

# Excess Flow Valves

EV Series



**FITOK**

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# Excess Flow Valves

## EV Series

### Introduction

EV Series Excess Flow Valves are designed for industrial use. In the event of a downstream line rupture, these valves can stop the uncontrolled release of system media.

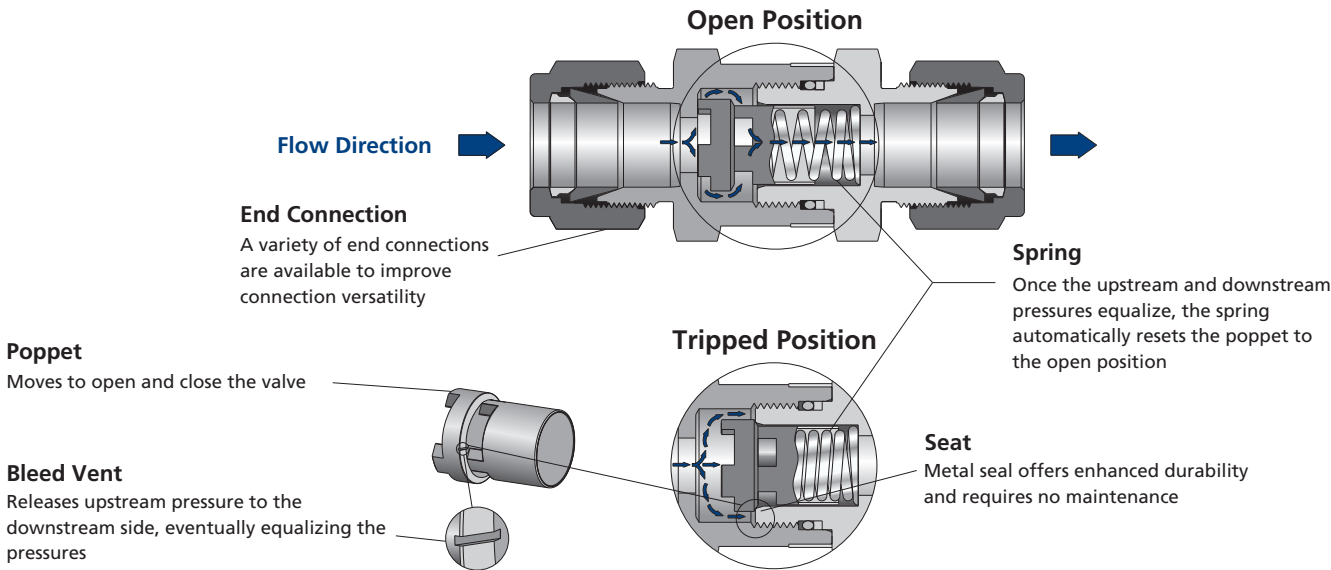


### Features

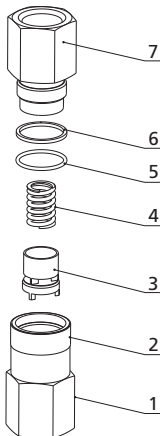
- ⦿ Compact design for convenient installation
- ⦿ Green ring mounted on the body for easy identification
- ⦿ Variety of end connections available
- ⦿ Working pressure up to 6000 psig (414 bar)
- ⦿ Leak-tight performance testing for every valve with nitrogen at the maximum working pressure

### Working Principle

When the system is functioning normally, the poppet remains in the open position. If the excess flow occurs downstream, the poppet quickly moves to the tripped position to stop the uncontrolled release of system media. At this point, the flow reaching the downstream through the bleed vent is lower than one percent of the flow rate in the trip range. When system pressure reaches balance through the bleed vent, the spring resets the poppet to the open position automatically.



### Standard Materials of Construction



Item	Component	Material/Specification
1	Inlet Body	316 SS/A479
2	Mark Ring	6061 Al/B491
3	Poppet	316 SS/A479
4	Spring	302 SS/A313
5	O-ring	FKM/Buna N/EPDM/FFKM/Neoprene
6	Backup ring	PTFE/D1710
7	Outlet Body	316 SS/A479

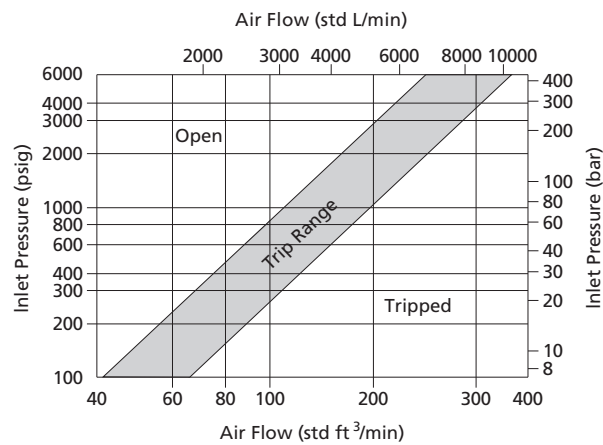
## Temperature Ranges for Different Seal Materials

O-ring Material	Temperature Ranges °F (°C)
FKM	-10 to 400 (-23 to 204)
Buna N	-40 to 250 (-40 to 121)
EPDM	-50 to 300 (-45 to 148)
FFKM	14 to 527 (-10 to 275)
Neoprene	-40 to 250 (-40 to 121)

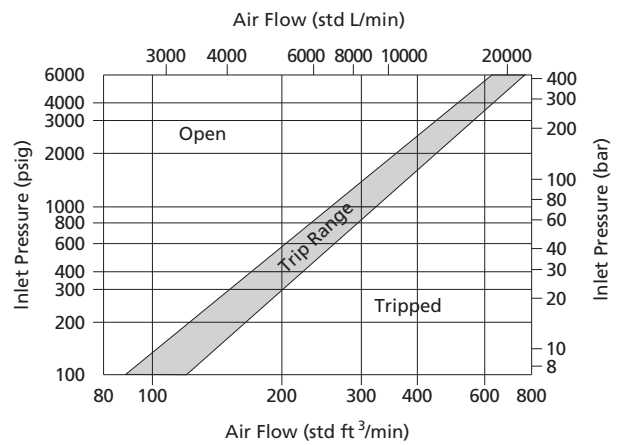
## Flow Data at 70°F (20°C)

### Air Flow

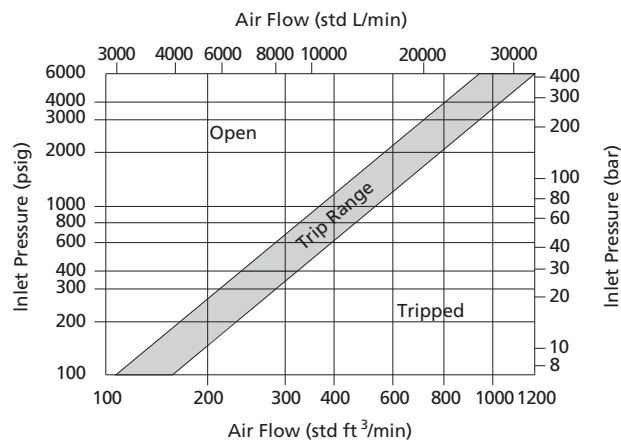
Flow of Valve Installed with 4 Series Spring



Flow of Valve Installed with 6 Series Spring



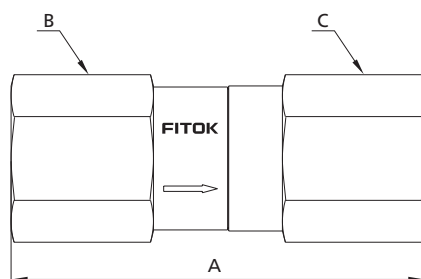
Flow of Valve Installed with 8 Series Spring



### Water Flow

Spring Series	Cv	Trip Range U.S. gal/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		11.2 to 14.9 (42.3 to 56.3)

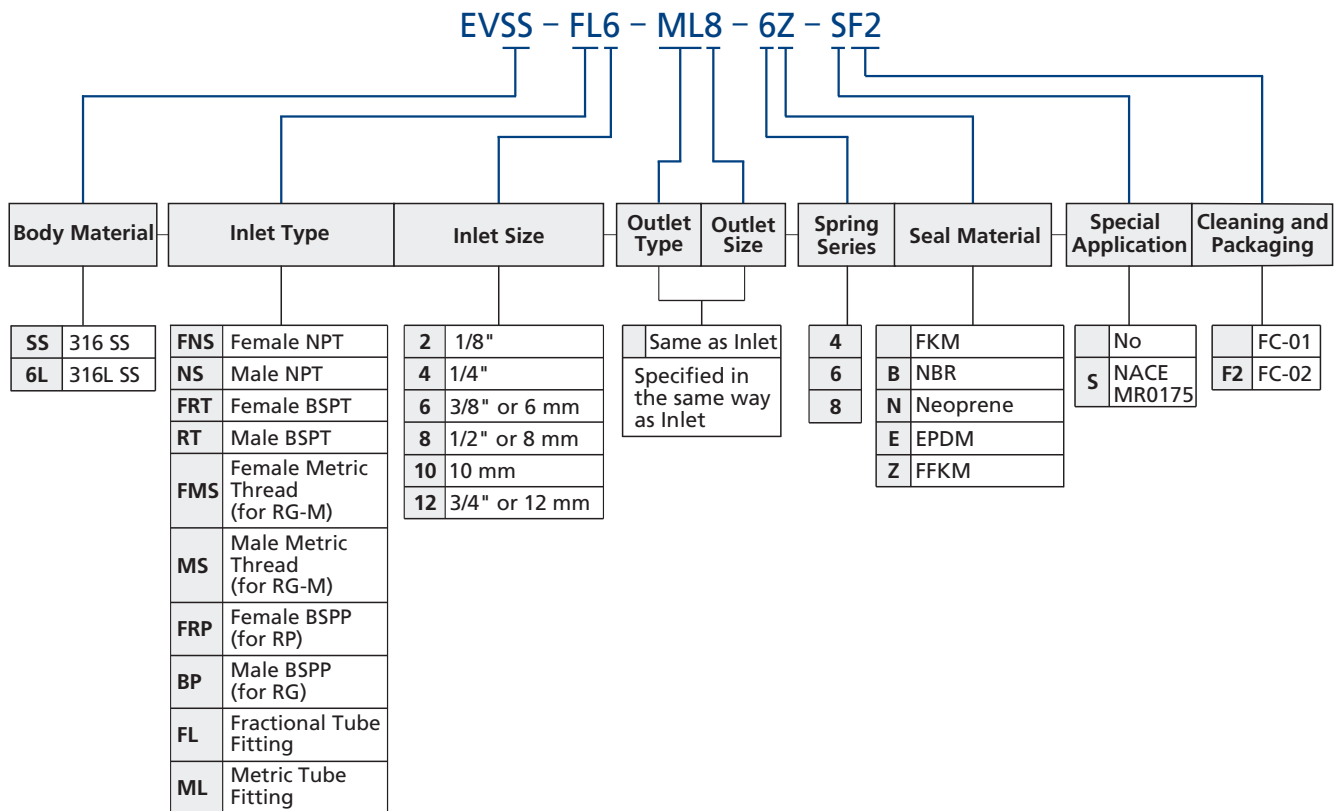
## Dimensions



Basic Ordering Number	Connections Type and Size		Pressure Rating at 100°F (37°C) psig (bar)	Spring 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		6	2.36 (59.9)	1 (25.4)	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.

## Ordering Number Description



Note: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

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