

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

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

Electrical

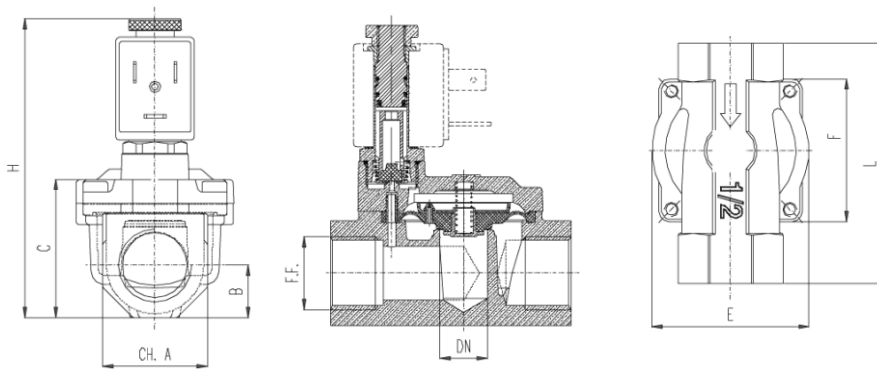
Electrical insulation class	I
Temperature class	H
Protection Class (with connector)	IP65
Type of service	Continuous
Coil approval	VDE

ORDERING OPTIONS

Part 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															
SOL1A1	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													
SOL1B1			NC																										
SOL1A3	110Vac	10.5 VA	NO																										
SOL1B3			NC																										
SOL1A4	230Vac	9 VA	NO																										
SOL1B4			NC																										
SOL2A1	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
SOL2B1			NC																										
SOL2A3	110Vac	10.5 VA	NO																										
SOL2B3			NC																										
SOL2A4	230Vac	9 VA	NO																										
SOL2B4			NC																										
SOL3A1	24Vdc	10 W	NO	G3/4"	18	36	18	46.6	54	50	74	108	0.2	15	5	-20 to +90 Deg C													
SOL3B1			NC																										
SOL3A3	110Vac	10.5 VA	NO																										
SOL3B3			NC																										
SOL3A4	230Vac	9 VA	NO																										
SOL3B4			NC																										
SOL4A1	24Vdc	10 W	NO														G1"	26	45	22.5	60	71	67	93	120	0.2	12	11	-20 to +90 Deg C
SOL4B1			NC																										
SOL4A3	110Vac	10.5 VA	NO																										
SOL4B3			NC																										
SOL4A4	230Vac	9 VA	NO																										
SOL4B4			NC																										
SOL5A1	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													
SOL5B1			NC																										
SOL5A3	110Vac	21 VA	NO																										
SOL5B3			NC																										
SOL5A4	230Vac	15 VA	NO																										
SOL5B4			NC																										
SOL6B1	24Vdc	19 W	NC														G1-1/2"	45	62	31	85	110	100	138	154	0.4	10	27	-20 to +90 Deg C
SOL6B3	110Vac	21 VA	NC																										
SOL6A4	230Vac	9 VA	NO																										
SOL6B4	230Vac	15 VA	NC																										
SOL7B1	24Vdc	19 W	NC	G2"	50	75	37.5	99	110	100	145	168	0.4	10	26	-20 to +90 Deg C													
SOL7B3	110Vac	21 VA	NC																										
SOL7A4	230Vac	9 VA	NO																										
SOL7B4		15 VA	NC																										

DIMENSIONS

All dimensions are in millimeters



Datasheets provided by Sensata Technologies, Inc., its subsidiaries and/or affiliates ("Sensata") are solely intended to assist third parties ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice. Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

CONTACT US

Sensata Technologies
Jan Tinbergenstraat 80
7559 SP Hengelo
The Netherlands
1-508-236-3800
+44 (0)1202 897969
cynergy3.enquiries@sensata.com