Technical Data Sheet Type 46

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 high pressure applications

Type 46

TECHNICAL SPECIFICATIONS

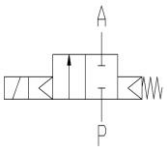
Type of control	Pilot operated, no pressure difference required
Design	Piston design
Connection	Threaded G1/4 - G1/2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	1 - 100 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
Viscosity	22 mm²/s
Temperature range	Medium: -40 °C up to +80 °C Ambient: -40 °C up to +50 °C In consideration of the restrictions described on page 4
Body material	Stainless steel 1.4581
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	.012 = 18 Watt .148 = 10 Watt (Ex) .802 = 24 Watt .808 = 24 Watt (Ex)
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

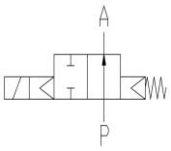
- For high pressure applications up to 100 bar
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

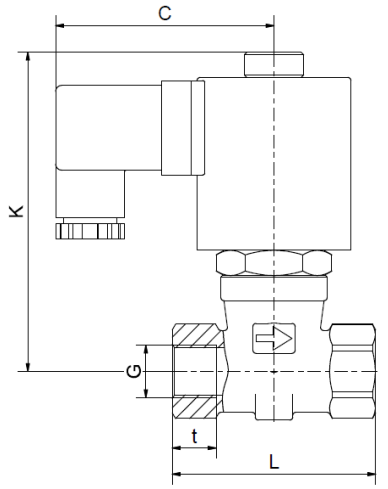
Type		Conn.		Housing	Seal		Coil		Option	
.	4 6	2 3	/	0 8	0 4	/	. 8	0 2	-	N O
		21 G 1/4 22 G 3/8 23 G 1/2		08 St. steel 1.4581	04 PTFE		2 Standard IP65 8 Explosion proof acc. to directive 2014/34/EU (ATEX)			

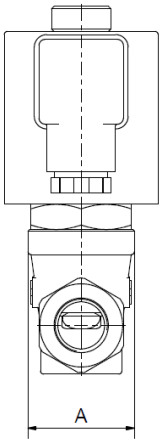
TECHNICAL FEATURES

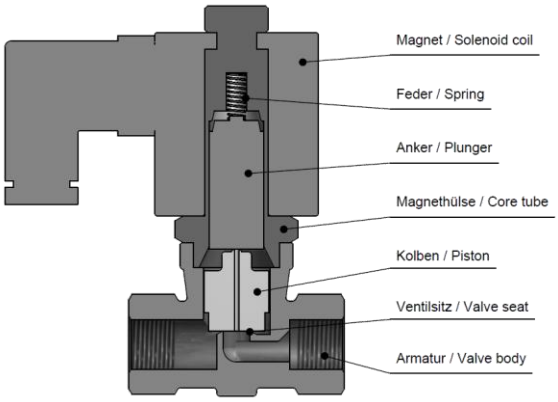
Type 46

				max. pressure for coils			max. pressure for coils ATEX		
G	Seat Ø mm	Kv-value m³/h	Standard type	.012	.802	.802-NO	.148	.808	.808-NO
1/4	8,0	1,0	.4621/0804/	5-80	1-100	1-70	5-60	1-100	1-70
3/8	8,0	1,2	.4622/0804/	5-80	1-100	1-70	5-60	1-100	1-70
1/2	8,0	2,0	.4623/0804/	5-80	1-100	1-70	5-60	1-100	1-70

DIMENSIONS







Coil	.012 /.148*			.802 /.808*		
Type	4621	4622	4623	4621	4622	4623
G	1/4	3/8	1/2	1/4	3/8	1/2
A	34	34	34	34	34	34
C	61	61	61	70	70	70
K	91	91	91	102	102	102
L	65	65	65	65	65	65
t	14	14	14	14	14	14
kg	0,7	0,65	0,6	1,2	1,15	1,1

*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 1.

Technical Data Sheet Type 3/045

3/2-way Solenoid valve

UN - Universal design

Direct operated 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 high pressure applications**

Type 3/045

TECHNICAL SPECIFICATIONS

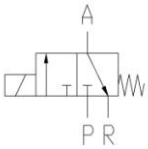
Type of control	Direct operated
Design	Poppet design
Connection	Threaded G1/8 - G1/2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	With actuator upright
Pressure	0 - 250 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature 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 1.4571
Metallic inner parts	Brass and Stainless steel
Sealing	PEEK
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.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	Terminal box
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

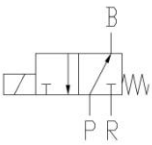
- For high pressure applications up to 250 bar
- No pressure difference required
- High life time
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non pressurized closed



NO – non-pressurized open



CERTIFICATES

ORDERING SYSTEM

Type							Connect.		Housing		Seal		Actuator			
3	/	0	4	5	-		2	3	-	0	8	1	5	-	.	2	7	2

Connect.	
20	G 1/8
21	G 1/4
22	G 3/8
23	G 1/2

Housing	
08	St.steel 1.4571

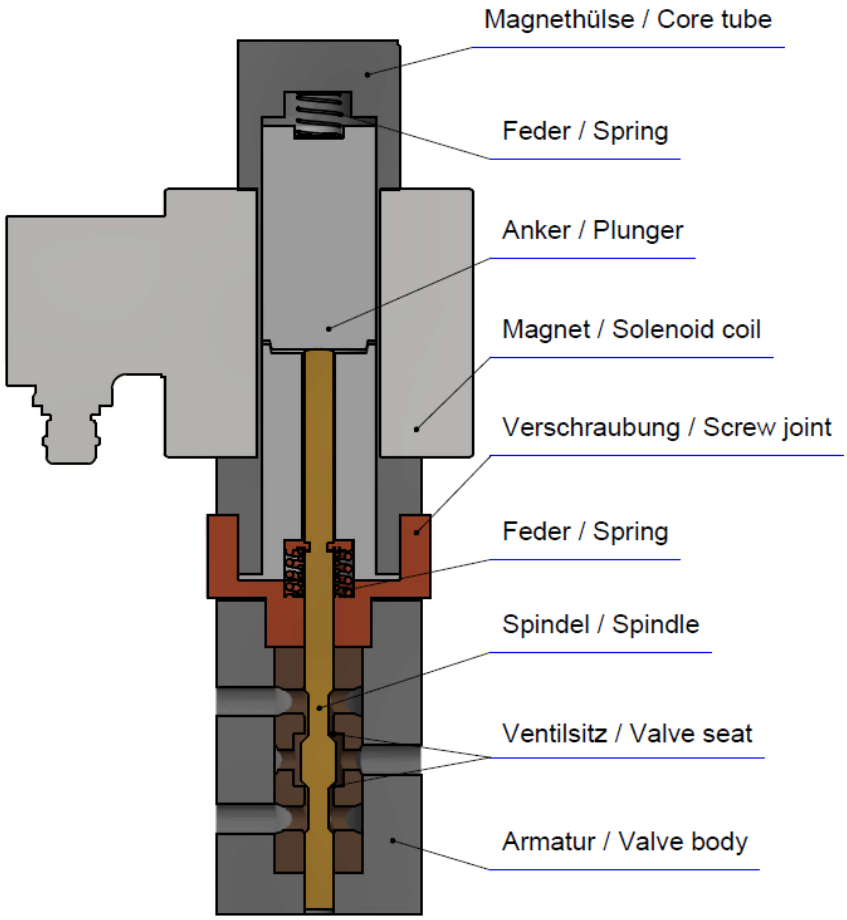
Seal	
15	PEEK

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

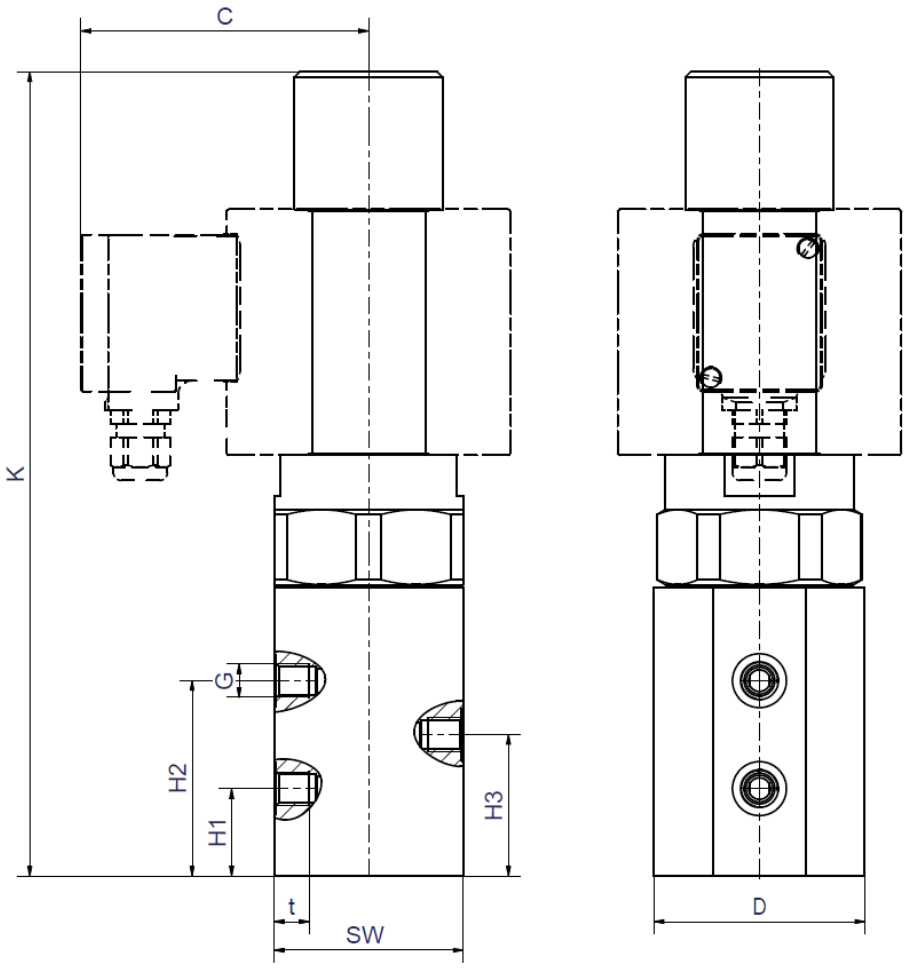
TECHNICAL FEATURES

				max. pressure for coils		max. pressure for coils ATEX	
G	Seat Ø mm	Kv-value m³/h	Standard type	.272	.352	.278	.358
1/8	10,0	1,2	3/045-20-0815-	0-200	0-250	0-150	0-210
1/4	10,0	1,2	3/045-21-0815-	0-200	0-250	0-150	0-210
3/8	10,0	1,2	3/045-22-0815-	0-200	0-250	0-150	0-210
1/2	10,0	1,2	3/045-23-0815-	0-200	0-250	0-150	0-210

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



DIMENSIONS



Coil	.272 / .278				.352 / .358			
Type	3/045-20	3/045-21	3/045-22	3/045-23	3/045-20	3/045-21	3/045-22	3/045-23
G	1/8	1/4	3/8	1/2	1/8	1/4	3/8	1/2
C	107	107	107	107	127	127	127	127
K	299	299	299	299	332	332	332	332
D	78	78	78	78	78	78	78	78
SW	70	70	70	70	70	70	70	70
H1	32,5	32,5	32,5	32,5	32,5	32,5	32,5	32,5
H2	72,5	72,5	72,5	72,5	72,5	72,5	72,5	72,5
H3	52,5	52,5	52,5	52,5	52,5	52,5	52,5	52,5
t	12,5	13,0	13,0	15,0	12,5	13,0	13,0	15,0
kg	10,9	11,3	11,2	10,8	22,6	22,6	22,6	22,5

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: 04.18, MK-MG, Version 1.

Technical Data Sheet Type 2/529

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 high pressure applications

Type 2/529

TECHNICAL SPECIFICATIONS

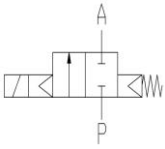
Type of control	Pilot operated, pressure difference is required
Design	Piston design
Connection	Threaded G1/4 - G2 DIN ISO 228/1 (BSP) Other connections like NPT on request
Installation	Preferable with actuator upright
Pressure	1 - 450 bar (see table page 2)
Medium	Clean, neutral, gaseous and liquid medium
max. 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	Stainless steel 1.4571
Metallic inner parts	Stainless steel
Sealing	PTFE, PEEK at the seat
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.802 = 24 Watt .848 = 23 Watt .322 = 30 Watt .328 = 24 Watt .242 = 46 Watt .248 = 30 Watt
Type of control	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Plug / Terminal box
Ex-proof	acc. to 2014/34/EG(ATEX) Further Ex-proof on request

VALVE FEATURES

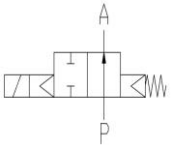
- For high pressure applications up to 450 bar
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

Special design for a temperature range**up to +180 °C** and as pressure operating valve **up to 600 bar** available
Specifications and drawings on request.

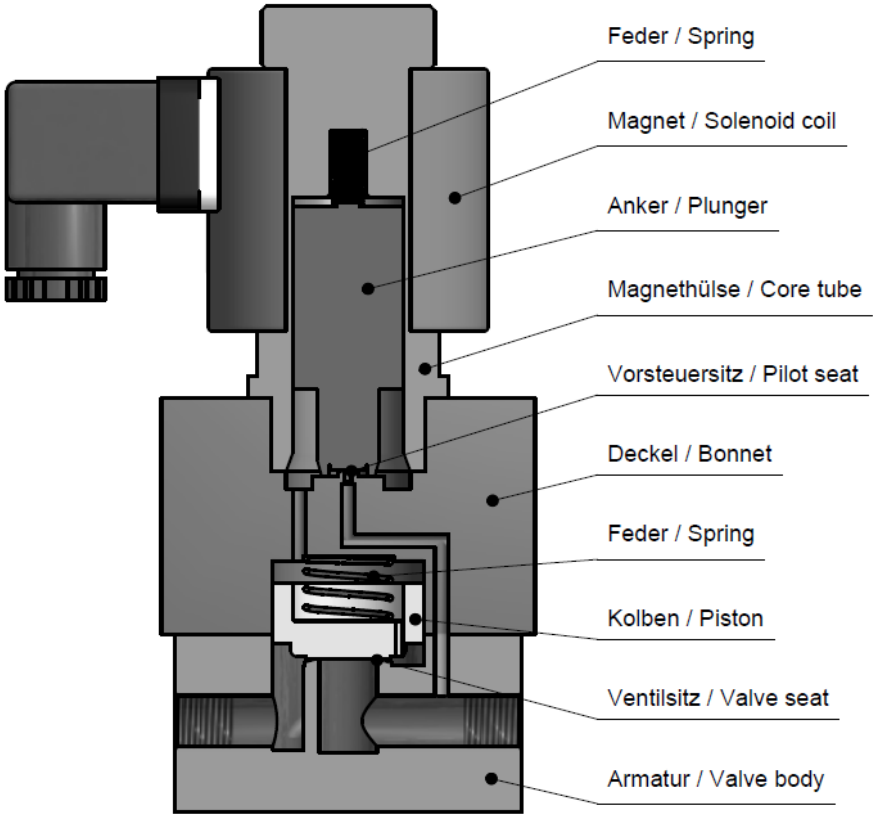
ORDERING SYSTEM

Fehler! Es wurde kein Dateiname angegeben.

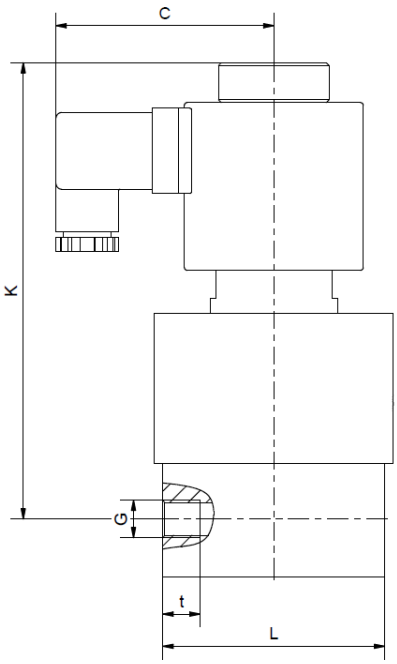
TECHNICAL FEATURES

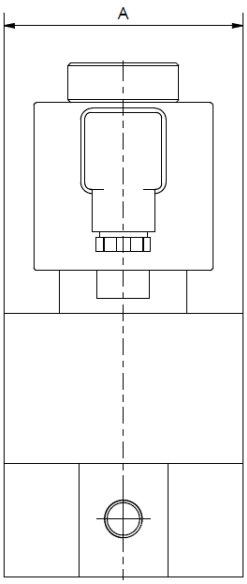
				max. pressure for coils			max. pressure for coils Ex		
G	Seat Ø mm	Kv-value m³/h	Standard type	.802	.322	.242	.848	.328	.248
1/4	12	1,8	2/529-21-0815-	1-150	1-300	1-450	1-150	1-250	1-350
3/8	12	3,3	2/529-22-0815-	1-150	1-300	1-450	1-150	1-250	1-350
1/2	12	3,8	2/529-23-0815-	1-150	1-300	1-450	1-150	1-250	1-350
3/4	25	11,5	2/529-24-0815-	1-150	1-220	1-450	1-150	1-220	1-350
1	25	13,0	2/529-25-0815-	1-150	1-220	1-450	1-150	1-220	1-350
1 1/4	40	22,0	2/529-26-0815-	-	-	1-330	-	-	1-250
1 1/2	40	24,0	2/529-27-0815-	-	-	1-330	-	-	1-250
2	50	32,0	2/529-28-0815-	-	-	1-330	-	-	1-250

The flow rate mentioned in the table applies to the strongest coil.
Pressure ratings with option manual override may be lower.



DIMENSIONS





Coil	.802/.808*					.322/.328*				
Type	2/529-21	2/529-22	2/529-23	2/529-24	2/529-25	2/529-21	2/529-22	2/529-23	2/529-24	2/529-25
G	1/4	3/8	1/2	3/4	1	1/4	3/8	1/2	3/4	1
A	84	84	84	110	110	84	84	84	110	110
C	70	70	70	70	70	77	77	77	77	77
K	143,5	143,5	151,5	159	159	161	161	161	176	176
L	78	78	78	101	101	78	78	78	101	101
t	13	13	15	16	18	13	13	15	16	18
kg	3,8	3,8	4,0	6,6	6,4	5,2	5,2	5,2	7,8	7,7

*Differing dimension “C“ for ATEX-coils

Coil	.242/.248							
Type	2/529-21	2/529-22	2/529-23	2/529-24	2/529-25	2/529-26	2/529-27	2/529-28
G	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	84	84	84	110	110	155	155	170
C	92,5	92,5	92,5	92,5	92,5	92,5	92,5	92,5
K	181,5	181,5	181,5	200	200	228	228	242
L	78	78	78	101	101	140	140	155
t	13	13	15	16	18	22	22	27
kg	6,7	6,6	6,6	9,3	9,3	18,8	18,6	24,6

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: 08.19, MK-MG, Version 1.

Technical Data Sheet Type 8/000

2/2-way solenoid valve

NC - Valve normally closed

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 high pressure applications**

Type 8/000

TECHNICAL SPECIFICATIONS

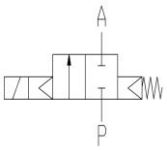
Type of control	Pilot operated, pressure difference necessary
Design	Piston design
Connection	Threaded G1/4 & G1/2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Preferable with actuator upright
Pressure	5 - 350 bar (see table on page 2)
Medium	Clean and neutral gases Optional for liquids
Viscosity	22 mm²/s
Temperature range	Medium: -40 °C up to +80 °C Ambient: -40 °C up to +50 °C In consideration of the restrictions described on page 4
Body material	Stainless steel 1.4301
Metallic inner parts	Stainless steel
Sealing	PEEK
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.032 = 11 Watt .012 = 18 Watt .048 = 10 Watt Ex .148 = 10 Watt Ex
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	With coil .032: Plug With coil. 012: Plug With coil .048: Terminal box With coil .148: 3m cable
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

- For high pressure applications up to 350 bar
- Pressure difference is required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements
- Option WA: for liquids

FUNCTION

NC – non energized closed



CERTIFICATES

Special design for liquids available
Specifications and drawings on request.

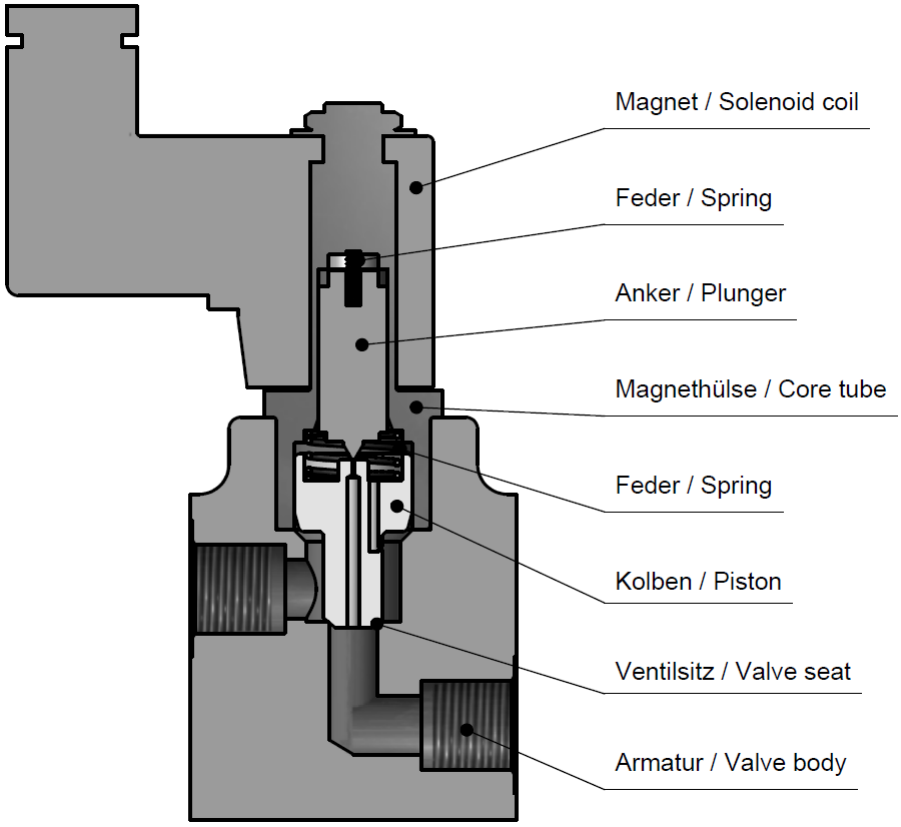
ORDERING SYSTEM

Valve type																Coil system		Valve options	
8	/	0	0	0	-	5	8	-	0	6	1	5	-	.	1	4	8	-	W	A

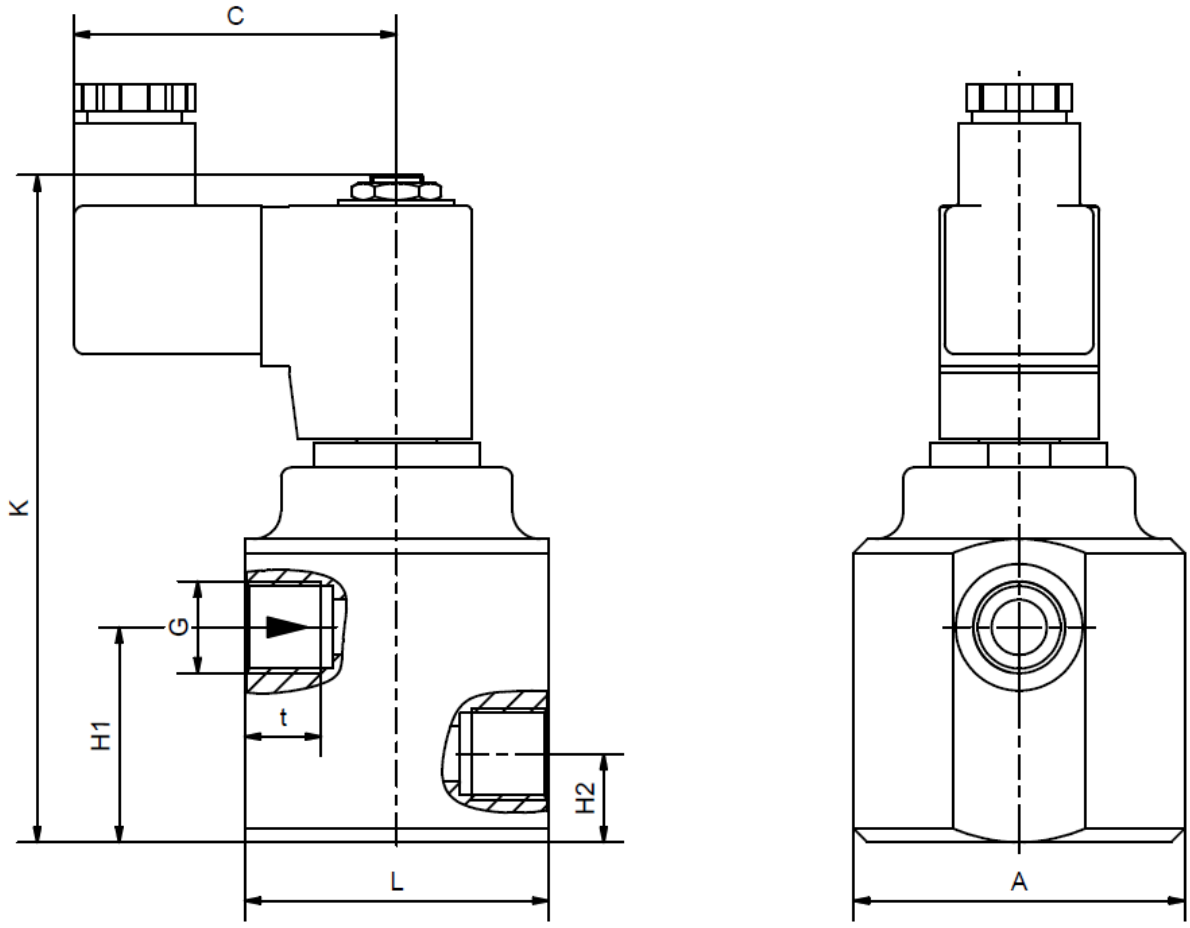
Connection		Body material		Seal meterial		Coil system	
48	G 1/4	06	St.steel 1.4301	15	PEEK	2	Standard IP65
58	G 3/8					8	Explosion proof acc. to directive 2014/34/EU (ATEX)
68	G 1/2 DN8						
23	G 1/2 DN15						

TECHNICAL FEATURES

				max. pressure for coils		max. pressure with option WA with coily type		
G	Seat Ø mm	Kv-value m³/h	Standard type	.032	.148 / .048	.032	.012	.148 / .048
1/4	8	1,2	8/000-48	5-350	5-350	3-80	3-150	3-80
3/8	8	1,2	8/000-58	5-350	5-350	3-80	3-150	3-80
1/2	8	1,2	8/000-68	5-350	5-350	3-80	3-150	3-80
1/2	15	2,5	8/000-23	5-350	5-350	3-80	3-150	3-80



DIMENSIONS



Coil	.032 / .012 / .048 / .148			
Type	8/000-48	8/000-58	8/000-68	8/000-23
G	1/4	3/8	1/2	1/2
A	60	60	72	72
C	59	59	59	59
H1	39	39	39	39
H2	16	16	16	16
K	121	121	121	121
L	55	54	65	65
t	13,5	13,5	15	15
kg	1,5	1,5	2	2,1

*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: 03.19, MK-MG, Version 1.

Technical Data Sheet
Type 8/100

2/2-way pressure controlled valve

NC - Valve normally closed

Direct pressure controlled valve. The valve seat is opened against a spring force via the control medium.

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

- **Pressure controlled valve for high pressure applications**

Type 8/100

TECHNICAL SPECIFICATIONS

Type of control	Direct pressure operated
Design	Piston design
Connection	Threaded G1/8 - G1/4 - DIN ISO 228/1 (BSP) Threaded 7/16 UNF - 9/16 UNF (Autoclave)
Installation	Preferable with actuator upright
Pressure	0 - 1200 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
Viscosity	22 mm²/s
Temperature range	Medium: -40 °C up to +80 °C Ambient: -40 °C up to +60 °C
Body material	Stainless steel1.4301
Metallic inner parts	Stainless steel
Sealing	PEEK, metallic
Pilot pressure	4 - 10 bar
Pilot medium	Clean and neutral gases

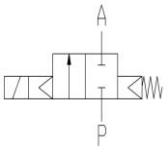
Pilot valve	**A7231/1002/....**
	3/2-way direct operated, NC G1/8, orifice 1.5mm, 0-8 bar Brass / Stainless steel / FKM

VALVE FEATURES

- For high pressure applications up to 1200 bar
- No pressure difference required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non energized closed



CERTIFICATES

ORDERING SYSTEM

Valve type												Actuator				Options	
8	/	1	0	0	-	4	9	-	1	2	1	5	-	7	0	1	3	-	T	T

Anschluss
- 3E 7/16 UNF
- 31 G 1/8
- 45 G 1/4 - 7/16 UNF
- 49 G 1/4 - 7/16 UNF

Body material
- 12 Edelstahl 1.4435

Seal meterial
- 15 PEEK

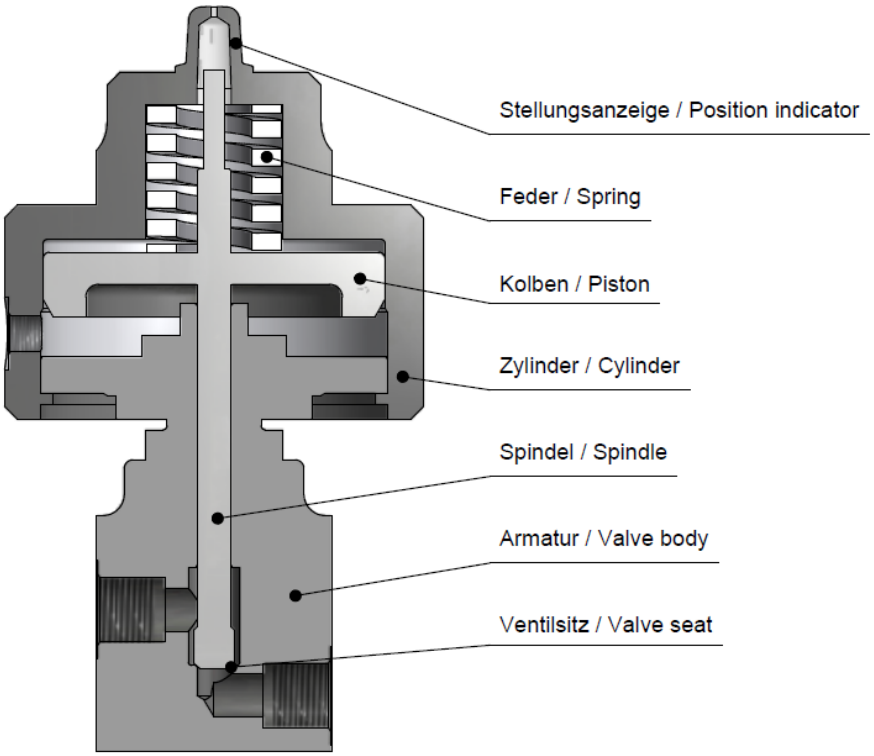
- 03 30 mm
- 05 50 mm
- 08 80 mm
- 13 125 mm

- 70 Standard actuator
- 73 Actuator stainless st.
- 75 Actuator chem. nickel plated

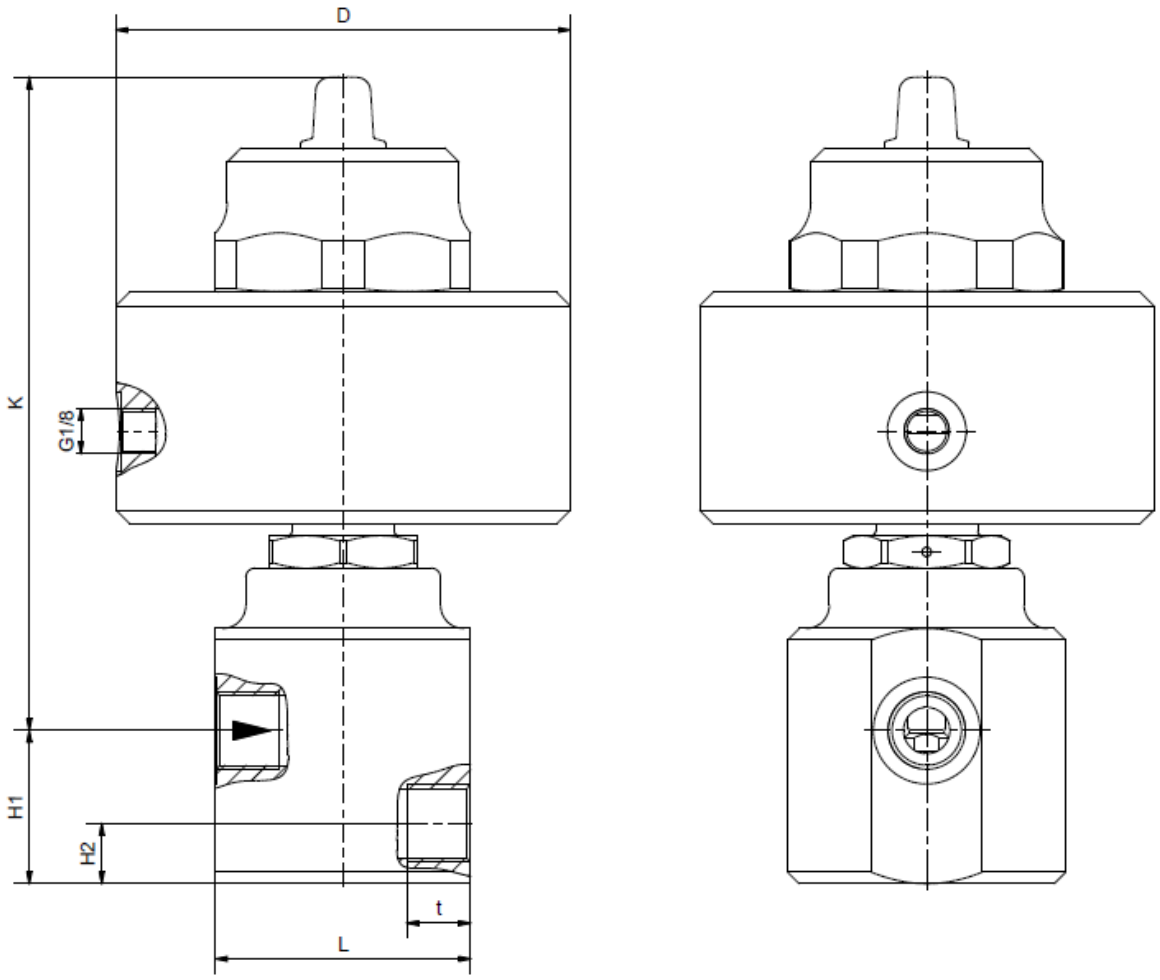
Autoclave thread

TECHNICAL FEATURES

				max. pressure with actuator			
G	Seat Ø mm	Kv-value m³/h	Standard type	7303	7505	7008	7013
1/8	1,0		8/100-31-1215-....	0-500	-	-	-
1/4	4,0		8/100-45-1215-....	-	0-500	-	-
1/4	8,0		8/100-49-1215-....	-	-	0-400	-
7/16 UNF	0,5		8/100-3E-1215-....-TT	0-1000	-	-	-
9/16 UNF	4,0		8/100-45-1215-....-TT	-	-	0-700	-
9/16 UNF	8,0		8/100-49-1215-....-TT	-	-	-	0-1200



DIMENSIONS



Type	8/100-31	8/100-45	8/100-49	8/100-3E-TT	8/100-45-TT	8/100-49-TT
G	1/8	1/4	1/4	7/16 UNF	9/16 UNF	9/16 UNF
D	on request	61	98	on request	98	149
K		143	141		141	192
H1		33	33		33	33
H2		13	13		13	13
L		55	55		55	55
t		13,5	13,5		10	10
kg		2,3	2,6		2,6	4,9

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.

Stand: 01.17, MK-MG, Version 1.

Technical Date Sheet
Type 52-S

2/2-way solenoid valve
NC - Valve normally closed (Standard)
NO - Valve normally open (optional)

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 high pressure applications up to 150 bar

GSR Ventiltechnik

Type 52-S

TECHNICAL SPECIFICATIONS

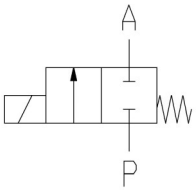
Type of control:	Direct operated
Design:	Piston design
Connection:	Threaded G1/4 DIN ISO 228 (BSP) *Other connections like NPT on request*
Installation:	Preferable with actuator upright
Pressure range:	0 - 150 bar (see table on page 2)
Medium:	Clean, neutral, liquid or gaseous
Viscosity:	22 mm²/s
Temperature range:	Medium -40 °C bis +80 °C Ambient -40 °C bis +50 °C *The max.ambient temperature depends on the combined operating conditions.*
Body material:	Brass 2.0401 Stainless steel 1.4305 Stainless steel 1.4571
Metallic inner parts:	Brass and stainless steel
Sealing:	PTFE
Supply voltage:	AC~ 24V, 110V, 230V DC= 12V, 24V, 110V *Othersupply voltages on request*
Voltage tolerance:	-10% / +10%
Power consumption:	.032 = 11 Watt .148 = 10 Watt .012 = 18 Watt
Protection class:	IP65 acc. to DIN EN 60529
Duty factor:	100% ED-VDE 0580
Connection type:	Plug
Ex-proof:	acc. to 2014/34/EG (ATEX)

VALVE FEATURES

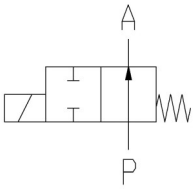
- For high pressure applications up to 150 bar
- No pressure difference necessary
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC - non-energized closed



NO - non-energized open



CERTIFICATES

ORDERING SYSTEM

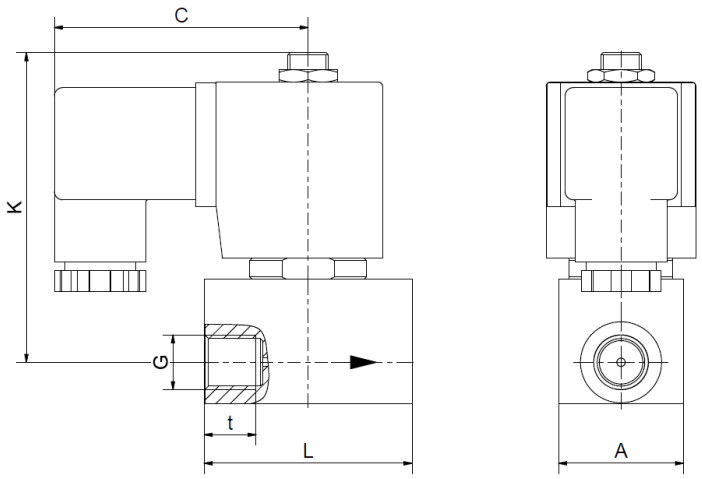
	Type	Connect.		Housing	Seal		Coil		Options	
.	5 2	4 0	/	0 8	0 4	/	. 0 1 2	-	S	
		4 .	G 1/4	06	St. steel 1.4305		2	Standard IP65	S	Special tube
		. 0	1,0 mm	08	St. steel 1.4571		8	Explosion-proof acc. to directive 2014/34/EU		
		. L	1,2 mm	10	Brass 2.0401					
		. 1	1,5 mm							
				04	PTFE					

TECHNICAL FEATURES

Type 52-S

Orifice	Kv-value	Standard type	max. pressure for coils					
			.032-S		.012-S		.148-S (ATEX)	
mm	m³/h		NC	NO	NC	NO	NC	NO
1,0	0,06	.5240/..04/	0-150	-	0-150	0-150	0-150	0-150
1,2	0,08	.524L/..04/	0-90	-	0-130	0-130	0-60	0-90
1,5	0,09	.5241/..04/	-	-	0-120	-	-	-

DIMENSIONS



Coil	.032	.012 / .148*
G	1/4	1/4
A	30	30
C	59	61
K	75	75
L	50	50
t	12	12
kg	0,35	0,35

* Different dimension „C“ for ATEX-coils

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.

Status 02.19, MK-MG, Version 1.

Technical Data Sheet
Type 55

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 high pressure applications

Type 55

TECHNICAL SPECIFICATIONS

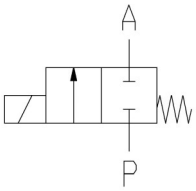
Type of control:	Direct operated
Design:	Piston design
Connection:	Threaded G1/4 DIN ISO 228 (BSP) *Other connections like NPT on request*
Installation:	Preferable with actuator upright
Pressure range:	0 - 900 bar (see table on pages 2 & 3)
Medium:	Clean, neutral, liquid or gaseous
Viscosity:	22 mm²/s
Temperature range:	Medium -40 °C bis +80 °C Ambient -40 °C bis +50 °C *The max.ambient temperature depends on the combined operating conditions.*
Body material:	Brass 2.0401 Stainless steel 1.4301 Stainless steel 1.4462 Stainless steel 1.4571
Metallic inner parts:	Brass and stainless steel
Sealing:	PTFE, PEEK, PCTFE, XHPU
Supply voltage:	AC~ 24V, 110V, 230V DC= 12V, 24V, 110V *Other supply voltages on request*
Voltage tolerance:	-10% / +10%
Power consumption:	.032 = 11 Watt .148 = 10 Watt .012 = 18 Watt .702 = 25 Watt .692 = 25 Watt .802 = 24 Watt .808 = 24 Watt .322 = 30 Watt .328 = 24 Watt .242 = 46 Watt .248 = 30 Watt
Protection class:	IP65 acc. to DIN EN 60529
Duty factor:	100% ED-VDE 0580
Connection type:	Plug, terminal box
Ex-proof:	acc. to 2014/34/EG (ATEX)

VALVE FEATURES

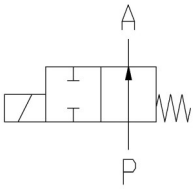
- For high pressure application 900 bar
- No pressure difference required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC - non energized closed



NO - non-energized open



CERTIFICATES

ORDERING SYSTEM

	Type			Conn.		Housing	Seal		Coil			Option	
.	5	5	4	G	/	0	8	1	5	/	.	0	1	2	-	N	O

Conn.	
4 .	G 1/4
. E	0,5 mm
. G	0,7 mm
. H	0,8 mm
. 0	1,0 mm
. L	1,2 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	
06	1.4301
08	1.4462/1.4571
10	Brass 2.0401

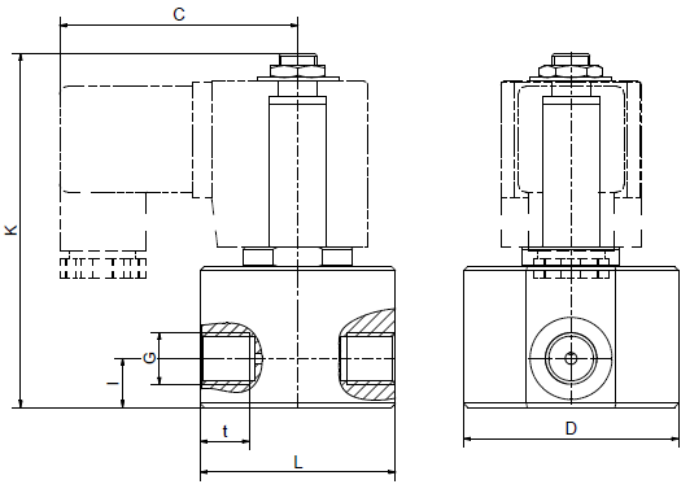
Seal	
04	PTFE
15	PEEK/PTCFE
19	XHPU

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

TECHNICAL FEATURES // DIMENSIONS

[with coils .032 // .012 // .148]

			max. pressure for coils					
Seat	Kv-value	Standard type	.032-S		.012-S		.148-S (ATEX)	
mm	m³/h		NC	NO	NC	NO	NC	NO
0,5	0,015	.554E/0615/	0-300	0-300	-	-	0-250	0-250
0,7	0,02	.554G/0615/	0-210	0-210	0-500	0-500	0-170	0-170
0,8	0,025	.554H/1004(0615)/	0-170	-	0-250	0-250	0-170	0-170
1,0	0,06	.5540/1004(0604)/	-	-	0-200	0-200	-	-



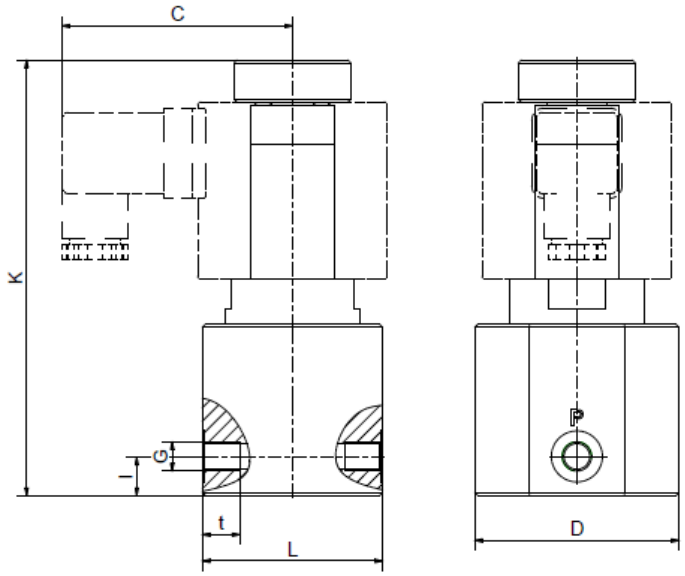
Coil	.032-S	.012-S / .148-S*
G	1/4	1/4
C	59	61
D	68	68
K	90,5	90,5
I	12,5	12,5
L	60	60
t	12,5	12,5
kg	0,9	0,9

* Different dimension „C“ for ATEX coils

TECHNICAL FEATURES // DIMENSIONS

[with coils .802 // .808]

			max. pressure for coils	
Seat	Kv-value	Standard type	.802	.808 (ATEX)
mm	m³/h		NC	NC
0,5	0,015	.554E/0815/	0-900	0-900
0,7	0,02	.554G/0815/	0-600	0-500
0,8	0,025	.554H/0815/	0-450	0-350



Coil	.802 / .808*
G	1/4
C	70
D	68
K	122
I	12,5
L	60
t	12,5
kg	1,9

* Different dimension „C“ for ATEX coils

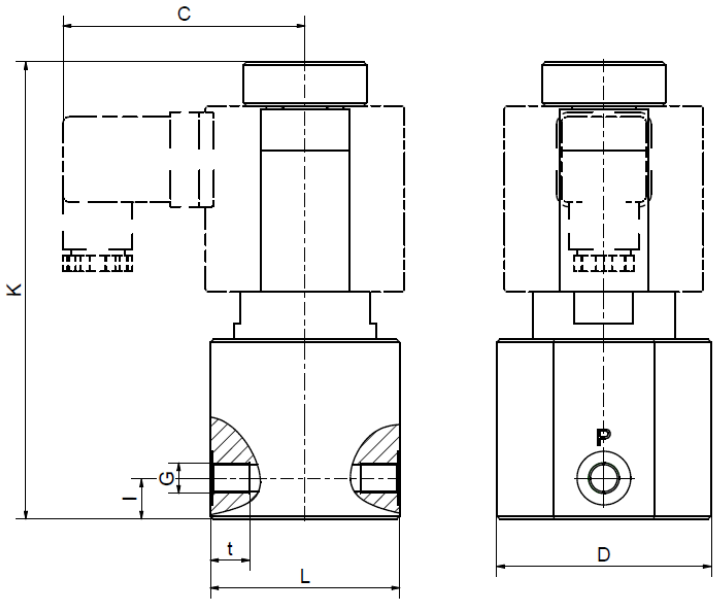
TECHNICAL FEATURES // DIMENSIONS

[with coils .702 // .692-NO // .802 // .322 // .242]
[with coils acc. to ATEX // .808 // .328 // .248]

Type 55

Brass			max. pressure for coils													
Seat	Kv-value	Standard	.702 / .692		.802		.808 (ATEX)		.322		.328 (ATEX)		.242		.248 (ATEX)	
mm	m³/h	type	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
1,0	0,06	.5540/1004/	-	-	0-200	0-100	0-200	0-100	0-200	0-200	-	-	-	-	-	-
1,5	0,09	.5541/1004/	0-100	0-80	0-140	0-80	0-140	0-80	0-200	0-180	0-120	0-80	-	-	-	-
2,0	0,13	.5542/1004/	0-80	0-40	0-100	0-50	0-100	0-50	0-180	0-160	0-90	0-70	0-200	0-200	0-200	0-200
2,5	0,16	.5543/1004/	0-50	0-28	0-50	0-40	0-50	0-40	0-110	0-110	0-60	0-60	0-200	0-180	0-200	0-100
3,0	0,2	.5544/1004/	0-35	0-20	0-40	0-25	0-40	0-25	0-80	0-100	0-40	0-40	0-150	0-120	0-150	0-70
4,0	0,35	.5545/1004/	0-16	0-12	0-25	0-15	0-25	0-15	0-40	0-35	0-25	0-25	0-100	0-60	0-80	0-60
5,0	0,5	.5546/1004/	0-12	0-6	0-16	0-9	0-16	0-9	0-28	0-20	0-12	0-12	0-60	0-40	0-40	0-30
6,0	0,75	.5547/1004/	0-10	0-4	0-12	0-6	0-10	0-6	0-20	0-14	0-10	0-10	0-45	0-30	0-25	0-20

Stainless steel			max. pressure for coils													
Seat	Kv-value	Standard	.702 / .692		.802		.808 (ATEX)		.322		.328 (ATEX)		.242		.248 (ATEX)	
mm	m³/h	type	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
1,0	0,06	.5540/06../	-	-	0-350	0-100	0-200	0-100	0-350	0-350	0-300	0-200	0-450	0-400	0-450	0-350
1,5	0,09	.5541/06../	0-100	0-80	0-140	0-80	0-140	0-80	0-330	0-180	0-120	0-80	0-410	0-300	0-320	0-250
2,0	0,13	.5542/06../	0-80	0-40	0-100	0-50	0-100	0-50	0-180	0-160	0-90	0-70	0-300	0-200	0-250	0-200
2,5	0,16	.5543/0604/	0-50	0-28	0-50	0-40	0-50	0-40	0-110	0-110	0-60	0-60	0-200	0-180	0-200	0-100
3,0	0,2	.5544/0604/	0-35	0-20	0-40	0-25	0-40	0-25	0-80	0-100	0-40	0-40	0-150	0-120	0-150	0-70
4,0	0,35	.5545/0604/	0-16	0-12	0-25	0-15	0-25	0-15	0-40	0-35	0-25	0-25	0-100	0-60	0-80	0-60
5,0	0,5	.5546/0604/	0-12	0-6	0-16	0-9	0-16	0-9	0-28	0-20	0-12	0-12	0-60	0-40	0-40	0-30
6,0	0,75	.5547/0604/	0-10	0-4	0-12	0-6	0-10	0-6	0-20	0-14	0-10	0-10	0-45	0-30	0-25	0-20



Coil	.702 / .692	.802 / .808*	.322 / .328	.242 / .248
G	1/4	1/4	1/4	1/4
C	67	70	77	92,5
D	68	68	68	68
K	109	113	145	166
I	12,5	12,5	13	13
L	60	60	60	60
t	12,5	12,5	12,5	12,5
kg	1,9	2,0	3,0	4,4

* Different dimension „C“ for ATEX coils

INFORMATIONEN

- 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.

Status: 08.18, MK-MG, Version 1.

Technical Data Sheet Type 1/041

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

Force-pilot operated piston design valve. No differential pressure is necessary for operation. In standard (NC) the valve closes with spring power.

- **Solenoid valve for high pressure applications**

Type 1/041

TECHNICAL SPECIFICATIONS

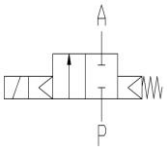
Type of control	Force-pilot operated
Design	Piston design
Connection	Threaded G1/4 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	With actuator upright
Pressure	0 - 130 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -40 °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 Stainless steel 1.4408
Metallic inner parts	Brass and Stainless steel
Sealing	PTFE
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	.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	Terminal box
Ex-proof	acc. to 2014/34/EU (ATEX) Further Ex-proof on request

VALVE FEATURES

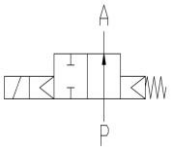
- For high pressure applications up to 450 bar
- No pressure difference required
- High life time
- High-quality materials
- Reliable and sturdy sealing elements
- Pneumatic actuator on request

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Type						Connect.		Housing		Seal		Coil			
1	/	0	4	1	-	2	3	-	1	0	0	4	-	.	2	4	2

Connect.		Housing		Seal		Coil	
21	G 1/4	08	St. steel 1.4408	04	PTFE	2	Standard IP65
22	G 3/8	10	Brass 2.0401			8	Explosion proof acc. to directive 2014/34/EU (ATEX)
23	G 1/2						
24	G 3/4						
25	G 1						
26	G 1 1/4						
27	G 1 1/2						
28	G 2						

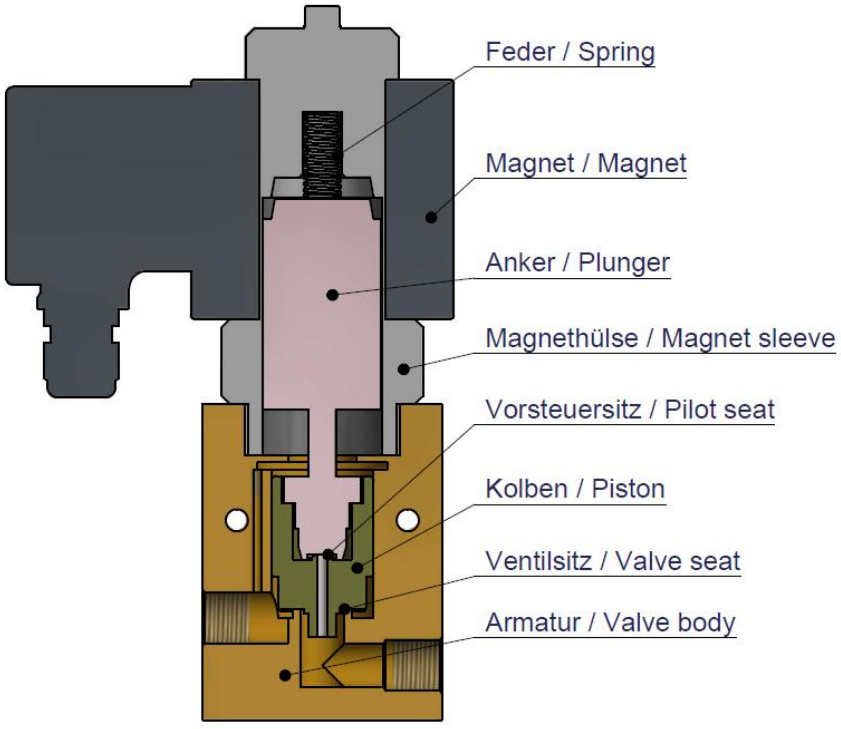
TECHNICAL FEATURES

				max. pressure for coils		
G	Seat Ø mm	Kv-value m³/h	Standard type	.242	.272	.352
1/4	13	1,8	1/041-21-..04-	0-70	0-100	0-130
3/8	13	3,3	1/041-22-..04-	0-70	0-100	0-130
1/2	13	3,8	1/041-23-..04-	0-70	0-100	0-130
3/4	25	11,5	1/041-24-..04-	0-70	0-100	0-100
1	25	13,0	1/041-25-..04-	0-70	0-100	0-100
1 1/4	32	22,0	1/041-26-..04-	-	0-70	0-100
1 1/2	40	24,0	1/041-27-..04-	-	0-70	0-100
2	50	32,0	1/041-28-..04-	-	0-70	0-80

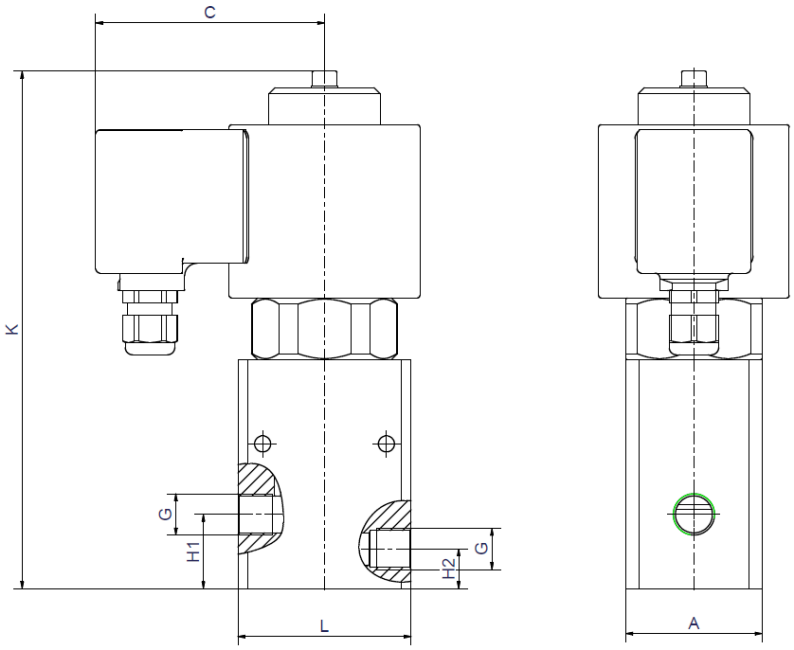
The flow rate mentioned in the table applies to the strongest coil.

				max. pressure for coils ATEX	
G	Seat Ø mm	Kv-value m³/h	Standard type	.278	.358
1/4	13	1,8	1/041-21-..04-	0-70	0-100
3/8	13	3,3	1/041-22-..04-	0-70	0-100
1/2	13	3,8	1/041-23-..04-	0-70	0-100
3/4	25	11,5	1/041-24-..04-	0-70	0-100
1	25	13,0	1/041-25-..04-	0-70	0-100
1 1/4	32	22,0	1/041-26-..04-	-	0-70
1 1/2	40	24,0	1/041-27-..04-	-	0-70
2	50	32,0	1/041-28-..04-	-	0-70

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



DIMENSIONS



Coil	.242 / .248		.272 / .278			
Type	1/041-21(-23)	1/041-24(-25)	1/041-21(-23)	1/041-24(-25)	1/041-26(-27)	1/041-28
G	1/4 - 1/2	3/4 - 1	1/4 - 1/2	3/4 - 1	1 1/4 - 1 1/2	2
C	92	92	106	106	106	106
H1	30	45	30	45	33	38,5
H2	16	25	16	25	33	38,5
K	210	255	252	260	310	297
A	55	65	55	65	96	119
L	70	100	70	100	140	168
t	14	17	14	17	22	24
kg	5,2	9,0	9,0	12,0	15,0	21,2

Coil	.352 / .358			
Type	1/041-21(-23)	1/041-24(-25)	1/041-26(-27)	1/041-28
G	1/4 - 1/2	3/4 - 1	1 1/4 - 1 1/2	2
C	126	126	126	126
H1	30	45	33	38,5
H2	16	25	33	38,5
K	326	359	368	363
A	55	65	96	119
L	70	100	140	168
t	14	17	22	24
kg	22,0	24,5	27,0	48,6

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.

Technical Data Sheet
Type 75HD

GSR Ventiltechnik

Type 75HD

3/2-Way solenoid valve
In rest position P is normally closed towards A and A is normally open towards R.
When energized the solenoid lifts the sealing element from the valve seat and opens P towards A and closes A towards R.
The valve works without pressure difference. The valve resets by spring power.

■ Solenoid valve for neutral, gaseous and liquid media

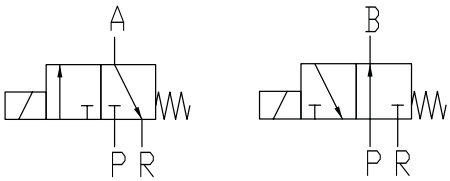
TECHNICAL SPECIFICATIONS

Type of control:	direct acting, no pressure difference is required
Design:	Piston design
Connection:	Threaded G1/4, DIN ISO 228 (BSP) Other sizes and connections like NPT on request
Installation:	Actuator only in upright position
Pressure:	0-300 bar (see table page 2)
Medium:	Clean, neutral, gaseous and liquid medium
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 3
Body material:	Brass 2.0401 Stainless steel 1.4301 (AISI 304)
Metallic inner parts:	Brass and Stainless steel
Sealing:	PTFE, Optional: PEEK
Supply voltage:	AC~ 24V, 110V, 230V DC= 12V, 24V, 110V Other supply voltages on request
Voltage tolerance:	-10% / +10%
Power consumption:	.802 = 24 Watt .808 = 24 Watt Ex .322 = 30 Watt .242 = 46 Watt .248 = 30 Watt Ex
Protection class:	IP65 according to DIN EN 60529
Duty factor:	100% ED-VDE 0580
Connection type:	Plug / Terminal box
Ex-proof:	Ex e mb II T4 Further Ex-proof on request.

VALVE FEATURES

- For high pressure applications up to 300 bar
- No pressure difference is required
- High life time
- Simple compact valve design
- Reliable and sturdy sealing elements
- Long-term availability of spare parts
- High-quality materials
- NO (non energized open) on request

FUNCTION



CERTIFICATES

In special design also available for temperatures **up to +180 °C**.
Specifications and drawings on request.

ORDERING SYSTEM

. 75 40 / 10 04 / . 24 2

Connection

40	G1/4, DN1,0
41	G1/4, DN1,5
42	G1/4, DN2,0
43	G1/4, DN2,5
44	G1/4, DN3,0
45	G1/4, DN4,0
46	G1/4, DN5,0

Body

10	Brass 2.0401
06	Stainless steel 1.4301

Seal

04	PTFE
15	PEEK

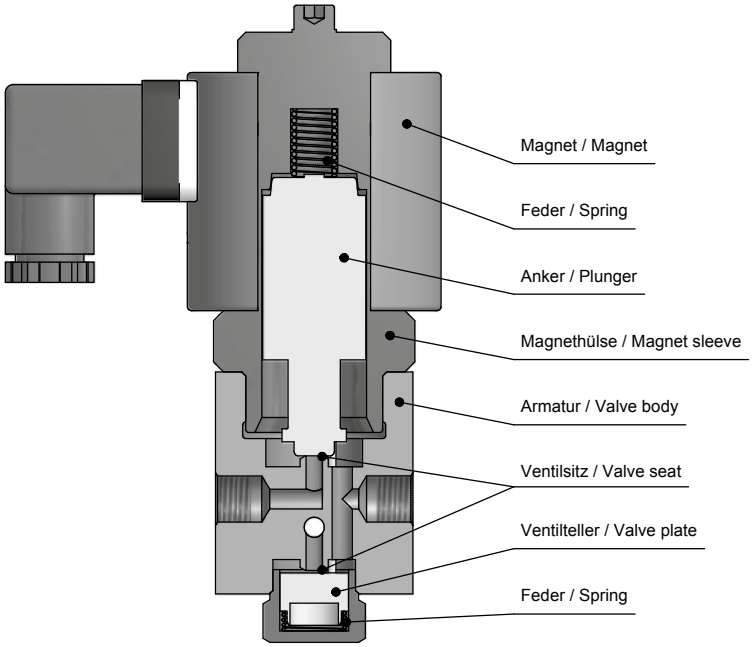
Coil system

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

TECHNICAL FEATURES

G	Seat ø mm	Kv-value m³/h	Standard type	max. pressure				
							ATEX Ex	
				.802	.322	.242*	.808	.248
1/4	1,0	0,06	.7540/..04/...	0-100	0-160	0-300	0-100	0-300
1/4	1,5	0,09	.7541/..04/...	0-75	0-130	0-280	0-75	0-210
1/4	2,0	0,13	.7542/..04/...	0-45	0-100	0-250	0-45	0-180
1/4	2,5	0,16	.7543/..04/...	0-28	0-75	0-200	0-28	0-160
1/4	3,0	0,20	.7544/..04/...	0-20	0-60	0-150	0-20	0-90
1/4	4,0	0,35	.7545/..04/...	0-16	0-20	0-85	0-16	0-60
1/4	5,0	0,50	.7546/..04/...	0-16	0-20	0-55	0-16	0-38

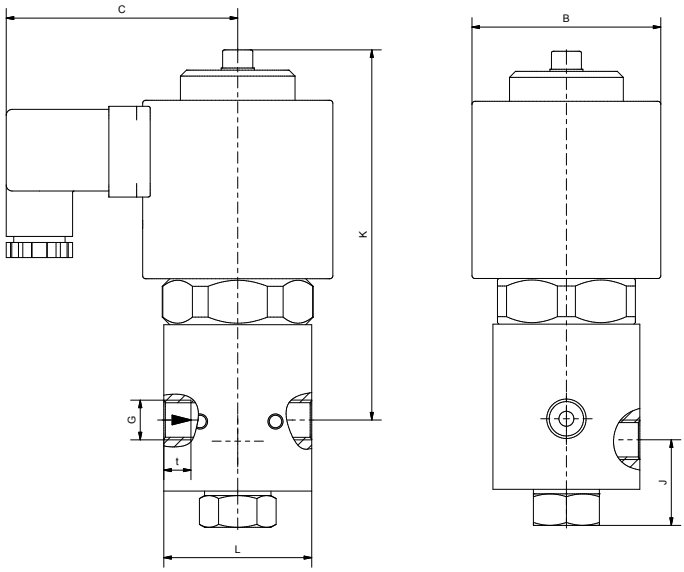
The flow rate mentioned in the table applies to the *marked coil.



DIMENSIONS

Coil	.802/ .808*	.322	.242/ .248*
Type	754.	754.	754.
G	1/4	1/4	1/4
B	49	63	77
C	70	77	93
J	28,5	28,5	38
K	90	122	142
L	50x50	50x50	60x60
t	9	9	12
kg	1,5	2,1	4,7

*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 +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 2/529PN

2/2-way pressure operated 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.

- **Pressure controlled valve for high pressure applications**

Type 2/529PN

TECHNICAL SPECIFICATIONS

Type of control	Pilot-pressure operated
Design	piston design valve
Connection	Threaded G1/2 - G2 DIN ISO 228/1 (BSP)
Installation	Preferable with actuator upright
Pressure	1 - 600 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: -10 °C up to +60 °C
Body material	Stainless steel 1.4571
Metallic inner parts	Stainless steel
Sealing	PEEK
Pilot pressure	4 - 10 bar max pressure with at least 6 bar
Pilot medium	Clean and neutral gases Other pilot media on request

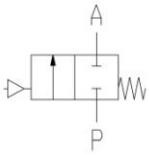
Pilot valve	**2/131-31-1702-C182**
	3/2-way direct operated, NC G1/8, orifice 1.5mm, 0-8 bar Aluminum / Stainless steel / FKM with Cnomo-coil as well as with integrated screw connection for easy assembly
	A7231/1002/....
	3/2-way direct operated, NC G1/8, orifice 1.5mm, 0-8 bar Brass / Stainless steel / FKM

VALVE FEATURES

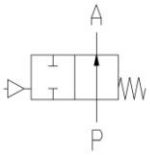
- For high pressure applications up to 600 bar
- Pressure difference is required
- High life time
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non pressurized closed



NO – non pressurized open



CERTIFICATES

ORDERING SYSTEM

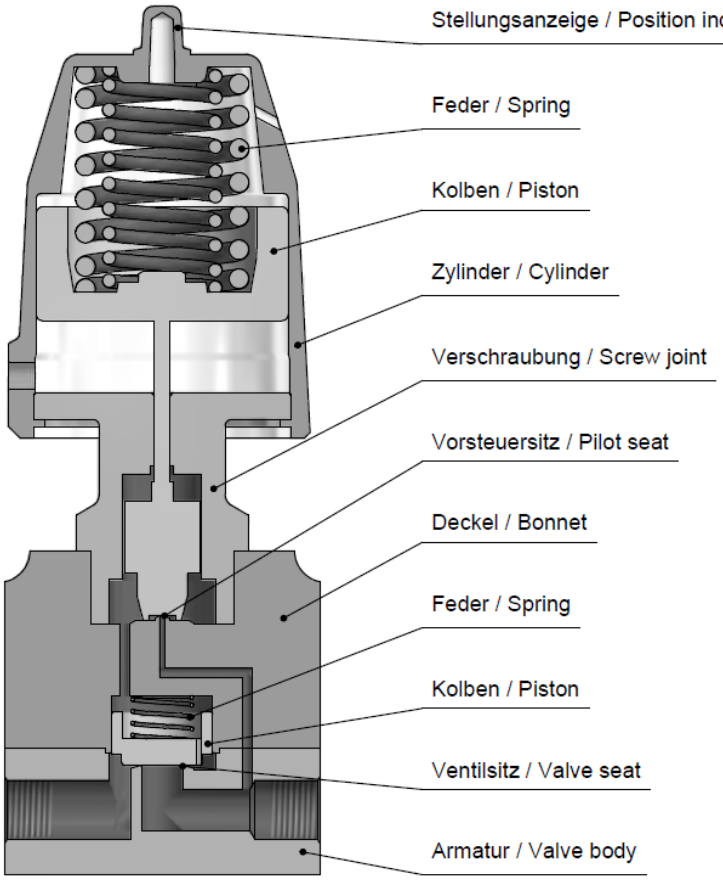
Type				Connect.		Housing	Seal		Actuator			
2	/	5	2	9	-	2	3	-	0	8	1	5	-	7	5	0	5

Connect.	Housing	Seal	Actuator
23 G 1/2	08 St.steel 1.4571	15 PEEK	7 . Normally closed
24 G 3/4			8 . Normally open
25 G 1			. 0 Standard actuator
26 G 1 1/4			. 3 Act. Stainless steel
27 G 1 1/2			. 5 Act. chem. nickel pl.
28 G 2			. 5 50 mm . 8 80 mm

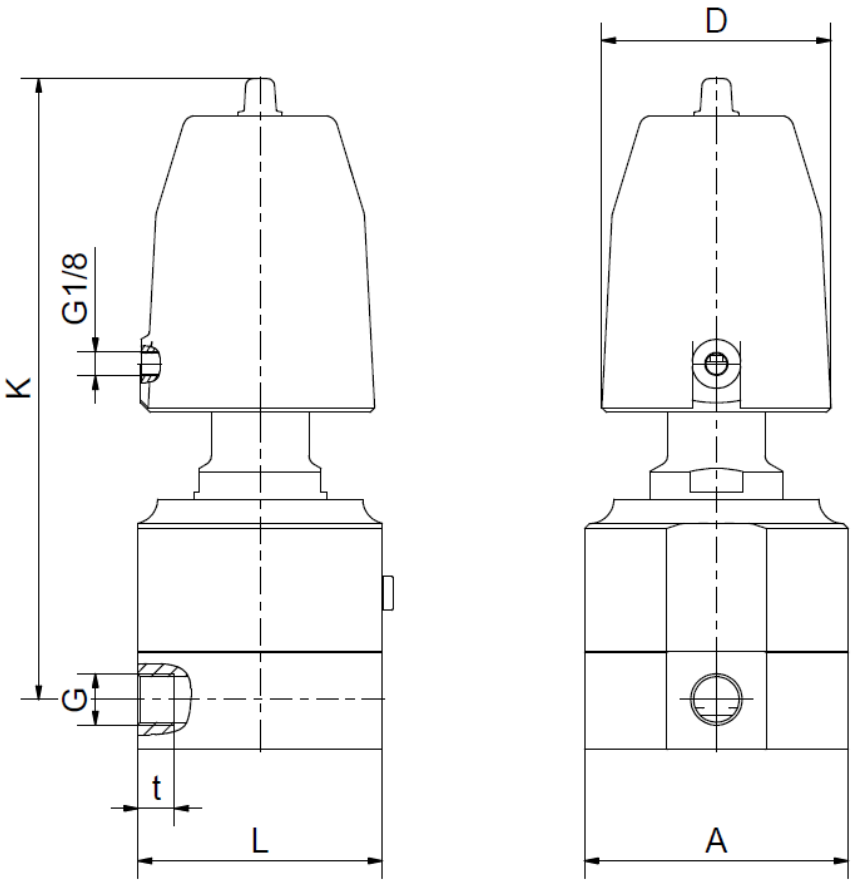
TECHNICAL FEATURES

Type 2/529PN

				max. pressure with actuator	
G	Seat Ø mm	Kv-value m³/h	Standard type	7505	7008
1/2	13	3,8	2/529-23-0815-	1-300	1-600
3/4	25	11,5	2/529-24-0815-	1-300	1-600
1	25	13,0	2/529-25-0815-	1-300	1-600
1 1/4	32	22,0	2/529-26-0815-	1-200	1-600
1 1/2	40	24,0	2/529-27-0815-	1-200	1-600
2	50	32,0	2/529-28-0815-	1-200	1-600



DIMENSIONS



Actuator	7.05					
Type	2/529-23	2/529-24	2/529-25	2/529-26	2/529-27	2/529-28
G	1/2	3/4	1	1 1/4	1 1/2	2
A	84	110	110	155	155	170
D	62	62	62	62	62	62
K	211	226	226	248	248	301
L	78	101	101	140	140	155
t	15	16	18	22	22	27
kg	5,1	7,4	7,0	17,0	16,5	on req.

Actuator	7.08					
Type	2/529-23	2/529-24	2/529-25	2/529-26	2/529-27	2/529-28
G	1/2	3/4	1	1 1/4	1 1/2	2
A	108	120	120	160	160	170
D	94	94	94	94	94	94
K	255	278	278	313	313	321
L	100	101	101	140	140	150
t	15	16	18	22	22	27
kg	8,6	12,0	11,5	on req.	on req.	on req.

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.

Stand: 09.17, MK-MG, Version 1.

Technical Data Sheet Type 1/921

3/2-way valve
Universal design

Direct pressure controlled valve. The valve seat is opened against a spring force via the control medium.

- **Pressure controlled valve for high pressure applications**

Type 1/921

TECHNICAL SPECIFICATIONS

Type of control	Direct pressure operated
Design	Piston design
Connection	Threaded G1/4 - G1 DIN ISO 228/1 (BSP) Other connections like NPT on request
Installation	Preferable with actuator upright
Pressure	0 - 500 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid Media
Viscosity	22 mm²/s
Temperature range	Medium: -10 °C to +80 °C Ambient: -10 °C to +60 °C In consideration of the restrictions described on page 4
Body material	Stainless steel 1.4571
Metallic inner parts	Stainless steel
Sealing	PTFE
Pilot pressure	4 - 10 bar
Pilot medium	Clean and neutral gases

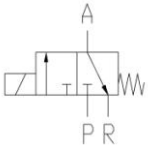
Pilot valve	**A7231/1002/....**
	3/2-way direct operated, NC G1/8, orifice 1.5mm, 0-8 bar Brass / Stainless steel / FKM

VALVE FEATURES

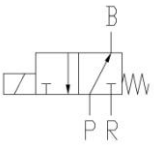
- For high pressure applications up to 500 bar
- No pressure difference required
- High life time
- Simple compact valve design
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

Valve type																Actuator				Options	
1	/	9	2	1	-	2	3	-	0	8	1	5	-	7	5	0	5	-	E	X	

Connection
21 G 1/4
22 G 3/8
23 G 1/2
24 G 3/4
25 G 1

Body material
08 Edelstahl 1.4581

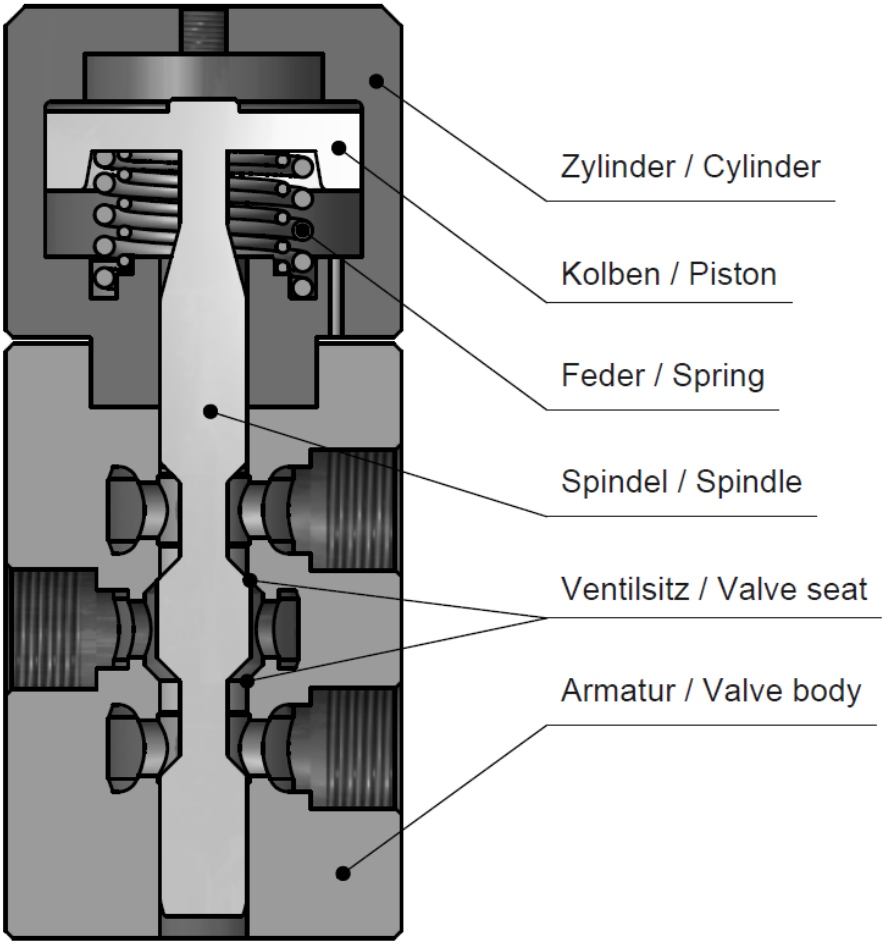
Seal meterial
15 PEEK

05 50 mm
08 80 mm

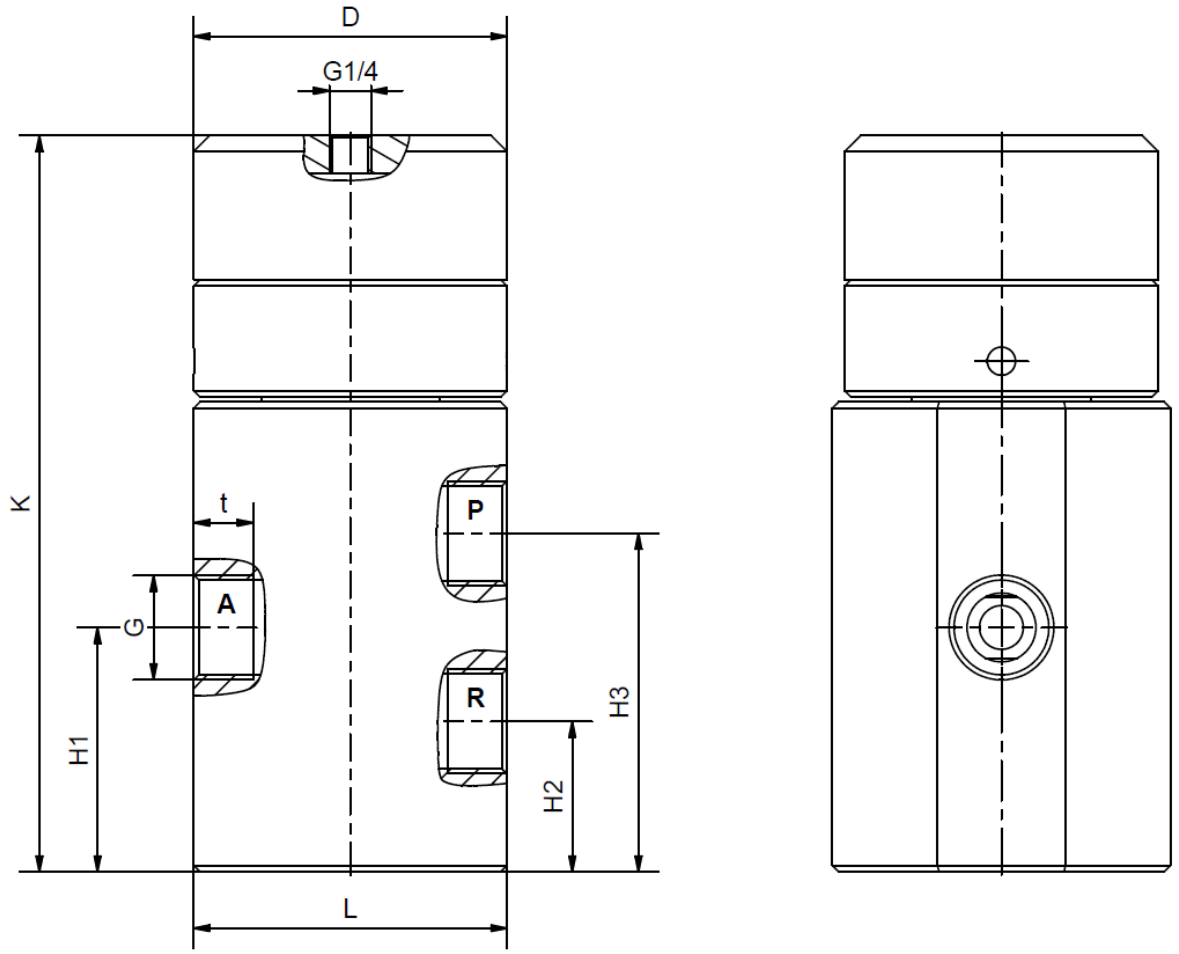
70 Standard actuator
75 Actuator chem. nickel plated

TECHNICAL FEATURES

				max. pressure at 6 bar pilot pressure	
G	Seat Ø mm	Kv-value m³/h	Standard type	Actuator 7.05	Actuator 7.08
1/4	10	1,0	1/921-21-0815-....	0-320	0-500
3/8	10	1,0	1/921-22-0815-....	0-320	0-500
1/2	10	1,2	1/921-23-0815-....	0-320	0-500
3/4	22	7,0	1/921-24-0815-....	0-100	0-350
1	22	8,0	1/921-25-0815-....	0-100	0-350



DIMENSIONS



Actuator	7.05					7.08				
Type	1/921-21	1/921-22	1/921-23	1/921-24	1/921-25	1/921-21	1/921-22	1/921-23	1/921-24	1/921-25
G	1/4	3/8	1/2	3/4	1	1/4	3/8	1/2	3/4	1
D	78	78	78	78	78	100	100	100	100	100
H1	52,5	52,5	52,5	78	78	52,5	52,5	52,5	78	78
H2	32,5	32,5	32,5	48	48	32,5	32,5	32,5	48	48
H3	72,5	72,5	72,5	108	108	72,5	72,5	72,5	108	108
K	188	188	188	230	230	197	197	197	235	235
L	70	70	70	100	100	70	70	70	100	100
t	12,5	12,5	14,5	17	19	12,5	12,5	14,5	17	19
kg	6	6	6	11,8	11,8	7,9	7,9	7,9	13,2	13,2

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.

Stand: 04.17, MK-MG, Version 1.