



# Technical Data Sheet Type 1/041FL



Type 1/041FL

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

## TECHNICAL SPECIFICATIONS

Type of control	Force-pilot operated
Design	Piston design
Connection	Flanges DN15 - DN100 EN 1092-1 Form B1/B2
Installation	With actuator upright
Pressure	0 - 130 bar (see table on page 2)
Medium	Clean, neutral, gaseous and liquid media
max. viscosity	22 mm <sup>2</sup> /s
Temperature range	Medium: -40 °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	Steel C22.8 Stainless steel 1.4408
Metallic inner parts	Stainless steel
Sealing	PTFE
Supply voltage	AC~ 24V, 110V, 230V DC= 12V, 24V <small>Other supply voltages on request</small>
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) <small>Further Ex-proof on request</small>

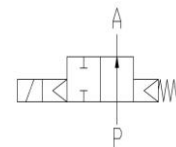
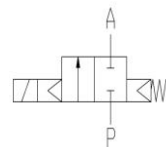
## VALVE FEATURES

- For high pressure applications up to 130 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	- 0 3	- 0 0	0 4	- . 2 7 2
01 DN15 02 DN20 03 DN25 04 DN32 05 DN40 06 DN50 07 DN65 08 DN80 09 DN100		00 Steel C22.8 08 St. steel 1.4408	04 PTFE	2 Standard IP65 8 Explosion proof acc. to directive 2014/34/EU (ATEX)

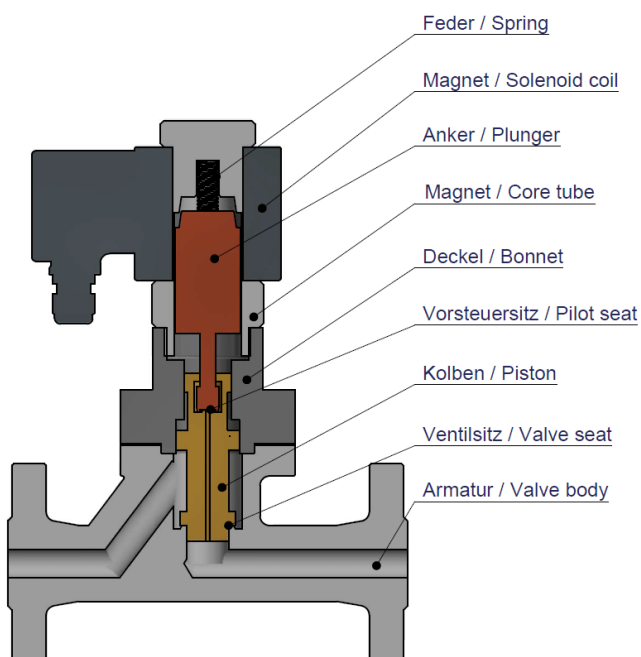
# TECHNICAL FEATURES

DN	Kv-value m <sup>3</sup> /h	Standard type	max. pressure for coils		
			.242	.272	.352
15	3,8	1/041-01-..04-	0-70	0-100	0-130
20	11,0	1/041-02-..04-	0-70	0-100	0-100
25	13,0	1/041-03-..04-	0-70	0-100	0-100
32	22,0	1/041-04-..04-	-	0-70	0-100
40	24,0	1/041-05-..04-	-	0-70	0-100
50	35,0	1/041-06-..04-	-	0-70	0-80
65	68,0	1/041-07-..04-	-	0-70	0-80
80	85,0	1/041-08-..04-	-	-	0-70
100	120,0	1/041-09-..04-	-	-	0-70

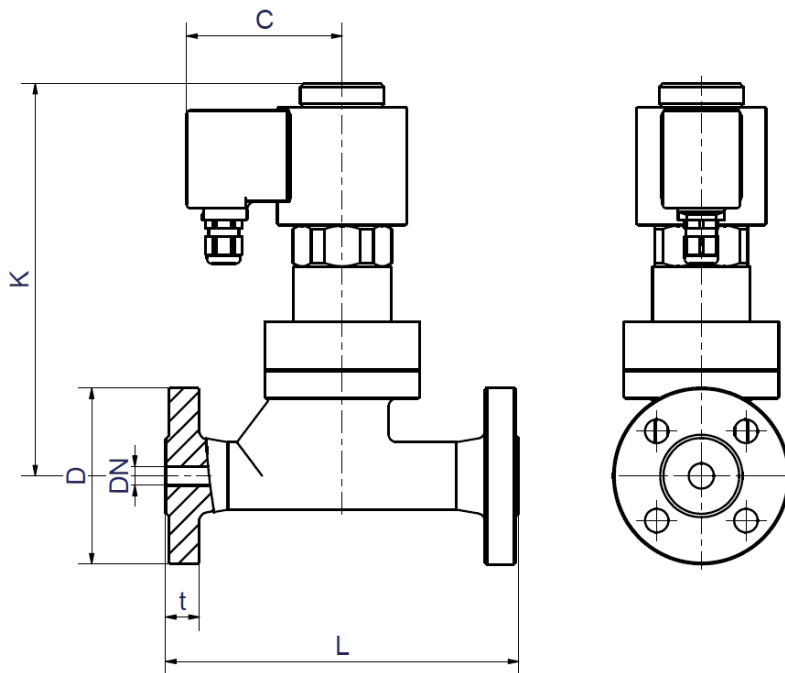
The flow rate mentioned in the table applies to the strongest coil.

DN	Kv-value m <sup>3</sup> /h	Standard type	max. pressure for coils ATEX 	
			.278	.358
15	3,8	1/041-01-..04-	0-70	0-100
20	11,0	1/041-02-..04-	0-70	0-100
25	13,0	1/041-03-..04-	0-70	0-100
32	22,0	1/041-04-..04-	-	0-100
40	24,0	1/041-05-..04-	-	0-100
50	35,0	1/041-06-..04-	-	0-70
65	68,0	1/041-07-..04-	-	0-60
80	85,0	1/041-08-..04-	-	0-60
100	120,0	1/041-09-..04-	-	0-55

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



## DIMENSIONS



Coil	.242 / .248			.272 / .278						
Type	1/041-01	1/041-02	1/041-03	1/041-01	1/041-02	1/041-03	1/041-04	1/041-05	1/041-06	1/041-07
DN	15	20	25	15	20	25	32	40	50	65
C	93	93	93	107	107	107	107	107	107	107
D	105	130	140	105	130	140	155	170	195	220
K	233	207	207	292	266	266	323	on req.	311	281
L	210	230	230	210	230	230	260	260	300	340
t	20	24	24	20	24	24	24	28	26	34
kg	4,0	10,6	11,0	4,0	9,3	10,0	16,5	on req.	24,0	31,6

Coil	.352 / .358								
Type	1/041-01	1/041-02	1/041-03	1/041-04	1/041-05	1/041-06	1/041-07	1/041-08	1/041-09
DN	15	20	25	32	40	50	65	80	100
C	126	126	126	126	126	126	126	126	126
D	105	130	140	155	170	195	220	230	265
K	356	328	328	390	on req.	397	376	405	408
L	210	230	230	260	260	300	340	380	430
t	20	24	24	24	28	26	34	36	40
kg	9,0	15,0	15,5	25,3	on req.	27,5	39,0	53,5	70,2

## 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.**

## 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.

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