

Excess Flow Valve



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Excess Flow Valves

EFV Series

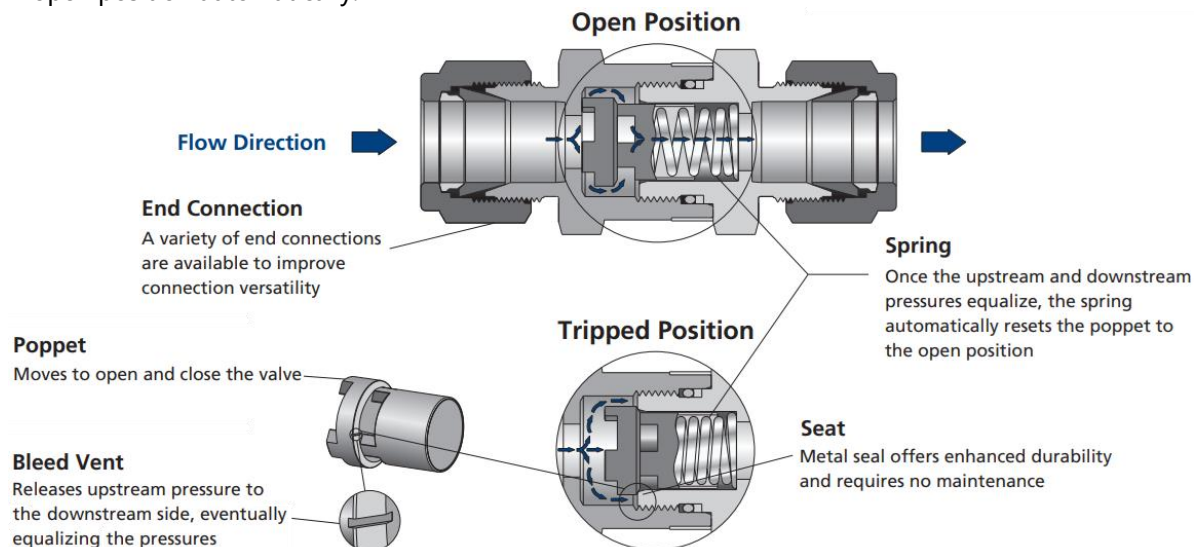
Excess Flow Valves are designed for industrial use. In the event of a downstream line rupture, these valves can stop the uncontrolled release of system media.

Features

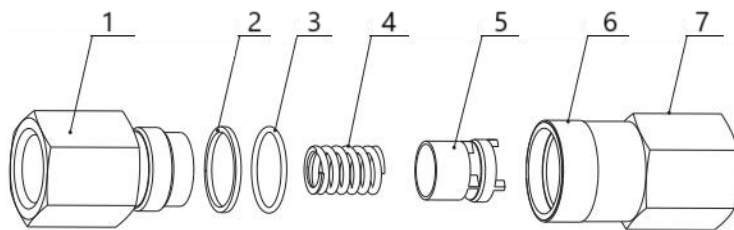
- Compact design for convenient installation
- Green ring mounted on the body for easy identification
- Variety of end connections available
- Working pressure up to 6000 psig (414 bar)
- Leak-tight performance testing for every valve with nitrogen at the maximum working pressure

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 1% 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
1	Inlet Body	SS 316/A479
2	Mark Ring	AL 6061/B491
3	Poppet	SS 316/A479
4	Spring	SS 302/A313
5	O-ring	FKM/NBR/EPDM or FFKM
6	Backup Ring	PTFE/D1710
7	Outlet Body	SS316/A479

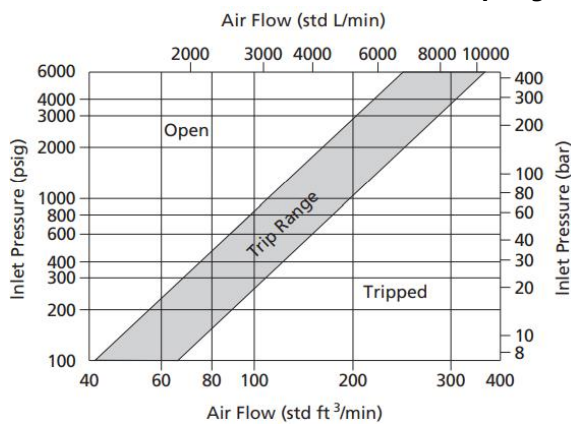
Temperature Ranges for Different Seal Materials

Item	O-ring Material	Temperature Ranges
1	Fluorocarbon FKM	-10°F to 400°F (-23°C to 204°C)
2	Buna NBR	-40°F to 250°F (-40°C to 121°C)
3	EPDM	-50°F to 300°F (-45°C to 148°C)
4	FFKM	-14°F to 527°F (-10°C to 275°C)
5	Neoprene CR	-40°F to 250°F (-40°C to 121°C)

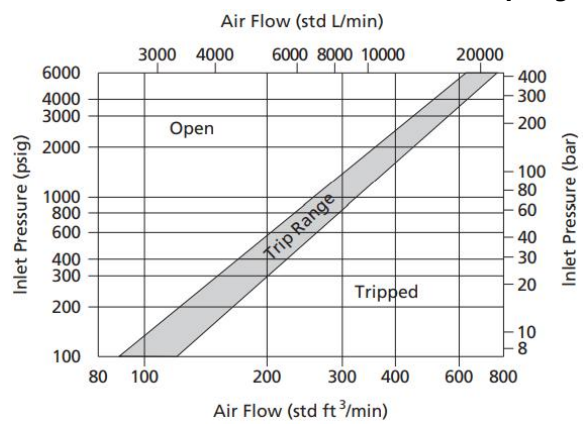
Flow Data (70°F/20°C)

Air Flow

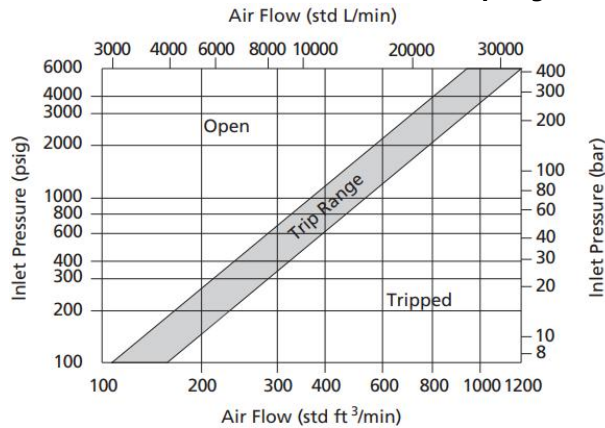
Flow of Valve Installed with X4 Series Spring



Flow of Valve Installed with X6 Series Spring



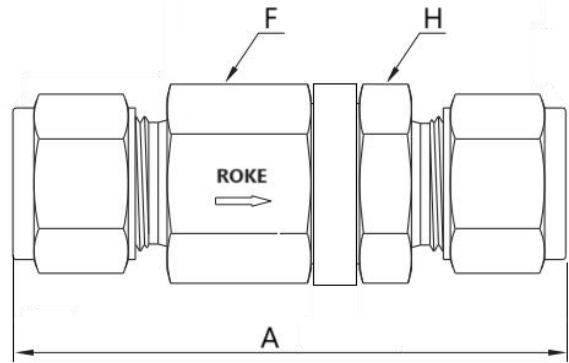
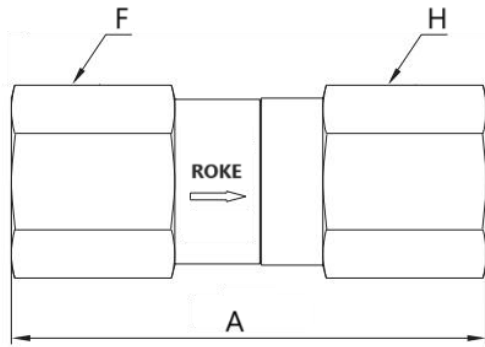
Flow of Valve Installed with X8 Series Spring



Water Flow

Item	Spring Series	CV	Trip Range Gal/min (L/min)
1	X4	0.5	3.9 to 5.8 (4.7 to 21.9)
2	X6	1.1	8.2 to 10.0 (31.0 to 37.8)
3	X8	1.1	11.2 to 14.9 (42.3 to 56.3)

Dimentions



Part NO.	Connections Type and Size		Pressure Rating psig (bar)	Spring Series	Dimention in.(mm)		
	Inlet	Outlet			A	F	H
-EFV-FN2-4	1/8 NPT Female	1/8 NPT Female	6000 (414)	X4	1.87 (47.5)	0.69 (17.5)	0.69 (17.5)
-EFV-FN4-4	1/4 NPT Female	1/4 NPT Female	6000 (414)	X4	2.12 (53.8)	0.69 (17.5)	0.69 (17.5)
-EFV-FN6-6	3/8 NPT Female	3/8 NPT Female	5300 (365)	X6	2.55 (64.8)	1.00 (25.4)	1.00 (25.4)
-EFV-FN8-8	1/2 NPT Female	1/2 NPT Female	4900 (337)	X8	3.03 (77.0)	1.06 (27.0)	1.06 (27.0)
-EFV-MN2-4	1/8 NPT Male	1/8 NPT Male	6000 (414)	X4	1.79 (45.5)	0.69 (17.5)	0.69 (17.5)
-EFV-MN4-4	1/4 NPT Male	1/4 NPT Male	6000 (414)	X4	2.17 (55.1)	0.69 (17.5)	0.69 (17.5)
-EFV-MN6-6	3/8 NPT Male	3/8 NPT Male	6000 (414)	X6	2.36 (60.0)	1.00 (25.4)	1.00 (25.4)
-EFV-MN8-8	1/2 NPT Male	1/2 NPT Male	6000 (414)	X8	2.73 (69.3)	1.00 (25.4)	1.00 (25.4)
-EFV-MN4-FN4-4	1/4 NPT Male	1/4 NPT Female	6000 (414)	X4	2.13 (54.1)	0.69 (17.5)	0.69 (17.5)
-EFV-MN6-FN6-6	3/8 NPT Male	3/8 NPT Female	5300 (365)	X6	2.46 (62.5)	1.00 (25.4)	1.00 (25.4)
-EFV-MN8-FN8-8	1/2 NPT Male	1/2 NPT Female	4900 (337)	X8	3.03 (77.0)	1.06 (27.0)	1.06 (27.0)
-EFV-FT4-4	1/4" OD Tube	1/4" OD Tube	6000 (414)	X4	2.63 (61.7)	0.69 (17.5)	0.69 (17.5)
-EFV-FT6-6	3/8" OD Tube	3/8" OD Tube	6000 (414)	X6	2.75 (70.0)	1.00 (25.4)	1.00 (25.4)
-EFV-FT8-8	1/2" OD Tube	1/2" OD Tube	6000 (414)	X8	2.97 (75.4)	1.00 (25.4)	1.00 (25.4)
-EFV-MT6-4	6mm OD Tube	6mm OD Tube	6000 (414)	X4	2.63 (61.7)	0.69 (17.5)	0.69 (17.5)
-EFV-MT8-6	8mm OD Tube	8mm OD Tube	6000 (414)	X6	2.70 (68.6)	1.00 (25.4)	1.00 (25.4)
-EFV-MT10-6	10mm OD Tube	10mm OD Tube	6000 (414)	X6	2.80 (71.1)	1.00 (25.4)	1.00 (25.4)
-EFV-MT12-8	12mm OD Tube	12mm OD Tube	6000 (414)	X8	2.97 (75.4)	1.00 (25.4)	1.00 (25.4)

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