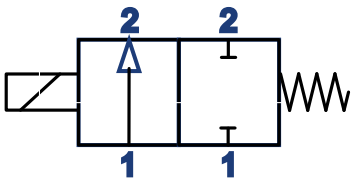


Technical information

2/2-way solenoid valve direct operated normally closed.

The ST-DA is a direct operated 2/2-way solenoid valve. The valve is normally closed. The solenoid valves have an orifice of 3 mm, operate from 0 bar and are suitable for small flow rates. The body material can be brass, nylon or stainless steel with a NBR, EPDM or FKM seal. The ST-DA solenoid valves are compatible with all coils from the CS1-series.

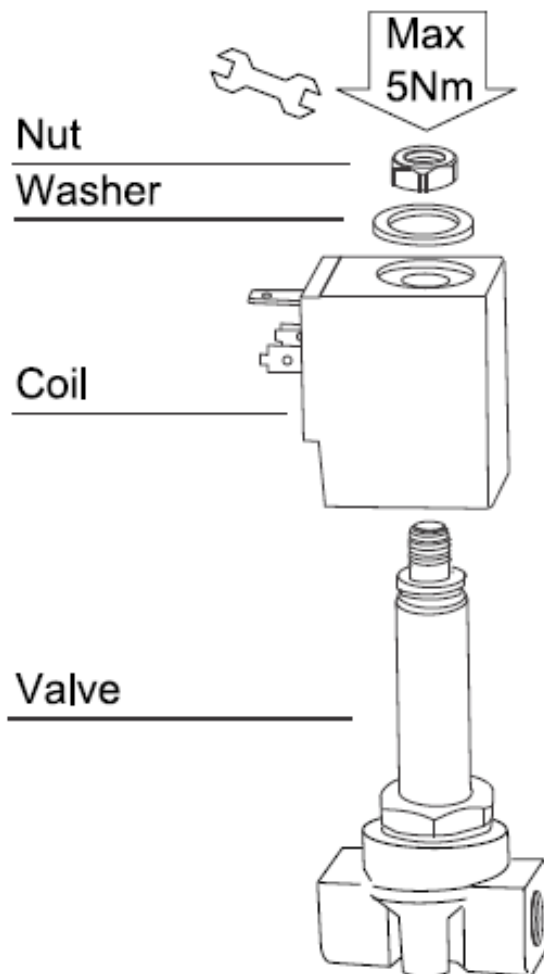
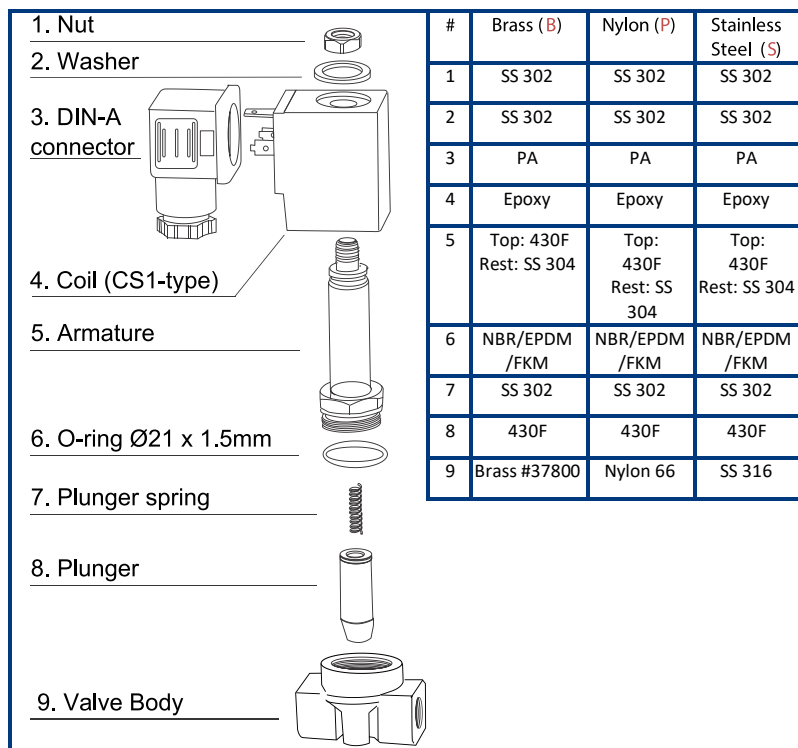
Series	Standard (ST)	
Function	2/2 way	
Operation	Direct operated (I)	
Position	Brass (B) / Nylon 66 (N) / Stainless Steel 316 (S)	
Body	Brass (B) / SS 316 (S)	
Seal & Media Temperature	NBR (N)	-10..80°C
	EPDM (E)	-30..130°C
	FKM (F)	-10..120°C
Thread	BSPP / NPT (N)	
Ambient Temperature	Max 50°C	
Min. Press. Difference	0 bar	
Max. Pressure	13 bar (Brass & SS) 8 bar (Nylon 66)	
Coil series	CS1	
Voltage	380V AC 50Hz (380AC)	
	230V AC 50Hz (230AC)	
	120V AC 60Hz (120AC)	
	24V AC 50Hz (024AC)	
	24V DC (024DC)	
	12V DC (012DC)	
Insulation Class	Class F	
Power	13 W / 17 VA	
Duty Cycle	100% ED	
Connector	EN 175301-803 (formerly DIN 43650A)	
Protection Class	IP 65 (with cable plug)	
Circuit Diagram		

Principle of operation

A solenoid valve is a valve for neutral, clean liquids and gases, which is electrically controlled with the aid of a solenoid. 2/2 way means that the valve has two ports (input/output) and two positions (closed / open). The valve is normally closed, this means that the valve is closed when de-energized.

The solenoid consists of a coil and a movable plunger. The plunger is ferromagnetic and at the bottom of the plunger is a sealing gasket. In the valve is an orifice which is closed by the plunger. Once the solenoid is activated with an electric current, the plunger is lifted up by the magnetic field, whereby the orifice opens and the medium can flow through. A small spring holds the plunger in closed position when the valve is not energized. This working principle is called direct operation.





Mounting the valve

Be aware of the direction of flow of the medium when installing the valve. Solenoid valves with an arrow on the housing must be connected in the indicated direction. The pipes on both sides of the valve must be securely fastened. Use a wrench for both valve and pipe while tightening to prevent unnecessary stresses in the system. The solenoid valve must be fixed via the provided connection points. Only exert force at the designated areas on the body such as the hexagon; never to the coil or armature. Avoid vibration in the pipes. Use a suitable sealant for threaded connections of the solenoid valve. Avoid the entry of thread sealing material in the valve, this can lead to malfunctioning of the valve.

Position

It is recommended to install the solenoid in vertical position with the coil facing upwards. This reduces the probability of the collection of debris in the solenoid valve. When the solenoid valve is mounted at an angle, it is recommended to deviate maximally 90° from the vertical position.

General safety instructions

- ▶ This product is not a safety device and may not be used as such.
- ▶ Damage caused by improper use, falling, improper operating conditions or other reasons, may cause improper functioning of the solenoid. Correct transport, proper storage and installation, and proper use and maintenance, are essential for reliable and error-free operation.
- ▶ It is the responsibility of the user to select the right product for the application.