

# 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

## TECHNICAL SPECIFICATIONS

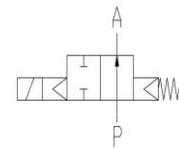
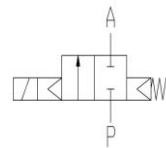
Type of control	Direct operated
Design	Piston design
Connection	Flanges DN15 - DN100 EN 1092-1 Form B1/B2
Installation	With actuator upright
Pressure	0 - 1,4 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm <sup>2</sup> /s
Temperature range	Medium: -10 °C up to +80 °C Ambient: -10 °C up to +50 °C <small>In consideration of the restrictions described on page 4</small>
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 <small>Other supply voltages on request</small>
Voltage tolerance	-10% / +10%
Power consumption	.802 = 24 Watt .808 = 24 Watt ⚡ .322 = 30 Watt .328 = 23 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) <small>Further Ex-proof on request</small>

## 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		
01 DN15 02 DN20 03 DN25 04 DN32 05 DN40 06 DN50 07 DN65 08 DN80 09 DN100	04 EN-GJL-250 05 GP240 GH	01 NBR 02 FKM 04 PTFE 06 EPDM	2 Standard IP65 8 Explosion proof acc. to directive 2014/34/EU (ATEX)	

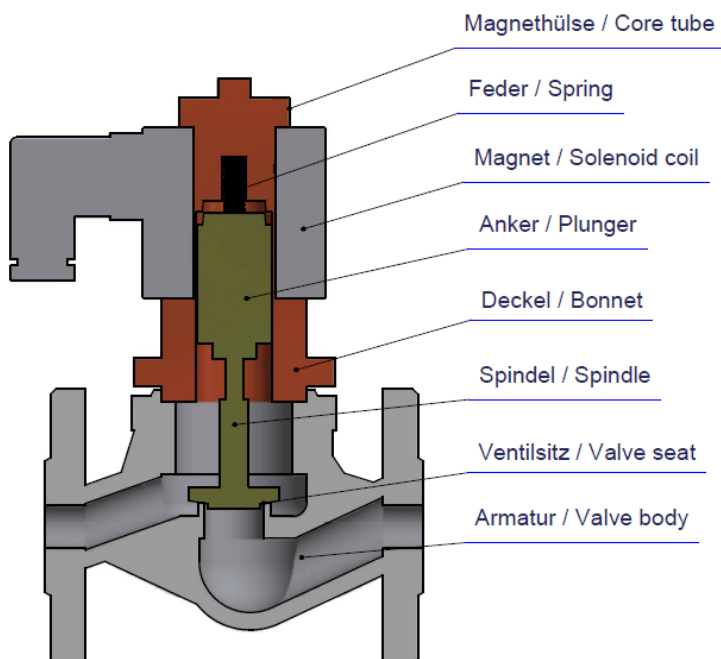
# TECHNICAL FEATURES

DN	Kv-value m³/h	Standard type	max. pressure for coils				
			.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

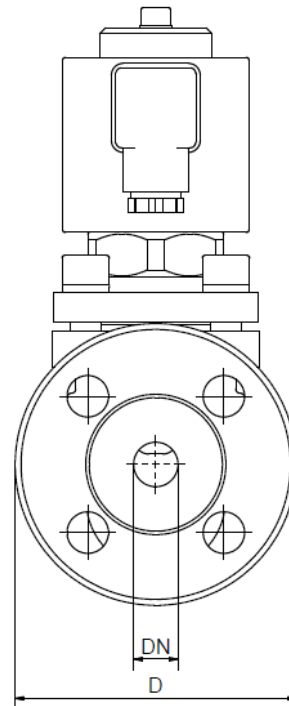
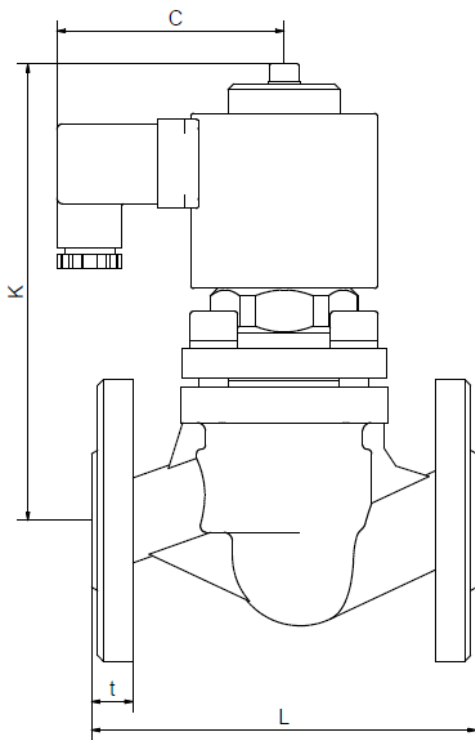
The flow rate mentioned in the table applies to the strongest coil.

DN	Kv-value m³/h	Standard type	max. pressure for coils ATEX ⚠				
			.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



**Type 23**

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.

- The GSR logo is a registered trademark of GSR Ventiltechnik GmbH & Co. KG.
- Note: All texts and images are the property of GSR Ventiltechnik GmbH & Co. KG and must not be replicated or modified, not even in part, without written approval.
- Original products may differ from the product images shown, due to different materials and the like.
- Subject to error and changes.

**Stand: 12.17, MK-MG, Version 1.**