

# Excess Flow Valves

## EV12, EV13, EV14 SERIES EXCESS FLOW VALVES

Used in pipeline system to stop uncontrolled release of system media in the event of a downstream gas line rupture or disconnection, thereby saving the media and guaranteeing the system safety.



### Features

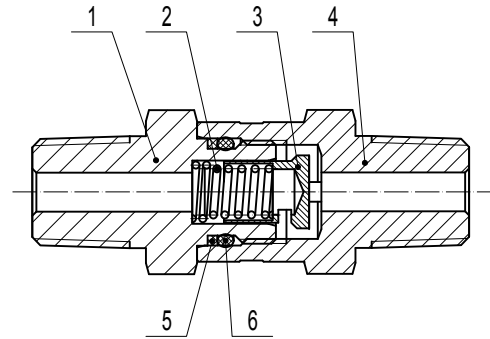
- Maximum operating pressure: 6000 psi (414 bar)
- Operating temperature: 400°F (204°C)
- End Connections: GENLOK and NPT
- Connection size: 1/8" to 1/2"
- The flow through the bleed vent is less than 1% of the flow rate in the trip range

### Operating Principles

The spring-loaded poppet remains in the open position during system operation. If an excess flow occurs downstream, i.e. a pressure drop, the poppet rapidly moves to the cutoff position to block all uncontrolled flow. When the pressure is balanced once again, the poppet will automatically revert to the original (open) position.

Components	Material
1 Valve Body	316 SS
2 Spring	316 SS
3 Poppet	316 SS
4 Valve Bushing	316 SS
5 Backup ring	PTFE
6 O-ring	Viton®

### Materials of Construction



### Pressure-Temperature Ratings

The nominal pressure depends on the end connections

Material	316 SS
Temperature °F (°C)	Operating pressure psi (bar)
-10 (-23) ~ 100 (37)	6000 (414)
200 (93)	5160 (356)
250 (121)	4910 (339)
300 (148)	4660 (321)
400 (204)	4280 (295)

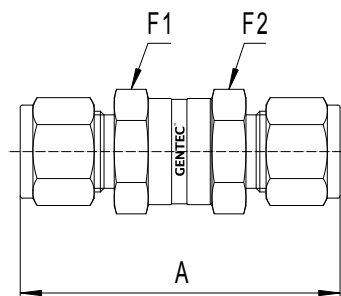
### O-ring Materials

Viton O-rings are standard. For other O-ring materials, add the corresponding designator to the ordering number.

Seal Materials	Reference Number	Temperature Rate °F (°C)
Fluororubber	-R	-10~370 (-23 ~ 190)
Buna-N	-B	-10~250 (-23 ~ 121)
Neoprene	-N	-40~250 (-40 ~ 121)
Kalrez®	-Q	-10~375 (-23 ~ 190)

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### Dimensions



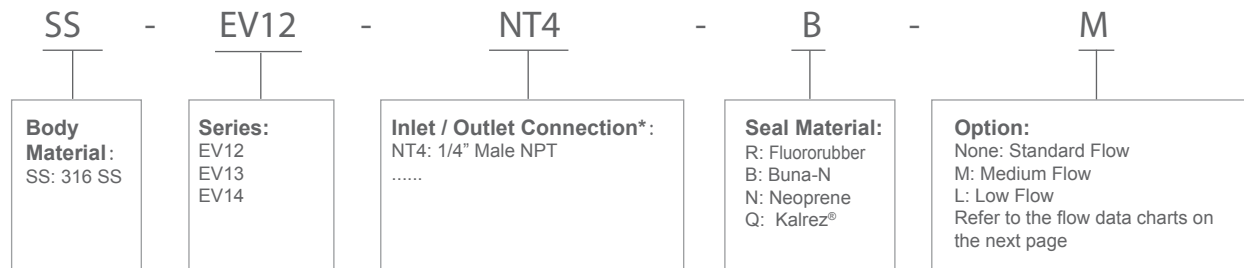
Metric

Model	Connection Type		Pressure Range psi (bar)	Dimension (mm)	
	Inlet	Outlet		A	F1/F2
SS-EV12-TF6M	6mm GENLOK		6000 (413)	61.7	11/16
SS-EV13-TF8M	8mm GENLOK		6000 (413)	71.1	1
SS-EV13-TF10M	10mm GENLOK		6000 (413)	64.8	11/16
SS-EV14-TF12M	12mm GENLOK		6000 (413)	75.2	1

English Units

Model	Connection Type		Pressure Range psi (bar)	Dimension (in.)	
	Inlet	Outlet		A	F1/F2
SS-EV12-TF4	1/4" GENLOK		6000 (413)	2.43	11/16
SS-EV12-FNT2	1/8" Female NPT		6000 (413)	1.87	11/16
SS-EV12-FNT4	1/4" Female NPT		6000 (413)	1.87	11/16
SS-EV12-NT2	1/8" Male NPT		6000 (413)	1.79	11/16
SS-EV12-NT4	1/4" Male NPT		6000 (413)	2.28	11/16
SS-EV12-VM4	1/4" FSR		6000 (413)	2.75	1
SS-EV13-TF6	3/8" GENLOK		6000 (413)	2.70	1
SS-EV13-FNT6	3/8" Female NPT		5300 (365)	2.12	11/16
SS-EV13-NT6	3/8" Male NPT		6000 (413)	2.36	1
SS-EV14-TF8	1/2" GENLOK		6000 (413)	2.97	1
SS-EV14-FNT8	1/2" Female NPT		4900 (337)	3.03	1 1/16
SS-EV14-NT8	1/2" Male NPT		6000 (413)	2.73	1
SS-EV14-VM8	1/2" FSR		4300 (296)	2.73	1

### Ordering Information



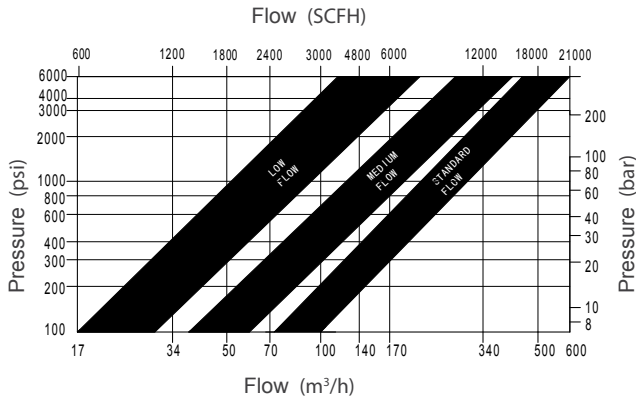
\* Specifications listed in table above change to. Please refer to the chart above for the available specifications for the desired connection type.

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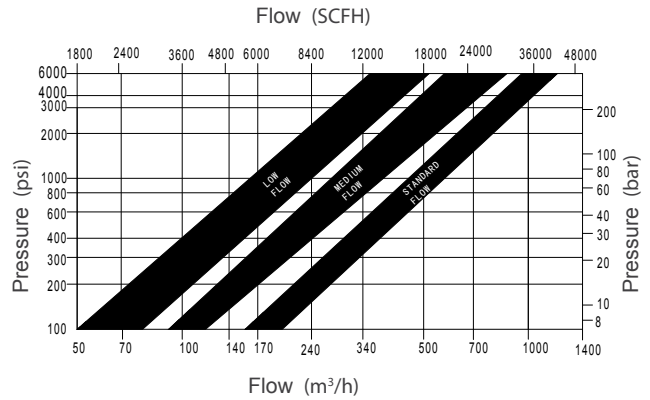
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### Flow Data at 70°F (20°C)

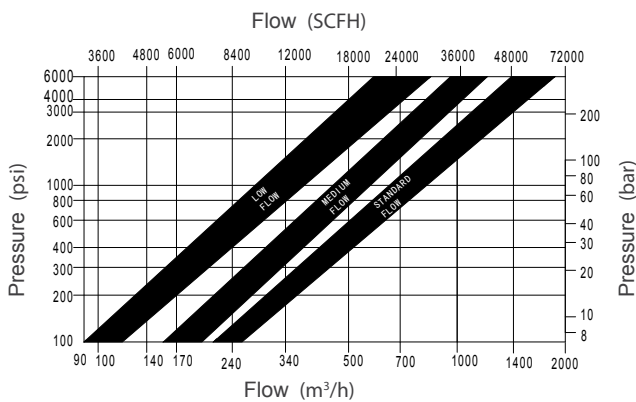
EV12 Series



EV13 Series



EV14 Series



### Product Selection

Excess flow valve is used to stop uncontrolled release of flow in the event of a gas line rupture or disconnection, thereby guaranteeing the system safety. GENTEC standard excess flow valves are suitable for various applications.

For example:

- EV12 Excess Flow Valve, inlet pressure of 6MPa, Peak flow rate 50 m<sup>3</sup>/h. The intersection point is within the low flow range. Therefore select an excess flow valve with medium flow or standard flow trip range. If low flow configurations are chosen, there is the possibility that the valve will trip during high flow and affect normal operation.
- EV 14 Excess Flow Valve, inlet pressure 1.5MPa, Peak flow rate 240 m<sup>3</sup>/h. The intersection point is within the medium flow range. Therefore select an excess flow valve with standard flow. In systems that contain restriction devices—such as pressure regulator, flow control valve and reducing pipe, flow through the rupture might not be sufficient to reach the trip flow. In these cases, excess valves with medium flow and low flow trip range should be selected.
- EV 13 Excess Flow Valve, inlet pressure 2 MPa, Peak flow rate 100 m<sup>3</sup>/h. System restriction flow 300m<sup>3</sup>/h. The two intersection points are within the low flow and standard flow range. Therefore select an excess flow valve with medium flow trip range which can not only avoid nuisance tripping, but also ensure effective performance under flow restriction condition.