2/2-way solenoid valve - pilot operated
series SL067, SL069, SL070, SL136

TECHNICAL SPECIFICATIONS

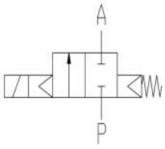
Type of control	Pilot operated, pressure difference necessary
Design	Diaphragm design
Connection	Threaded G1/4 - G3 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0,3 - 20 bar (see table page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -10 °C bis +80 °C Ambient: -10 °C bis +50 °C Unter Berücksichtigung der Einschränkungen wie auf
Body material	Brass 2.0402 Stainless steel 1.4581
Metallic inner parts	Brass and stainless steel
Sealing	NBR, FKM, EPDM
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	1 = 6,8 Watt 2 = 11 Watt 3 = 18 Watt 4 = 5,2 Watt Ex 5 = 10 Watt Ex
Type of control	IP65 nach DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Standard coils: Plug ATEX-coils: 3m cable
Ex-proof	acc. to 2014/34/EU (ATEX)

VALVE FEATURES

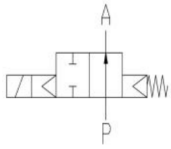
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

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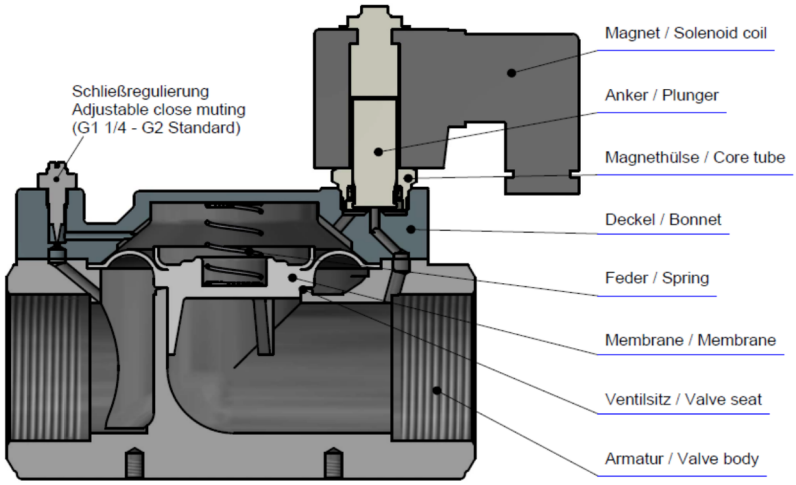
TECHNICAL FEATURES

			max. pressure for coils NC		max. pressure for coils ATEX NC	
G	Seat Ø mm	Kv-value m³/h	1	2	4	5
1/4	13,5	1,6	0,3-20	0,3-20	0,3-10	0,3-20
3/8	13,5	3,3	0,3-20	0,3-20	0,3-10	0,3-20
1/2	13,5	3,8	0,3-20	0,3-20	0,3-10	0,3-20
3/4	27,5	11,0	0,3-16	0,3-20	0,3-10	0,3-20
1	27,5	13	0,3-16	0,3-20	0,3-10	0,3-20
1 1/4	40	30	-	0,5-16	-	0,5-16
1 1/2	40	32	-	0,5-16	-	0,5-16
2	50	45	-	0,5-16	-	0,5-16
2 1/2	65	on req.	-	0,3-10	-	-
3	80	on req.	-	0,3-10	-	-

The flow rate mentioned in the table applies to the strongest coil.

			max. pressure for coils NO	
G	Seat Ø mm	Kv-value m³/h	3	5
1/4	13,5	1,6	0,3-20	0,3-20
3/8	13,5	3,3	0,3-20	0,3-20
1/2	13,5	3,8	0,3-20	0,3-20
3/4	27,5	11,0	0,3-20	0,3-20
1	27,5	13	0,3-20	0,3-20
1 1/4	40	30	0,5-16	-
1 1/2	40	32	0,5-16	-
2	50	45	0,5-16	-



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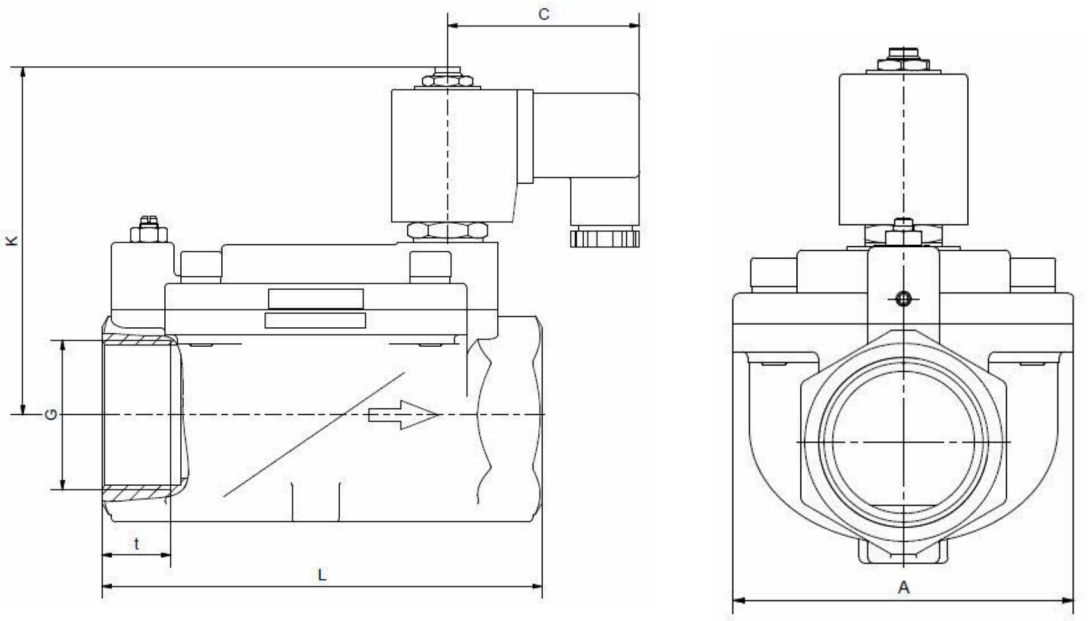
DIMENSIONS



coil	1 / 4				
G	1/4	3/8	1/2	3/4	1
A	48	48	48	70	70
C	51	51	51	51	51
K	75	75	75	87	87
L	67	67	67	96	96
t	12	12	12	16	16
kg	0,9	0,85	0,8	1,65	1,5
*Differing dimension "C" for ATEX coils					

coil	2 / 3 / 5							
G	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	48	48	48	70	70	96	96	112
C	61	61	61	61	61	61	61	61
K	90	90	90	102	102	110	110	120
L	67	67	67	96	96	140	140	168
t	12	12	12	16	16	22	22	22
kg	0,9	0,85	0,8	1,65	1,5	3,1	2,9	4,0
*Differing dimension "C" for ATEX coils								

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PLEASE NOTE

Each individual application decides which valve type is required, the main factor being the resistance of the materials to the operating medium. The correct selection of materials requires knowledge of the concentration, temperature and degree of contamination of the medium. Other criteria include the operating pressure and max. volumetric flow, since , in addition to high temperatures , high pressures and high flow rates must also be taken into account when selecting the materials.

All materials used for our valves, be it housing, seals or magnets, will be carefully selected in view of the different application areas. Any information given is non-binding and serves for orientation only. No claims under warranty can be derived therefrom.

Heating and power of solenoid coils

The GSR default solenoid valves are designed for continuous operation (100% ED = power-on time) under normal operating conditions. The pulling force of a solenoid coil is basically influenced by three elements:

- The self-heating of the magnetic coil
- The medium temperature
- The ambient temperature

GSR solenoid coils are by default designed for a maximum ambient temperature of +35 °C. This specification applies for the maximum allowable operating pressure specified in the data sheet of the corresponding valve, 100% duty cycle and a medium temperature of +80 °C.

A higher ambient temperature is possible, when lower values are applied for the other influencing parameters. When the max. operation pressure and max. ambient temperature of +50 °C is given the medium temperature is not allowed to be higher than max. +50 °C. In addition to that, deviations from the default design temperature range are possible, e.g. when temperature coils or other constructive measures are used. Please contact the GSR headquarters to discuss the specific application.

More precise specifications and technical data with regard to the operating conditions can be found in the data sheets of the solenoid coils and the solenoid valve regarded. Please observe that the surface temperature of a permanently loaded coil can amount up to +120 °C, solely by the self-heating of the coil. The power consumption of our default solenoid valves was calculated to DIN VDE 05820 for a coil temperature of +20 °C.

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