

Technical Data Sheet Type 40

2/2-way solenoid valve
NC - Valve normally closed (as standard)
NO - Valve normally open (as option)

Pilot operated Membranventil. The mentioned minimum pressure difference between inlet and outlet is necessary for proper operation.
In standard (NC) the valve closes with spring power.

Solenoid valve for gaseous and liquid media

Type 40

TECHNICAL SPECIFICATIONS

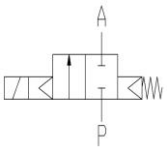
Type of control	Pilot operated, pressure difference necessary
Design	Diaphragm design
Connection	Threaded G1/4 - G3 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0,3 - 20 bar (see table page 2)
Medium	Clean, neutral, gaseous and liquid 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	.182 = 6,8 Watt .178 = 5,2 Watt .032 = 11 Watt .148 = 10 Watt .012 = 18 Watt
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

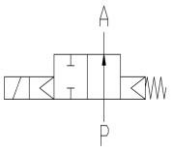
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Valve type												Coil system			Valve options	
.	4	0	2	3	/	1	0	0	1	/	.	0	3	2	-	H A

Connection

21	G 1/4
22	G 3/8
23	G 1/2
24	G 3/4
25	G 1
26	G 1 1/4
27	G 1 1/2
28	G 2
29	G 2 1/2
30	G 3

Body material

10	Brass 2.0402
08	Stainless steel 1.4581

Seal material

01	NBR
02	FKM
06	EPDM

2	Standard IP65
8	Explosion-proof acc. to directive 2014/34/EU (ATEX)

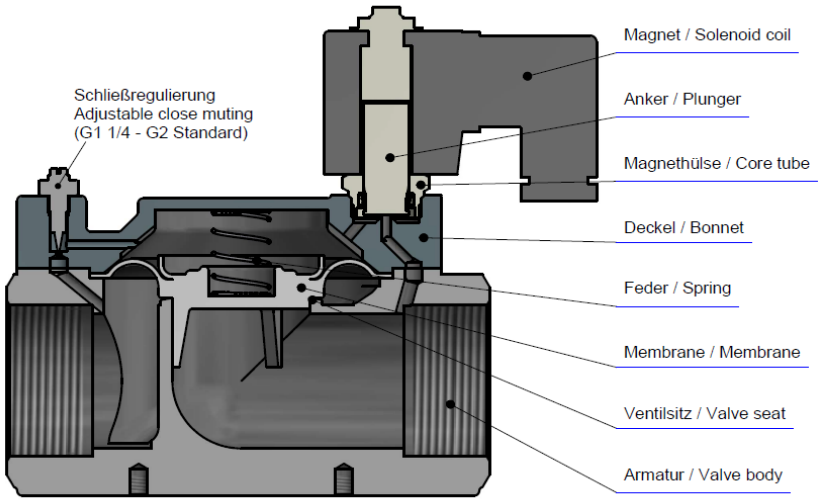
TECHNICAL FEATURES

Type 40

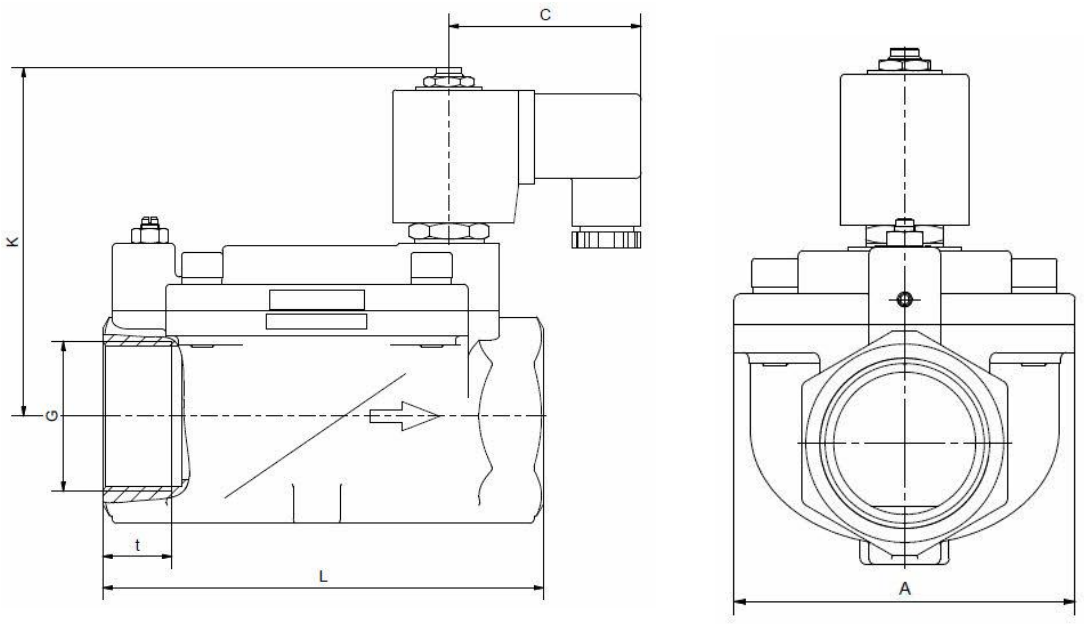
				max. pressure for coils **NC**		max. pressure for coils **ATEX NC**	
G	Seat Ø mm	Kv-value m³/h	Standard type	.182	.032	.178	.148
1/4	13,5	1,6	.4021/..01/	0,3-20	0,3-20	0,3-10	0,3-20
3/8	13,5	3,3	.4022/..01/	0,3-20	0,3-20	0,3-10	0,3-20
1/2	13,5	3,8	.4023/..01/	0,3-20	0,3-20	0,3-10	0,3-20
3/4	27,5	11,0	.4024/..01/	0,3-16	0,3-20	0,3-10	0,3-20
1	27,5	13	.4025/..01/	0,3-16	0,3-20	0,3-10	0,3-20
1 1/4	40	30	.4026/..01/	-	0,5-16	-	0,5-16
1 1/2	40	32	.4027/..01/	-	0,5-16	-	0,5-16
2	50	45	.4028/..01/	-	0,5-16	-	0,5-16
2 1/2	65	on req.	.4029/1001/XX	-	0,3-10	-	-
3	80	on req.	.4030/1001/XX	-	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	Standard type	.012	.148
1/4	13,5	1,6	.4021/..01/.	0,3-20	0,3-20
3/8	13,5	3,3	.4022/..01/	0,3-20	0,3-20
1/2	13,5	3,8	.4023/..01/	0,3-20	0,3-20
3/4	27,5	11,0	.4024/..01/	0,3-20	0,3-20
1	27,5	13	.4025/..01/	0,3-20	0,3-20
1 1/4	40	30	.4026/..01/	0,5-16	-
1 1/2	40	32	.4027/..01/	0,5-16	-
2	50	45	.4028/..01/	0,5-16	-



DIMENSIONS



coil	.182 / .178				
Type	4021	4022	4023	4024	4025
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	.032 / .012 /. 148							
Type	4021	4022	4023	4024	4025	4026	4027	4028
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								

INFORMATION

- It is imperative to observe the installation and safety instructions in our operating and service manuals.
- For information on our GSR ordering code, please refer to our catalogs. If you have any questions, we will be glad to assist you.
- Required ordering information: valve type, function NC/NO, pressure range, connection, nominal width, medium, flow rate, medium and ambient temperatures, connection voltage.
- **Detailed production-specific drawings and other technical information will be made available when an order is placed**

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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