

SOL Series

Industrial Solenoid Valves



- For liquid or gas* use
- Full range of sizes from 3/8" to 2" (BSP)
- 2 port, normally open (NO) and normally closed (NC) versions
- Pilot operated
- Brass body
- 24Vdc, 110Vac and 230Vac operations available

The SOL Series is a range of 2-way solenoid valves which are pilot-operated and are available in a choice of 110Vac, 230Vac or 24Vdc coils to suit the required voltage.

Ideal for use in a wide range of industrial and commercial applications such as autoclaves, cooling plant and equipment, watering plant, fire extinguishing systems, hygienic & sanitary applications as well as water jet machinery and many other fluid control uses.

General Features

The electro-pilot of the pilot-operated solenoid valves is not directly responsible for opening (closing) the solenoid valve. The solenoid valve presents three sequential chambers :

- inlet chamber Ci (upstream of the diaphragm)
- compensating chamber Cc (downstream of the diaphragm and upstream of the electro-pilot)
- outlet chamber Cu (downstream of the electro-pilot).

In the 2/2-way normally closed (NC) solenoid valve, Ci & Cc are communicating by means of a compensating hole when the coil is de-energised. Therefore, the diaphragm is in a condition of balanced pressure level and DN tightness is ensured by the retaining spring load from the same diaphragm.

When the coil is energised by acting on the electro-pilot, there is an immediate communication between Cc and Cu; the sudden increase in volume of the pressurised fluid over the diaphragm ($Cc+Cu > Ci$) causes a pressure drop.

The diaphragm is no longer in a condition of balanced pressure level and it swells up in the higher pressure direction thus raising up and opening the DN to let the fluid flow.

* Group 2 gases.

Mechanical Characteristics		Electrical Characteristics	
Body material	Forged brass	Electrical insulation class	I
Plunger	Magnetic stainless steel	Temperature class	H
Gaskets	NBR	Protection Class (with connector)	IP65
T _{room} Maximum	80°C	Type of service	Continuous
T _{fluid} Minimum	-20°C	Coil approval	VDE
T _{fluid} Maximum	90°C		

