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.

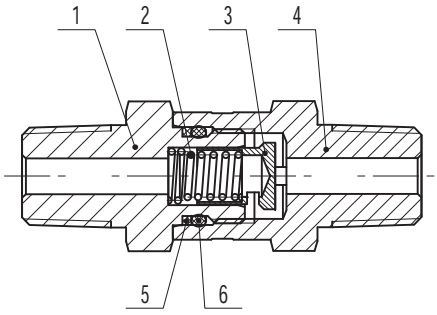
Product Features

- 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.

Materials of Construction



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®

Pressure-Temperature Ratings

The nominal pressure depends on the end connections

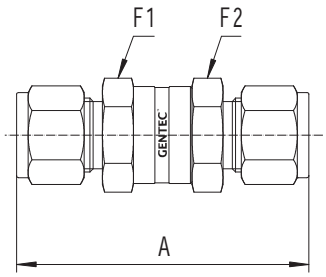
Material	316 SS
Temperature °F (°C)	Operating pressure psi (bar)
-10 (-23) ~ 100 (37)	6000 (414)
200 (93)	5160 (356)
250 (121)	4910 (339)
300 (148)	4660 (321)
400 (204)	4280 (295)

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)

Dimensions



Fractional and Metric Tube Fittings

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-EV13-TF6	3/8" GENLOK		6000 (413)	2.70	1
SS-EV14-TF8	1/2" GENLOK		6000 (413)	2.97	1
SS-EV12-TF6M	6mm GENLOK		6000 (413)	2.43	11/16
SS- EV13-TF8M	8mm GENLOK		6000 (413)	2.80	1
SS- EV13-TF10M	10mm GENLOK		6000 (413)	2.55	11/16
SS-EV14-TF12M	12mm GENLOK		6000 (413)	2.97	1

NPT and FSR Fittings

Model	Connection Type		Pressure Range psi (bar)	Dimension (in.)	
	Inlet	Outlet		A	F1/F2
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-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-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

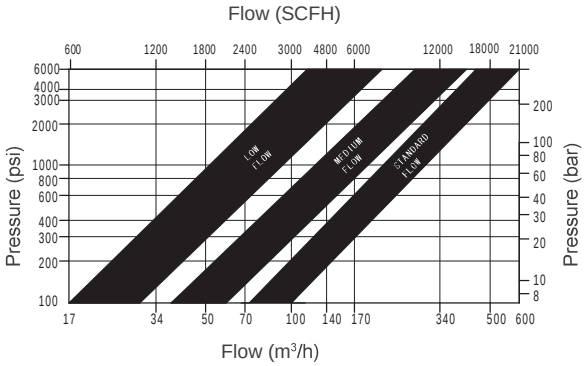
Ordering Information

EX: SL -	EV12 -	NT4 -	B -	M
Body Material	Series	Inlet \ Outlet Connection*	Seal Material	Cracking Pressure
SL: 316SL	EV12 EV13 EV14	NT4: 1/4" Male NPT	R: Fluororubber B: Buna-N N: Neoprene Q: Kalrez®	None: Standard Flow M: Medium Flow L: Low Flow Refer to the flow data charts on the next page

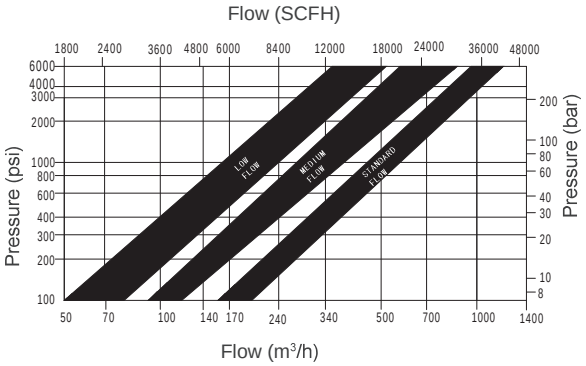
* Specifications listed in table above change to. Please refer to the chart above for the available specifications for the desired connection type.

Flow Data at 70°F (20°C)

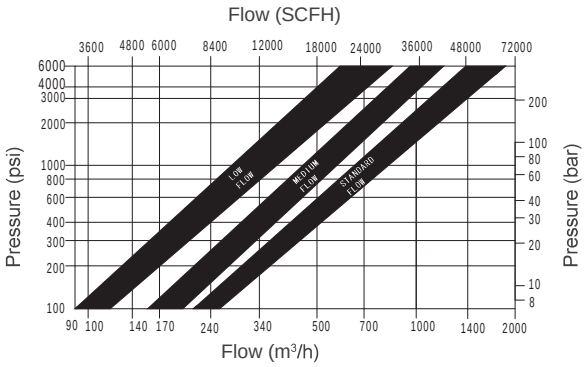
EV12 Series



EV13 Series



EV14 Series



Product Selection

Excess flow valves are used to prevent uncontrolled release of flow in the event of a gas line rupture or disconnection. The excess flow valves are intended to close upon excess flow of gas and remain closed until the system equalizes.

Selection Guideline:

- EV12 Excess Flow Valve: When inlet pressure is 60 bar with peak flow rate of 50 m3/h. The intersection point on the chart above lies within the Low Flow section. The proper cracking pressure range should be medium flow or the standard flow. A low flow range selection would have a risk of the excess flow valve reducing or shutting the flow during normal system operation.
- EV 13 Excess Flow Valve: When inlet pressure is 20 Bar with peak flow rate of 100 m3/h and a system restriction flow 300m3/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.
- EV 14 Excess Flow Valve: When inlet pressure is 15 bar with peak flow rate of 240 m3/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 regulators, flow control valves and reducing pipes, the flow through the rupture might not be sufficient enough to reach the flowrate required to trip the excess valve. In these cases, excess valves with medium flow and low flow trip range should be selected.