



Technical Data Sheet Type 24TH

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	Flanges DN65 - DN200 EN 1092-1 Form B1/B2
Installation	With actuator upright
Pressure	0 - 40 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm ² /s
Temperature range	Medium: -40 °C up to +200 °C Ambient: -40 °C up to +50 °C <small>In consideration of the restrictions described on page 4</small>
Body material	Spheroidal cast EN-GJS-400-18-LT Cast iron EN-GJL-250 Cast steel GP240 GH Stainless steel 1.4581
Metallic inner parts	Brass and Stainless steel
Sealing	PTFE
Supply voltage	AC~ 24V, 110V, 230V <small>via external rectifier (included in delivery)</small> DC= 12V, 24V <small>Other supply voltages on request</small>
Voltage tolerance	-10% / +10%
Power consumption	T272 = 60 Watt T352 = 80 Watt T402 = 180 Watt
Protection class	IP65 acc. to DIN 60529
Duty factor	100% ED-VDE 0580
Connection type	Terminal Box

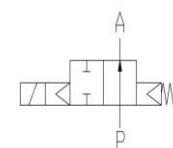
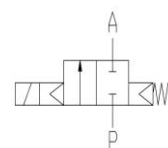
VALVE FEATURES

- For media temperatures up to +200 °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

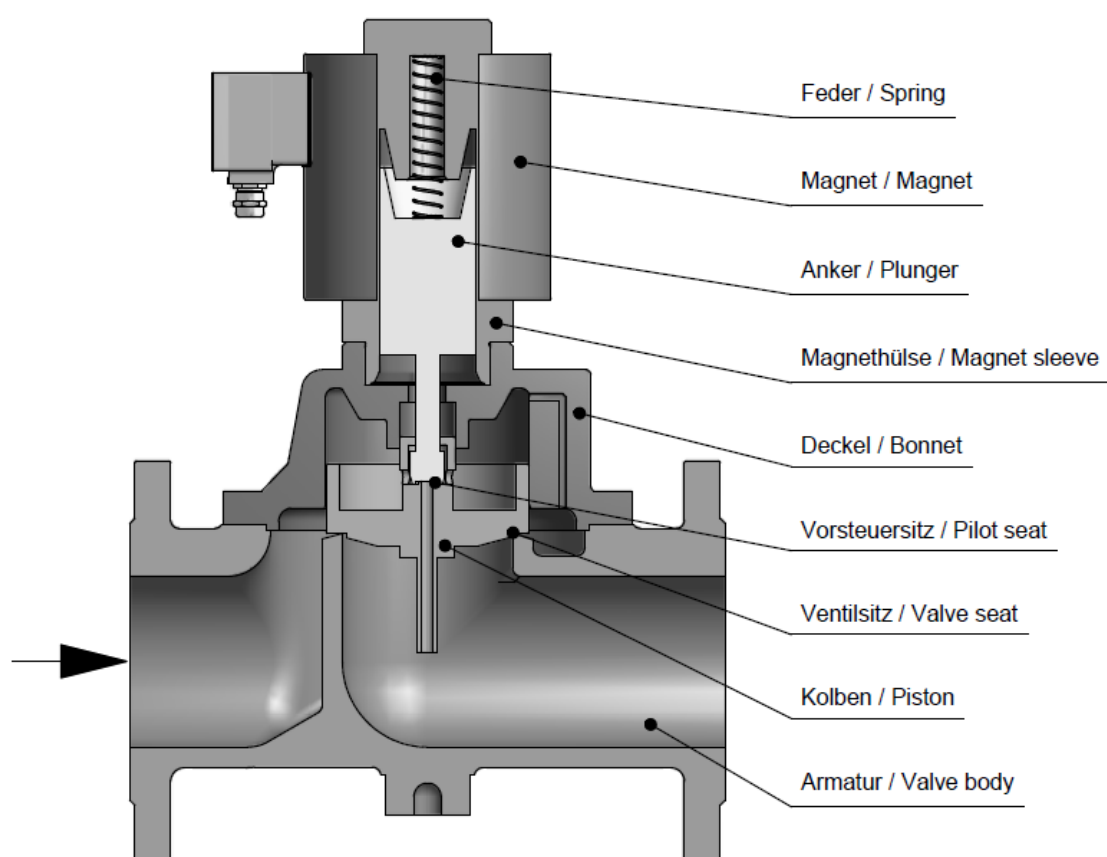
Type	Conn.	Housing	Seal	Coil	Option
. 2 4 0 9 /	0 4 0 4 /	T 2 7 2 -	T H		
07 DN65 08 DN80 09 DN100 10 DN125 11 DN150 12 DN200	03 EN-GJS-400-18-LT 04 EN-GJL-250 05 GP240 GH 08 St. steel 1.4581	T Temperature-design	TH +180°C EL +200°C		
	04 PTFE				

TECHNICAL FEATURES

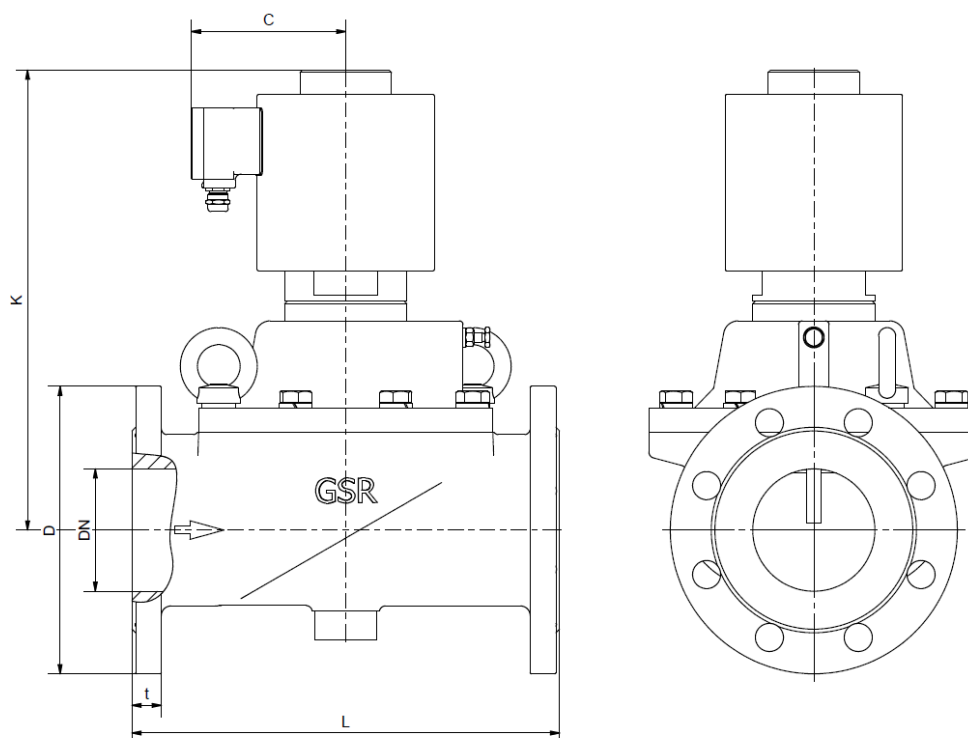
DN	Seat Ø mm	Kv-value m³/h	Standard type	max. pressure for coils		
				T272	T352	T402
65	65	75,0	.2407/..04/	0-25	0-40	-
80	80	97,0	.2408/..04/	0-20	0-40	-
100	100	143,0	.2409/..04/	0-12	0-20	-
125	125	240,0	.2410/..04/	-	0-9	0-25
150	150	370,0	.2411/..04/	-	0-4	0-25
200	200	625,0	.2412/..04/	-	-	0-20

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

Max. pressure 0-13 bar with EN-GJL-250 body PN16



DIMENSIONS



Body PN16

Coil	T272			T352					T402		
Type	2407	2408	2409	2407	2408	2409	2410	2411	2410	2411	2412
DN	65	80	100	65	80	100	125	150	125	150	200
C	107	107	107	120	120	120	120	120	160	160	160
D	185	200	220	185	200	235	270	285	250	285	340
K	295	295	360	390	390	380	350	420	580	615	680
L	290	310	350	290	310	350	400	480	400	480	600
t	18	20	20	18	20	20	26	26	26	26	30
kg	29,0	39,5	55,0	45,0	53,5	64,5	72,5	84,0	133,5	157,0	208,0

Body PN40

Coil	T272			T352					T402		
Type	2407	2408	2409	2407	2408	2409	2410	2411	2410	2411	2412
DN	65	80	100	65	80	100	125	150	125	150	200
C	107	107	107	120	120	120	120	120	160	160	160
D	185	200	220	185	200	235	270	300	270	300	375
K	295	295	360	390	390	380	350	420	580	615	680
L	290	310	350	290	310	350	400	480	400	480	600
t	22	24	24	22	24	24	26	28	26	28	34
kg	29,0	39,5	55,0	45,0	53,5	64,5	72,5	84,0	133,5	157,0	208,0

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 +200 °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. +180 °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: 02.18, MK-MG, Version 1.