

**SOL SERIES**

INDUSTRIAL SOLENOID VALVES



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.

**Features**

- 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

**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.

**SPECIFICATIONS**

**Mechanical**

<b>Body material</b>	Forged brass
<b>Plunger</b>	Magnetic stainless steel
<b>Gaskets</b>	NBR
<b>T Room Maximum</b>	80°C
<b>T Fluid Minimum</b>	-20°C
<b>T Fluid Maximum</b>	90°C

**Electrical**

<b>Electrical insulation class</b>	I
<b>Temperature class</b>	H
<b>Protection Class (with connector)</b>	IP65
<b>Type of service</b>	Continuous
<b>Coil approval</b>	VDE



## ORDERING OPTIONS

RS Stock No.	Operating Voltage	Solenoid Power	Operation	Size	Dimension (mm)								Pressure (bar)		Max Flow (m3/hr)	Operating Temp
					DN	CH.A	B	C	E	F	L	H	Min	Max		
1440809	24Vdc	10 W	NO	G3/8"	11.5	24	12	32.5	42	38	57	93.5	0.1	15	1.7	-20 to +90 Deg C
1440794			NC													
1440810	230Vac	9 VA	NO													
1440795			NC													
1440811	24Vdc	10 W	NO	G1/2"	13.5	30	15	40	45	41	69	101	0.1	15	3.8	-20 to +90 Deg C
1440797			NC													
1440812	230Vac	9 VA	NO													
1440798			NC													
1440813	24Vdc	10 W	NO	G3/4"	18	36	18	46.6	54	50	74	108	0.2	15	5	-20 to +90 Deg C
1440799			NC													
1440814	230Vac	9 VA	NO													
1440800			NC													
1440815	24Vdc	10 W	NO	G1"	26	45	22.5	60	71	67	93	120	0.2	12	11	-20 to +90 Deg C
1440801			NC													
1440816	230Vac	9 VA	NO													
1440802			NC													
1440817	24Vdc	19 W	NO	G1-1/4"	32	55	27.5	73.5	87	79	111	146	0.4	12	17	-20 to +90 Deg C
1440803			NC													
1440818	230Vac	15 VA	NO													
1440804			NC													
1440805	24Vdc	19 W	NC	G1-1/2"	45	62	31	85	110	100	138	154	0.4	10	27	-20 to +90 Deg C
1440819	230Vac	9 VA	NC													
1440806		15 VA	NC													
1440807	24Vdc	19 W	NC													
1440820	230Vac	9 VA	NO													
1440808		15 VA	NC													



## DIMENSIONS

All dimensions are in millimeters

