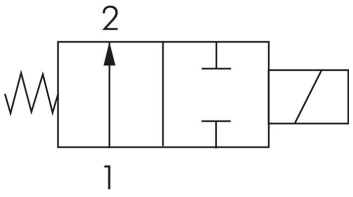
Technical information

2/2-way solenoid valve G 1/8"
open (NO) without power, FKM

A solenoid valve converts an electrical signal into a mechanical opening or sleeping movement. It is thus possible to control the flow of liquid or gaseous media. The following sectional drawing shows the most important components.

General information



- Robust designs that are ideally suited for industrial use. Valve seats made of stainless steel and a metal-sealing anchor guide tube ensure reliable operation.
- Centrally mounted magnet coil, which can be swiveled 360 °. The coil can be replaced without any problems even if the valve is pressurized.

- high-quality stainless steels for the anchor guide tubes guarantee good corrosion resistance.
- The valves work in both AC and DC mode. Fully interchangeable coils available in many voltages: AC or DC.
- High-quality sealing materials such as FKM or PTFE guarantee high resistance to the flow media used.

Function types

The 2/2-way symbol is used to identify a valve with two connections, each as the inlet and outlet side.
The circuit symbols and their mode of operation are closed in the rest position (NC) and opened in the rest position. (NO) subdivision:

- Closed in rest position (NC): the solenoid valve is closed when de-energized.
- Opened in rest position (NO): when de-energized, the solenoid valve is open.

Classification of the valves

Valve type	ON/OFF time	
2/3 way NC / NO direct operated solenoid valves	5÷25 msec	Changes in the switching times depend on the type of guide tube (10mm / 14.5mm), the size of the valve and the size of the seat.) With a smaller guide tube and seat, the ON / OFF times are shorter.
NC positive controlled solenoid valves NC / NO servo controlled solenoid valves	5÷200 msec	

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Valve technology

Connections and nominal diameter
The connections are with an inch thread (G according to ISO 228), the nominal widths (DN) are given in millimeters and correspond to the diameter of the valve seat.

Pressure areas
All pressure data are limit values. These values are given in bar and refer to the actual operating pressure. With this information, the output side is not pressurized.

Flow
The flow rate is the amount of pumping media that flows through the main nominal diameter of the valve within a certain period of time. It is defined by a constant value.
The kv value (according to VDI / VDE 2173) indicates the amount of water that flows through the valve per minute at a temperature of 20 and a differential pressure of 1 bar.

Voltage and frequency of the solenoid
In order for the ventiel to work properly, the solenoid coil must be supplied with the specified voltage. In the case of alternating voltage, attention must also be paid to the agreement of the mains frequency.

Solenoid valves for general applications
The valves, which are closed or open in the rest position, have the function of shutting off or releasing the flow of a medium. However, they cannot be used as safety valves.

Item description

Materials: Body:	brass, internal parts: brass / stainless steel, seal: NBR (types G 1/8" & G 1/4": FKM)
Temperature range:	-10°C to max. +85°C (types with G 1/8" and G 1/4": -10°C to max. +130°C), environment: max. +50°C
Media:	Compressed air, neutral gases, water, neutral low-viscosity media, heating oil, other media on request
Installation position:	With upright magnets
Voltages:	Standard: 24 V=, 230 V AC, upon request: other voltages
Protection class:	IP 65
Optional:	FKM seal (-10°C to max. +130°C) -V, EPDM seal for air and warm water (-10°C to max. +120°C) -EP
Information:	These valves are generally delivered with coils and plugs!
Warning:	For opening or closing, servo-controlled valves require a pressure difference between the valve inlet and valve outlet. The pressure difference is given as minimum pressure. There is a pressure compensation in the valve, resulting that no or little medium is used at the valve outlet, the valve will no longer function (it opens or closes unreliably).

*Water flow rate at +20°C, 1 bar pressure at the valve inlet, free discharge.