



#### **Datasheet**

**ENGLISH** 

**Stock Nos:**1440809, 1440794, 1440810, 1440795, 1440811, 1440797, 1440812, 1440798, 1440813, 1440799, 1440814, 1440800, 1440815, 1440801, 1440816, 1440802, 1440817, 1440803, 1440818, 1440804, 1440805, 1440819, 1440806, 1440807, 1440820, 1440808

## **SOL Series**

### Industrial Solenoid Valves



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

The SOL Series is a range of 2-way solenoid valves which are pilotoperated and are in a choice of 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 deenergised. Therefore, the diaphragm is in a condition of balanced pressure level and DN tightnessis ensured by the retaining spring load fo the same diaphragm.

When the coil is energised by acting on the electro-pilot, there is and 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.

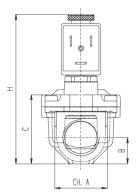
| Mechanio                   | al Characteristics       | Electrical Characteristics        |            |  |  |  |  |
|----------------------------|--------------------------|-----------------------------------|------------|--|--|--|--|
| Body material              | Forged brass             | Electrical insulation class       | I          |  |  |  |  |
| Plunger                    | Magnetic stainless steel | Temperature class                 | Н          |  |  |  |  |
| Gaskets                    | NBR                      | Protection Class (with connector) | IP65       |  |  |  |  |
| T <sub>room</sub> Maximum  | 80°C                     | Type of service                   | Continuous |  |  |  |  |
| T <sub>fluid</sub> Minimum | -20°C                    | Coil approval                     | VDE        |  |  |  |  |
| T <sub>fluid</sub> Maximum | 90°C                     |                                   |            |  |  |  |  |

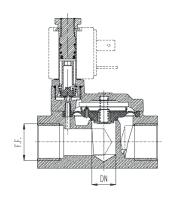


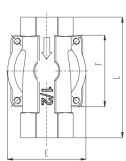




# **SOL Series** *Industrial Solenoid Valves*







| PS Stock | Operating | Operation      | Size        | Dimension (mm) |      |      |      |     |        |     | Pressure (bar) |     | Max Flow |                  |                  |
|----------|-----------|----------------|-------------|----------------|------|------|------|-----|--------|-----|----------------|-----|----------|------------------|------------------|
| No.      | Voltage   |                |             | DN             | CH.A | В    | С    | E   | ,<br>F | L   | Н              | Min | Max      | (m3/hr) Operat   | Operating Temp   |
| 1440809  |           | 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  | 24Vdc     | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440810  | 2221      | NO             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440795  | 230Vac    | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440811  | 2011      | NO             | C1/2   12 F |                | 30   | 15   | 40   | 45  | 41     | 69  | 101            | 0.1 | 15       | 3.8              | -20 to +90 Deg C |
| 1440797  | 24Vdc     | NC             |             | 12.5           |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440812  | 2221      | NO             | G1/2"       | /2" 13.5       |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440798  | 230Vac    | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440813  | 24Vdc     | NO<br>NC<br>NO | G3/4" 18    |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440799  | 24V ac    |                |             | 10             | 36   | 18   | 46.6 | 54  | 50     | 74  | 108            | 0.2 | 15       | 5                | -20 to +90 Deg C |
| 1440814  | 230Vac    |                |             | 18             | 30   |      |      |     |        |     |                |     |          |                  |                  |
| 1440800  | 230V aC   | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440815  | 24Vdc     | NO             | G1" 26      |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440801  | 24Vac     | NC             |             | 26             | 45   | 22.5 | 60   | 71  | 67     | 93  | 120            | 0.2 | 12       | 11               | -20 to +90 Deg C |
| 1440816  | 230Vac    | NO             |             | 20             | 45   |      |      |     |        |     |                |     |          |                  |                  |
| 1440802  | 230V aC   | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440817  | 24Vdc     | 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             |             | 22             |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440818  | 230Vac    | NO             |             | ) 33           | 27.3 | /3.3 | 07   | /3  | 111    | 140 | 0.4            | 14  | 17       | -20 to 150 Deg C |                  |
| 1440804  | 230 V aC  | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440805  | 24Vdc     | NC             |             |                |      | 31   | 85   | 110 | 100    | 138 | 154            | 0.4 | 10       | 27               | -20 to +90 Deg C |
| 1440819  | 230Vac    | NO             |             | 45             | 62   |      |      |     |        |     |                |     |          |                  |                  |
| 1440806  | 230Vac    | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440807  | 24Vdc     | NC             |             | 2" 50          | 75   | 37.5 | 99   | 110 | 100    | 145 | 168            | 0.4 | 10       | 26               | -20 to +90 Deg C |
| 1440820  | - 230Vac  | NO             | G2"         |                |      |      |      |     |        |     |                |     |          |                  |                  |
| 1440808  |           | NC             |             |                |      |      |      |     |        |     |                |     |          |                  |                  |