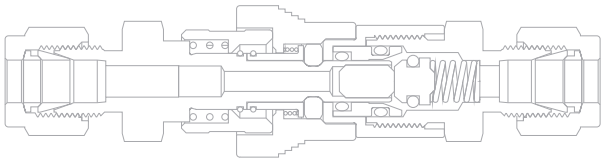
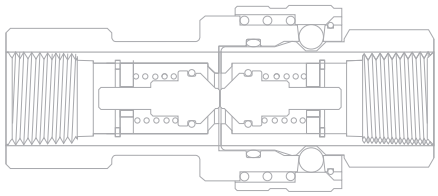
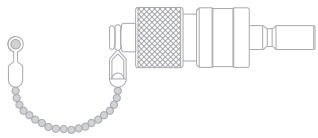
Quick Connectors

Climate Control
Electromechanical
Filtration
Fluid & Gas Handling
Hydraulics
Process Control
Sealing & Shielding







VFK
Advanced Fluid Control

Contents

91C Series

01

91F Series

08

91V Series

12

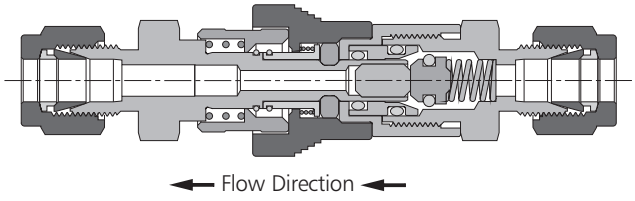
91C Series

Features

- Maximum working pressure: 3000 psig (207 bar)
- Working temperatures:
  -10°F to 400°F (-23°C to 204°C) with Fluorocarbon FKM seal
  -10°F to 250°F (-23°C to 121°C) with Buna N seal
- Materials: stainless steel or brass
- Reliable, leak-tight O-ring seal for vacuum or pressure systems.
- Interchangeable with other main brands.

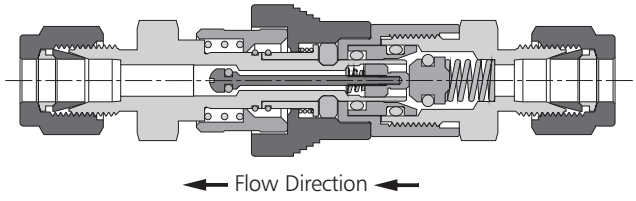
Single-end Shutoff (SESO)

SESO stem + body



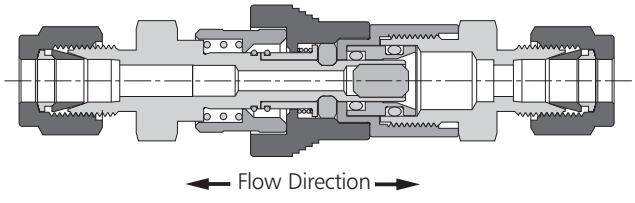
Double-end Shutoff (DESO)

DESO stem + body



Full-flow Quick-connects

SESO stem + full-flow body



Pressure-Temperature Ratings

Temperature °F (°C)	Stainless Steel with FKM O-ring			Brass with Buna N O-ring		
	91C4	91C6	91C8	91C4	91C6	91C8
	pressure rating, psig (bar)					
70 (20)	3000 (207)	1500 (103)	750 (51.6)	2000 (137)	1000 (68.9)	500 (34.4)
250 (121)	—			250 (17.2)		
400 (204)	250 (17.2)			—		

Insertion Depth and Maximum Flow Rate

Series	Insertion Depth		Max. Flow Rate at 70°F (20°C)	
	SESO	DESO		
	in. (mm)	in. (mm)	U.S. gal/min	L/min
91C4	1.09 (27.7)	1.15 (29.2)	4.0	15.0
91C6	1.18 (30.0)	1.30 (33.0)	6.0	22.0
91C8	1.48 (37.6)	1.68 (42.7)	10.0	37.0

In order to measure overall length in the coupled position, the insertion depth should be deducted from any overall stem and body combination length.

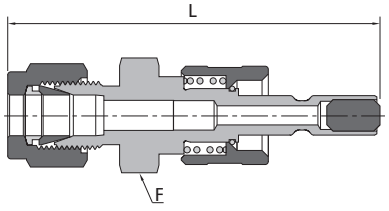
Cautions:

- Do not uncouple single-end shutoff quick-connects under pressure.
- Do not insert foreign object into uncoupled stems and bodies.
- Re-lubricate stem seal O-ring periodically.

VFK

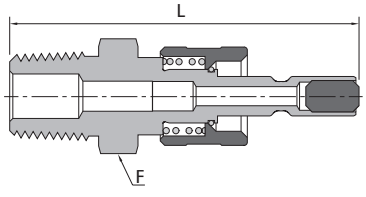
SESO Stems

Tube Fitting



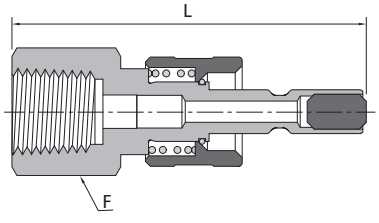
Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/8	-91C4-FX2-S	0.08	5/8	2.32 (58.9)
1/4	-91C4-FX4-S	0.3	5/8	2.36 (59.9)
3/8	-91C6-FX6-S	1.0	3/4	2.52 (64.0)
1/2	-91C8-FX8-S	2.4	15/16	2.96 (75.2)
mm	——	——	mm	mm (in.)
6	-91C4-MX6-S	0.3	16	59.9 (2.36)
10	-91C6-MX10-S	1.0	19	67.3 (2.65)
12	-91C8-MX12-S	2.4	24	75.2 (2.96)

Male NPT



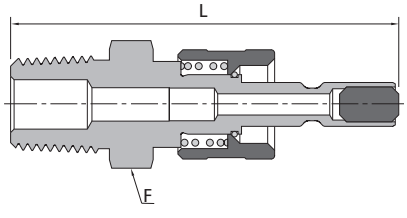
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-N2-S	0.3	5/8	2.07 (52.6)
1/4	-91C4-N4-S	0.3	5/8	2.22 (56.4)
1/4	-91C6-N4-S	0.8	3/4	2.32 (58.9)
3/8	-91C6-N6-S	0.8	3/4	2.35 (59.7)
1/2	-91C8-N8-S	2.0	15/16	2.84 (72.1)

Female NPT



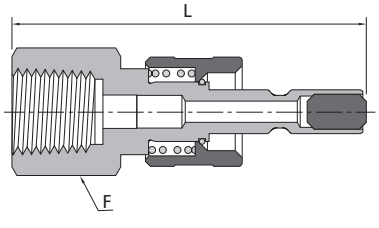
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-FN2-S	0.3	5/8	2.01 (51.1)
1/4	-91C4-FN4-S	0.3	3/4	2.26 (57.4)
1/4	-91C6-FN4-S	0.8	3/4	2.35 (59.7)
3/8	-91C6-FN6-S	0.8	7/8	2.35 (59.7)
1/2	-91C8-FN8-S	2.0	1 1/16	2.82 (71.6)

Male BSPT



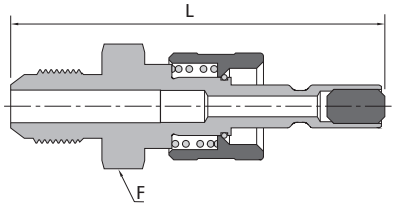
BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-R2-S	0.3	5/8	2.07 (52.6)
1/4	-91C4-R4-S	0.3	5/8	2.22 (56.4)
1/4	-91C6-R4-S	0.8	3/4	2.32 (58.9)
3/8	-91C6-R6-S	0.8	3/4	2.35 (59.7)
1/2	-91C8-R8-S	2.0	15/16	2.84 (72.1)

Female BSPT



BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-FR2-S	0.3	5/8	2.01 (51.1)
1/4	-91C4-FR4-S	0.3	3/4	2.26 (57.4)
1/4	-91C6-FR4-S	0.8	3/4	2.35 (59.7)
3/8	-91C6-FR6-S	0.8	7/8	2.35 (59.7)
1/2	-91C8-FR8-S	2.0	1 1/16	2.82 (71.6)

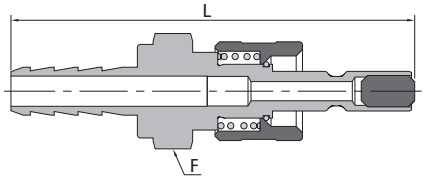
Male JIC(AN) 37° Flare



AN Tube Flare Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/4	-91C4-AN4-S	0.2	5/8	2.23 (56.6)
3/8	-91C6-AN6-S	1.0	3/4	2.35 (59.7)
1/2	-91C8-AN8-S	2.4	15/16	2.79 (70.9)

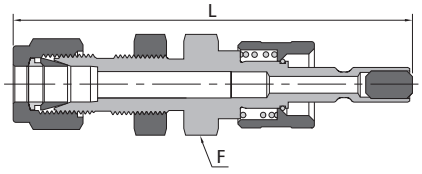
SESO Stems

Hose Connector



Hose Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/4	-91C4-HC4-S	0.2	5/8	2.47 (62.7)
3/8	-91C6-HC6-S	1.0	3/4	2.66 (67.6)
1/2	-91C8-HC8-S	2.4	15/16	3.07 (78.0)

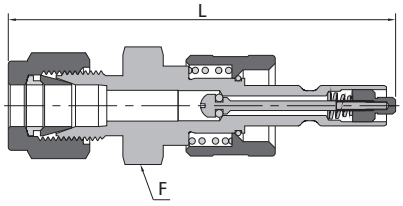
Bulkhead Tube Fitting



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	-91C4-FX4-SS	0.3	5/8	2.74 (69.6)	0.47 (11.9)	0.25 (6.4)
3/8	-91C6-FX6-SS	1.0	3/4	2.92 (74.2)	0.60 (15.2)	0.27 (6.9)
1/2	-91C8-FX8-SS	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	-91C4-MX6-SS	0.3	16	69.6 (2.74)	11.7 (0.46)	6.4 (0.25)
10	-91C6-MX10-SS	1.0	22	77.7 (3.06)	16.8 (0.66)	6.9 (0.27)
12	-91C8-MX12-SS	2.4	24	87.1 (3.43)	19.6 (0.77)	6.6 (0.26)

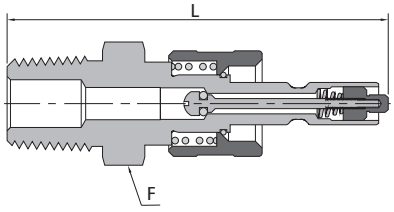
DESO Stems

Tube Fitting



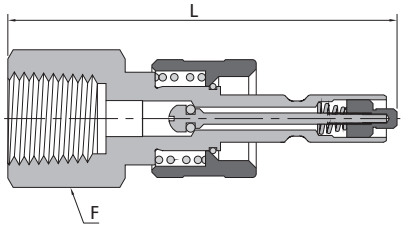
Tube Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/8	-91C4-FX2-D	0.08	5/8	2.77 (70.4)
1/4	-91C4-FX4-D	0.2	5/8	2.42 (61.5)
3/8	-91C6-FX6-D	0.5	3/4	2.64 (67.1)
1/2	-91C8-FX8-D	1.5	15/16	3.16 (80.3)
mm	——	——	**mm**	**mm (in.)**
6	-91C4-MX6-D	0.2	16	61.5 (2.42)
10	-91C6-MX10-D	0.5	19	70.4 (2.77)
12	-91C8-MX12-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	-91C4-N2-D	0.2	5/8	2.13 (54.1)
1/4	-91C4-N4-D	0.2	5/8	2.28 (57.8)
1/4	-91C6-N4-D	0.5	3/4	2.44 (61.9)
3/8	-91C6-N6-D	0.5	3/4	2.47 (62.7)
1/2	-91C8-N8-D	1.3	15/16	3.04 (77.2)

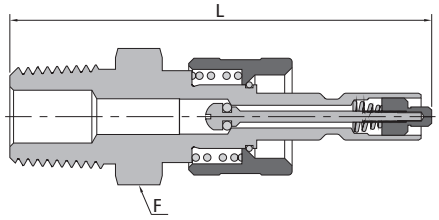
Female NPT



NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-FN2-D	0.2	5/8	2.07 (52.6)
1/4	-91C4-FN4-D	0.2	3/4	2.32 (58.9)
1/4	-91C6-FN4-D	0.5	3/4	2.47 (62.7)
3/8	-91C6-FN6-D	0.5	7/8	2.47 (62.7)
1/2	-91C8-FN8-D	1.3	1 1/16	3.04 (77.2)

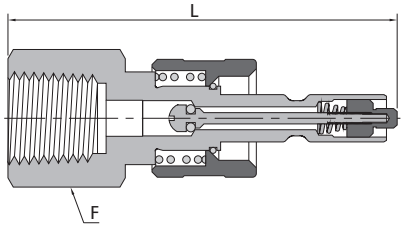
DESO Stems

Male BSPT



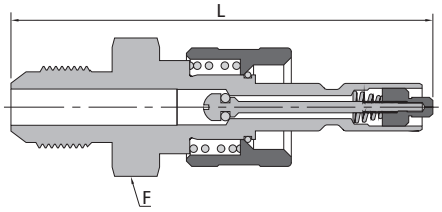
BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-R2-D	0.2	5/8	2.13 (54.1)
1/4	-914-R4-D	0.2	5/8	2.28 (57.8)
1/4	-916-R4-D	0.5	3/4	2.44 (61.9)
3/8	-916-R6-D	0.5	3/4	2.47 (62.7)
1/2	-918-R8-D	1.3	15/16	3.04 (77.2)

Female BSPT



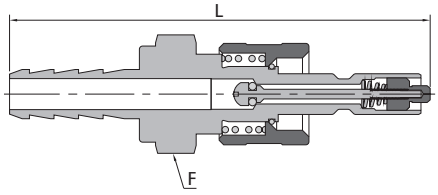
BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
			in.	in. (mm)
1/8	-91C4-FR2-D	0.2	5/8	2.07 (52.6)
1/4	-91C4-FR4-D	0.2	3/4	2.32 (58.9)
1/4	-91C6-FR4-D	0.5	3/4	2.47 (62.7)
3/8	-91C6-FR6-D	0.5	7/8	2.47 (62.7)
1/2	-91C8-FR8-D	1.3	1 1/16	3.04 (77.2)

Male JIC(AN) 37° Flare



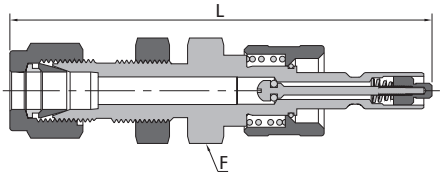
AN Tube Flare Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/4	-91C4-AN4-D	0.2	5/8	2.29 (58.2)
3/8	-91C6-AN6-D	0.5	3/4	2.47 (62.7)
1/2	-91C8-AN8-D	1.5	15/16	2.99 (75.9)

Hose Connector



Hose Size	Basic Ordering Number	Flow Coefficient (Cv)	F	L
in.			in.	in. (mm)
1/4	-91C4-HC4-D	0.2	5/8	2.53 (64.3)
3/8	-91C6-HC6-D	0.5	3/4	2.78 (70.6)
1/2	-91C8-HC8-D	1.5	15/16	3.27 (83.1)

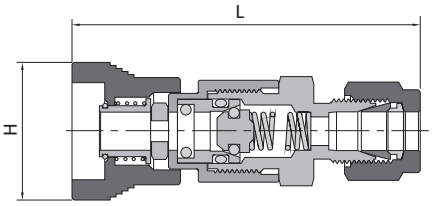
Bulkhead Tube Fitting



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	-91C4-FX4-DS	0.2	5/8	2.80 (71.1)	0.47 (11.9)	0.25 (6.4)
3/8	-91C6-FX6-DS	0.5	3/4	3.07 (78.0)	0.60 (15.2)	0.27 (6.9)
1/2	-91C8-FX8-DS	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	-91C4-MX6-DS	0.2	16	71.1 (2.80)	11.7 (0.46)	6.4 (0.25)
10	-91C6-MX10-DS	0.5	22	78.7 (3.10)	16.8 (0.66)	6.9 (0.27)
12	-91C8-MX12-DS	1.5	24	92.2 (3.63)	19.6 (0.77)	6.6 (0.26)

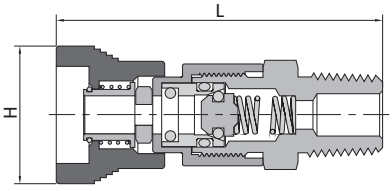
Bodies

Tube Fitting



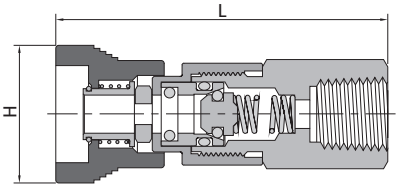
Tube Size in.	Basic Ordering Number	H in. (mm)	L in. (mm)
1/8	-91C4-FX2-B	0.91 (23.1)	2.26 (57.4)
1/4	-91C4-FX4-B	0.91 (23.1)	2.30 (58.4)
3/8	-91C6-FX6-B	1.03 (26.2)	2.58 (65.5)
1/2	-91C8-FX8-B	1.21 (30.7)	3.09 (78.5)
mm	——	**mm (in.)**	**mm (in.)**
6	-91C4-MX6-B	23.1 (0.91)	58.4 (2.30)
10	-91C6-MX10-B	26.2 (1.03)	68.1 (2.68)
12	-91C8-MX12-B	30.7 (1.21)	78.5 (3.09)

Male NPT



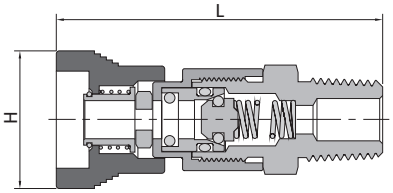
NPT Size	Basic Ordering Number	H in. (mm)	L in. (mm)
1/8	-91C4-N2-B	0.91 (23.1)	2.01 (51.1)
1/4	-91C4-N4-B	0.91 (23.1)	2.16 (54.9)
1/4	-91C6-N4-B	1.03 (26.2)	2.38 (60.5)
3/8	-91C6-N6-B	1.03 (26.2)	2.38 (60.5)
1/2	-91C8-N8-B	1.21 (30.7)	2.97 (75.4)

Female NPT



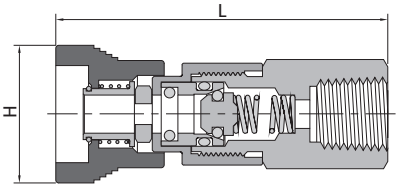
NPT Size	Basic Ordering Number	H in. (mm)	L in. (mm)
1/8	-91C4-FN2-B	0.91 (23.1)	2.16 (54.9)
1/4	-91C4-FN4-B	0.91 (23.1)	2.42 (61.5)
1/4	-91C6-FN4-B	1.03 (26.2)	2.54 (65.4)
3/8	-91C6-FN6-B	1.03 (26.2)	2.57 (65.3)
1/2	-91C8-FN8-B	1.21 (30.7)	3.22 (81.8)

Male BSPT



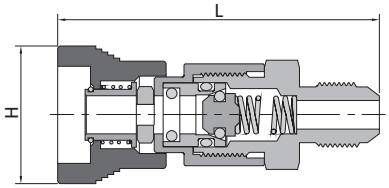
BSPT Size	Basic Ordering Number	H in. (mm)	L in. (mm)
1/8	-91C4-R2-B	0.91 (23.1)	2.01 (51.1)
1/4	-91C4-R4-B	0.91 (23.1)	2.16 (54.9)
1/4	-91C6-R4-B	1.03 (26.2)	2.38 (60.5)
3/8	-91C6-R6-B	1.03 (26.2)	2.38 (60.5)
1/2	-91C8-R8-B	1.21 (30.7)	2.97 (75.4)

Female BSPT



BSPT Size	Basic Ordering Number	H in. (mm)	L in. (mm)
1/8	-91C4-FR2-B	0.91 (23.1)	2.16 (54.9)
1/4	-91C4-FR4-B	0.91 (23.1)	2.42 (61.5)
1/4	-91C6-FR4-B	1.03 (26.2)	2.54 (65.4)
3/8	-91C6-FR6-B	1.03 (26.2)	2.57 (65.3)
1/2	-91C8-FR8-B	1.21 (30.7)	3.22 (81.8)

Male JIC (AN) 37° Flare

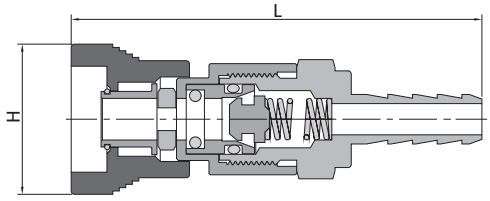


AN Tube Flare Size in.	Basic Ordering Number	H in. (mm)	L in. (mm)
1/4	-91C4-AN4-B	0.91 (23.1)	2.17 (55.1)
3/8	-91C6-AN6-B	1.03 (26.2)	2.41 (61.2)
1/2	-91C8-AN8-B	1.21 (30.7)	2.92 (74.2)

VFK

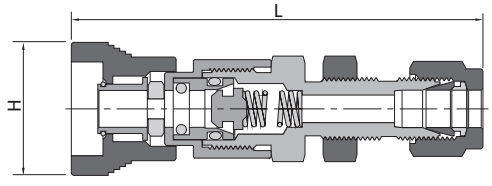
Bodies

Hose Connector



Hose Size in.	Basic Ordering Number	Flow Coefficient (Cv)	H in. (mm)	L in. (mm)
1/4	-91C4-HC4-B	0.3	0.91 (23.1)	2.41 (61.2)
3/8	-91C6-HC6-B	1.5	1.03 (26.2)	2.72 (69.1)
1/2	-91C8-HC8-B	3.3	1.21 (30.7)	3.20 (81.3)

Bulkhead Tube Fitting



Tube Size in.	Basic Ordering Number	Flow Coefficient (Cv)	H in. (mm)	L in. (mm)	Min. Panel Hole in. (mm)	Max.Panel Thickness in. (mm)
1/4	-91C4-FX4-BS	0.4	0.91 (23.1)	2.67 (67.8)	0.47 (11.9)	0.25 (6.4)
3/8	-91C6-FX6-BS	1.5	1.03 (26.2)	2.98 (75.7)	0.60 (15.2)	0.27 (6.9)
1/2	-91C8-FX8-BS	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	-91C4-MX6-BS	0.4	23.1 (0.91)	67.8 (2.67)	11.7 (0.46)	6.4 (0.25)
10	-91C6-MX10-BS	1.5	26.2 (1.03)	75.9 (2.99)	16.8 (0.66)	6.9 (0.27)
12	-91C8-MX12-BS	3.3	30.7 (1.21)	90.4 (3.56)	19.6 (0.77)	6.6 (0.26)

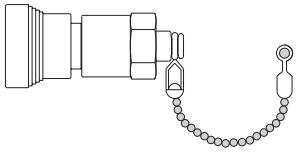
Keyed QC Series

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

QC Series Key Numbers and Sleeve Outside Diameters

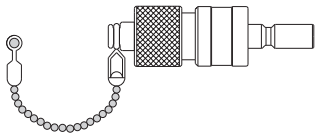
Key Number and Color	QC4		QC6		QC8	
	Body Sleeve in. (mm)	Stem Sleeve in. (mm)	Body Sleeve in. (mm)	Stem Sleeve in. (mm)	Body Sleeve in. (mm)	Stem Sleeve in. (mm)
K1 black	0.96 (24.4)	0.82 (20.8)	1.13 (28.7)	0.99 (25.1)	1.26 (32.0)	1.10 (27.9)
K2 orange	0.99 (25.1)	0.85 (21.6)	1.16 (29.5)	1.02 (25.9)	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)

Stem Protector



Series	Basic Ordering Number
91C4	-91C4-SP
91C6	-91C6-SP
91C8	-91C8-SP

Body Protector



Series	Basic Ordering Number
91C4	-91C4-BP
91C6	-91C6-BP
91C8	-91C8-BP

◎ To order a protector, add material designator (SS for stainless steel or B for brass) as a prefix to the basic ordering number.
Example: SS91C4-BP

◎ To order a keyed protector, add material designator (SS for stainless steel or B for brass) as a prefix and key designator from the table below as a suffix to the ordering number.
Example: SS91C4-BP-K2

91 Series How to Order

SS – 91C4 – FX4 – S – K1

Material

SS	316SS
B	Brass
S4	304SS
CS	Carbon Steel

Series

91C

Size

4	1/4" (6.4 mm)
6	3/8" (9.5 mm)
8	1/2" (12.7 mm)

End Connection Type

FN	Female NPT
N	Male NPT
FR	Female BSPT
R	Male BSPT
FM	Female ISO (for RP)
M	Male ISO (for RG)
FX	Fractional Tube Fitting
MX	Metric Tube Fitting
FT	Fractional Tube Adapter
MT	Metric Tube Adapter
AN	Male JIC 37° Flare

End Connection Size

4	1/4 (in.)
6	3/8 (in.) or 6 mm
8	1/2 (in.) or 8 mm
10	5/8 (in.) or 10 mm
12	3/4 (in.) or 12 mm
14	M14 x 1.5
16	1 (in.) or 16 mm
18	M18 x 1.5
20	M20 x 1.5

Stem or Body

S	Stem without valve remains open when uncoupled
D	Stem with valve shuts off when uncoupled
B	Body with valve shuts off when uncoupled
BF	Full-flow body

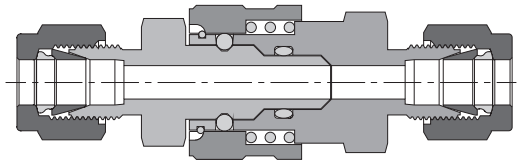
Key number and color

K1	Black
K2	Orange
K3	Green
K4	Yellow
K5	Blue
K6	White
K7	Purple
K8	Brown

1. Sizes and types listed are standard. Other sizes and types are available on request.
2. Dimensions are for reference only and are subject to change.

VFK

91F Series



Features

- Full flow
- Quick, easy operation
- Maximum working pressure: 6000 psig (414 bar)
- Materials: stainless steel, carbon steel, and brass
- Smooth, open bores without valving on either end to minimize pressure drop and allow easy cleaning.

Pressure-Temperature Ratings

Temperature °F (°C)	Stainless Steel with FKM O-ring				Brass with Buna N O-ring				Carbon Steel with Buna N O-ring			
	91F4	91F8	91F12	91F16	91F4	91F8	91F12	91F16	91F4	91F8	91F12	91F16
	pressure rating, psig (bar)											
70 (20)	6000 (414)		4000 (275)		4000 (275)	3000 (207)	2000 (137)		4000 (275)	3000 (207)		
250 (121)	—				100 (6.9)				100 (6.9)			
400 (204)	100 (6.9)				—				—			

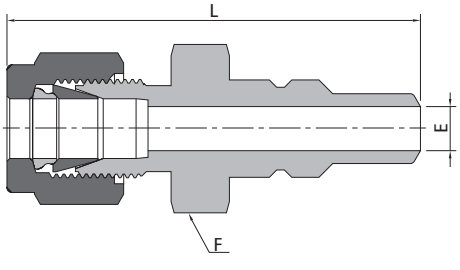
In order to measure overall length in the coupled position, insertion depth should be deducted from any overall stem and body combination length.

Insert Depth

Series	Insert Depth in. (mm)
91F4	0.78 (19.8)
91F8	0.81 (20.6)
91F12	0.90 (22.9)
91F16	0.94 (23.9)

Stems

Tube Fitting



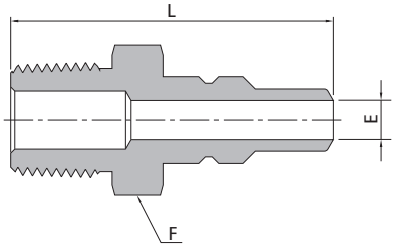
Tube Size in.	Basic Ordering Number	Flow Coefficient (Cv)	E in. (mm)	F in.	L in. (mm)
1/4	-91F4-FX4-S	2.2	0.19 (4.8)	9/16	1.77 (45.0)
3/8	-91F4-FX6-S	2.8	0.24 (6.1)	11/16	1.77 (45.0)
3/8	-91F8-FX6-S	2.8	0.28 (7.1)	7/8	1.88 (47.8)
1/2	-91F8-FX8-S	13.0	0.41 (10.4)	7/8	1.99 (50.5)
3/4	-91F12-FX12-S	26.0	0.62 (15.7)	1 1/16	2.15 (54.6)
1	-91F16-FX16-S	45.0	0.88 (22.4)	1 3/8	2.45 (62.2)
mm	——	——	**(mm) in.**	**mm**	**(mm) in.**
6	-91F4-MX6-S	2.2	4.8 (0.19)	15	45.0 (1.77)
10	-91F8-MX10-S	2.8	7.1 (0.28)	22	48.5 (1.91)
12	-91F8-MX12-S	13.0	9.5 (0.37)	22	51.3 (2.02)
20	-91F12-MX20-S	26.0	15.7 (0.62)	30	54.6 (2.15)
25	-91F16-MX25-S	45.0	22.4 (0.88)	36	63.5 (2.50)

Cautions:

- Do not uncouple under pressure.
- Do not insert foreign object into uncoupled stems and bodies.
- Re-lubricate stem seal O-ring periodically.

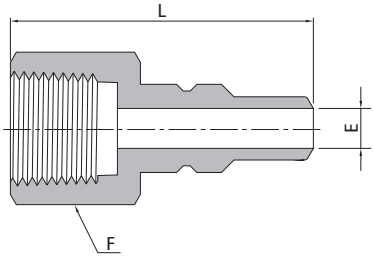
Stems

Male NPT



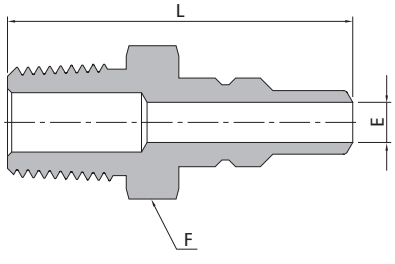
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E in. (mm)	F in.	L in. (mm)
1/4	-91F4-N4-S	1.7	0.24 (6.1)	9/16	1.59 (40.4)
3/8	-91F4-N6-S	1.7	0.24 (6.1)	11/16	1.59 (40.4)
3/8	-91F8-N6-S	7.1	0.41 (10.4)	7/8	1.65 (41.9)
1/2	-91F8-N8-S	11.5	0.50 (12.7)	7/8	1.84 (46.7)
3/4	-91F12-N12-S	23.6	0.72 (18.3)	1 1/16	2.03 (51.6)
1	-91F16-N16-S	39.0	0.88 (22.4)	1 3/8	2.35 (59.7)

Female NPT



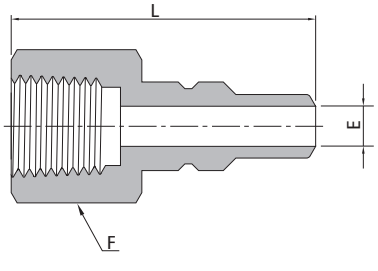
NPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E in. (mm)	F in.	L in. (mm)
1/4	-91F4-FN4-S	1.7	0.24 (6.1)	3/4	1.60 (40.6)
3/8	-91F4-FN6-S	1.7	0.24 (6.1)	7/8	1.67 (42.4)
3/8	-91F8-FN6-S	7.1	0.41 (10.4)	1 1/16	1.59 (40.4)
1/2	-91F8-FN8-S	11.5	0.50 (12.7)	1 1/16	1.82 (46.2)
3/4	-91F12-FN12-S	23.6	0.72 (18.3)	1 5/16	2.08 (52.8)
1	-91F16-FN16-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 in. (mm)	F in.	L in. (mm)
1/4	-91F4-R4-S	1.7	0.24 (6.1)	9/16	1.59 (40.4)
3/8	-91F4-R6-S	1.7	0.24 (6.1)	11/16	1.59 (40.4)
3/8	-91F8-R6-S	7.1	0.41 (10.4)	7/8	1.65 (41.9)
1/2	-91F8-R8-S	11.5	0.50 (12.7)	7/8	1.84 (46.7)
3/4	-91F12-R12-S	23.6	0.72 (18.3)	1 1/16	2.03 (51.6)
1	-91F16-R16-S	39.0	0.88 (22.4)	1 3/8	2.35 (59.7)

Female BSPT

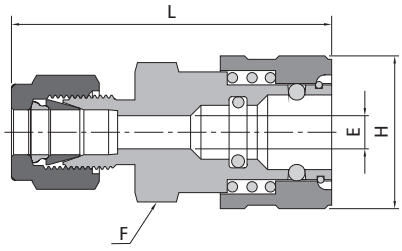


BSPT Size	Basic Ordering Number	Flow Coefficient (Cv)	E in. (mm)	F in.	L in. (mm)
1/4	-91F4-FR4-S	1.7	0.24 (6.1)	3/4	1.60 (40.6)
3/8	-91F4-FR6-S	1.7	0.24 (6.1)	7/8	1.67 (42.4)
3/8	-91F8-FR6-S	7.1	0.41 (10.4)	1 1/16	1.59 (40.4)
1/2	-91F8-FR8-S	11.5	0.50 (12.7)	1 1/16	1.82 (46.2)
3/4	-91F12-FR12-S	23.6	0.72 (18.3)	1 5/16	2.08 (52.8)
1	-91F16-FR16-S	39.0	0.88 (22.4)	1 5/8	2.49 (63.2)

VFK

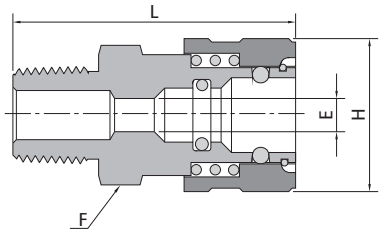
Bodies

Tube Fitting



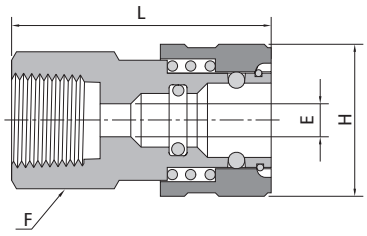
Tube Size in.	Basic Ordering Number	E in. (mm)	F in.	H in. (mm)	L in. (mm)
1/4	-91F4-FX4-B	0.19 (4.8)	11/16	0.87 (22.1)	1.80 (45.7)
3/8	-91F4-FX6-B	0.28 (7.1)	11/16	0.87 (22.1)	1.81 (46.0)
3/8	-91F8-FX6-B	0.28 (7.1)	1 1/16	1.30 (33.0)	2.17 (55.1)
1/2	-91F8-FX8-B	0.47 (11.9)	1 1/16	1.30 (33.0)	2.23 (56.6)
3/4	-91F12-FX12-B	0.62 (15.7)	1 1/2	1.66 (42.2)	2.45 (62.2)
1	-91F16-FX16-B	0.88 (22.4)	1 11/16	1.88 (47.8)	2.75 (69.9)
mm	——	**(mm) in.**	**mm**	**(mm) in.**	**(mm) in.**
6	-91F4-MX6-B	4.8 (0.19)	18	22.1 (0.87)	45.7 (1.80)
10	-91F8-MX10-B	7.1 (0.28)	27	33.0 (1.30)	55.9 (2.20)
12	-91F8-MX12-B	10.4 (0.41)	27	33.0 (1.30)	57.4 (2.26)
22	-91F12-MX20-B	15.9 (0.63)	38	42.2 (1.66)	63.5 (2.50)
25	-91F16-MX25-B	21.8 (0.86)	46	47.8 (1.88)	70.0 (2.76)

Male NPT



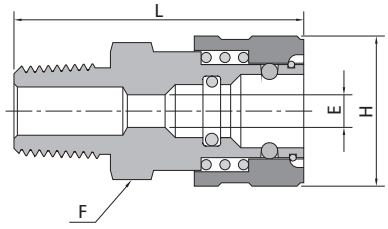
NPT Size	Basic Ordering Number	E in. (mm)	F in.	H in. (mm)	L in. (mm)
1/4	-91F4-N4-B	0.25 (6.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	-91F4-N6-B	0.37 (9.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	-91F8-N6-B	0.41 (10.4)	1 1/16	1.30 (33.0)	1.83 (46.5)
1/2	-91F8-N8-B	0.50 (12.7)	1 1/16	1.30 (33.0)	2.08 (52.8)
3/4	-91F12-N12-B	0.72 (18.3)	1 1/2	1.66 (42.2)	2.33 (59.2)
1	-91F16-N16-B	0.88 (22.4)	1 11/16	1.88 (47.8)	2.65 (67.3)

Female NPT



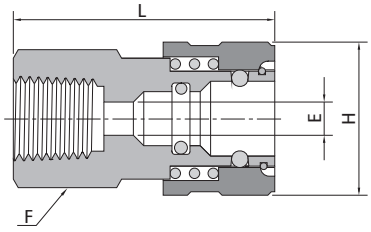
NPT Size	Basic Ordering Number	E in. (mm)	F in.	H in. (mm)	L in. (mm)
1/4	-91F4-FN4-B	0.38 (9.7)	3/4	0.87 (22.1)	1.50 (38.1)
3/8	-91F4-FN6-B	0.38 (9.7)	7/8	0.87 (22.1)	1.63 (41.4)
3/8	-91F8-FN6-B	0.59 (15.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
1/2	-91F8-FN8-B	0.63 (16.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
3/4	-91F12-FN12-B	0.88 (22.4)	1 1/2	1.66 (42.2)	1.89 (48.0)
1	-91F16-FN16-B	1.06 (26.9)	1 11/16	1.88 (47.8)	2.12 (53.8)

Male BSPT



BSPT Size	Basic Ordering Number	E in. (mm)	F in.	H in. (mm)	L in. (mm)
1/4	-91F4-R4-B	0.25 (6.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	-91F4-R6-B	0.37 (9.4)	11/16	0.87 (22.1)	1.57 (39.9)
3/8	-91F8-R6-B	0.41 (10.4)	1 1/16	1.30 (33.0)	1.83 (46.5)
1/2	-91F8-R8-B	0.50 (12.7)	1 1/16	1.30 (33.0)	2.08 (52.8)
3/4	-91F12-R12-B	0.72 (18.3)	1 1/2	1.66 (42.2)	2.33 (59.2)
1	-91F16-R16-B	0.88 (22.4)	1 11/16	1.88 (47.8)	2.65 (67.3)

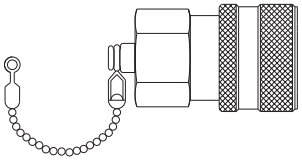
Female BSPT



BSPT Size	Basic Ordering Number	E in. (mm)	F in.	H in. (mm)	L in. (mm)
1/4	-91F4-FR4-B	0.38 (9.7)	3/4	0.87 (22.1)	1.50 (38.1)
3/8	-91F4-FR6-B	0.38 (9.7)	7/8	0.87 (22.1)	1.63 (41.4)
3/8	-91F8-FR6-B	0.59 (15.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
1/2	-91F8-FR8-B	0.63 (16.0)	1 1/16	1.30 (33.0)	1.73 (43.9)
3/4	-91F12-FR12-B	0.88 (22.4)	1 1/2	1.66 (42.2)	1.89 (48.0)
1	-91F16-FR16-B	1.06 (26.9)	1 11/16	1.88 (47.8)	2.12 (53.8)

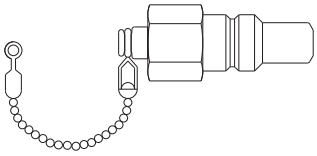
Protectors

Stem Protector



Series	Basic Ordering Number
91F4	-91F4-SP
91F8	-91F8-SP
91F12	-91F12-SP
91F16	-91F16-SP

Body Protector



Series	Basic Ordering Number
91F4	-91F4-BP
91F8	-91F8-BP
91F12	-91F12-BP
91F16	-91F16-BP

◎ To order a protector, add material designator (SS for stainless steel or B for brass) as a prefix to the basic ordering number.
Example: SS91F4-BP

Ordering Information

SS 91F4 — Fx4 — S

Material	
SS	316SS
B	Brass
S4	304SS
CS	Carbon Steel

Series
91F

Size	
4	1/4" (6.4 mm)
8	1/2" (12.7 mm)
12	3/4" (19.0 mm)
16	1" (25.4 mm)

End Connection Type	
FN	Female NPT
N	Male NPT
FR	Female BSPT
R	Male BSPT
FM	Female ISO (for RP)
M	Male ISO (for RG)
FX	Fractional Tube Fitting
MX	Metric Tube Fitting
FT	Fractional Tube Adapter
MT	Metric Tube Adapter
AN	Male JIC 37° Flare

End Connection Size	
4	1/4 (in.)
6	3/8 (in.) or 6 mm
8	1/2 (in.) or 8 mm
10	5/8 (in.) or 10 mm
12	3/4 (in.) or 12 mm
14	M14 x 1.5
16	1 (in.) or 16 mm
18	M18 x 1.5
20	M20 x 1.5

Stem or Body	
S	Stem without valve remains open when uncoupled
B	Body without valve shuts off when uncoupled

1. Dimensions are for reference only and are subject to change.
2. Sizes and types listed are standard. Other sizes and types are available on request.

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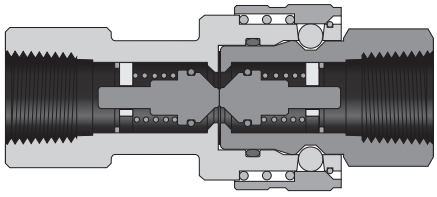
QV Series

Features

◎ Large flow area and stem ensure high flow capacity.
◎ Positive valve stop. The perch maintains valve alignment and provides metal to metal valve stop to ensure that the valves open fully.
◎ Hardened nipples and sleeves and solid barstock construction make for a quality coupling with maximum resistance to damage from hydraulic and mechanical shock.
◎ The seal is designed to withstand high pressure and provide reliable sealing.
◎ Durable ball-locking mechanism assures reliable connection.



Pressure-Temperature Ratings

Body Material	Stainless Steel						Brass					
Series	91V2	91V4	91V6	91V8	91V12	91V16	91V2	91V4	91V6	91V8	91V12	91V16
O-ring	FKM						Buna N					
Temperature Range	-10°F to 400°F (-23°C to 204°C)						-10°F to 250°F (-23°C to 121°C)					
Working Pressue psig (bar)	2000 (137)		1500 (103)			1000 (68.9)	1000 (68.9)					

Insert Depth

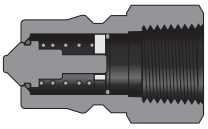
Series	Insert Depth in. (mm)
91V2	0.71 (18.0)
91V4	0.81 (20.6)
91V6	0.89 (22.5)
91V8	1.01 (25.6)
91V12	1.26 (32.1)
91V16	1.42 (36.1)

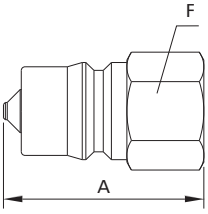
In order to measure overall length in the coupled position, the insertion depth should be deducted from any overall stem and body combination length.

Cautions:

◎ Do not uncouple under pressure.
◎ Do not insert foreign object into uncoupled stems and bodies.
◎ Re-lubricate stem seal O-ring periodically.

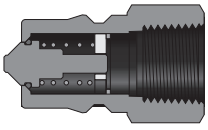
Stems

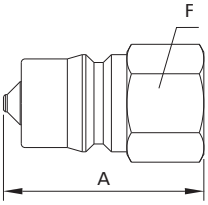




Female NPT

NPT Size	Basic Ordering Number	Flow coefficient (Cv)	A	F
			in. (mm)	in.
1/8	-91V2-FN2-D	0.8	1.16 (29.5)	9/16
1/4	-91V4-FN4-D	3.0	1.39 (35.3)	3/4
3/8	-91V6-FN6-D	6.0	1.50 (38.1)	7/8
1/2	-91V8-FN8-D	12.0	1.75 (44.5)	1 1/8
3/4	-91V12-FN12-D	28.0	2.16 (54.9)	1 3/8
1	-91V16-FN16-D	50.0	2.58 (65.5)	1 5/8

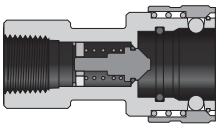


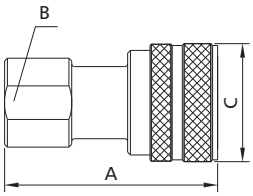


Female BSPT

BSPT Size	Basic Ordering Number	Flow coefficient (Cv)	A	F
			in. (mm)	in.
1/8	-91V2-FR2-D	0.8	1.16 (29.5)	9/16
1/4	-91V4-FR4-D	3.0	1.39 (35.3)	3/4
3/8	-91V6-FR6-D	6.0	1.50 (38.1)	7/8
1/2	-91V8-FR8-D	12.0	1.75 (44.5)	1 1/8
3/4	-91V12-FR12-D	28.0	2.16 (54.9)	1 3/8
1	-91V16-FR16-D	50.0	2.58 (65.5)	1 5/8

Bodies





Female NPT

NPT Size	Basic Ordering Number	A	B	C
		in. (mm)	in. (mm)	in. (mm)
1/8	-91V2-FN2-B	1.90 (48.3)	0.69 (17.5)	0.96 (24.4)
1/4	-91V4-FN4-B	2.26 (57.4)	0.81 (20.6)	1.14 (29.0)
3/8	-91V6-FN6-B	2.49 (63.2)	0.88 (22.2)	1.40 (35.6)
1/2	-91V8-FN8-B	2.87 (72.9)	1.13 (28.6)	1.77 (45.0)
3/4	-91V12-FN12-B	3.56 (90.4)	1.31 (33.3)	2.14 (54.4)
1	-91V16-FN16-B	4.18 (106.2)	1.63 (41.3)	2.52 (64.0)

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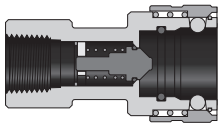
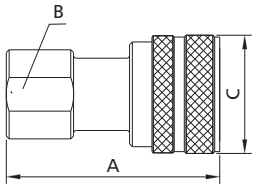
Bodies

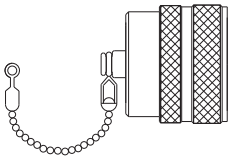




Female BSPT

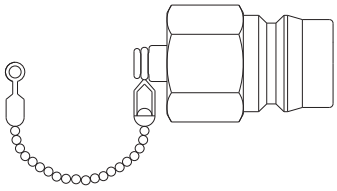
NPT Size	Basic Ordering Number	A	B	C
		in. (mm)	in. (mm)	in. (mm)
1/8	-91V2-FR2-B	1.90 (48.3)	0.69 (17.5)	0.96 (24.4)
1/4	-91V4-FR4-B	2.26 (57.4)	0.81 (20.6)	1.14 (29.0)
3/8	-91V6-FR6-B	2.49 (63.2)	0.88 (22.2)	1.40 (35.6)
1/2	-91V8-FR8-B	2.87 (72.9)	1.13 (28.6)	1.77 (45.0)
3/4	-91V12-FR12-B	3.56 (90.4)	1.31 (33.3)	2.14 (54.4)
1	-91V16-FR16-B	4.18 (106.2)	1.63 (41.3)	2.52 (64.0)

Protectors



Stem Protector

Series	Basic Ordering Number
91V2	-91V2-SP
91V4	-91V4-SP
91V6	-91V6-SP
91V8	-91V8-SP
91V12	-91V12-SP
91V16	-91V16-SP



Body Protector

Series	Basic Ordering Number
91V2	-91V2-BP
91V4	-91V4-BP
91V6	-91V6-BP
91V8	-91V8-BP
91V12	-91V12-BP
91V16	-91V16-BP

◎ To order a protector, add material designator (SS for stainless steel or B for brass) as a prefix to the basic ordering number.
Example: SS91V4-BP

Ordering Information

SS 91V8– FN8 – D

Material

SS	316SS
B	Brass
S4	304SS
CS	Carbon Steel

Series

91V

Size

2	1/8" (3.2 mm)
4	1/4" (6.4 mm)
8	1/2" (12.7 mm)
12	3/4" (19.0 mm)
16	1" (25.4 mm)

End Connection Type

FN	Female NPT
FR	Female BSPT

End Connection Size

4	1/4 (in.)
6	3/8 (in.) or 6 mm
8	1/2 (in.) or 8 mm
10	5/8 (in.) or 10 mm
12	3/4 (in.) or 12 mm
14	M14 x 1.5
16	1 (in.) or 16 mm
18	M18 x 1.5
20	M20 x 1.5

Stem or Body

D	Stem with valve shuts off when uncoupled
B	Body without valve shuts off when uncoupled

1. Dimensions are for reference only and are subject to change.
2. Sizes and types listed are standard. Other sizes and types are available on request.

VFK

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