

Excess Flow Valves

EV Series



FITOK

Excess Flow Valves

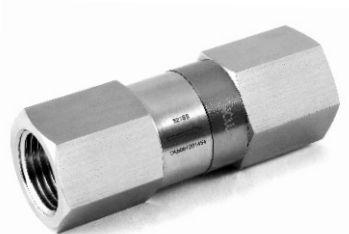
EV Series

Introduction

If downstream line ruptures, the excess flow valve can stop uncontrolled release of system media. When the system is functioning normally, the working element remains in the open position. If the excess flow occurs downstream, the working element quickly moves to the tripped position to stop bleeding. When system pressure reaches balance through the bleed vent, the spring resets the working element to the open position automatically. The flow which goes through the bleed vent should be lower than one percent of the flow rate in the trip range.

Features

- ⦿ Compact design for convenient installation
- ⦿ Working pressure up to: 6000 psig (414 bar)
- ⦿ Working temperature: -10°F to 400°F (-23°C to 204°C)
- ⦿ Variety of end connections
- ⦿ Stainless steel construction
- ⦿ Leak-tight performance testing for every valve with nitrogen at the maximum working pressure



End Connection: tube fitting, thread or face sealed

- ⦿ Easy installation
- ⦿ Improved system reliability

Spring Drive to Brake

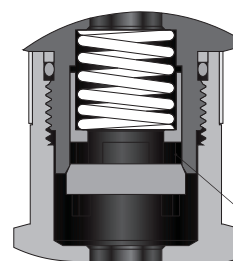
- ⦿ Easy operation
- ⦿ Enabled to work in any direction and improve the safety of system

All Metal Seat

- ⦿ Enhanced durability
- ⦿ No maintenance needed

Working Element

- ⦿ Improved capability and reliability
- ⦿ High flow capability
- ⦿ Nuisance tripping eliminated



Bleed Vent

- ⦿ Eliminate complicated by-pass mechanism
- ⦿ Spring resets the element automatically

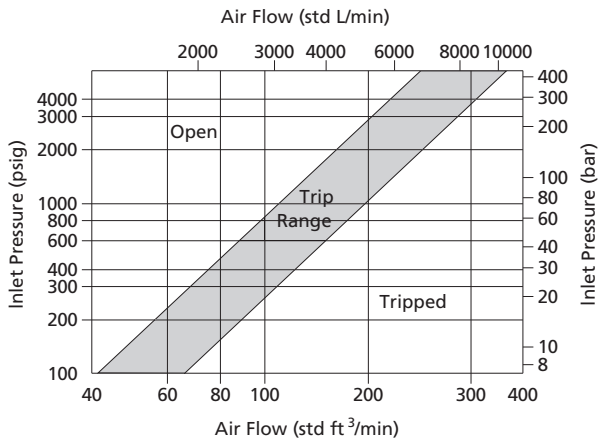
Temperature Ranges for Different Seal Materials

O-ring Material	Temperature Ranges °F (°C)
Buna N	-40 to 250 (-40 to 121)
EPDM	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 400 (-23 to 204)
Kalrez	-10 to 527 (-23 to 275)
Neoprene	-40 to 250 (-40 to 121)

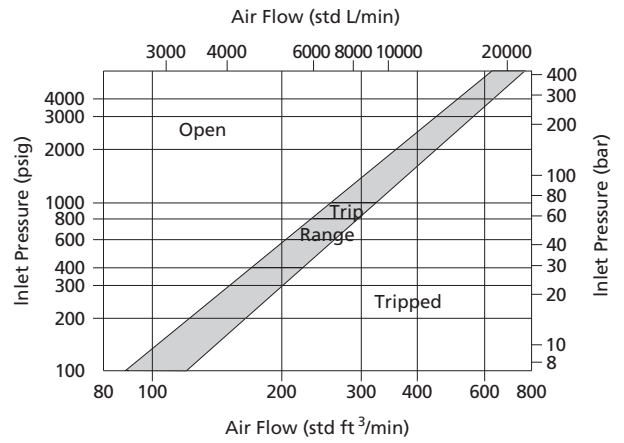
Flow Data at 70°F (20°C)

Air Flow

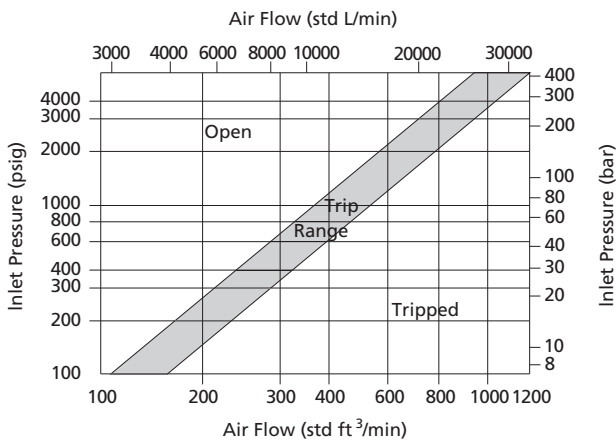
4 Series



6 Series

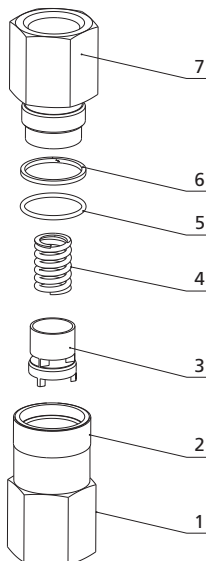


8 Series



Water Flow

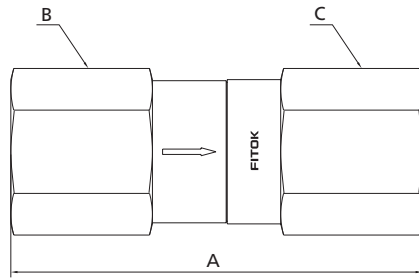
Series	Cv	Trip Range gal/m in /min (L/min)
4	0.5	3.9 to 5.8 (14.7 to 21.9)
6	1.1	8.2 to 10.0 (31.0 to 37.8)
8	1.1	11.2 to 14.9 (42.3 to 56.3)



Standard Materials of Construction

Component	Material Grade/ASTM Specification
1 Inlet Body	316 SS/A479
2 Mark Ring	6061 Al/B491
3 Working Element	316 SS/A479
4 Spring	302 SS/A313
5 O-ring	Fluorocarbon FKM
6 Seal Ring	PTFE/D1710
7 Outlet Body	316 SS/A479

Dimensions



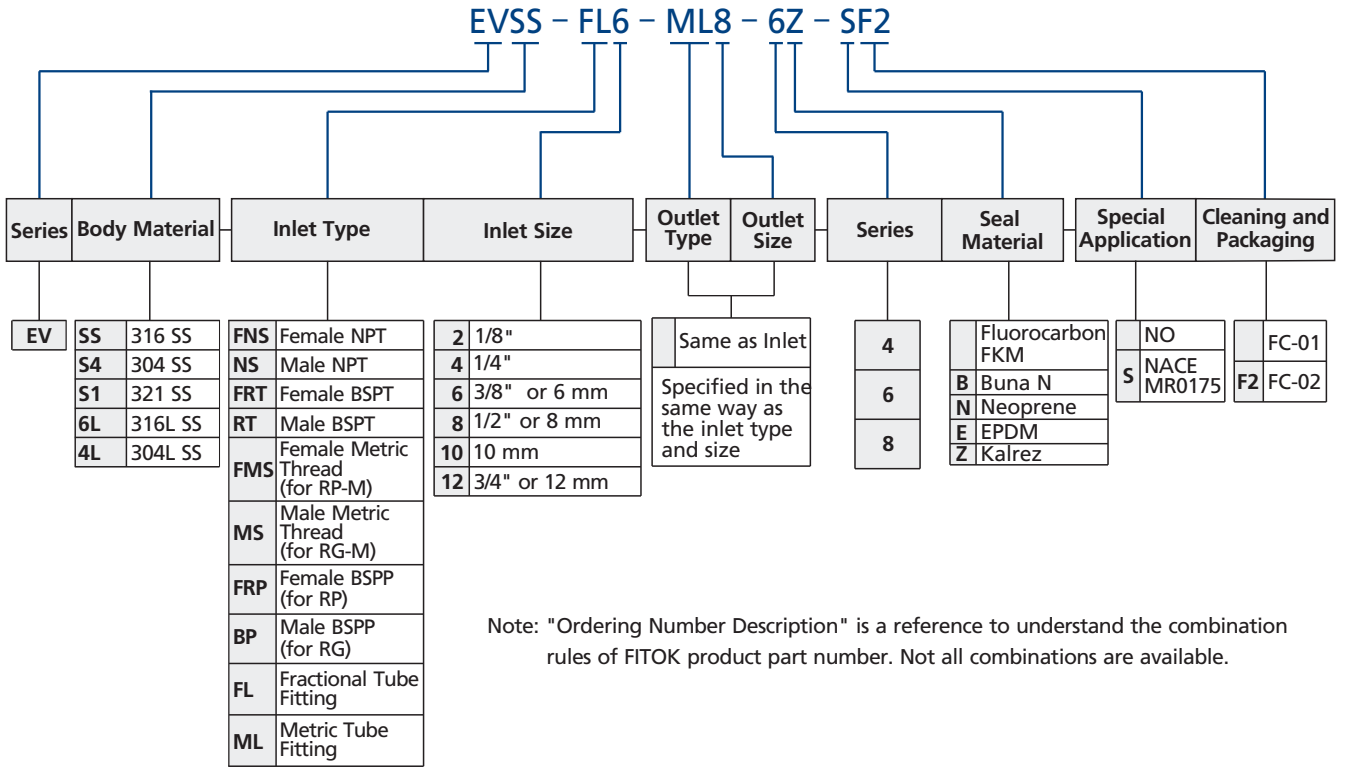
Basic Ordering Number	Connections Type and Size		Pressure Rating at 37°C(100°F) psig(bar)	Series	Dimension, in. (mm)		
	Inlet	Outlet			A	B	C
EV□□-FL4-4-	1/4" FITOK	1/4" FITOK	6000(414)	4	2.43 (61.7)	11/16 (17.46)	11/16 (17.46)
EV□□-FL6-6-	3/8" FITOK	3/8" FITOK		6	2.75 (69.9)	1 (25.4)	1 (25.4)
EV□□-FL8-8-	1/2" FITOK	1/2" FITOK		8	2.97 (75.4)		
EV□□-ML6-4-	6 mm FITOK	6 mm FITOK	6000(414)	4	2.43 (61.7)	11/16 (17.46)	11/16 (17.46)
EV□□-ML8-6-	8 mm FITOK	8 mm FITOK		6	2.70 (68.6)	1 (25.4)	1 (25.4)
EV□□-ML10-6-	10 mm FITOK	10 mm FITOK			2.80 (71.1)		
EV□□-ML12-8-	12 mm FITOK	12 mm FITOK		8	2.96 (75.2)		
EV□□-FNS2-4-	1/8 Female NPT	1/8 Female NPT	6000(414)	4	1.87 (47.5)	11/16 (17.46)	11/16 (17.46)
EV□□-FNS4-4-	1/4 Female NPT	1/4 Female NPT			2.12 (53.8)		
EV□□-FNS6-6-	3/8 Female NPT	3/8 Female NPT	5300(365)	6	2.55 (64.8)	1 (25.4)	1 (25.4)
EV□□-FNS8-8-	1/2 Female NPT	1/2 Female NPT	4900(337)	8	3.03 (77.0)	1 1/16 (26.99)	1 1/16 (26.99)
EV□□-NS2-4-	1/8 Male NPT	1/8 Male NPT	6000(414)	4	1.79 (45.5)	11/16 (17.46)	11/16 (17.46)
EV□□-NS4-4-	1/4 Male NPT	1/4 Male NPT			2.17 (55.1)		
EV□□-NS6-6-	3/8 Male NPT	3/8 Male NPT		5300(365)	6	2.36 (59.9)	1 (25.4)
EV□□-NS8-8-	1/2 Male NPT	1/2 Male NPT	8		2.73 (69.3)		
EV□□-NS4-FL4-4-	1/4 Male NPT	1/4" FITOK	6000(414)	4	2.30 (58.4)	11/16 (17.46)	11/16 (17.46)
EV□□-NS6-FL6-6-	3/8 Male NPT	3/8" FITOK		6	2.56 (65.0)	1 (25.4)	1 (25.4)
EV□□-NS8-FL8-8-	1/2 Male NPT	1/2" FITOK		8	2.85 (72.4)		
EV□□-NS4-FNS4-4-	1/4 Male NPT	1/4 Female NPT	6000(414)	4	2.13 (54.1)	11/16 (17.46)	11/16 (17.46)
EV□□-NS6-FNS6-6-	3/8 Male NPT	3/8 Female NPT	5300(365)	6	2.46 (62.5)	1 (25.4)	1 (25.4)
EV□□-NS8-FNS8-8-	1/2 Male NPT	1/2 Female NPT	4900(337)	8	3.03 (77.0)	1 1/16 (26.99)	1 1/16 (26.99)

1. FITOK means FITOK double ferrule tube fittings.

2. Sizes and types listed are standard. Other sizes and types are available upon request.

3. Dimensions are shown with FITOK nuts finger-tightened. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or FITOK Group.

Ordering Number Description



1. Standard thread pitch for metric threads are as follows:

M10 and below: 1 mm

M12 to M24: 1.5 mm

M27 and above: 2 mm

Standard thread pitch should be ignored in the ordering number, others should be specified.

2. Cleaning and Packaging:

FC-01: Standard cleaning and packaging for general industrial procedures.

FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement of ASTM G93 Level C.

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