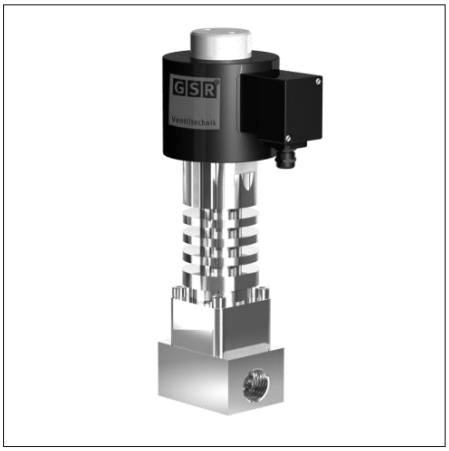
typ: **2/164**

2/2 solenoidový ventil nuceně řízený G1/4" - G2", Pmax. 40 bar



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 extended temperature range**

TECHNICAL SPECIFICATIONS

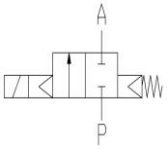
Type of control	Force-pilot operated
Design	Piston design
Connection	Threaded G1/4 - G2 DIN ISO 228/1 (BSP) Further connections like NPT on request
Installation	Actuator downwards
Pressure	0 - 40 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm²/s
Temperature range	Medium: -40 °C up to +300 °C Ambient: -40 °C up to +50 °C In consideration of the restrictions described on page 4
Body material	Brass 2.0402 Stainless steel 1.4571
Metallic inner parts	Brass and Stainless steel
Sealing	Metallic
Supply voltage	AC~ 24V, 110V, 230V via external rectifier (included in delivery) DC= 12V, 24V Other supply voltages on request
Voltage tolerance	-10% / +10%
Power consumption	T322 = 21 Watt T242 = 26 Watt T272 = 60 Watt T352 = 80 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Terminal box

VALVE FEATURES

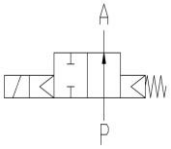
- For media temperatures up to +300 °C
- No pressure difference is required
- High life time
- High-quality materials
- Reliable and sturdy sealing elements

FUNCTION

NC – non energized closed



NO – non-energized open



CERTIFICATES

ORDERING SYSTEM

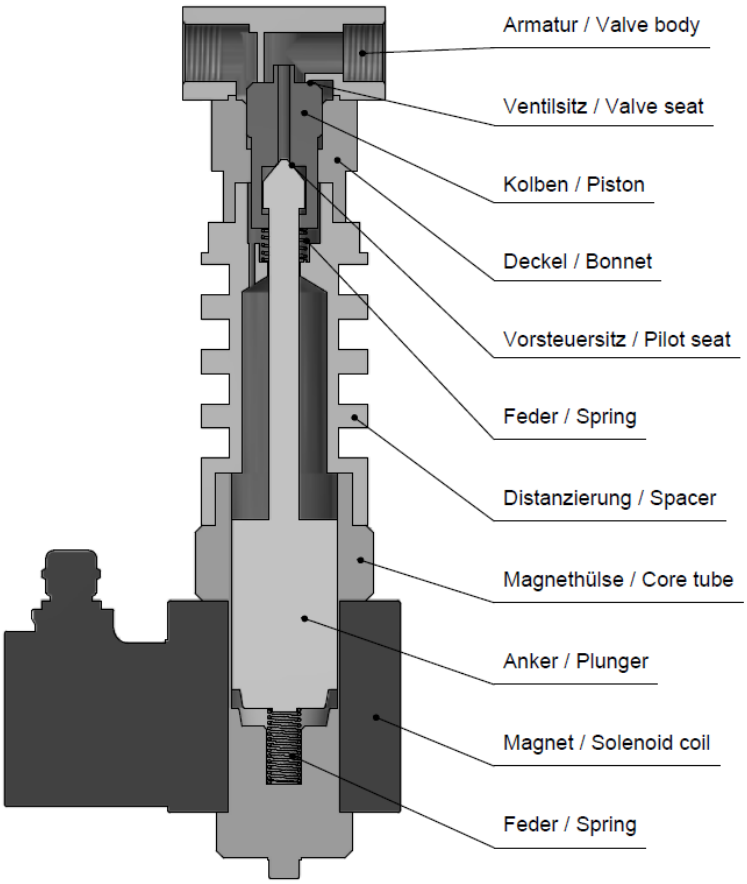
Type		Connect.		Housing	Seal		Coil			Option	
2 / 1 6 4	-	2 3	-	1 0	0 0	-	T	2 4 2	-	D	T
		21 G 1/4 22 G 3/8 23 G 1/2 24 G 3/4 25 G 1 26 G 1 1/4 27 G 1 1/2 28 G 2		08 St.steel 1.4581 10 Brass 2.0401	00 metall.		T Temperature design			DT +300 °C	

2/2 solenoidový ventil nuceně řízený, řada 2/164, G1/4" - G2"

TECHNICAL FEATURES

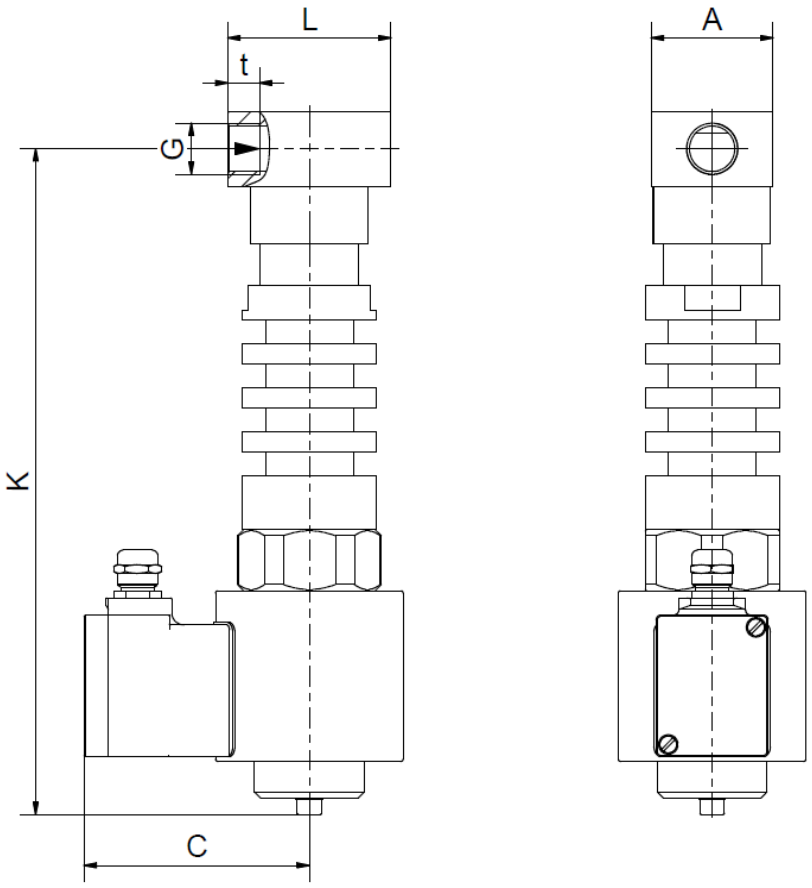
				max. pressure for coils			
G	Seat Ø mm	Kv-value m³/h	Standard type	T322-DT	T242-DT	T272-DT	T352-DT
1/4	13	1,8	2/164-21-..00-	0-4	0-25	0-40	-
3/8	13	4,0	2/164-22-..00-	0-4	0-25	0-40	-
1/2	13	4,5	2/164-23-..00-	0-4	0-25	0-40	-
3/4	25	11,5	2/164-24-..00-	-	0-16	0-40	-
1	25	13,0	2/164-25-..00-	-	0-16	0-40	-
1 1/4	40	29,0	2/164-26-..00-	-	-	0-25	0-40
1 1/2	40	33,0	2/164-27-..00-	-	-	0-25	0-40
2	50	49,0	2/164-28-..00-	-	-	0-25	0-40

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



2/2 solenoidový ventil nuceně řízený, řada 2/164, G1/4" - G2"

DIMENSIONS



Coil	T322	T242		T272			T352	
Type	2/164-21 - 2/164-23	2/164-23	2/164-24 - 2/164-25	2/164-24 - 2/164-25	2/164-26 - 2/164-27	2/164-28	2/164-26 - 2/164-27	2/164-28
G	1/4-1/2	1/2	3/4-1	3/4-1	1 1/4-1 1/2	2	1 1/4-1 1/2	2
A	48	48	70	70	98	112	98	112
C	84	93	93	107	107	107	127	127
K	250	276	310	330	371	390	410	428
L	67	67	96	95	140	168	140	168
t	12	13	16	16	22	22	22	22
kg	3,6	4,7	7,6	12,2	13,7	15,2	18,0	19,3

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 +300 °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. +270 °C. In addition to that, deviations from the default design temperature range are possible, e.g. when temperature coils or other constructive measures are used. Please contact the GSR headquarters to discuss the specific application.

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

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Stand: 09.17, MK-MG, Version 1.