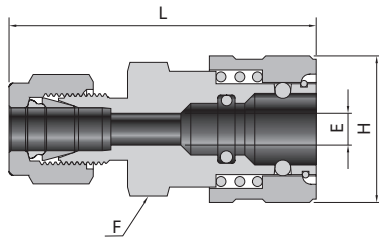
BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E	F	L
in. (mm)			in. (mm)	in.	in. (mm)
1/4	QC2-4-MBT4-S-	1.7	0.24 (6.1)	9/16	1.59 (40.4)
3/8	QC2-4-MBT6-S-	1.7	0.24 (6.1)	11/16	1.59 (40.4)
3/8	QC2-8-MBT6-S-	7.1	0.41 (10.4)	7/8	1.65 (41.9)
1/2	QC2-8-MBT8-S-	11.5	0.50 (12.7)	7/8	1.84 (46.7)
3/4	QC2-12-MBT12-S-	23.6	0.72 (18.3)	1 1/16	2.03 (51.6)
1	QC2-16-MBT16-S-	39.0	0.88 (22.4)	1 3/8	2.35 (59.7)



Female BSPT

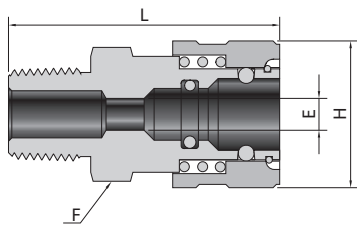
BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E	F	L
			in. (mm)	in.	in. (mm)
1/4	QC2-4-FBT4-S-	1.7	0.24 (6.1)	3/4	1.60 (40.6)
3/8	QC2-4-FBT6-S-	1.7	0.24 (6.1)	7/8	1.67 (42.4)
3/8	QC2-8-FBT6-S-	7.1	0.41 (10.4)	1 1/16	1.59 (40.4)
1/2	QC2-8-FBT8-S-	11.5	0.50 (12.7)	1 1/16	1.82 (46.2)
3/4	QC2-12-FBT12-S-	23.6	0.72 (18.3)	1 5/16	2.08 (52.8)
1	QC2-16-FBT16-S-	39.0	0.88 (22.4)	1 5/8	2.49 (63.2)

Bodies



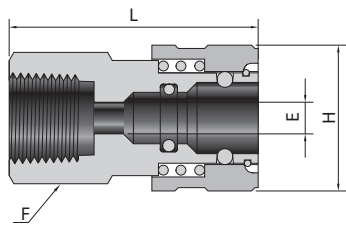
Tube Fitting

Tube Size	Basic Ordering Number	E	F	H	L
		in. (mm)	in.	in. (mm)	in. (mm)
1/4	QC2-4-F4-B-	0.19 (4.8)	11/16	0.87 (22.1)	1.80 (45.7)
3/8	QC2-4-F6-B-	0.28 (7.1)	11/16	0.87 (22.1)	1.81 (46.0)
3/8	QC2-8-F6-B-	0.28 (7.1)	1 1/16	1.30 (33.0)	2.17 (55.1)
1/2	QC2-8-F8-B-	0.47 (11.9)	1 1/16	1.30 (33.0)	2.23 (56.6)
3/4	QC2-12-F12-B-	0.62 (15.7)	1 1/2	1.66 (42.2)	2.45 (62.2)
1	QC2-16-F16-B-	0.88 (22.4)	1 11/16	1.88 (47.8)	2.75 (69.9)
mm	Basic Ordering Number	(mm) in.	mm	(mm) in.	(mm) in.
6	QC2-4-M6-B-	4.8 (0.19)	18	22.1 (0.87)	45.7 (1.80)
10	QC2-8-M10-B-	7.1 (0.28)	27	33.0 (1.30)	55.9 (2.20)
12	QC2-8-M12-B-	10.4 (0.41)	27	33.0 (1.30)	57.4 (2.26)
20	QC2-12-M20-B-	15.9 (0.63)	38	42.2 (1.66)	63.5 (2.50)
25	QC2-16-M25-B-	21.8 (0.86)	46	47.8 (1.88)	70.0 (2.76)



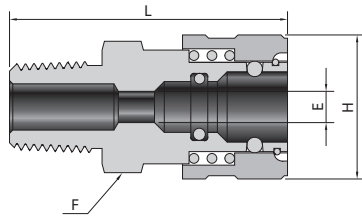
Male NPT

NPT Size	Basic Ordering Number	E	F	H	L
		in. (mm)	in.	in. (mm)	in. (mm)
1/4	QC2-4-NPT4-B-	0.25 (6.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	QC2-4-NPT6-B-	0.37 (9.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	QC2-8-NPT6-B-	0.41 (10.4)	1 1/16	1.30 (33.0)	1.83 (46.5)
1/2	QC2-8-NPT8-B-	0.50 (12.7)	1 1/16	1.30 (33.0)	2.08 (52.8)
3/4	QC2-12-NPT12-B-	0.72 (18.3)	1 1/2	1.66 (42.2)	2.33 (59.2)
1	QC2-16-NPT16-B-	0.88 (22.4)	1 11/16	1.88 (47.8)	2.65 (67.3)



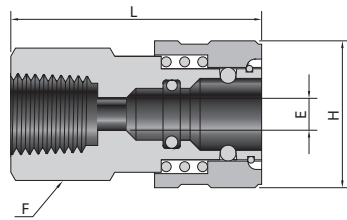
Female NPT

NPT Size	Basic Ordering Number	E	F	H	L
		in. (mm)	in.	in. (mm)	in. (mm)
1/4	QC2-4-FNPT4-B-	0.38 (9.7)	3/4	0.87 (22.1)	1.50 (38.1)
3/8	QC2-4-FNPT6-B-	0.38 (9.7)	7/8	0.87 (22.1)	1.63 (41.4)
3/8	QC2-8-FNPT6-B-	0.59 (15.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
1/2	QC2-8-FNPT8-B-	0.63 (16.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
3/4	QC2-12-FNPT12-B-	0.88 (22.4)	1 1/2	1.66 (42.2)	1.89 (48.0)
1	QC2-16-FNPT16-B-	1.06 (26.9)	1 11/16	1.88 (47.8)	2.12 (53.8)



Male BSPT

BSPT Size	Basic Ordering Number	E	F	H	L
		in.(mm)	in.	in.(mm)	in.(mm)
1/4	QC2-4-MBT4-B-	0.25(6.4)	11/16	0.87(22.1)	1.57(39.9)
3/8	QC2-4-MBT6-B-	0.37(9.4)	11/16	0.87(22.1)	1.57(39.9)
3/8	QC2-8-MBT6-B-	0.41(10.4)	1 1/16	1.30(33.0)	1.83(46.5)
1/2	QC2-8-MBT8-B-	0.50(12.7)	1 1/16	1.30(33.0)	2.08(52.8)
3/4	QC2-12-MBT12-B-	0.72(18.3)	1 1/2	1.66(42.2)	2.33(59.2)
1	QC2-16-MBT16-B-	0.88(22.4)	1 11/16	1.88(47.8)	2.65(67.3)

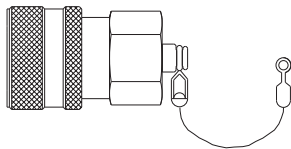


Female BSPT

BSPT Size	Basic Ordering Number	E	F	H	L
		in.(mm)	in.	in.(mm)	in.(mm)
1/4	QC2-4-FBT4-B-	0.38(9.7)	3/4	0.87(22.1)	1.50(38.1)
3/8	QC2-4-FBT6-B-	0.38(9.7)	7/8	0.87(22.1)	1.63(41.4)
3/8	QC2-8-FBT6-B-	0.59(15.0)	1 1/16	1.30(33.0)	1.73(43.9)
1/2	QC2-8-FBT8-B-	0.63(16.0)	1 1/16	1.30(33.0)	1.73(43.9)
3/4	QC2-12-FBT12-B-	0.88(22.4)	1 1/2	1.66(42.2)	1.89(48.0)
1	QC2-16-FBT16-B-	1.06(26.9)	1 11/16	1.88(47.8)	2.12(53.8)

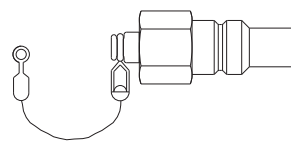
Protector

Stem Protector



Series	Basic Ordering Number
-4	QC2-4-SP-
-8	QC2-8-SP-
-12	QC2-12-SP-
-16	QC2-16-SP-

Body Protector



Series	Basic Ordering Number
-4	QC2-4-BP-
-8	QC2-8-BP-
-12	QC2-12-BP-
-16	QC2-16-BP-

❖ To order a protector, add material designator (316 or Brass) as a prefix to the basic ordering number.
Example: **QC2-4-SP-316**

How to Order

QC2 — 8 — F8 — BS — 316					
Series	Size	End Connection Type	End Connection Size	Stem or Body	Body Material
QC2	4	FNPT Female NPT	4 1/4 in.	S Stem	316 316 S.S.
		NPT Male NPT	6 3/8 in. or 6 mm	B Body	316L 316L S.S.
	8	FBT Female BSPT	8 1/2 in. or 8 mm	BS Stem + Body	304 304 S.S.
		MBT Male BSPT	10 5/8 in. or 10 mm		
	12	FMS Female Metric	12 3/4 in. or 12 mm		
		MS Male Metric (for BG)	14 M14 x 1.5		
		F Fractional Tube Fitting	16 1 in. or 16 mm		
		M Metric Tube Fitting			
		MT Metri Tube Adapter			
		FT Fractional Tube Adapter			

Miniature Quick-Connects

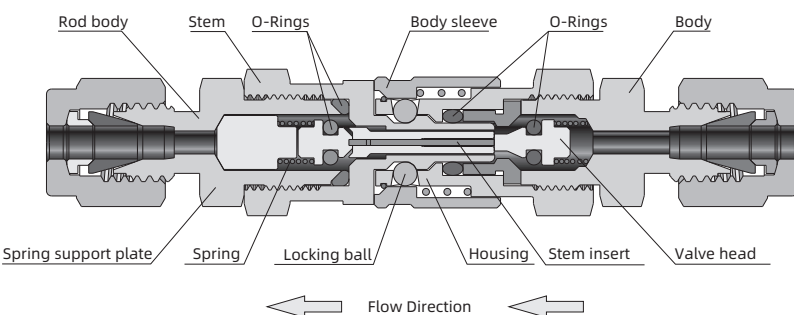
QC3 Series

Features

- ❖ Maximum working pressure up to 4000 psig (275 bar)
- ❖ Working temperature from -50°F to 500°F (-45°C to 260°C)
- ❖ Maximum Flow Rate: 1 u.s.gal/min (3.8L / min) at 70°F (20°C) (SESO and Full Flow Body)
- ❖ Spillage and Air Inclusion: 0.1 cm³ (standard DESO and Body)



Structure



Materials of Construction

Component	Material	
	Stainless Steel	Brass
Body Rod body Stem Spring support plate Valve head Stem insert	316.S.S/ASTM A479	C36000 ASTM B16
O-Rings	Fluorocarbon FKM Ethylene Propylene Perfluorocarbon FFKM	Buna N
Housing Body sleeve	316.S.S/ASTM A479	C36000 ASTM B16
Locking ball	440C/ASTM A276	
Snap rings Springs	304.S.S/ASTM A313	
Lubricants	PTFE-based	
Lubricants	Silicone-based	

Pressure-Temperature Ratings

Material Science	316 Stainless Steel			Brass
O-Ring Material	Fluorocarbon Rubber(FKM)	Ethylene Propylene	Perfluorocarbon FFKM	Buna N
Temperature °F(°C)	Rated Pressure psi(bar)			
Coupled				
-50(-45)	——	4000(275)	——	——
0(-17)	——	4000(275)	——	2000(137)
10(-12)	4000(275)	4000(275)	——	2000(137)
40(4)	4000(275)	4000(275)	4000(275)	2000(137)
100(37)	4000(275)	4000(275)	4000(275)	2000(137)
150(65)	3500(241)	3500(241)	3500(241)	1300(89.5)
200(93)	2800(192)	2800(192)	2800(192)	700(48.0)
250(121)	2100(144)	2100(144)	2100(144)	200(13.7)
300(148)	1400(96.4)	1400(96.4)	1400(96.4)	——
350(176)	800(55.1)	——	800(55.1)	——
400(204)	200(13.7)	——	200(13.7) ^①	——
500(260)	——	——	150(10.3) ^②	——
Uncoupled and When Coupling and Uncoupling				
70(20)	100(6.8)			

① silicone-based lubricant

② PTFE-based lubricant

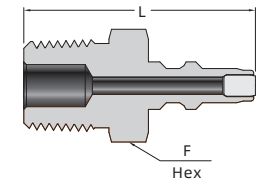
Sealing Ring Options

❖ All Quick-connects default FKM sealing ring. If you choose other sealing rings, please add Designator after order umber.
For example: **QC3-F2-BD-316-E**

Sealing Ring Material	Designator
Ethylene Propylene	-E
Perfluorocarbon FFKM	-Z
Buna N	-N

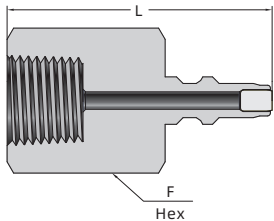
Dimensions

Single-End Shutoff Stems (SES0)



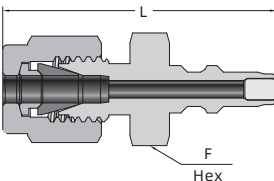
Male NPT

NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-NPT1-S-	0.06	7/16	1.04(26.4)
1/8	QC3-NPT2-S-	0.06	7/16	1.04(26.4)



Female NPT

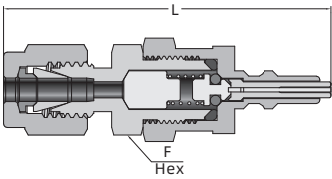
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-FNPT1-S-	0.06	7/16	1.03(26.2)
1/8	QC3-FNPT2-S-	0.06	9/16	1.19(30.2)



Ferrule Fitting

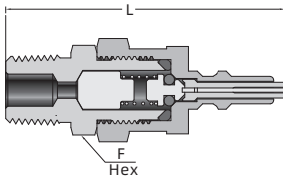
Ferrule Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-F1-S-	0.06	7/16	1.18(30.0)
1/8	QC3-F2-S-	0.06	7/16	1.29(32.8)

Double-End Shutoff Stems (DESO)



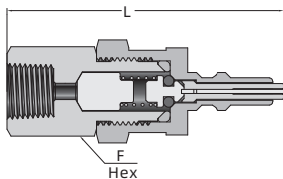
Ferrule Fitting

Ferrule Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-F1-D-	0.05	7/16	1.64(41.7)
1/8	QC3-F2-D-	0.05	7/16	1.83(46.5)



Male NPT

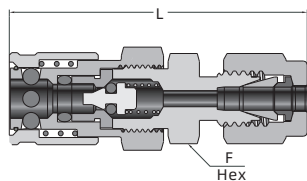
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-NPT1-D-	0.05	7/16	1.61(40.9)
1/8	QC3-NPT2-D-	0.05	7/16	1.61(40.9)



Female NPT

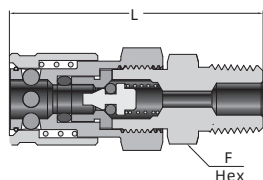
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in.(mm)
1/16	QC3-FNPT1-D-	0.05	7/16	1.61(40.9)
1/8	QC3-FNPT2-D-	0.05	9/16	1.81(46.0)

Bodies



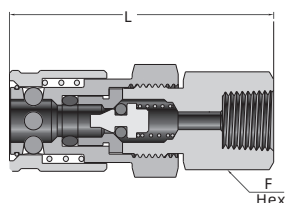
Ferrule Fitting

Ferrule Size	Basic Ordering Number	F	L
in.		in.	in.(mm)
1/16	QC3-F1-B-	7/16	1.48(37.6)
1/8	QC3-F2-B-	7/16	1.67(42.4)



Male NPT

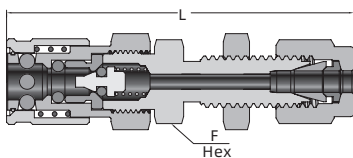
NPT Size	Basic Ordering Number	F	L
in.		in.	in.(mm)
1/16	QC3-NPT1-B-	7/16	1.42(36.1)
1/8	QC3-NPT2-B-	7/16	1.44(36.6)



Female NPT

NPT Size	Basic Ordering Number	F	L
in.		in.	in.(mm)
1/16	QC3-FNPT1-B-	7/16	1.42(36.1)
1/8	QC3-FNPT2-B-	9/16	1.62(41.1)

Bodies (Bulkhead Tube Fitting)



Ferrule Fitting

Ferrule Size	Basic Ordering Number	F	L	Min.Panel Hole	Max.Panel Thickness
in.		in.	in.(mm)	in.(mm)	in.(mm)
1/8	QC3-BF2-B-	7/16	2.09(53.1)	0.35(8.8)	0.25(6.4)

How to Order

QC3 — FNPT2 — BD — 316

Series	End Connection Type	End Connection Size	Stem or Body	Body Material
QC3	FNPT Female NPT	1 1/16 in.	S Stem without valve remains open when uncoupled	316 316 S.S.
	FBT Female BSPT	2 1/8 in.	D Stem with valve shuts off when uncoupled	316L 316L S.S.
	F Fractional Tube Fitting		B Body with valve	304 304 S.S.
			BS Stem without valve + Body with valve	304L 304L S.S.
			BD Stem with valve + Body with valve	

High performance Quick-Connects

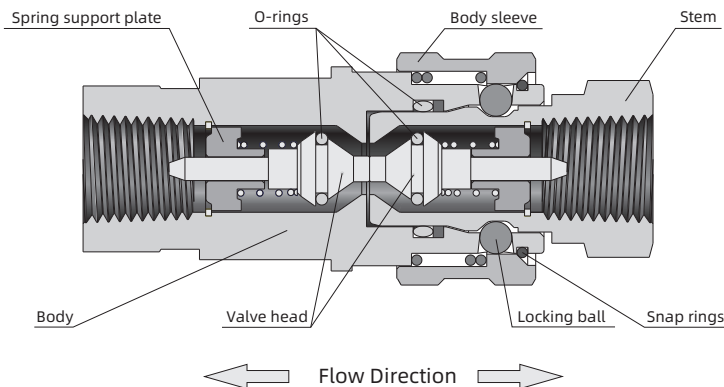
QC4 Series

Features

- ❖ Maximum working pressure up to 5000 psig (344.8 bar)
- ❖ Working temperature from -50°F to 525°F (-45°C to 274°C)
- ❖ Stainless steel material options
- ❖ Alternative seal materials available
- ❖ Field of use:
 - Industrial hydraulic lines
 - Food and chemical processing
 - Water and coolant lines
 - Mobile equipment
 - May be used with some gases



Structure



Materials of Construction

Component	Material	
	316 S.S.	Brass
Body Stem Spring support plate Valve head Stem insert	316.S.S./ASTM A479	C36000 ASTM B16
O-Rings	Fluorocarbon FKM Ethylene Propylene Neoprene Perfluorocarbon FFKM	Buna N
Body sleeve	316.S.S./ASTM A479	C36000 ASTM B16
Locking ball	440C/ASTM A276	
Snap rings	304.S.S./ASTM A313	
Springs	304.S.S./ASTM A313	
Lubricants	PTFE-based	
Lubricants	Silicone-based	

Pressure Ratings

Body Size	Rated Pressure psig (bar)	
	316 S.S.	Brass
1/8	5000(345)	3000(207)
1/4	5000(345)	3700(255)
3/8	5000(345)	2700(186)
1/2	5000(345)	3500(241)
3/4	3000(207)	2200(152)
1	3000(207)	1500(103)

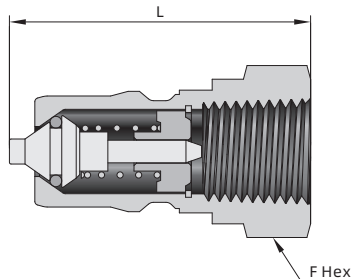
Sealing Ring Options

- ❖ All Quick-connects default FKM sealing ring. If you choose other sealing rings, please add Designator after order number.
For example: **QC4-4-FNPT4-B-316-E**

O-Rings	Temperature Range	Designator
Buna N	-10 °F to 250 °F (-23 °C to 121 °C)	-N
Fluorocarbon (FKM)	-10 °F to 400 °F (-23 °C to 204 °C)	None by default
Ethylene Propylene	-50 °F to 300 °F (-45 °C to 148 °C)	-E
Neoprene	-40 °F to 250 °F (-40 °C to 121 °C)	-N
Fluorocarbon (FFKM)	0 °F to 525 °F (-18 °C to 274 °C)	-Z

Dimensions

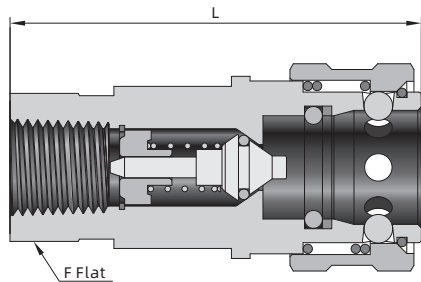
Stems



Female NPT or Female BSPT

Size in.	Basic Ordering Number	Flow Coefficient (Cv)	F in.(mm)	L in.(mm)
1/8	QC4-2-FNPT2-D- QC4-2-FBT2-D-	0.2	9/16 (14.29)	1.26 (32)
1/4	QC4-4-FNPT4-D- QC4-4-FBT4-D-	0.4	3/4 (19.05)	1.54 (39.1)
3/8	QC4-6-FNPT6-D- QC4-6-FBT6-D-	1.1	7/8 (22.23)	1.66 (42.1)
1/2	QC4-8-FNPT8-D- QC4-8-FBT8-D-	1.8	1 1/8 (28.58)	1.94 (49.3)
3/4	QC4-12-FNPT12-D- QC4-12-FBT12-D-	4.8	1 3/8 (34.93)	2.43 (61.7)
1	QC4-16-FNPT16-D- QC4-16-FBT16-D-	6.2	1 5/8 (41.28)	2.91 (73.9)

Bodies



Female NPT or Female BSPT

Size in.	Basic Ordering Number	F in.(mm)	L in.(mm)
1/8	QC4-2-FNPT2-B- QC4-2-FBT2-B-	11/16 (17.46)	1.9 (48.3)
1/4	QC4-4-FNPT4-B- QC4-4-FBT4-B-	13/16 (20.64)	2.26 (57.4)
3/8	QC4-6-FNPT6-B- QC4-6-FBT6-B-	7/8 (22.23)	2.49 (63.2)
1/2	QC4-8-FNPT8-B- QC4-8-FBT8-B-	1 1/8 (28.58)	2.87 (72.9)
3/4	QC4-12-FNPT12-B- QC4-12-FBT12-B-	1 5/16 (33.34)	3.56 (90.4)
1	QC4-16-FNPT16-B- QC4-16-FBT16-B-	1 5/8 (41.28)	4.18 (106.2)

How to Order

QC4 — 4 — FNPT4 — BD — 316

Series	Size	End Connection Type	End Connection Size	Stem or Body	Body Material
QC4	2	FNPT Female NPT	4 1/4 in.	D Stem with valve shuts off when uncoupled	316 316 S.S.
	4	FBT Female BSPT	6 3/8 in.	B Body with valve shuts off when uncoupled	316L 316L S.S.
	6		8 1/2 in.		304 304 S.S.
	8		12 3/4 in.	BD Stem with valve +Body with valve	304L 304L S.S.
	12		16 1 in.		
	16				