Solenoid Valve, manually reset

SV Serie

Main Features

The Manually Reset Solenoid Valves is made to guarantee the gas interception for gas dedector, fire control System, etc. Signal. According to 2014/68/EU

Type ''SV'' Serie Solenoid valves have been designed to be combined with any gas detection system which sets off a warning signal to shut off the main delivery when an emergency situation is detected. They have been installed at the gas piping and connected with a gas detector. Interrupt the gas flow in a danger situation. The electro-valve is normally located after a filter, upstream of the regulation apparatus and preferably outside the measurement zone. It has been installed with the arrow stamped on the body turned towards the user appliance. To reset the solenoid valve pull the reset knob/handle handle

Technical Features

Maximum allowable pressure –PS	SV Serie 0.5, SVxx/6b 6 bar
Ambient temperature –TS[1]	-20 °C to +70 °C
Connection	Threaded conn.according to EN 10226 or NPT ASME 1/2'' | 3/4'' | 1'' | 11/4'' | 11/2'' | 2'' Flanged Conn. According to EN 1092-1 or ANSI 150 DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 DN125 | DN150 | DN200 | DN250 | DN300
Working Voltage	12 Vdc | 12 V/50 Hz | 24 Vdc | 24 V/50 Hz | 110 V/50-60 Hz | 230 V/50-60 Hz
Power supply voltage tolerance	-15% ... +10%
Protection degree[2]	IP65

H2 Ready

[1] Low temperature version -40°C: available on request
[2] Optiona ATEX – Explosion Proof version

Metarials

Body	Aluminium
Covers	Threaded Connection Aluminium Flanged Connection
Internal Parts	Stainless Steel and Brass
Seals	NBR
Pressure Test Points	Brass

Standards and certificates

Applied directives:
Pressure Equipment Directive –PED (EU) EU/2014/68

Compliance with the regulations of the applied directives is verified by the adherence to the following standards / regulations:

- UkrSepro Tecnical Regulations for Pressure Equipment UA.TR.012C.0368
- EAC Conformity mark TP TC004/2011 TP TC020/2011

The relevant valid edition of the standards can be found in the declaration of conformity!

Use

General Gases :

Natural gas, town gas, propane, butane, air, nitrogen or all non-corrosive gases

Suitable for use with previously filtered gaseous fluids, it is mainly used for medium and low pressure natural gas systems.

Hydrogen Ready :

Suitability of natural gas-hydrogen mixtures or pure hydrogen.
When using the SV series, a manufacturer's declaration and nofied body reports can be provided on request.

Biogas or Biomethane Version :

Suitable for biogases and recycling gases
– up to maximum 1% by volume H2S, dry
– up to maximum 1% by volume NH3,
dry No non-ferrous metals (except in very small quantities found in the plastic components)

Biogas version of SV Series are also designed for slightly aggressive, dry gases.

Gases according such as biogases, landfill gases, sewage gases, other recycled gases, process gases, and air. The chemical composition and aggressiveness of each biogas or recycled gas is different, not constant, and dependent on several factors.

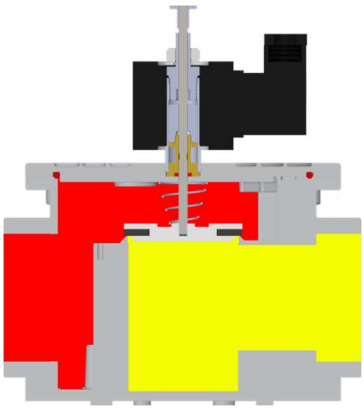
The aggressiveness of the gas notably increases:
- as the hydrogen sulfide content H2S increases
- with the moisture content of the gas, condensation is not permitted inside the regulator

In consultation with Gastech, users must decide whether the materials used for the SV Series are suitable for the intended types of recycling gas. These gases can vary in terms of both their composition and the respective concentration of the components.

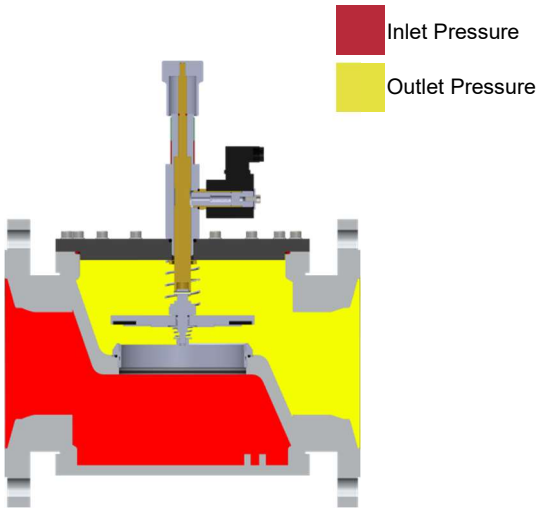
As a result, it is not possible to make any warranties or definitive statements regarding service life. An assessment should be carried out to determine the suitability of the gas used.

⚠ For safety reasons, we strongly recommend
- a visual inspection of the SV Serie regulator at intervals of 3 to 6 months
- Function and leakage tests

Desing,
Operational Diagram

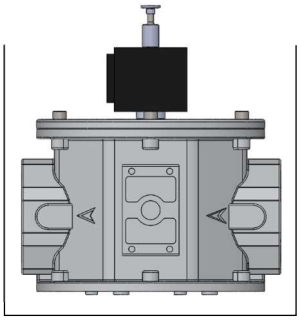


Manually Reset Solenoid Valve
1/2'' – 2'' Threaded Connection

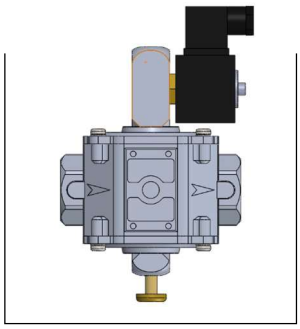


Manually Reset Solenoid Valve
DN25 – DN300 Flanged Connection

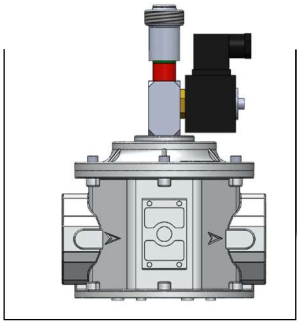
Configurations



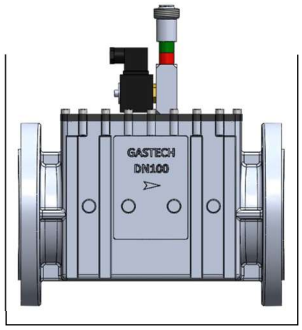
1/2'' – 2''
Normally open or closed
500mbar



1/2'' – 1''
Normally open or closed
6 bar



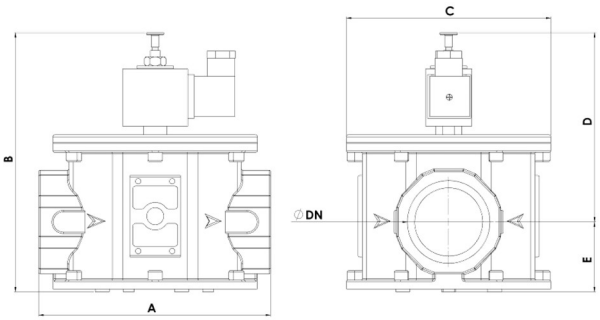
11/4'' – 2''
Normally open or closed
6 bar



DN25 – DN300
Normally open or closed
500mbar or 6 bar

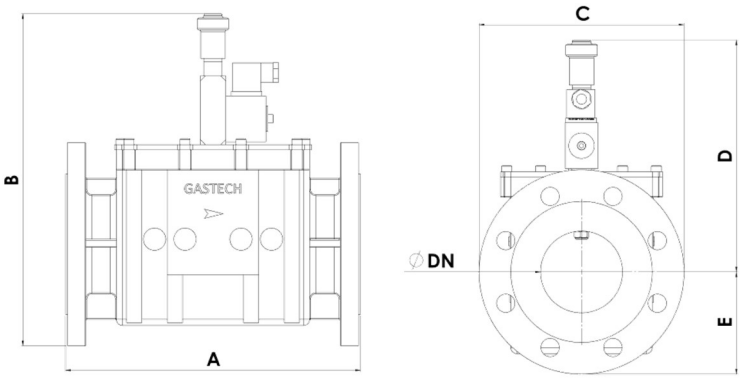
Dimensions and Weights

SV Serie 500mbar – 6bar Normally open or close
Threaded



DN	A	B	C	D	E
Rp. 1/2''	120	160	92	95	65
Rp. 3/4''	120	160	92	95	65
Rp. 1''	120	160	92	95	65
Rp. 11/4''	160	180	145	130	50
Rp. 11/2''	160	180	145	130	50
Rp. 2''	160	180	145	130	50

SV Serie 500mbar-6bar Normally open or close
Flanged



DN	A	B	C	D	E
DN25	190	160	92	95	65
DN32	230	180	145	130	50
DN40	230	180	145	130	50
DN50	230	180	145	130	50
DN65	290	320	200	220	100
DN80	290	320	200	220	100
DN100	320	360	220	250	110
DN125	420	520	300	210	310
DN150	420	520	300	210	310
DN200	500	570	410	400	170
DN250	500	570	410	400	170
DN300					

Capacity Tables

SV Serie

Diameter DN	ΔP Differantial Pressure (mbar)										
	0.5	**1**	**2**	**3**	**5**	**10**	**20**	**30**	**50**	**100**	**200**
Rp. 1/2''	7	9	14	16	20	28	30	50	62	78	130
Rp. 3/4''	12	17	22	28	35	50	70	84	105	160	210
Rp. 1''	17	22	30	38	49	68	95	120	160	205	290
Rp. 11/4''	27	34	48	59	76	107	160	185	240	330	540
Rp. 11/2''	35	60	88	105	140	195	280	320	420	500	840
Rp. 2''	48	67	95	120	155	206	300	360	460	560	900
DN 25 Flg.	17	22	30	38	49	68	95	120	160	205	290
DN 40 Flg.	35	60	88	105	140	195	280	320	420	500	840
DN 50 Flg.	48	67	95	120	155	206	300	360	460	560	900
DN 65 Flg.	90	140	190	220	295	400	580	700	900	1400	1850
DN 80 Flg.	140	190	260	310	410	595	820	1000	1400	1800	2600
DN 100 Flg.	180	245	330	400	520	740	1100	1350	1800	2300	3100
DN 125 Flg.	390	550	790	950	1300	1900	2500	3000	3900	5300	7200
DN 150 Flg.	390	550	790	950	1300	1900	2500	3000	3900	5300	7200
DN 200 Flg.	700	950	1400	1800	2100	3000	4050	5000	6800	9000	14000
DN 250 Flg.	900	1400	1900	2200	2900	4000	6000	7000	9000	14000	18000
DN 300 Flg.	1400	1940	2800	3100	4000	6000	8000	10000	14000	18000	25000

Correction factor for non-natural gas applications

The flow rates are indicated for a 0.6 specific gravity gas. To determine the volumetric flow rate for gases other than natural gas, multiply or calculate the values in the capacity tables using the sizing equations with a correction factor. The table below lists correction factors for some common gases:

Gas Type	Density ratio to air	Conversion factor
Air	1.00	0.77
Butane	2.00	0.55
Propane	1.52	0,63
Propane+Air Mix	1.2	0,71
Hydrogen	0.07	2.94
Nitrogen	0.97	0.79
Carbondioxide	1.52	0.63

Use the following formula to calculate the correction factor for gases not listed above. In the formula, d is the specific gravity of the gas.

$$\text{Conversion factor} = \sqrt{\frac{0.6}{d}}$$

Stm3 /h /hreference conditions 15 °C, 1 barg

Stm3 /h x 0.94795 = Nm3 /h Nm3 /h reference conditions 0 °C, 1 barg

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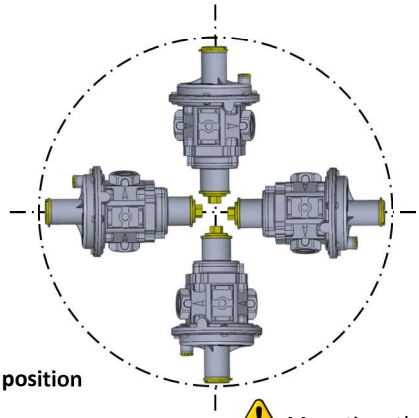

Mounting position

⚠ Mounting the regulator upside down will reduce the adjustment range of the outlet pressure by approximately 3 mbar

Color of Products

Standard Colors Natural Aluminium

Optional Colors

You can choose one or more of the following colors.

Part	RAL Code	Color
All Parts	1021	
All Parts	3000	
All Parts	9005	
All Parts	6011	
All Parts	5010	

delivery times and price may vary in optional color options.

NOTES

For more information, contact your local sales representative or agency.

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