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

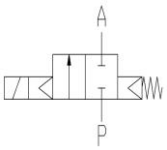
Type of control	Pilot operated, pressure difference necessary
Design	Diaphragm design
Connection	Threaded G1/4 - G3 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0,3 - 20 bar (see table page 2)
Medium	Clean, neutral, gaseous and liquid 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

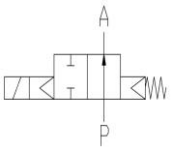
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

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

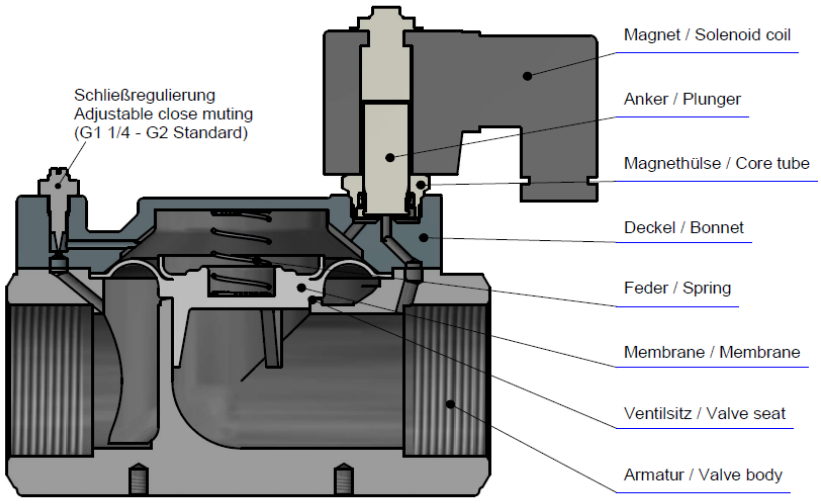
2	Standard IP65
8	Explosion-proof acc. to directive 2014/34/EU (ATEX)

TECHNICAL FEATURES

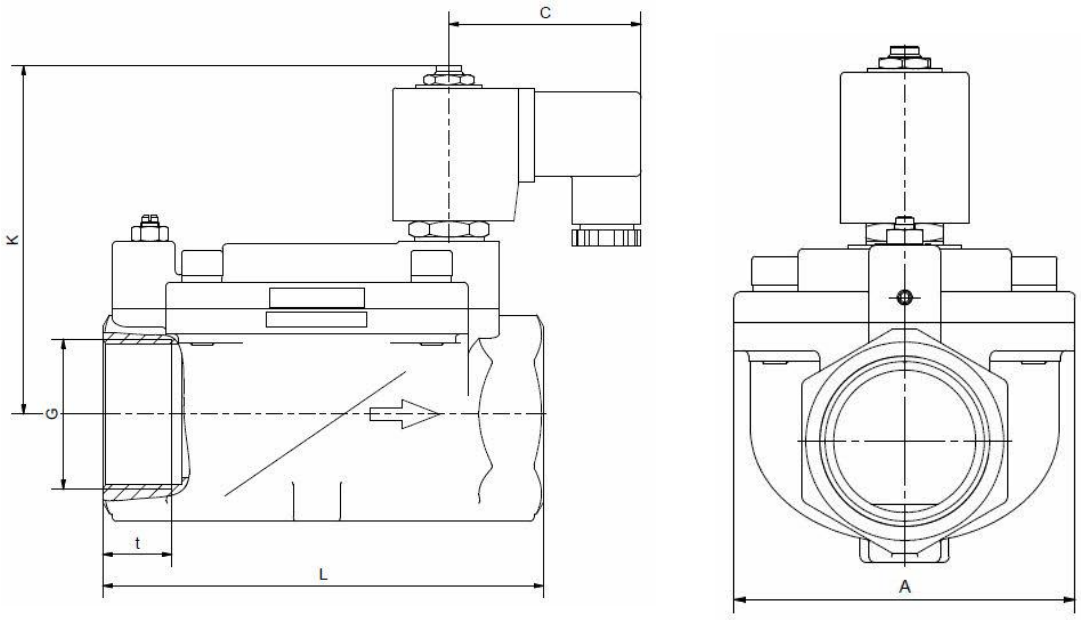
				max. pressure for coils **NC**		max. pressure for coils **ATEX NC**	
G	Seat Ø mm	Kv-value m³/h	Standard type	.182	.032	.178	.148
1/4	13,5	1,6	.4021/..01/	0,3-20	0,3-20	0,3-10	0,3-20
3/8	13,5	3,3	.4022/..01/	0,3-20	0,3-20	0,3-10	0,3-20
1/2	13,5	3,8	.4023/..01/	0,3-20	0,3-20	0,3-10	0,3-20
3/4	27,5	11,0	.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.

Stand: 02.18, MK-MG, Version 2

Technical Data Sheet Type 28

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

Pilot operated diaphragm valve. 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 28

TECHNICAL SPECIFICATIONS

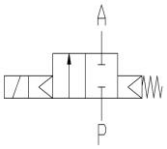
Type of control	Pilot operated, pressure difference is required
Design	Diaphragm design
Connection	Flanged acc. to EN 1092-1 Form B1/B2 Further flanges like ASME on request
Installation	Preferable with actuator upright
Pressure	0,3 - 20 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
Viscosity	22 mm²/s
Temperature range	Medium: -10 °C up to +80 °C Ambient: -10 °C up to +50 °C In consideration of the restrictions described on page 4
Body material	Cast iron EN-GJL-250 Cast steel GP240 GH 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 Ex .032 = 11 Watt .148 = 10 Watt Ex .012 = 18 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug / Cable
Ex-proof	acc. to 2014/34/EG(ATEX) Further Ex-proof on request

VALVE FEATURES

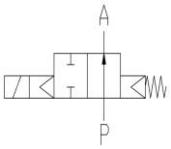
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing	Seal		Coil			Option	
.	2	8	0	3	/ 0	4	0	1	/ .	0	3	2	-	N	O

Conn.	
01	DN15
02	DN20
03	DN25
04	DN32
05	DN40
06	DN50

Housing	
04	EN-GJL-250
05	GP240 GH
08	Stainl.st. 1.4581

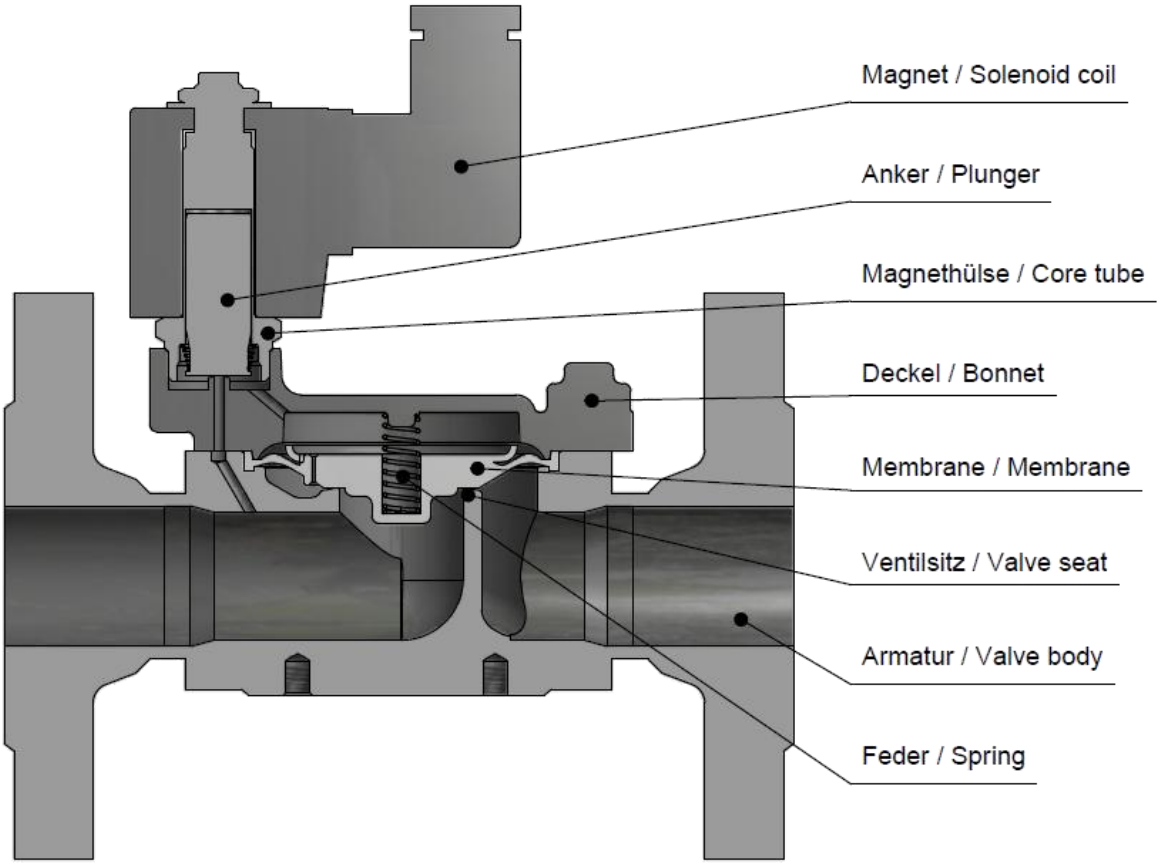
Seal	
01	NBR
02	FKM
06	EPDM

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

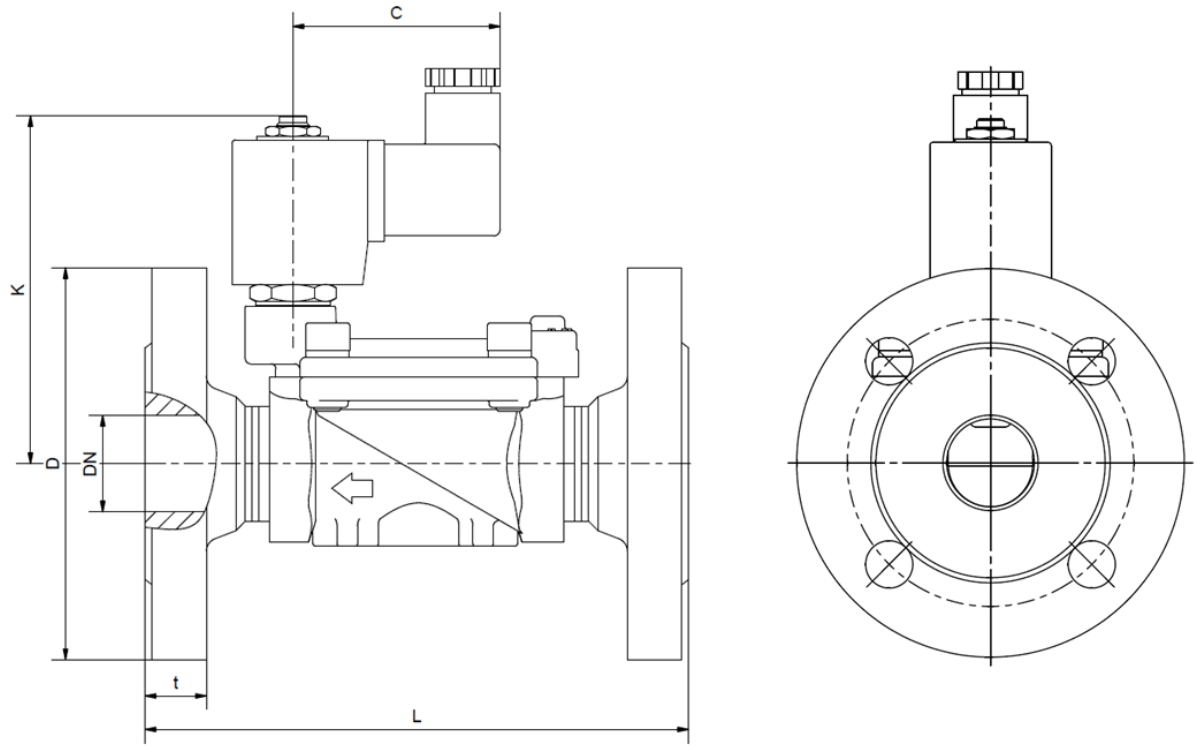
TECHNICAL FEATURES

				max. pressure for coils			max. pressure for coils **ATEX**		
DN	Seat Ø mm	Kv-value m³/h	Standard type	.182	.032	.012-NO	.178	.148	.148-NO
15	15	3,9	.2801/..01/	0,3-16	0,3-20	0,3-20	0,3-10	0,3-20	0,3-16
20	20	10,8	.2802/..01/	0,3-16	0,3-20	0,3-20	0,3-10	0,3-20	0,3-16
25	25	13,0	.2803/..01/	0,3-16	0,3-20	0,3-20	0,3-10	0,3-20	0,3-16
32	32	30,0	.2804/..01/	-	0,5-16	0,5-16	-	0,5-16	0,5-13
40	40	32,0	.2805/..01/	-	0,5-16	0,5-16	-	0,5-16	0,5-13
50	50	45,0	.2806/..01/	-	0,5-16	0,5-16	-	0,5-16	0,5-13

The flow rate mentioned in the table applies to the strongest coil.
Pressure rating for EN-GJL-250 max. 16 bar.



DIMENSIONS



Coil	.182 / .032 / .012-NO / .148					
Type	2801	2802	2803	2804	2805	2806
DN	15	20	25	32	40	50
C	61	61	61	61	61	61
K	97	105	105	120	120	135
L	130	150	160	180	200	230
t	16	18	18	18	18	20
kg	2,3	3,3	3,8	6,5	7,0	9,5

*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.

Stand: 05.17, MK-MG, Version 1.

Technical Data Sheet Type 51

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

Pilot operated piston design. 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 51

TECHNICAL SPECIFICATIONS

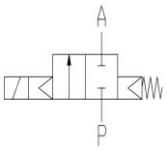
Type of control	Pilot operated, differencial pressure necessary
Design	Piston design
Connection	Threaded G1/4 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0,5 - 40 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -20 °C bis +80 °C Ambient: -20 °C bis +50 °C In consideration of the restrictions described on page 4
Body material	Brass 2.0402 Stainless steel1.4581
Metallic inner parts	Brass and stainless steel
Sealing	NBR, FKM, EPDM, PTFE Seat PTFE
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 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Standard coils: Plug ATEX-coils: 3m cable
Ex-proof	acc. to directive 2014/34/EU (ATEX)

VALVE FEATURES

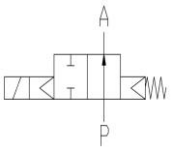
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Valve type											Coil system		Valve options	
.	5	1	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

Body material
10 Brass 2.0402
08 St.steel 1.4581

Seal material
01 NBR
02 FKM
04 PTFE
06 EPDM

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

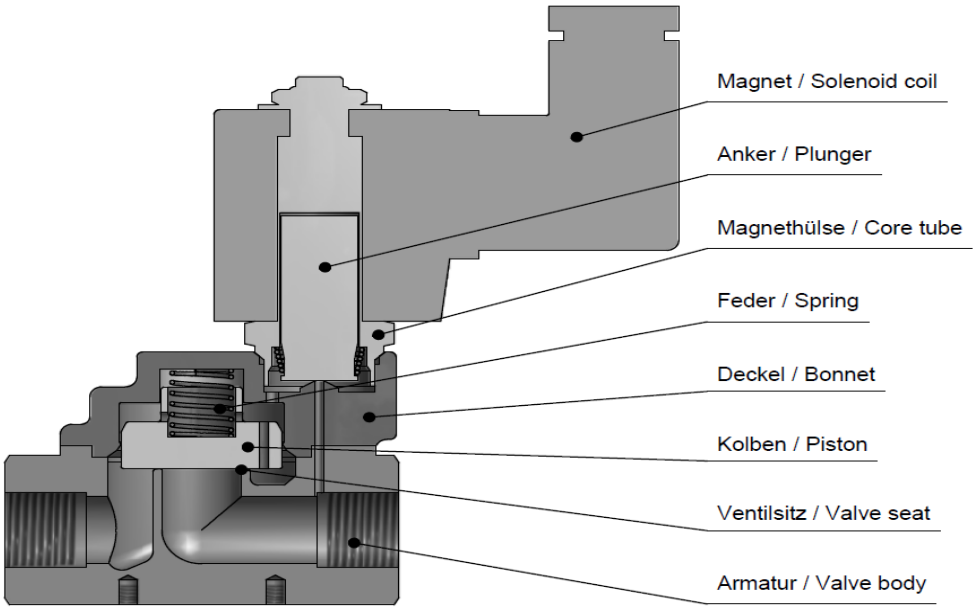
TECHNICAL FEATURES

Type 51

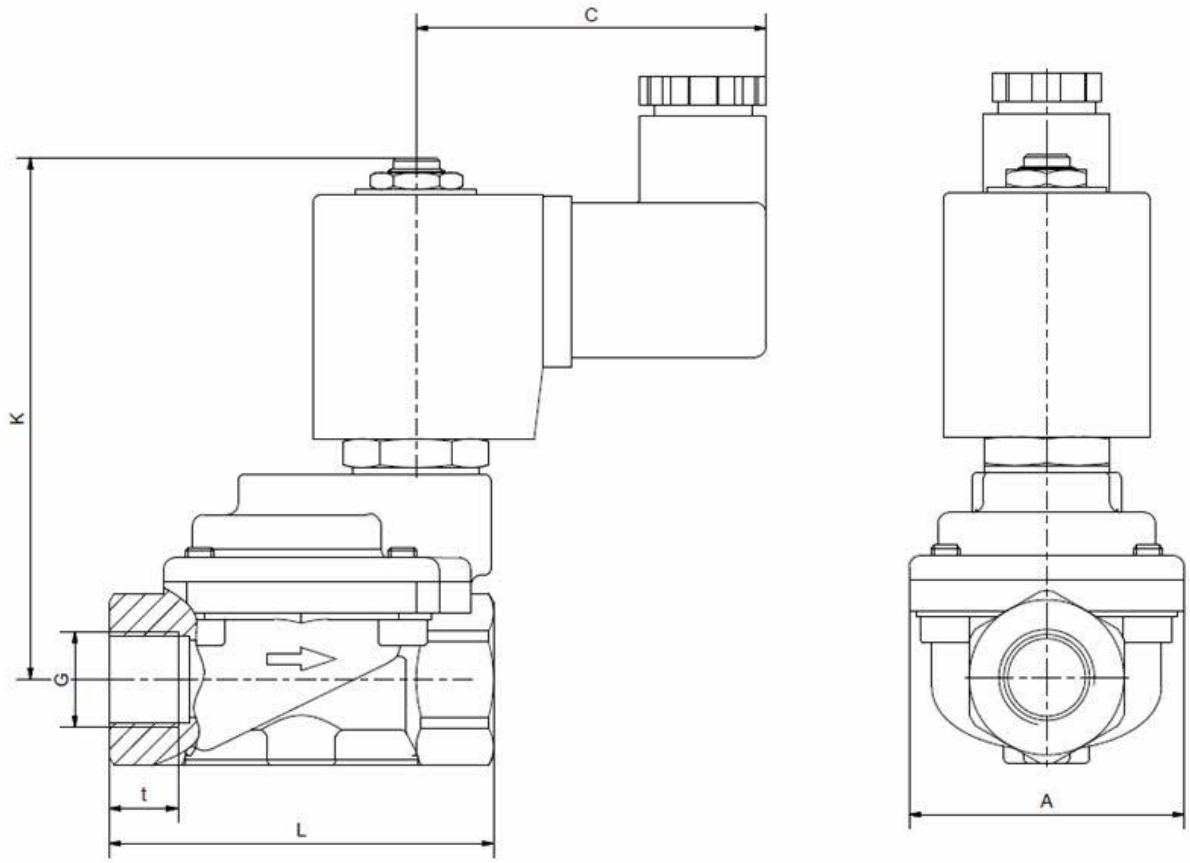
				max. pressure for coils **NC**		max. pressure for coils **ATEX NC**	
G	Seat mm	Kv-value m³/h	Standard type	.182	.032	.178	.148
1/4	13,5	1,8	.5121/..01/	0,5-40	0,5-40	0,5-12	0,5-40
3/8	13,5	4,0	.5122/..01/	0,5-40	0,5-40	0,5-12	0,5-40
1/2	13,5	4,5	.5123/..01/	0,5-40	0,5-40	0,5-12	0,5-40
3/4	27,5	11,5	.5124/..01/	0,5-40	0,5-40	0,5-12	0,5-40
1	27,5	13,0	.5125/..01/	0,5-40	0,5-40	0,5-12	0,5-40
1 1/4	40	29,0	.5126/..01/	-	0,5-40	-	0,5-40
1 1/2	40	33,0	.5127/..01/	-	0,5-40	-	0,5-40
2	50	49,0	.5128/..01/	-	0,5-40	-	0,5-40

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

				max. pressure for coils **NO**	
G	Seat mm	Kv-value m³/h	Standard type	.012	.148
1/4	13,5	1,8	.5121/..01/....-NO	0,5-40	0,5-25
3/8	13,5	4,0	.5122/..01/....-NO	0,5-40	0,5-25
1/2	13,5	4,5	.5123/..01/....-NO	0,5-40	0,5-25
3/4	27,5	11,5	.5124/..01/....-NO	0,5-40	0,5-20
1	27,5	13,0	.5125/..01/....-NO	0,5-40	0,5-20
1 1/4	40	29,0	.5126/..01/....-NO	0,5-16	0,5-13
1 1/2	40	33,0	.5127/..01/....-NO	0,5-16	0,5-13
2	50	49,0	.5128/..01/....-NO	0,5-16	0,5-13



DIMENSIONS



Coil	.182 / .178				
Type	5121	5122	5123	5124	5125
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	91	91
L	67	67	67	96	96
t	12	12	12	16	16
kg	0,9	0,85	0,8	1,8	1,65
*Differing dimension “C“ for ATEX-coils					

Coil	.032 /.012 / .148							
Type	5121	5122	5123	5124	5125	5126	5127	5128
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	106	106	128	128	140
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	1,8	1,65	3,8	3,5	5,2
*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:

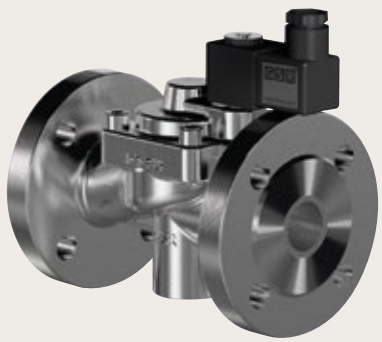
- The self-heating of the magnetic coil
- The medium temperature
- The ambient temperature

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.

Stand: 01.18, MK-MG, Version 1.



Technical Data Sheet
Type 54

GSR Ventiltechnik

Type 54

2/2-Way solenoid valve
Valve normally closed (NC).
When energized the solenoid opens the pilot hole thus reducing the pressure above the diaphragm. The pressure under the diaphragm becomes higher and lifts it from the valve seat. The specified minimum pressure must always be available as pressure difference.

■ Solenoid valve for clean, neutral, gaseous and liquid media

TECHNICAL SPECIFICATIONS

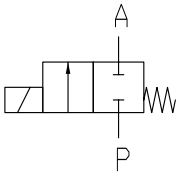
Type of control:	Pilot operated
Design:	Piston design
Connection:	Flanges acc. to EN 1092-1 Form B1/B2 Other flange connections like ASME or JIS on request
Installation:	Actuator in any position, preferable upright
Pressure:	0,5-40 bar (see table page 2)
Medium:	Clean, neutral, gaseous and liquid medium
Viscosity:	22 mm^2/s
Temperature range:	Medium: -20 °C up to +80 °C Ambient: -20 °C up to +50 °C In consideration of the restrictions described on page 4
Body material:	Cast iron EN-GJL-250 Cast steel GP240 GH Stainless steel 1.4581
Metallic inner parts:	Brass and stainless steel
Sealing:	NBR, FKM, PTFE, EPDM
Supply voltage:	AC~ 24V, 110V, 230V DC= 12V, 24V, 110V Other supply voltages on request
Voltage tolerance:	-10% / +10%
Power consumption:	.182 = DC 6,8 Watt, AC 14,5 VA / 10,5 VA .032 = DC 11 Watt, AC 24 VA / 15 VA .148 = DC 10 Watt, AC 8,5 VA Ex .178 = DC 5,2 Watt, AC 5,3 VA Ex
Protection class:	IP65 according to DIN 60529
Duty factor:	100% ED-VDE 0580
Connection type:	Plug
Ex-proof:	Ex m II T4 Further Ex-proof on request.

VALVE FEATURES

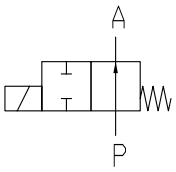
- Pressure difference is required
- High life time
- Simple compact valve design
- Low weight
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC - non energized closed



NO - non energized open



CERTIFICATES

In special design also available for temperatures **up to +200 °C**.
Specifications and drawings on request.

ORDERING SYSTEM

.	54	02	/	04	04	/	.	03	2	-	N	O

Connection

01	DN15
02	DN20
03	DN25
04	DN32
05	DN40
06	DN50

Body

04	Cast iron EN-GJL-250
05	Cast steel GP240 GH
06	Stainless steel 1.4301

Seal

01	NBR
02	FKM
04	PTFE
06	EPDM

Coil system

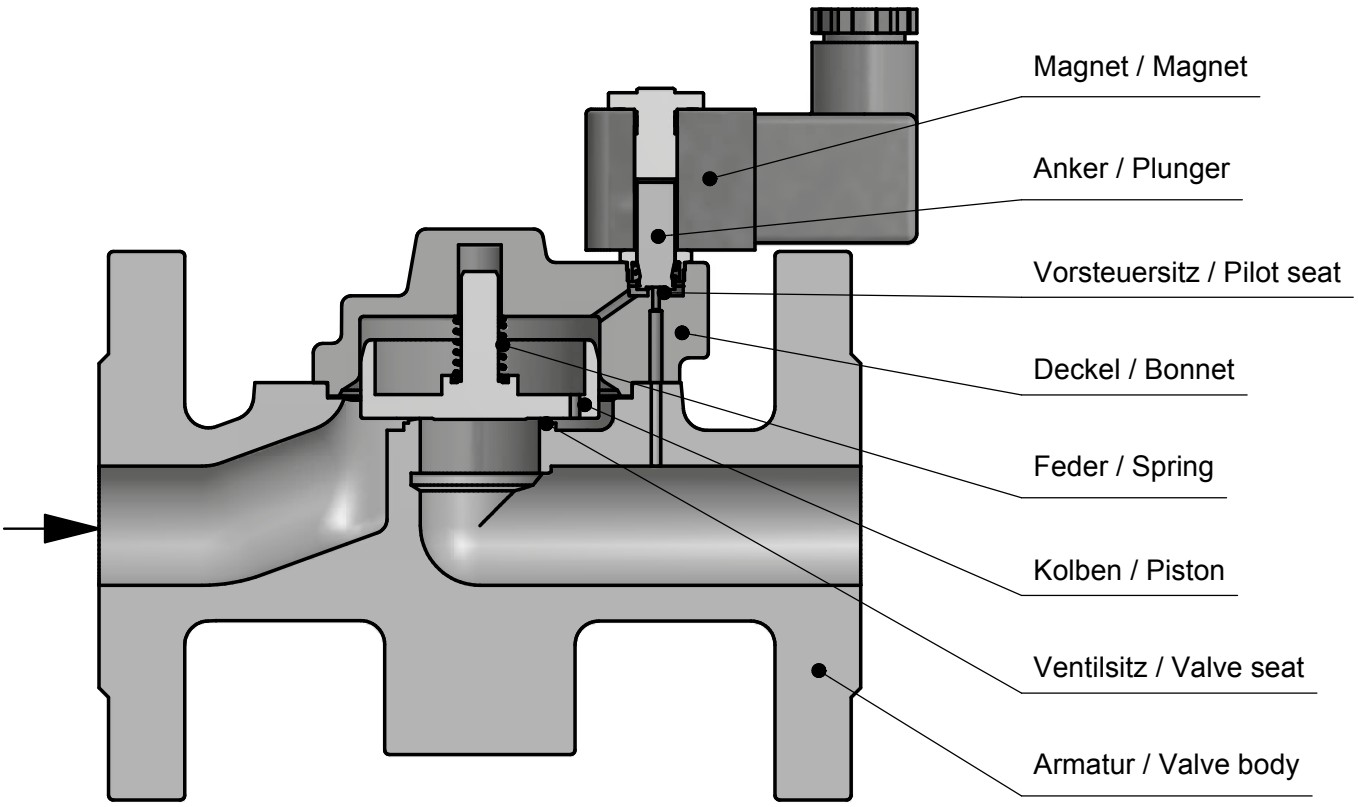
2	Standard IP65
8	explosion proof acc. to Directive 94/9/EG (ATEX)

Valve options

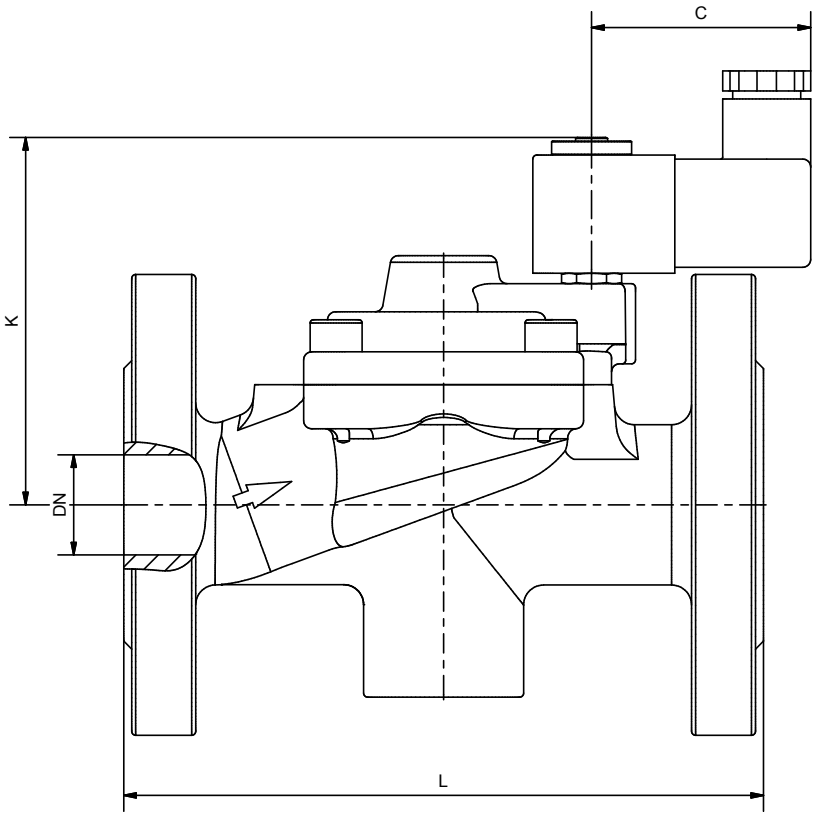
TECHNICAL FEATURES

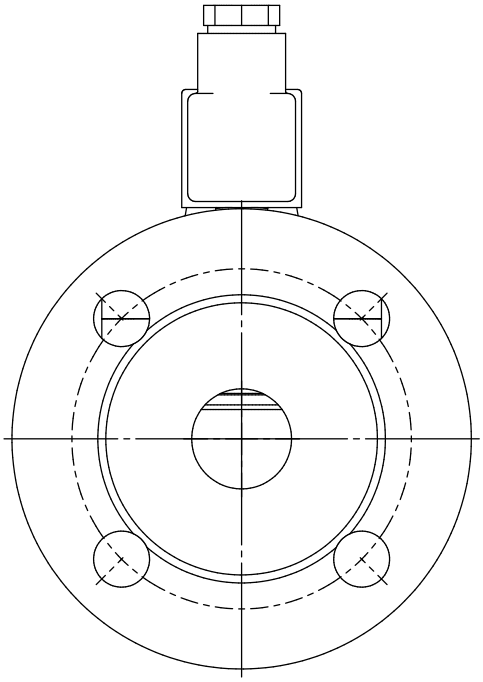
DN	Seat ø mm	Kv-value m³/h	Standard type	max. pressure			
						ATEX	
				.182	.032*	.148	.178
15	15	5,0	.5401/0.01/....	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-12
20	20	11,0	.5402/0.01/....	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-12
25	25	13,0	.5403/0.01/....	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-40 (0,5-16)	0,5-12
32	32	28,0	.5404/0.01/....	-	0,5-40 (0,5-16)	0,5-40 (0,5-16)	-
40	40	30,0	.5405/0.01/....	-	0,5-40 (0,5-16)	0,5-40 (0,5-16)	-
50	50	46,0	.5406/0.01/....	-	0,5-40 (0,5-16)	0,5-40 (0,5-16)	-

The flow rate mentioned in the table applies to the *marked coil.
Specifications in () are valid for EN-GJL-250 housing with PN16.



DIMENSIONS





Coil	.182			.032						.148					
Type	5401	5402	5403	5401	5402	5403	5404	5405	5406	5401	5402	5403	5404	5405	5406
DN	15	20	25	15	20	25	32	40	50	15	20	25	32	40	50
C	55	55	55	59	59	59	59	59	59	54	54	54	54	54	54
K	80	92	92	91	106	106	139	139	152	91	106	106	139	139	152
L	130	150	160	130	150	160	180	200	230	130	150	160	180	200	230
kg	2,5	3,6	4,2	2,5	3,6	4,2	7	7,5	10,7	2,5	3,6	4,2	7	7,5	10,2

Flange dimensions acc. to EN 1092-1 and DIN 3202-F1
*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 +40 °C. This specification applies for the maximum allowable operating pressure specified in the data sheet of the corresponding valve 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.

State: 11/2015, MK-MG, Version 2.

Technical Data Sheet
Type 25

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

Pilot operated piston design valve. 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 25

TECHNICAL SPECIFICATIONS

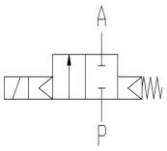
Type of control	Pilot operated, pressure difference required
Design	Piston design
Connection	Flanges acc. to EN 1092-1 Form B1/B2 Other flange connections like ASME on request
Installation	With actuator upright
Pressure	1 - 40 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -30 °C up to +80 °C Ambient: -30 °C up to +50 °C In consideration of the restrictions described on page 4
Body material	Cast steel GP240 GH
Metallic inner parts	Stainless steel
Sealing	PTFE
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.802 = 24Watt .808 = 24 Watt Ex .322 = 30 Watt .328 = 24 Watt Ex .242 = 46 Watt .248 = 30 Watt Ex .272 = 100 Watt .278 = 47 Watt Ex
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug, Terminal box
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

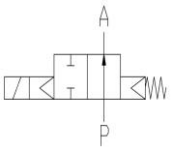
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type		Conn.		Housing	Seal		Coil		Option	
.	2 5	0 9	/	0 5	0 4	/	.	3 2 2	-	H A

Conn.	
07	DN 65
08	DN80
09	DN100
10	DN125
11	DN150
12	DN200
13	DN250

Housing	
05	GP240 GH

Seal	
04	PTFE

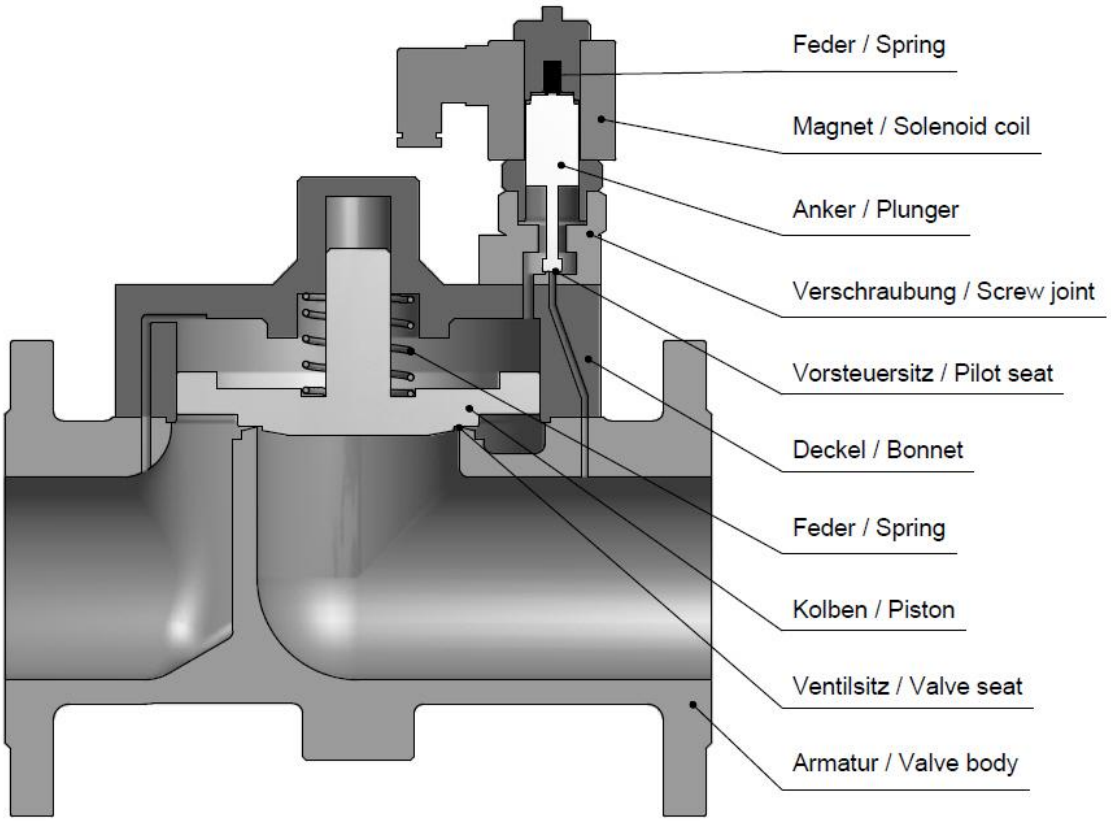
Coil	
2	Standard IP65
8	Explosion proof acc. to directive 2014/34/EU (ATEX)

TECHNICAL FEATURES

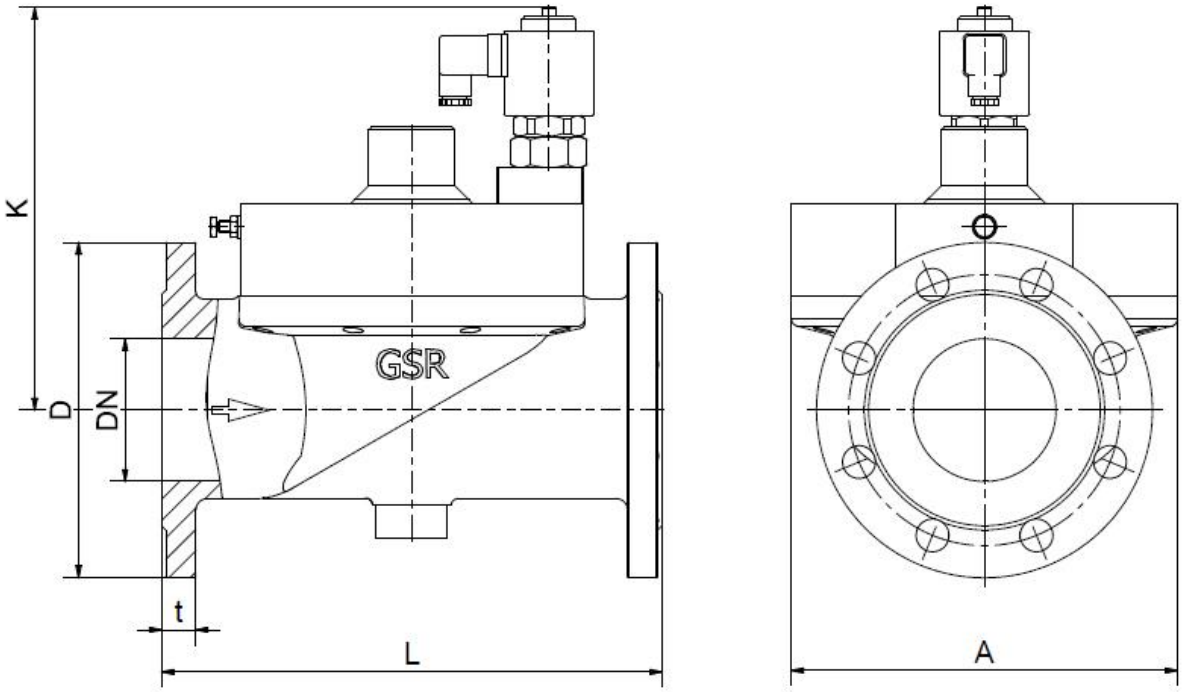
Type 25

			max. pressure for coils			
DN	Kv-value m³/h	Standard type	.802	.322	.242	.272
65	75,0	.2507/0504/	1-40	-	-	-
80	97,0	.2508/0504/	1-40	-	-	-
100	143,0	.2509/0504/	-	1-40	-	-
125	240,0	.2510/0504/	-	-	2-40	-
150	370,0	.2511/0504/	-	-	2-40	-
200	625,0	.2512/0504/	-	-	-	2-40
250	950,0	.2513/0504/	-	-	-	2-40

			max. pressure for coils ATEX			
DN	Kv-value m³/h	Standard type	.808	.328	.248	.278
65	75,0	.2507/0504/	1-40	-	-	-
80	97,0	.2508/0504/	1-40	-	-	-
100	143,0	.2509/0504/	-	1-25	-	-
125	240,0	.2510/0504/	-	-	2-16	-
150	370,0	.2511/0504/	-	-	2-16	-
200	625,0	.2512/0504/	-	-	-	2-16
250	950,0	.2513/0504/	-	-	-	2-16



DIMENSIONS



Coil	.802 /.808*		.322 / .328*	.242 / .248		.272 / .278	
Type	2507	2508	2509	2510	2511	2512	21513
DN	65	80	100	125	150	200	250
A	215	250	270	235	265	345	415
C	70	70	77	93	93	107	107
D	185	200	235	270	300	340	450
K	205	225	285	355	360	440	530
L	290	310	350	400	480	600	730
t	22	24	24	26	28	34	38
kg	27,5	38,4	53,4	54,7	75,1	148,9	235,8

*Differing dimension “C“ for ATEX-coils

INFORMATION

- It is imperative to observe the installation and safety instructions in our operating and service manuals.
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- 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.

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- 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.

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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.

Stand: 10.18, MK-MG, Version 1.