

Safety Shut-Off Valve, Type SHV

FEATURES

- For Protection Against Excess Pressure In The Gas Train
- Purge Pipeline Not Required
- Valve Having Large Flow Capacity & Minimum Pressure Loss

OPERATING PRINCIPLE

Safety- Shut- Off Valve (SHV) measures the pressure at the downstream of a gas regulator with help of an impulse line. In case, a high-pressure surge is developed in the gas line installation, this Safety Shut- Off Valve immediately closes with the force of a spring. The closing spring is adjustable for different pressure ranges and can be set according the operating pressure conditions in the gas line installation. Unless the manual lever is pulled up, the SHV cannot be brought back in the operation. SHV operates only in one way. Suitable for pressure up to 4 bar for size 25 mm to 100 mm. Response pressure upto 500 millibar.

CONSTRUCTION

- Valve Body : Aluminium Silicon alloy Casting
- Valve Disc : Stainless Steel
- Valve Seat : Aluminium
- Valve Spindle : Stainless Steel
- Diaphragm : Perbunan/ Buna Nitrile
- Valve Seal : Perbunan/ Buna Nitrile
- End Connection : ANSI B 16.5, Class 150 RF or Flanged to DIN PN 16
- Working Temperature : (-)15° C to +60° C
- Inlet Pressure : 4 bar maximum
- Fluids : Natural Gas, LPG in gaseous form, Town Gas, Bio-gas and other non-corrosive gases.

APPLICATION

For protection against high pressure surge at outlet of Regulator. The gas supply shuts off incase of undesirable operating conditions. Recommended for all gas pressure regulating systems having inlet pressure of more than 100 millibar in accordance with DVGW code of practice G490 & G491. Suitable for all industrial fuel gases in accordance with DVGW code of practice G260/1.

SPECIFICATION TABLE

Model	Size mm	End Conne- ctions	Max Inlet Pres. Bar	Dimensions				Flange Details				Approx Weight Kgs.
				L mm	D mm	H1 mm	H2 mm	D2 mm	K mm	d2 mm	No. of Holes	

SHV WITH BSP SCREWED DIMENSIONS

SHV25R	25	Rp 1	4	90	165	223	33	-	-	-	-	2.5
SHV40R	40	Rp 1 1/2	4	150	165	205	51	-	-	-	-	3.1
SHV50R	50	Rp 2	4	180	165	225	70	-	-	-	-	8.0

SHV WITH ANSI TYPE FLANGE DIMENSIONS

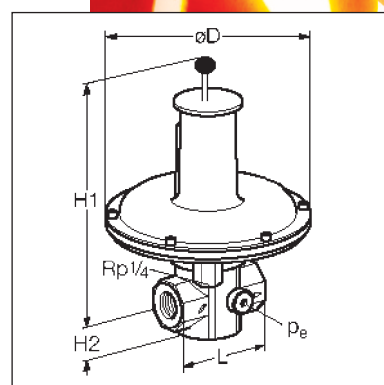
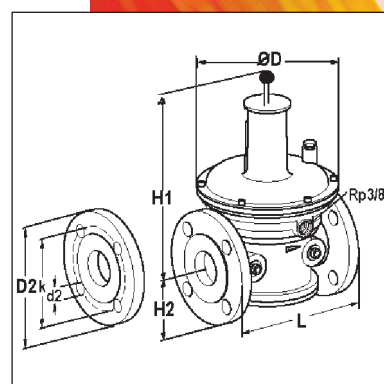
SHV40A	40	40	4	200	165	205	75	127	98	16	4	4.5
SHV50A	50	50	4	230	165	225	85	152	121	19	4	12.0
SHV80A	80	80	4	310	165	250	100	191	152	19	4	16.0
SHV100A	100	100	4	350	165	280	115	229	191	19	8	22.0

SHV WITH DIN TYPE FLANGE DIMENSIONS

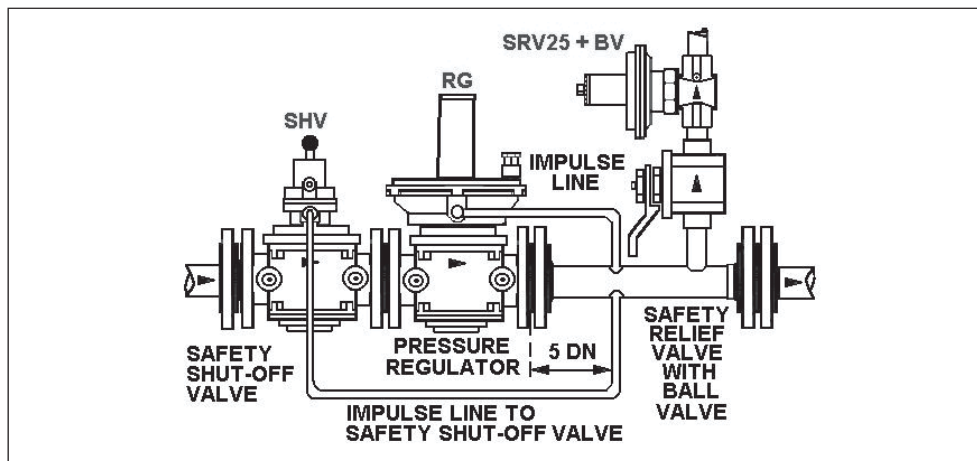
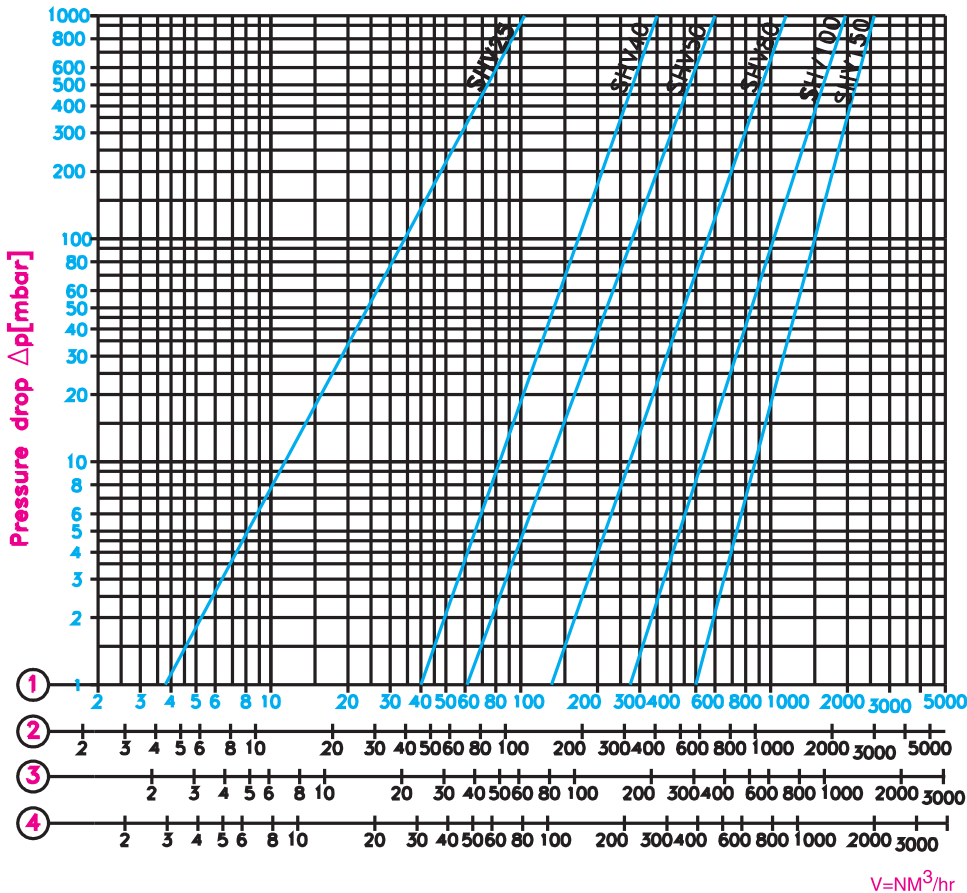
SHV40F	40	40	4	200	165	205	75	150	110	18	4	4.5
SHV50F	50	50	4	230	165	225	85	165	125	18	4	12.0
SHV80F	80	80	4	310	165	250	100	200	160	18	8	16.0
SHV100F	100	100	4	350	165	280	115	220	180	18	8	22.0

SPRING TABLE

SPRING COLOUR	NONE	RED	BLUE	BLACK	WHITE
SHV (DN 25-50)	-----	60 - 120 mbar	115 - 175 mbar	170 - 300 mbar	290 - 500 mbar
SHV (DN 80-100)	-----	60 - 120 mbar	115 - 175mbar	165 - 300mbar	290 - 500 mbar



VOLUMETRIC FLOW DIAGRAM



Safety Shut-Off valve should be always installed in the upstream of the pressure regulator. Installation in direction of the gas flow (see marking on the valve body). Safety Shut-Off valve in sizes 25 mm to 100 mm are always to be connected in horizontal pipeline, keeping the operating mechanism "upright" and vertical. It is recommended to install SHV in accordance with DVGW code of practices G490. According to the DVGW code of practices G490, gas pressure regulating plant with inlet pressure of more than 100 millibar have to be fitted with Safety Shut-Off valve. This valve is to be fitted at the upstream of gas regulator and safety relief valve (SRV). Additionally in the installation, Avcon recommends to use manual ball valve BV2090F, into pipe before Safety Relief Valve (SRV) in order to make it possible to remove (SRV) during the annual maintenance or operational tests.

Note:

Technical specifications and dimensions are subject to change without prior notice. Dimensions in the table are approximate subject to final confirmation by AVCON.

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