Technical Data Sheet
Type 52

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

Direct operated piston design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.
In standard (NC) the valve closes with spring power.

- **Solenoid valve for gaseous and liquid media**

Type 52

TECHNICAL SPECIFICATIONS

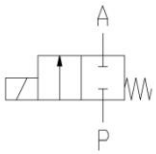
Type of control	Direct operated, no differential pressure necessary
Design	Piston design
Connection	Threaded G1/8 - G1/2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0 - 90 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. 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	Brass 2.0401 / 2.0402 Stainless steel 1.4305 Stainless steel 1.4571
Metallic inner parts	Brass and Stainless steel
Sealing	FKM, EPDM, 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 = 18,5 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

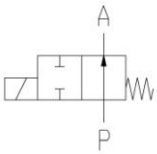
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing	Seal		Coil			Option	
.	5	2	4	1	/ 1	0	0	2	/ .	1	8	2	-	H	A

3 .	G 1/8
4 .	G 1/4
5 .	G 3/8
6 .	G 1/2
. 0	1.0 mm
. 1	1.5 mm
. 2	2.0 mm
. 3	2.5 mm
. 4	3.0 mm
. 5	4.0 mm
. 6	5.0 mm
. 7	6.0 mm

10	Brass 2.0402
06	St.st. 1.4305
08	St.st. 1.4571

02	FKM
04	PTFE
06	EPDM

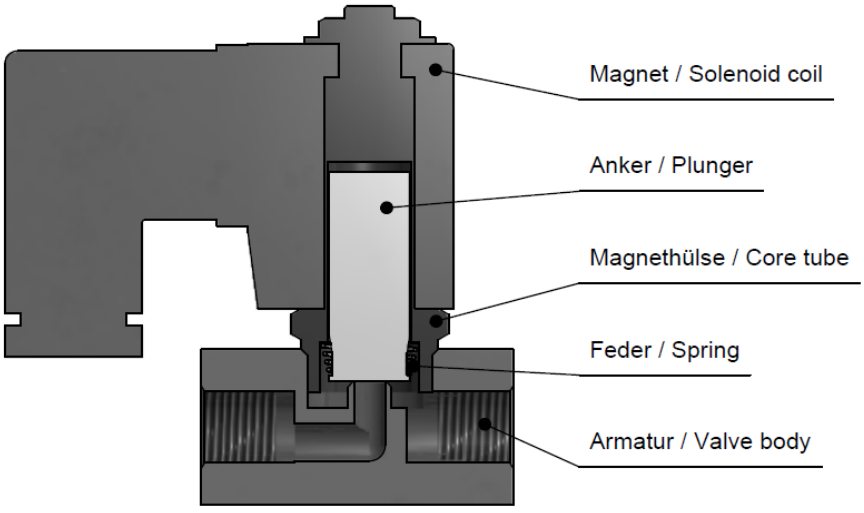
2	Standard IP65
8	Explosion proof acc. to directive 2014/34/EU (ATEX)

TECHNICAL FEATURES

Type 52

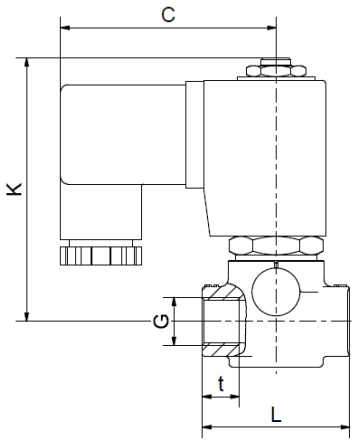
			max. pressure for coils NC			ATEX NC	
Seat Ø mm	Kv-value m³/h	Standard type	.182	.032	.012	.178	.148
1,0	0,06	.5240/..02/	0-50	0-90	0-90	0-20	0-90
1,5	0,09	.5241/..02/	0-30	0-85	0-90	0-16	0-90
2,0	0,13	.5242/..02/	0-15	0-40	0-90	0-10	0-55
2,5	0,16	.5243/..02/	0-8	0-22	0-45	0-6	0-28
3,0	0,20	.5244/..02/	-	0-15	0-30	-	0-20
4,0	0,35	.5245/..02/	-	0-8	0-16	-	0-10
5,0	0,50	.5246/..02/	-	0-5	0-10	-	0-6
6,0	0,75	.5247/..02/	-	0-4	0-8	-	0-5

			max. pressure for coils NO		ATEX NO
Seat Ø mm	Kv-value m³/h	Standard type	.032	.012	.148
1,0	0,06	.5240/..02/....-NO	0-25	0-90	0-40
1,5	0,09	.5241/..02/....-NO	0-12	0-40	0-20
2,0	0,13	.5242/..02/....-NO	0-12	0-22	0-12
2,5	0,16	.5243/..02/....-NO	0-9	0-14	0-5
3,0	0,20	.5244/..02/....-NO	0-7	0-10	0-2,5
4,0	0,35	.5245/..02/....-NO	-	0-5	0-2

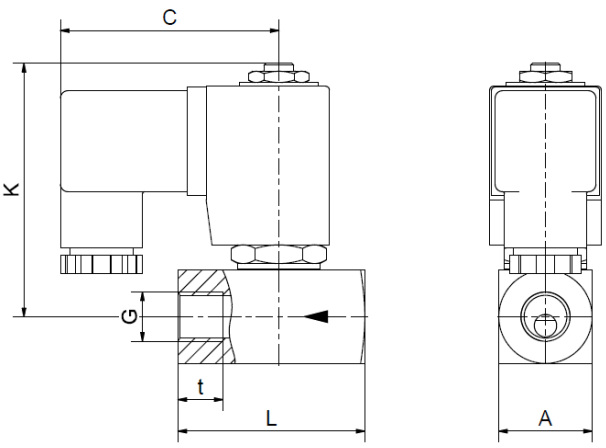


DIMENSIONS

Type .5230-35 / .5240-45 / Forged brass



Type .5230-37 /.5240-47 / Stainless steel

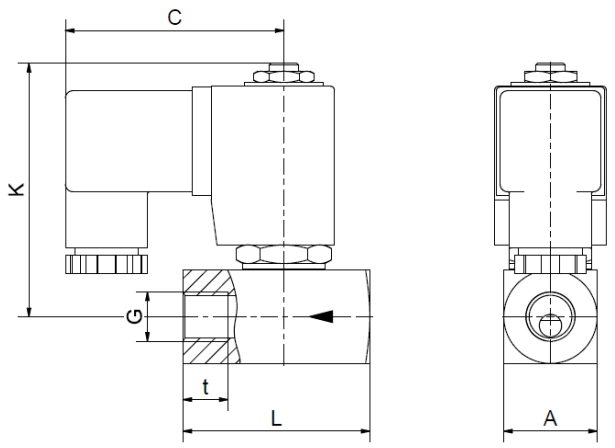


Coil	.182 / .178*	.032			.012 /.148*		
Type	.5230-33/	.5230-35/		.5236-37	.5230-35/		.5236-37
		2.0402	St. steel		2.0402	St. steel	
G	1/8	1/8	1/8	1/8	1/8	1/8	1/8
A	15	28	25	25	28	25	25
C	55	59	59	59	61	61	61
K	44	72	68	68	72	68	68
L	32	40	40	40	40	50	40
t	15	10	7	7	10	7	7
kg	0,2	0,4	0,45	0,5	0,4	0,45	0,6
*Differing dimension “C“ for ATEX-coils							

Coil	.182 /.178*	.032			.012 /.148*		
Type	.5240-43/	.5240-45/		.5246-37	.5240-45/		.5246-47
		2.0402	St. steel		2.0402	St. steel	
G	1/4	1/4	1/4	1/4	1/4	1/4	1/4
A	20	28	25	25	28	25	25
C	55	59	59	59	61	61	61
K	47	72	68	68	72	68	68
L	40	40	50	50	40	50	50
t	9	10	12	12	10	12	12
kg	0,25	0,4	0,5	0,55	0,5	0,6	0,65
*Differing dimension “C“ for ATEX-coils							

DIMENSIONS

Type .5250-57 / .5260-67



Coil	.182 / .178*	.032	.012 / .148*	.182 / .178*	.032	.012 /.148*
Type	.5250-53	.5250-57	.5250-57	.5260-63/	.5260-67	.5260-67
G	3/8	3/8	3/8	1/2	1/2	1/2
A	25	25	25	30	30	30
C	55	59	61	55	59	61
K	49	68	68	52	71	71
L	50	50	50	60	60	60
t	12	12	12	14	14	14
kg	0,35	0,45	0,55	0,35	0,6	0,7

*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: 05.18, MK-MG, Version 1.

Technical Data Sheet Type 72

3/2-way solenoid valve

NC - Valve normally closed (as standard)

NO - Valve normally open (as option)

Direct operated piston design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.

In standard (NC) the valve closes with spring power.

Solenoid valve for gaseous and liquid media

Type 72

TECHNICAL SPECIFICATIONS

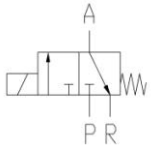
Type of control	Direct operated, no pressure difference necessary
Design	Piston design
Connection	Threaded G1/8 - G1/2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0 - 90 bar (see table on page 2)
Medium	Clean, neutral, gaseous and 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	Brass 2.0401 / 2.0402 Stainless steel 1.4305 Stainless steel 1.4571
Metallic inner parts	Messing und Edelstahl
Sealing	FKM, EPDM, 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 = 18,5 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug
Ex-proof	acc. to 2014/34/EG(ATEX) Further Ex-proof on request

VALVE FEATURES

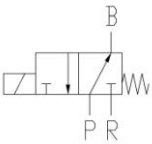
- No pressure difference required
- High life time
- Simple compact valve design
- Low weight
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non pressurized closed



NO – non-pressurized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing		Seal		Coil			Option	
.	7	2	3	1	/ 1	0	0	2	/ .	1	8	2	- H A

Conn.	
3.	G 1/8
4.	G 1/4
5.	G 3/8
6.	G 1/2
.0	1.0 mm
.1	1.5 mm
.2	2.0 mm
.3	2.5 mm
.4	3.0 mm

Housing	
06	St.steel 1.4305
08	St. steel 1.4571
10	Brass 2.0402

Seal	
02	FKM
04	PTFE
06	EPDM

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

TECHNICAL FEATURES

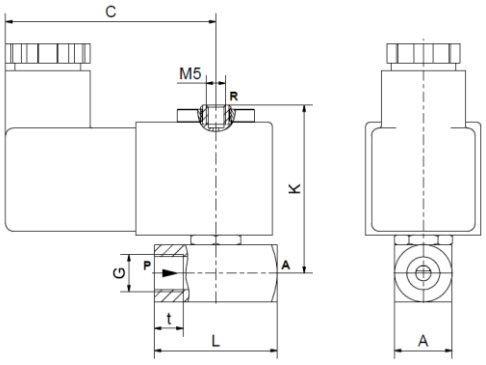
			max. pressure for coils				ATEX	
Seat Ø mm	Kv-value m³/h	Standard type	.182	.032	.012	.012-NO	.178	.148
1,0	0,06	.7230/1004/	-	-	0-90	-	-	-
1,0	0,06	.7230/1002/	0-10	0-25	0-50	0-25	0-10	0-20
1,5	0,09	.7231/1002/	0-8	0-15	0-25	0-15	0-5	0-10
2,0	0,13	.7232/1002/	0-6	0-11	0-22	0-11	0-3	0-8
2,5	0,16	.7233/1002/	-	0-8	0-15	0-8	-	0-6
3,0	0,20	.7234/1002/	-	0-6	0-10	0-5	-	0-3

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

DIMENSIONS

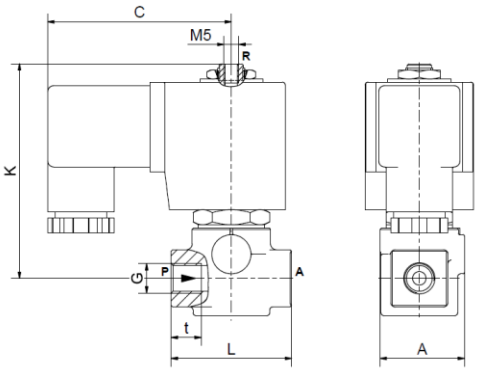
Design 1

Brass with coil .182 (.178) and all stainless steel variations



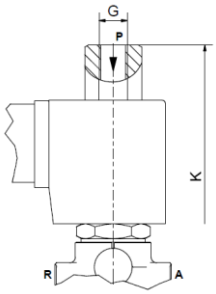
Design 2

Forged brass with coil .032 / .012 (.148)



Detail

NO - normally open



Coil	.182 / .178*	.032 / .148*	.012	.012-NO
Type	.7230-34	.7230-34	.7230-34	.7230-34
G	1/8	1/8	1/8	1/8
A	15	28	28	28
C	55	59	61	61
K	44	72	72	85
L	32	40	40	40
t	7,5	10	10	10
kg	0,2	0,4	0,5	0,55

*Differing dimension “C“ for ATEX-coils

Dimensions for connection sizes G1/4, G3/8 and G1/2 on request.

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: 07.17, MK-MG, Version 1.

Technical Data Sheet Type 75

3/2-way solenoid valve
NC - Valve normally closed (as standard)
NO - Valve normally open (as option)
UN - Universal design (as option)

Direct operated piston design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.
In standard (NC) the valve closes with spring power.

Solenoid valve for gaseous and liquid media

Type 75

TECHNICAL SPECIFICATIONS

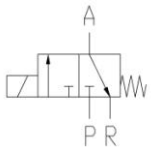
Type of control	Direct operated, no differential pressure necessary
Design	Piston design
Connection	Threaded G1/4 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	With actuator upright
Pressure	0 - 40 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
Viscosity	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	Brass 2.0402 Stainless steel 1.4408
Metallic inner parts	Brass and Stainless steel
Sealing	FKM
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.022 = 18,5 Watt .148 = 10 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

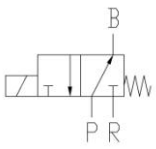
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non pressurized closed



NO – non-pressurized open



CERTIFICATES

ORDERING SYSTEM

Type					Conn.		Housing		Seal			Coil				Option	
.	7	5	4	0	/	1	0	0	2	/	.	0	1	2	-	U	N

Conn.	
4 .	G 1/4
. 0	1.0 mm
. 1	1.5 mm
. 2	2.0 mm
. 3	2.5 mm
. 4	3.0 mm
. 5	4.0 mm
. 6	5.0 mm

Housing	
10	Brass 2.0402
08	St.st. 1.4408

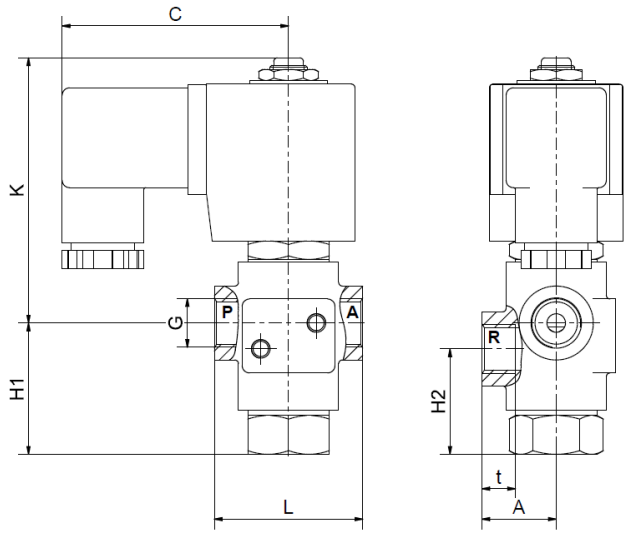
Seal	
02	FKM

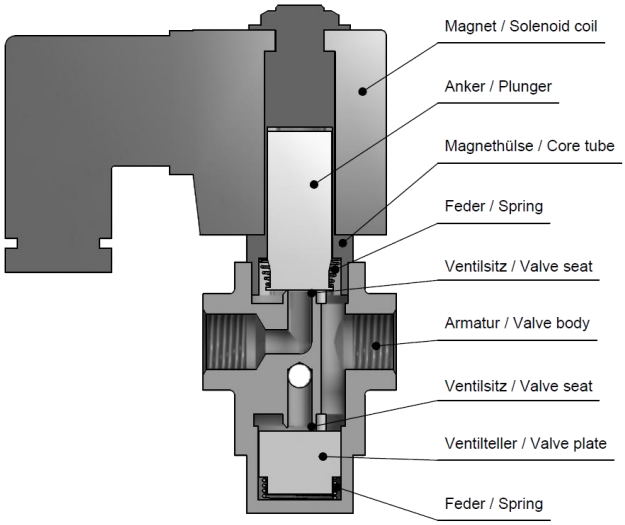
Coil	
2	Standard IP65
8	Explosion proof acc. to directive 2014/34/EU (ATEX)

TECHNICAL FEATURES

			max. pressure for coils NC		NO		UN	
Seat Ø mm	Kv-value m³/h	Standard type	.012	.148 ATEX	.012-NO	.148-NO ATEX	.012-UN	.148-UN ATEX
1,0	0,06	.7540/..02/	0-40	0-40	0-28	0-40	0-28	0-20
1,5	0,09	.7541/..02/	0-36	0-32	0-20	0-32	0-20	0-10
2,0	0,13	.7542/..02/	0-28	0-20	0-12	0-20	0-12	0-8
2,5	0,16	.7543/..02/	0-18	0-14	0-9	0-14	0-9	0-7
3,0	0,20	.7544/..02/	0-15	0-10	0-6,5	0-10	0-6,5	0-4
4,0	0,35	.7545/..02/	0-9	0-7	0-4	0-7	0-4	0-3
5,0	0,50	.7546/..02/	0-6	0-4	0-2,5	0-4	0-2,5	-

DIMENSIONS





Coil	.012 /.148*
Type	.7540-46/1002/
G	1/4
A	20
C	61
H1	36
H2	29
K	72
L	40
t	9
kg	0,7

*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.
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PLEASE NOTE

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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 1.

Technical Data Sheet Type 73

3/2-way solenoid valve

UN - Universal design

Direct operated poppet design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.

In standard (NC) the valve closes with spring power.

- **Solenoid valve for gaseous and liquid media**

Type 73

TECHNICAL SPECIFICATIONS

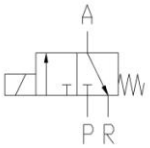
Type of control	Direct operated, no pressure difference necessary
Design	Poppet design
Connection	Threaded G1/4 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	With actuator upright
Pressure	0 - 20 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
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	Brass 2.0401 / 2.0402 Stainless steel 1.4571
Metallic inner parts	Brass and stainless steel
Sealing	NBR, FKM, EPDM, PTFE
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.012 = 18 Watt .808 = 24 Watt .322 = 30 Watt .328 = 24 Watt .242 = 46 Watt .248 = 30 Watt .272 = 100 Watt .278 = 47 Watt .352 = 150 Watt .358 = 75 Watt
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

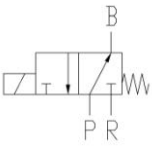
- No pressure difference required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non pressurized closed



NO – non-pressurized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing	Seal		Coil			Option	
.	7	3	2	3	/ 1	0	0	1	/ .	3	2	2	- H	A

Conn.	
47	G 1/4 6mm
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

Housing	
08	St. Steel 1.4571
10	Brass 2.0402

Seal	
01	NBR
02	FKM
04	PTFE
06	EPDM

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

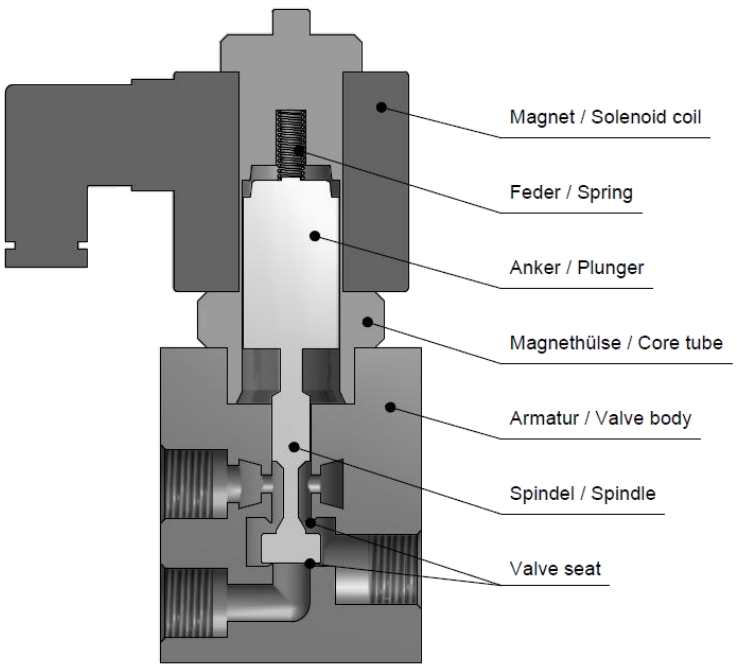
TECHNICAL FEATURES

				max. pressure for coils				
G	Seat Ø mm mm	Kv-value m³/h m³/h	Standard type	.012	.322	.242	.272	.352
1/4	6	0,5	.7347/..01/	0-8	-	-	-	-
1/4	11	0,8	.7321/..01/	-	0-10	0-20	-	-
3/8	11	1,0	.7322/..01/	-	0-10	0-20	-	-
1/2	11	1,2	.7323/..01/	-	0-10	0-20	-	-
3/4	22	5,3	.7324/..01/	-	0-1	0-10	0-20	-
1	22	5,3	.7325/..01/	-	0-1	0-10	0-20	-
1 1/4	32	21,0	.7326/..01/	-	-	0-1	0-10	0-15
1 1/2	32	21,0	.7327/..01/	-	-	0-1	0-10	0-15
2	40	29,0	.7328/..01/	-	-	-	0-3	0-8

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

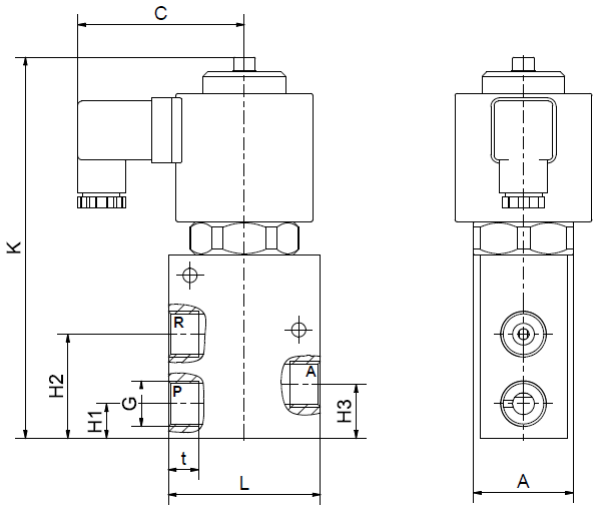
				max. pressure for coils ATEX				
G	Seat Ø mm mm	Kv-value m³/h m³/h	Standard type	.808	.328	.248	.278	.358
1/4	6	0,5	.7347/..01/	0-10	-	-	-	-
1/4	11	0,8	.7321/..01/	-	0-4	0-10	-	-
3/8	11	1,0	.7322/..01/	-	0-4	0-10	-	-
1/2	11	1,2	.7323/..01/	-	0-4	0-10	-	-
3/4	22	5,3	.7324/..01/	-	-	0-1	0-10	-
1	22	5,3	.7325/..01/	-	-	0-1	0-10	-
1 1/4	32	21,0	.7326/..01/	-	-	-	0-5	0-10
1 1/2	32	21,0	.7327/..01/	-	-	-	0-5	0-10
2	40	29,0	.7328/..01/	-	-	-	-	0-5

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

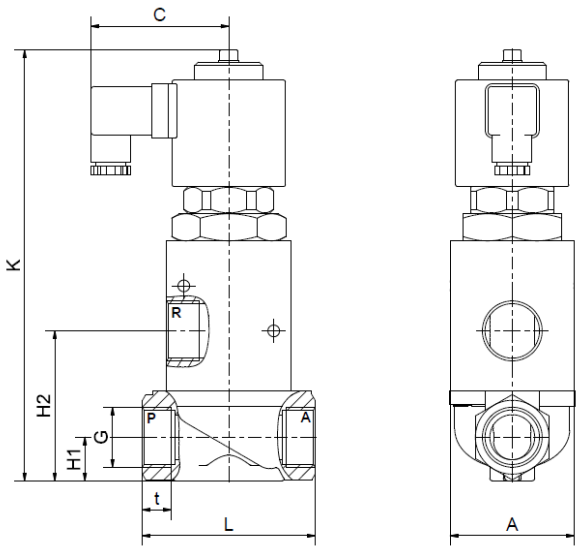


DIMENSIONS

Type .7347 / .7321-23



Type .7324-28



Coil	.012	.808	.322 / .328*		.242 / .248		
Type	.7347	.7347	.7321-23	.7324-25	.7321-23	.7324-25	.7326-27
G	1/4	1/4	1/4 - 1/2	3/4 - 1	1/4 - 1/2	3/4 - 1	1 1/4 - 1 1/2
A	30	35	50	69	59	96	98
C	61	75	77	77	93	93	93
H1	12,5	11,5	16	24,2	16	24,2	32,5
H2	23,5	22	48	83,2	48	83,2	116,5
H3	35,5	34,5	25	-	25	-	-
K	102	118	176	240	222	250	306
L	55	60	70	96	70	96	140
t	12	12	12	16	12	16	22
kg	1,0	1,7	3,2	5,4	4,7	6,4	12,0

*Differing dimension “C“ for ATEX-coils

Coil	.272/.278			.352 / .358	
Type	.7324-25	.7326-27	.7328	.7326-27	.7328
G	3/4 - 1	1 1/4 - 1 1/2	2	1 1/4 - 1 1/2	2
A	69	98	110	98	110
C	107	107	107	127	127
H1	24,2	32,5	38,5	32,5	38,5
H2	83,2	116,5	140,5	116,5	140,5
K	272	323	370	381	421
L	96	140	168	140	168
t	16	22	22	22	22
kg	10,0	15,1	18,5	26,4	29,1

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: 07.17, MK-MG, Version 1.

Technical Data Sheet Type 48

2/2-way solenoid valve

NC - Valve normally closed (as standard)

NO - Valve normally open (as option)

Direct operated piston design. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.

In standard (NC) the valve closes with spring power.

Solenoid valve for gaseous and liquid media

Type 48

TECHNICAL SPECIFICATIONS

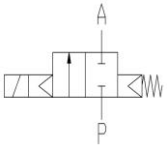
Type of control:	Direct operated, no pressure difference required
Design:	Poppet design
Connection:	Threaded Rp3/8 - Rp3 DIN 2999 (BSP) Other connections like NPT on request
Installation:	Actuator in upright position Lying position of actuator on request
Pressure:	0-5 bar (see table page 2)
Medium:	Clean, neutral, gaseous and liquid medium
Viscosity:	22 mm²/s
Temperature range:	Medium: -40 °C bis +80 °C Ambient: -40 °C bis +50 °C In consideration of the restrictions described on page 4
Body material:	Brass 2.0402 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 Other supply voltages on request
Voltage tolerance:	-10% / +10%
Power consumption:	.012 = 18 W .148 = 10 W Ex .802 = 24 W .808 = 24 W Ex .322 = 30 W .328 = 24 W Ex .242 = 46 W .248 = 30 W Ex .272 = 100 W .278 = 47 W Ex .352 = 150 W .358 = 75 W Ex
Protection class:	IP65 according to DIN EN 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

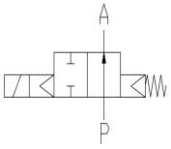
- No pressure difference required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Valve type											Coil system			Valve options	
.	4	8	2	3	/	1	0	0	1	/	.	8	0	2	-	H	A

Connection	
58	G 3/8
59	G 3/8
68	G 1/2
69	G 1/2
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	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

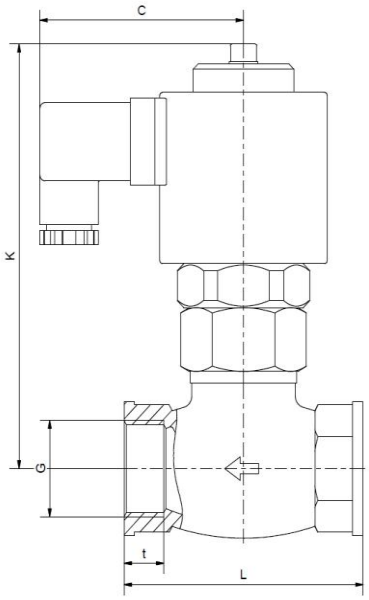
				max. pressure for coils					
Rp	Seat mm	Kv-value m³/h	Standard type	.012	.802	.322	.242	.272	.352
3/8	8	1,2	.4858/..01/...	0-3	0-5	-	-	-	-
3/8	10	2,1	.4859/..01/...	0-2	0-3	-	-	-	-
1/2	8	1,2	.4868/..01/...	0-3	0-5	-	-	-	-
1/2	10	2,1	.4869/..01/...	0-2	0-3	-	-	-	-
1/2	13	3,2	.4823/..01/...	-	0-1	0-2	0-5	-	-
3/4	18	4,9	.4824/..01/...	-	0-0,5	0-1	0,2,5	0-5	-
1	24	8,5	.4825/..01/...	-	0-0,3	0-0,5	0-1	0-1,6	-
1 1/4	29	15,0	.4826/..01/...	-	-	0-0,3	0-0,6	0-1	-
1 1/2	35	20,0	.4827/..01/...	-	-	0-0,1	0-0,3	0-0,5	0-0,8
2	45	30,0	.4828/..01/...	-	-	-	0-0,15	0-0,4	0-1
2 1/2	62	58,0	.4829/1001/...	-	-	-	-	0-0,15	0-0,4
3	75	60,0	.4830/1001/...	-	-	-	-	0-0,1	0-0,3

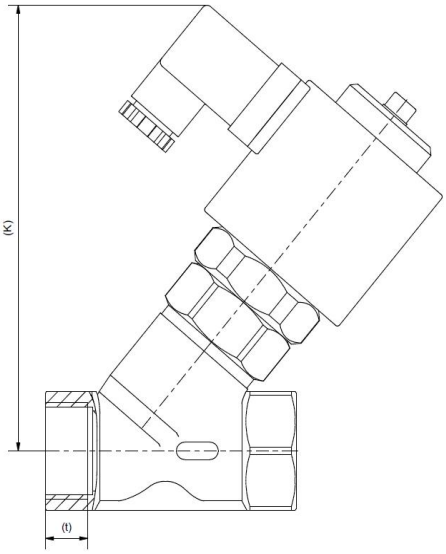
The flow rate mentioned in the table applies to the strongest coil.

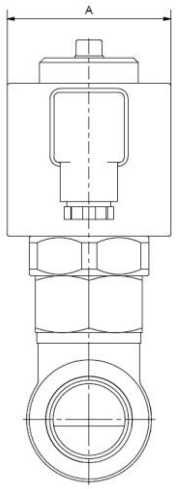
				max. pressure for ATEX-coils					
Rp	Seat mm	Kv-value m³/h	Standard type	.148	.808	.328	.248	.278	.358
3/8	8	1,2	.4858/..01/...	0-1	0-5	-	-	-	-
3/8	10	2,1	.4859/..01/...	0-0,5	0-3	-	-	-	-
1/2	8	1,2	.4868/..01/...	0-1	0-5	-	-	-	-
1/2	10	2,1	.4869/..01/...	0-0,5	0-3	-	-	-	-
1/2	13	3,2	.4823/..01/...	-	0-1	-	-	-	-
3/4	18	4,9	.4824/..01/...	-	0-0,5	0-0,8	-	-	-
1	24	8,5	.4825/..01/...	-	0-0,3	0-0,5	0-0,7	0-1	-
1 1/4	29	15,0	.4826/..01/...	-	-	0-0,1	0-0,3	0-0,8	-
1 1/2	35	20,0	.4827/..01/...	-	-	-	0-0,2	0-0,3	-
2	45	30,0	.4828/..01/...	-	-	-	-	0-0,2	0-0,35
2 1/2	62	58,0	.4829/1001/...	-	-	-	-	-	0-0,15
3	75	60,0	.4830/1001/...	-	-	-	-	-	0-0,1

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

DIMENSIONS







Magnet	.012/.148*		.802/.808*				.322/.328*				
Type	4858-59	4868-69	4858-69	4823	4824	4825	4823	4824	4825	4826	4827
G	3/8	1/2	3/8-1/2	1/2	3/4	1	1/2	3/4	1	1 1/4	1 1/2
A	36	36	50	50	50	50	63	63	63	63	63
C	61	61	70	70	70	70	77	77	77	77	77
K	75	75	92	107 (125)	113 (129)	117 (133)	137 (145)	139 (152)	147 (154)	149 (160)	144 (164)
L	54	54	54	65	75	90	65	75	90	110	120
t	10	10	10	11 (12)	12 (13)	14 (15)	11 (12)	12 (13)	14 (15)	16 (17)	18 (19)
kg	0,6	0,6	1	1,1	1,2	1,5	2	2	2,3	2,6	3

Values in brackets apply to the stainless steel angle seat version

*Differing dimension “C“ for ATEX-coils

Magnet	.242/.248					.272/.278					
Type	4824	4825	4826	4827	4828	4825	4826	4827	4828	4829	4830
G	3/4	1	1 1/4	1 1/2	2	1	1 1/4	1 1/2	2	2 1/2	3
A	77	77	77	77	77	105	105	105	105	105	105
C	93	93	93	93	93	107	107	107	107	107	107
K	166 (179)	165 (184)	170 (192)	180 (190)	178 (203)	197 (207)	200 (210)	203 (231)	211 (225)	217	223
L	75	90	110	120	150	90	110	120	150	175	200
t	12 (13)	14 (15)	16 (17)	18 (19)	20 (21)	14 (15)	16 (17)	18 (19)	20 (21)	19	22
kg	3,4 (3,5)	4,0 (3,7)	4,2 (4,3)	4,6 (4,5)	5,3 (5,7)	7,7 (7,8)	7,8 (8,2)	8,3 (8,8)	9,1 (9,8)	10,6	12,9

Values in brackets apply to the stainless steel angle seat version

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: 07.17, MK-MG, Version 1.

Technical Data Sheet
Type 2/918

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

Direct operated coaxial valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.
In standard (NC) the valve closes with spring power.

- **Solenoid valve for gaseous and liquid media**

Type 2/918

TECHNICAL SPECIFICATIONS

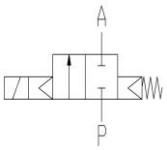
Type of control	Direct operated, no differential pressure necessary
Design	Coaxial-valve
Connection	Threaded G3/8 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0 - 100 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max .viscosity	ca. 1500 mm²/s
Temperature range	Medium: -10 °C up to +100 °C Ambient: -10 °C up to +50 °C
Body material	Brass 2.0401 Stainless steel1.4305
Metallic inner parts	Brass and Stainless steel
Sealing	FKM and PTFE
Supply voltage	AC~ 230V DC= 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	see table on page 2
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug

VALVE FEATURES

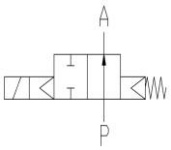
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



ORDERING SYSTEM

Type					Connect.		Housing	Seal		Actuator			
2	/	9	1	8	-	2 3	-	1 0	0 2	-	R	2	7	0

Connect.	
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

Housing	
06	Stainless steel 1.4305
10	Brass 2.0401

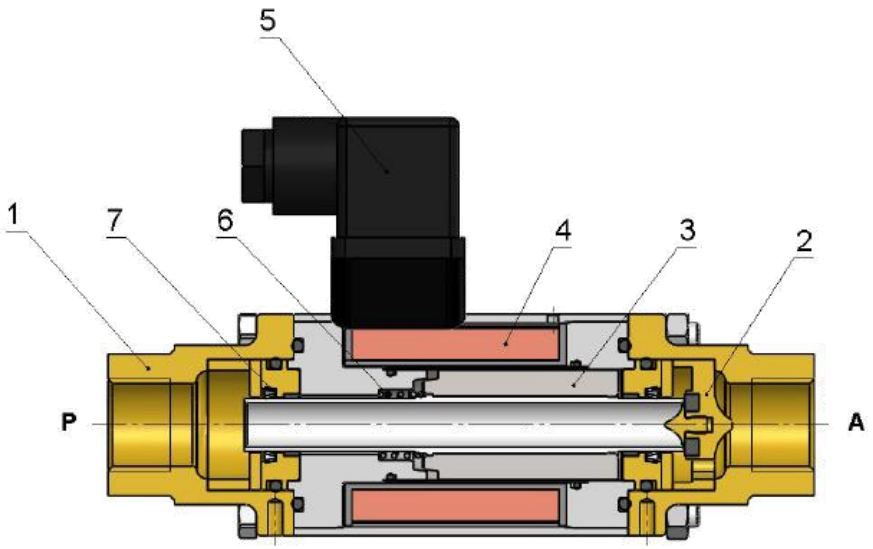
Seal	
02	FKM

TECHNICAL FEATURES

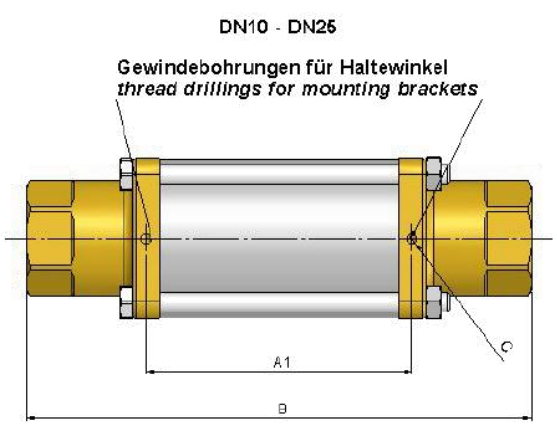
				Actuator R270	Consumption [Watt]	
G	Seat Ø mm	Kv-value m³/h	Standard type	max. pressure [bar]	24 VDC	230 V 50/60Hz
3/8	15	5,2	2/918-22-..02-	0-40	40	45
1/2	15	5,2	2/918-23-..02-	0-40	40	45
3/4	20	7,0	2/918-24-..02-	0-40	45	53
1	25	12,3	2/918-25-..02-	0-40	60	68
1 1/4	32	20,0	2/918-26-..02-	0-40	73	76
1 1/2	40	45,7	2/918-27-..02-	0-16	73	91
2	50	47,2	2/918-28-..02-	0-16	73	91

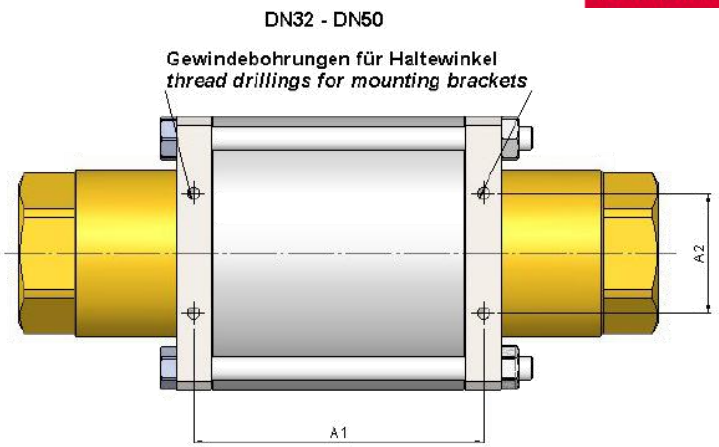
				Actuator R271	Actuator R272	Consumption [Watt]	
G	Seat Ø mm	Kv-value m³/h	Standard type	max. pressure [bar]	max. pressure [bar]	24 VDC	230 V 50/60Hz
3/8	15	5,2	2/918-22-..02-	0-64	0-100	50	55
1/2	15	5,2	2/918-23-..02-	0-64	0-100	50	55
3/4	20	7,0	2/918-24-..02-	0-64	0-100	53	59
1	25	12,3	2/918-25-..02-	0-64	0-100	53	59
1 1/4	32	20,0	2/918-26-..02-	0-64	0-100	73	76

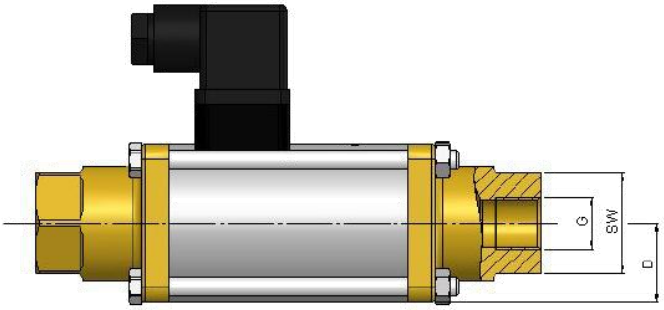
Pos.	Part
1	Connection
2	Seat
3	Plunger
4	Solenoid coil
5	Plug
6	Spring
7	Seal

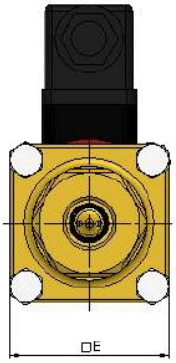


DIMENSIONS









Type	2/918-22	2/918-23	2/918-24	2/918-25	2/918-26	2/918-27	2/918-28
G	3/8	1/2	3/4	1	1 1/4	1 1/2	2
SW	41	41	46	55	60	75	75
A1	100	100	108	121	122	131	131
A2	-	-	-	-	50	60	60
B	184	184	215	246	269	304	304
C	M5	M5	M5	M5	M6	M6	M6
D	35	35	40	45	57,5	65	65
E	70	70	80	90	115	130	130

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.

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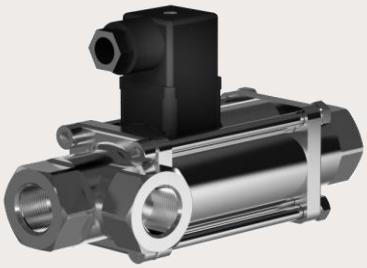
Stand: 06.19, MK-MG, Version 1.



Technical Data Sheet
Type 3/918

3/2-way solenoid valve
NC - Valve normally closed (as standard)
NO - Valve normally open (as option)

Direct operated coaxial valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.
In standard (NC) the valve closes with spring power.

- **Solenoid valve for gaseous and liquid media**

Type 3/918

TECHNICAL SPECIFICATIONS

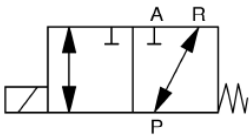
Type of control	Direct operated, no differential pressure necessary
Design	Coaxial-valve
Connection	Threaded G3/8 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0 - 64 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	ca. 1500 mm²/s
Temperature range	Medium: -10 °C up to +100 °C Ambient: -10 °C up to +50 °C
Body material	Brass 2.0401 Stainless steel1.4305
Metallic inner parts	Brass and Stainless steel
Sealing	FKM and PTFE
Supply voltage	AC~ 230V DC= 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	see table on page 2
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug

VALVE FEATURES

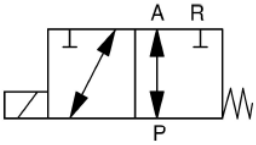
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non pressurized closed



NO – non-pressurized open



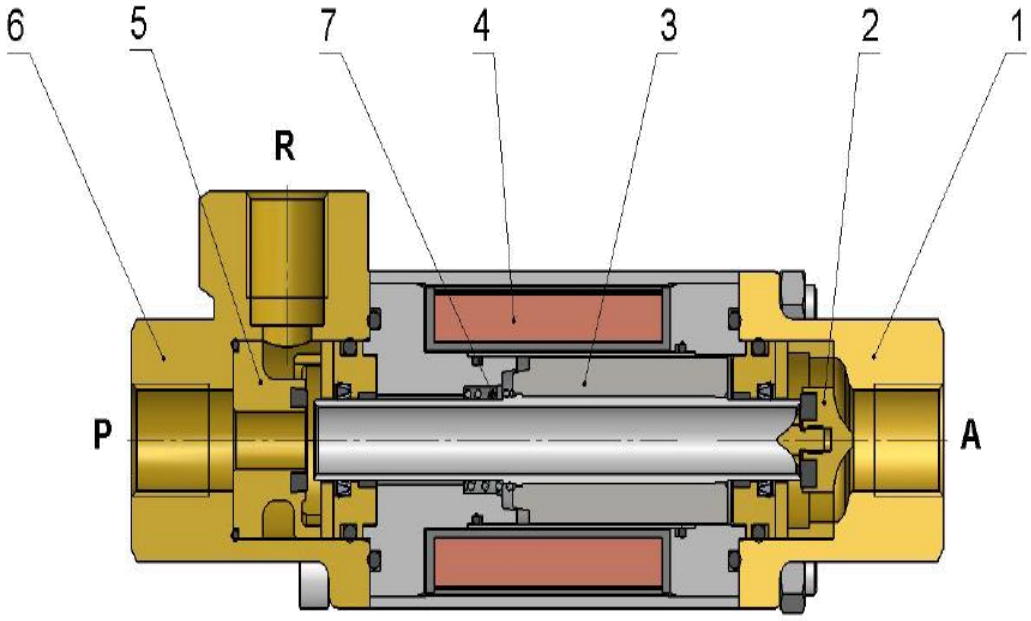
ORDERING SYSTEM

Type					Connect.		Housing	Seal		Actuator			
3	/	9	1	8	-	2 3	-	1 0	0 2	-	R	3	7	0

Connect.		Housing		Seal	
22	G 3/8	06	Stainless steel 1.4305	02	FKM
23	G 1/2	10	Brass 2.0401		
24	G 3/4				
25	G 1				
26	G 1 1/4				
27	G 1 1/2				
28	G 2				

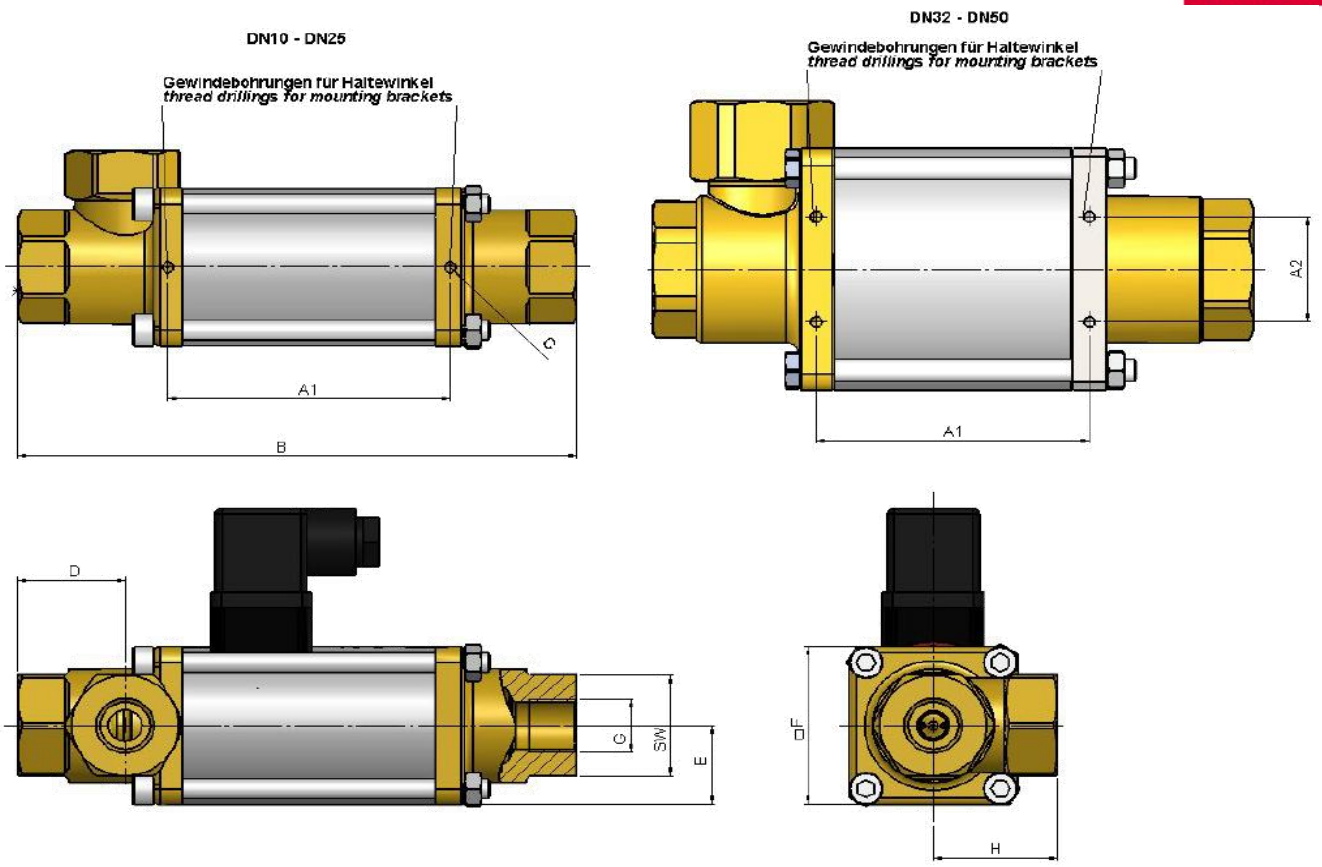
TECHNICAL FEATURES

				Actuator R370	Actuator R371	Consumption [Watt] R370 / R371	
G	Seat Ø mm	Kv-value m³/h	Standard type	max. pressure [bar]	max. pressure [bar]	24 VDC	230 V 50/60Hz
3/8	15	5,6	3/918-22-..02-	0-40	0-64	40 / 50	45 / 55
1/2	15	5,6	3/918-23-..02-	0-40	0-64	40 / 50	45 / 55
3/4	20	8,0	3/918-24-..02-	0-40	0-64	45 / 53	53 / 59
1	25	11,5	3/918-25-..02-	0-40	0-64	60 / 77	68 / 85
1 1/4	32	17,9	3/918-26-..02-	0-40	0-64	73 / 73	76 / 76
1 1/2	40	41,5	3/918-27-..02-	0-16	-	73 / -	90 / -
2	50	43,0	3/918-28-..02-	0-16	-	73 / -	90 / -



Pos.	Part
1	2/2-way connection
2	2/2-way seat
3	Plunger
4	Solenoid coil
5	3/2-way seat
6	3/2-way connection
7	Spring

DIMENSIONS



Type	3/918-22	3/918-23	3/918-24	3/918-25	3/918-26	3/918-27	3/918-28
G	3/8	1/2	3/4	1	1 1/4	1 1/2	2
SW	41	41	46	55	60	75	75
A1	100	100	108	121	122	131	131
A2	-	-	-	-	50	60	60
B	200	200	228	252	269	304	304
C	M5	M5	M5	M5	M6	M6	M6
D	38,5	38,5	45,5	48	49,5	56,5	56,5
E	35	35	40	45	57,5	65	65
F	70	70	80	90	115	130	130
H	60	60	72	80	80	84	84

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.

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- Subject to error and changes.

Stand: 09.19, MK-MG, Version 1.

Technical Data Sheet Type 48FL

2/2-way solenoid valve

NC - Valve normally closed (as standard)

NO - Valve normally open (as option)

Direct operated poppet design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.

In standard (NC) the valve closes with spring power.

Solenoid valve for gaseous and liquid media

Type 48FL

TECHNICAL SPECIFICATIONS

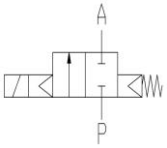
Type of control	Direct operated, no differential pressure necessary
Design	Poppet design
Connection	Flanges DN15 - DN80 EN 1092-1 Form B1/B2 Larger nominal sizes on request
Installation	With actuator upright
Pressure	0 - 3 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. 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	Stainless steel 1.4408
Metallic inner parts	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	.012 = 18 Watt .148 = 10 Watt .802 = 24 Watt .808 = 24 Watt .322 = 30 Watt .328 = 24 Watt .242 = 46 Watt .248 = 30 Watt .272 = 100 Watt .278 = 47 Watt .352 = 150 Watt .358 = 75 Watt
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

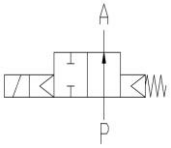
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing	Seal		Coil			Option	
.	4	8	2	5	/ 0 8	0	1	/ .	2	4	2	- F L

Conn.	
23	DN15
24	DN20
25	DN25
26	DN32
27	DN40
28	DN50
29	DN65
30	DN80

Housing	
08	St. steel 1.4408

Seal	
01	NBR
02	FKM
04	PTFE
06	EPDM

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

Option	
FL	DIN flanged
AF	ANSI flanged

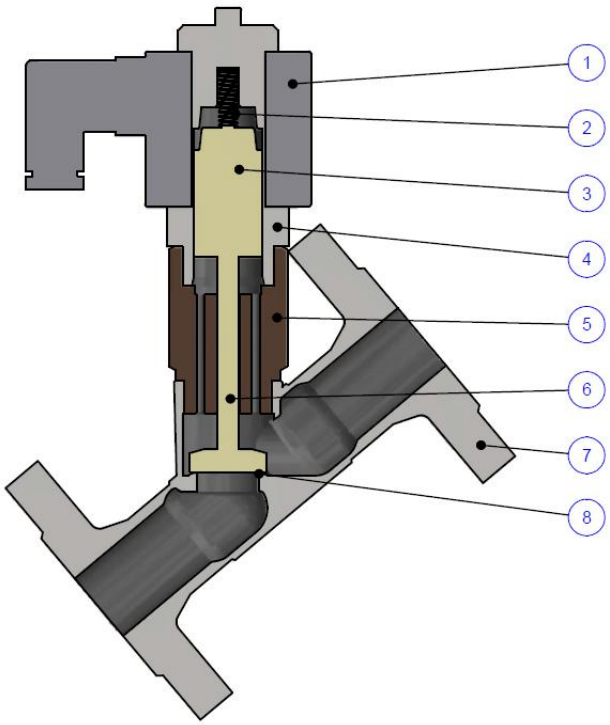
TECHNICAL FEATURES

				max. pressure for coils					
DN	Seat Ø mm	Kv-value m³/h	Standard type	.012-FL	.802-FL	.322-FL	.242-FL	.272-FL	.352-FL
15	13	3,2	.4823/0801/	0-0,5	0-1	0-3	-	-	-
20	18	4,9	.4824/0801/	0-0,1	0-0,4	0-1	0-2	-	-
25	24	8,5	.4825/0801/	-	0-0,2	0-0,5	0-1	0-2	-
32	29	15,0	.4826/0801/	-	-	0-0,3	0-0,5	0-1	-
40	35	20,0	.4827/0801/	-	-	-	0-0,3	0-0,5	-
50	45	30,0	.4828/0801/	-	-	-	0-0,15	0-0,3	0-0,8
65	62	58,0	.4829/0801/	-	-	-	-	0-0,15	0-0,4
80	75	60,0	.4830/0801/	-	-	-	-	0-0,1	0-0,3

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

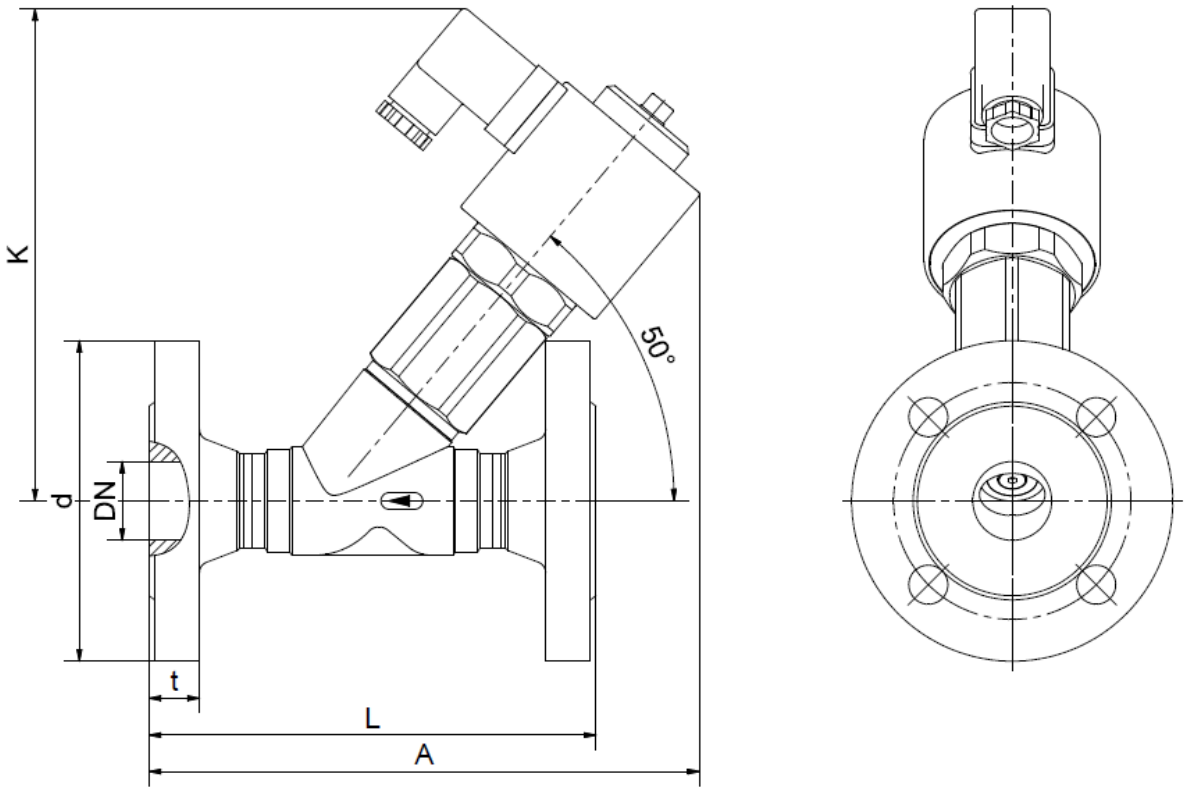
				max. pressure for coils ATEX					
DN	Seat Ø mm	Kv-value m³/h	Standard type	.148-FL	.808-FL	.328-FL	.248-FL	.278-FL	.358-FL
15	13	3,2	.4823/0801/	0-0,2	0-1	0-1	-	-	-
20	18	4,9	.4824/0801/	-	0-0,4	0-0,5	0-1,2	-	-
25	24	8,5	.4825/0801/	-	0-0,2	0-0,5	0-0,7	0-1	-
32	29	15,0	.4826/0801/	-	-	0-0,2	0-0,3	0-0,5	-
40	35	20,0	.4827/0801/	-	-	-	0-0,2	0-0,3	-
50	45	30,0	.4828/0801/	-	-	-	-	0-0,2	0-0,4
65	62	58,0	.4829/0801/	-	-	-	-	-	0-0,15
80	75	60,0	.4830/0801/	-	-	-	-	-	0-0,15

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



Description	
1	Solenoid coil
2	Spring
3	Plunger
4	Tube
5	Spacer
6	Spindle
7	Valve body
8	Valve seat

DIMENSIONS



Coil	.012 /.148*		.802 / .808*			.322 / .328*				.242 / .248		
Type	.4823	.4824	.4825	.4826	.4827	.4823	.4824	.4825	.4826	.4824	.4825	.4826
DN	15	20	15	20	25	15	20	25	32	20	25	32
A	150	150	178	187	187	194	204	198	210	228	232	245
C	61	61	70	70	70	77	77	77	77	93	93	93
d	95	105	95	105	115	95	105	115	140	105	115	140
K	135	120	167	169	165	185	187	177	185	220	223	233
L	130	150	130	150	160	130	150	160	180	150	160	180
t	16	18	16	18	18	16	18	18	18	18	18	18
kg	2,3	3,1	2,8	3,5	4,1	3,5	4,3	5,1	6,0	5,8	6,6	8,0

*Differing dimension “K“ for ATEX-coils

Coil	.242 / .248		.272 / .278						.352 / .358		
Type	.4827	.4828	.4825	.4826	.4827	.4828	.4829*	.4830*	.4828	.4829*	.4830*
DN	40	50	25	32	40	50	65	80	50	65	80
A	240	256	262	275	287	290	-	-	on req	-	-
C	93	93	107	107	107	107	107	107	127	127	127
d	150	165	115	140	150	165	185	200	165	185	200
K	215	223	250	260	265	255	on req	on req	on req	on req	on req
L	200	230	160	180	200	230	290	310	230	290	310
t	18	20	18	18	18	20	22	24	20	22	24
kg	9,0	11,0	10,2	11,7	12,7	14,7	on req	on req	on req	on req	on req

*** .4807 and .4808 with straight seated body design**

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.

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: 07.18, MK-MG, Version 1.

Technical Data Sheet Type 23

2/2-way solenoid valve

NC - Valve normally closed (as standard)

NO - Valve normally open (as option)

Direct operated piston design valve. No differential pressure is necessary for operation. When energized, the valve seat is opened directly.

In standard (NC) the valve closes with spring power.

- **Solenoid valve for gaseous and liquid media**

Type 23

TECHNICAL SPECIFICATIONS

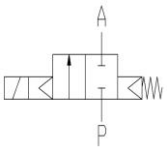
Type of control	Direct operated
Design	Piston design
Connection	Flanges DN15 - DN100 EN 1092-1 Form B1/B2
Installation	With actuator upright
Pressure	0 - 1,4 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -10 °C up to +80 °C 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
Metallic inner parts	Brass and Stainless steel
Sealing	NBR, FKM, EPDM, PTFE
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.802 = 24 Watt .808 = 24 Watt Ex .322 = 30 Watt .328 = 23 Watt Ex .242 = 46 Watt .248 = 30 Watt Ex .272 = 100 Watt .278 = 47 Watt Ex .352 = 150 Watt .358 = 75 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

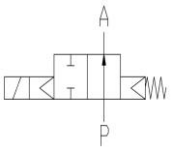
- No pressure difference required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type			Conn.		Housing		Seal		Coil			
.	2	3	0	6	/	0	4	0	1	/	.	2	4	2

Conn.	
01	DN15
02	DN20
03	DN25
04	DN32
05	DN40
06	DN50
07	DN65
08	DN80
09	DN100

Housing	
04	EN-GJL-250
05	GP240 GH

Seal	
01	NBR
02	FKM
04	PTFE
06	EPDM

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

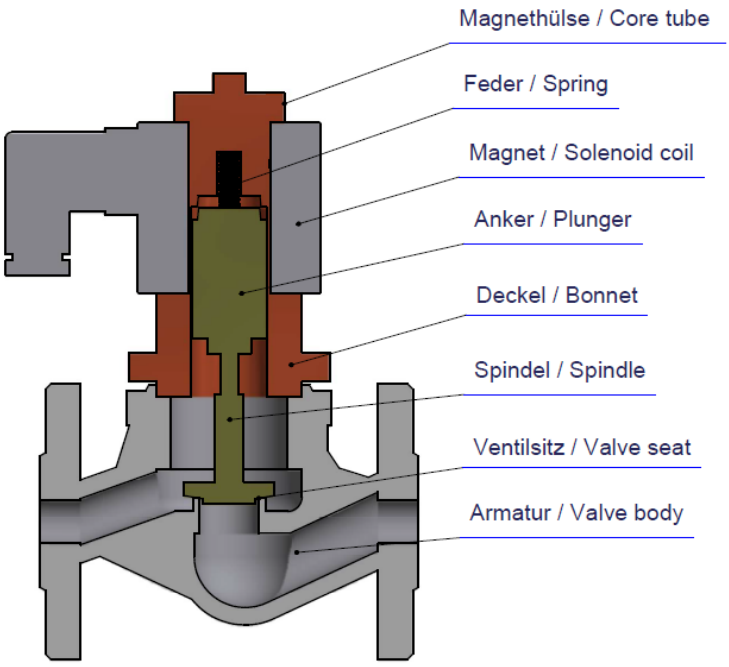
TECHNICAL FEATURES

			max. pressure for coils				
DN	Kv-value m³/h	Standard type	.802	.322	.242	.272	.352
15	7,0	.2301/0501/	0-0,4	0-1,4	-	-	-
20	9,0	.2302/..01/	0-0,4	0-1	-	-	-
25	12,0	.2303/..01/	-	0-0,4	0-1	-	-
32	18,0	.2304/..01/	-	0-0,25	0-0,6	-	-
40	26,0	.2305/..01/	-	0-0,1	0-0,25	-	-
50	38,0	.2306/..01/	-	-	0-0,1	0-0,3	-
65	75,0	.2307/..01/	-	-	-	0-0,15	0-0,4
80	89,0	.2308/..01/	-	-	-	0-0,1	0-0,3
100	125,0	.2309/..01/	-	-	-	-	0-0,15

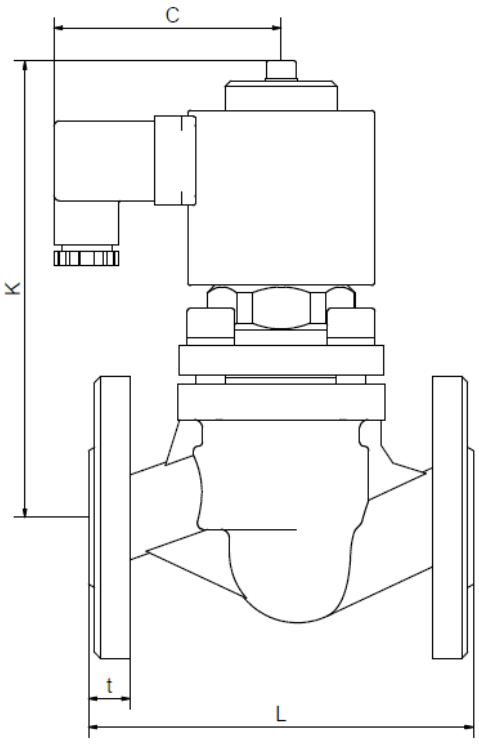
The flow rate mentioned in the table applies to the strongest coil.

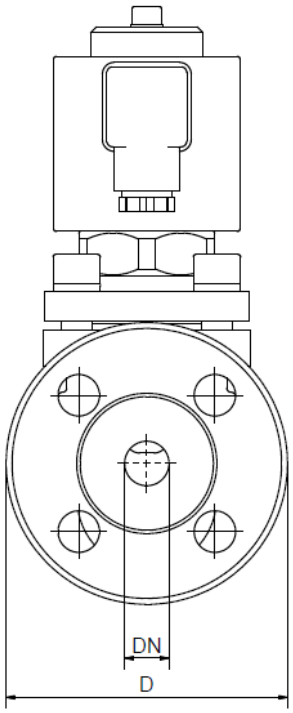
			max. pressure for coils ATEX				
DN	Kv-value m³/h	Standard type	.808	.328	.248	.278	.358
15	7,0	.2301/0501/	0-0,4	0-0,6	-	-	-
20	9,0	.2302/..01/	0-0,4	0-0,4	-	-	-
25	12,0	.2303/..01/	-	0-0,2	0-0,6	-	-
32	18,0	.2304/..01/	-	0-0,06	0-0,3	-	-
40	26,0	.2305/..01/	-	-	0-0,1	-	-
50	38,0	.2306/..01/	-	-	0-0,07	0-0,2	-
65	75,0	.2307/..01/	-	-	-	-	0-0,1
80	89,0	.2308/..01/	-	-	-	-	0-0,1
100	125,0	.2309/..01/	-	-	-	-	0-0,1

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



DIMENSIONS





Coil	.802 / .808*		.322 / .328*					.242 / .248	
Type	2301	2302	2301	2302	2303	2304	2305	2303	2304
DN	15	20	15	20	25	32	40	25	32
C	70	70	77	77	77	77	77	93	93
D	95	105	95	105	115	140	150	115	140
K	129	129	154	154	163	161	168	190	176
L	130	150	130	150	160	180	200	160	180
t	14,5	16,5	14,5	16,5	16	16	19	16	16
kg	3,3	3,9	4,1	4,7	5,9	6,7	9,4	7,9	8,2

*Differing dimension “C“ for ATEX-coils

Coil	.242 / .248		.272 / .278			.352 / .358		
Type	2305	2306	2306	2307	2308	2307	2308	2309
DN	40	50	50	65	80	65	80	100
C	93	93	107	107	107	127	127	127
D	150	165	165	185	200	185	200	220
K	194	198	242	256	239	339	329	357
L	200	230	230	290	310	290	310	350
t	19	20,5	20,5	20,5	22	20,5	22	24,5
kg	10,7	12,7	16,4	20,6	25,4	32,1	37	45,3

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: 12.17, MK-MG, Version 1.