
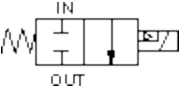

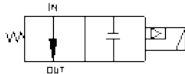


Solenoid Valve Specifications and Dimensions: 2P160-250 and 2PO160-250Series

2P160-1/2		1/2" NPT	1 =12VDC	Cv=4.8 Orifice:16mm	12-20W	Service: Air, Liquid, Oil, Water Direct Lift Diaphragm Normally Closed Two Way Diaphragm PA Plastic Solenoid Valve Temperature: 32-122°F (0 TO 50 °C) (with NBR Seal) Pressure: Vacuum to 90 PSI Vacuum Reverse Flow Direction	
2P200-3/4		3/4" NPT	2 =24VDC 2A =24VAC	Cv=7.6 Orifice:20mm			
2P250-1		1" NPT	3 =110VAC 4 =220VAC (50/60Hz)	Cv=12 Orifice:25mm			
2PO160-1/2		1/2" NPT	1 =12VDC	Cv=4.8 Orifice:16mm	12-20W	Service: Air, Liquid, Oil, Water Direct Lift Diaphragm Normally Open Two Way Diaphragm PA Plastic Solenoid Valve Temperature: 32-122°F (0 TO 50 °C) (with NBR Seal) Pressure: Vacuum to 90 PSI Vacuum Reverse Flow Direction	
2PO200-3/4		3/4" NPT	2 =24VDC 2A =24VAC	Cv=7.6 Orifice:20mm			
2PO250-1		1" NPT	3 =110VAC 4 =220VAC (50/60Hz)	Cv=12 Orifice:25mm			

Valve Model	2P160-1/2	2P200-3/4	2P250-1	2PO160-1/2	2PO200-3/4	2PO250-1
Valve Type	2 Way Normally Closed (NO)			2 Way Normally Open (NO)		
Action	Direct Lift Diaphragm					
Cv (Orifice)	4.8 (16MM)	7.6 (20MM)	12 (25MM)	4.8 (16MM)	7.6 (20MM)	12 (25MM)
Operating Pressure	Vacuum to 90 PSI					
Operating Temperature	32 to 122 °F (0 TO 50 °C)					
Port Size (NPT)	1/2	3/4	1	1/2	3/4	1
Body Materials	Engineered Nylon Plastic					
Seal Materials	NBR					
Coil Protection Insulation Class	H Class IP65					
Coil Duty	100% ED					
Coil Power	30W					
Electrical Connections	DIN					
Service	Air, Liquid, Oil, Water					

ALL Standard valves are supplied with CONTINUOUS DUTY COILS of the proper class of insulation for the service indicated on the valve. The coil temperature may become hot after being energized for extended periods, but it is normal. Smoke or burning odor indicates excessive coil temperature and should disconnect the power to the coil immediately.

VOLTAGES: Standard: 12-24V DC and 24-110-220-230V/50-60 Hz AC. Voltage tolerances: +10% -5% for DC, +10%-10% for AC; .

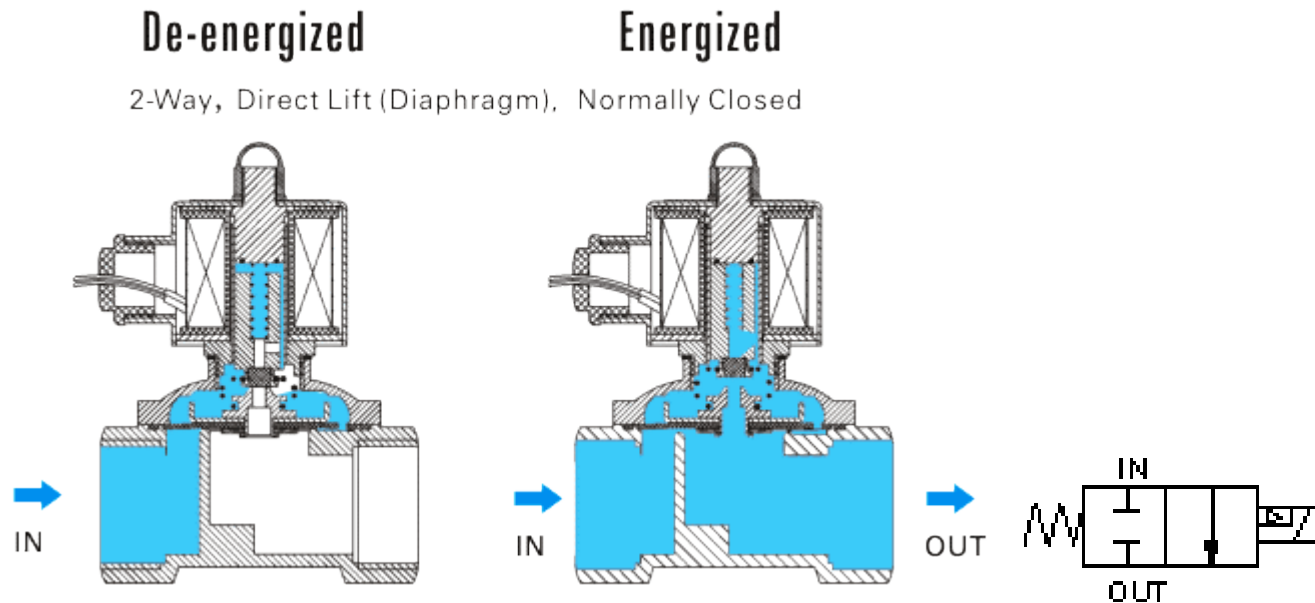
SERVICE LIFE: The service life of the solenoid valve depends on the operating conditions such as pressure, temperature, type of medium and the voltage.

Electrical Coil Connections	
For DIN Coil	<p>To connect DIN coil:</p> <ol style="list-style-type: none"> 1. Remove the Philip screw from the plastic housing and unplug it from the DIN coil. 2. From the screw opening, push the terminal block out from the plastic housing. 3. Note the 1, 2 and ground markings on underside of DIN enclosure. 4. For DC DIN Coil, Connect 1 to Positive, 2 to Negative. 5. For AC DIN Coil, connect 1 to HOT wire, 2 to Neutral wire, and if required connect ground to ground wire.
For Grommet Coil	<p>To connect Grommet coil:</p> <ol style="list-style-type: none"> 1. For DC Coil, connect one of the two wires to Positive, and the other wire to Negative. 2. For AC Coil, connect one of the two wires to HOT wire, and the other wire to neutral wire.

2P series 2/2 Direct Lift Diaphragm Normally Closed Solenoid Valve:

To open: when the valve receives an electrical signal, a magnetic field is formed which attracts the plunger covering the main orifice to lift off, causing system pressure to drop. As system pressure on the top of the diaphragm is reduced, full system pressure on the other side of the diaphragm acts to lift the diaphragm away from the main orifice, which allows media to flow through the valve. Since the bleed orifice is dimensionally smaller than the pilot orifice, the system pressure cannot rebuild on the top of the diaphragm as long as the pilot orifice remains open. When the system pressure is 0 PSI, the valve also can be operated.

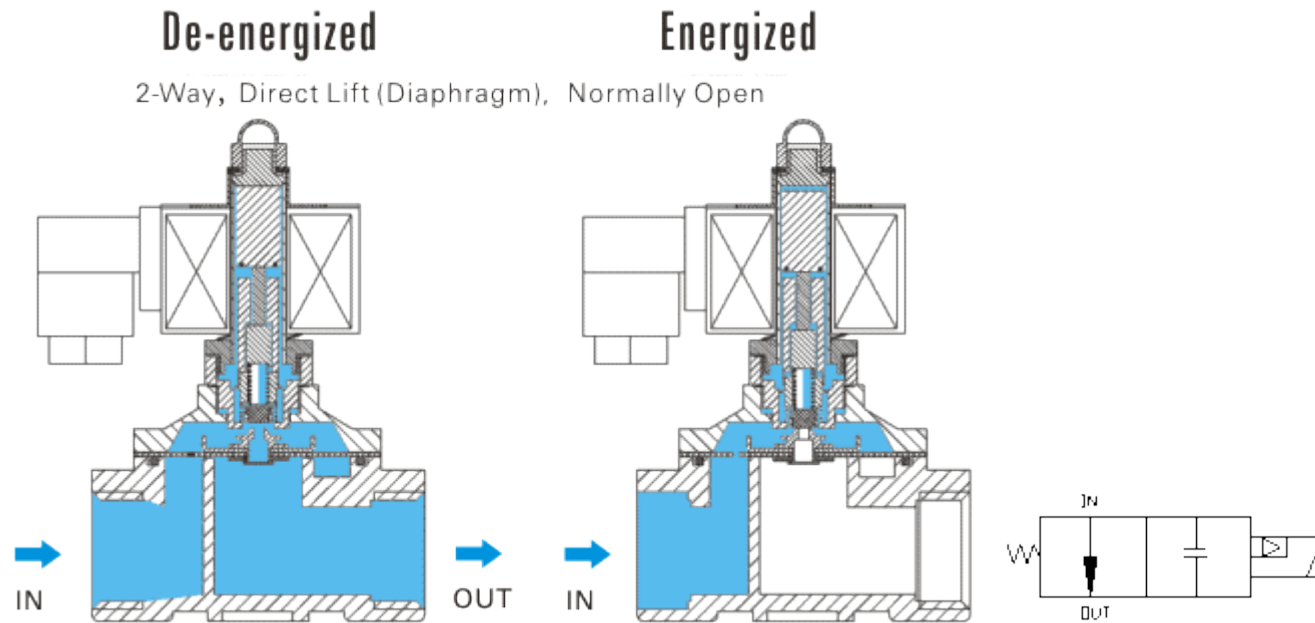
To close: when the valve is de-energized, it releases its hold on the plunger. Then the plunger forced by the spring drops and covers the main orifice. The system pressure builds up on the top of the diaphragm through the bleed orifice, forcing the diaphragm down until it covers the main orifice and stops media flow through the valve. When the system pressure is 0 PSI, the valve still can be operated.

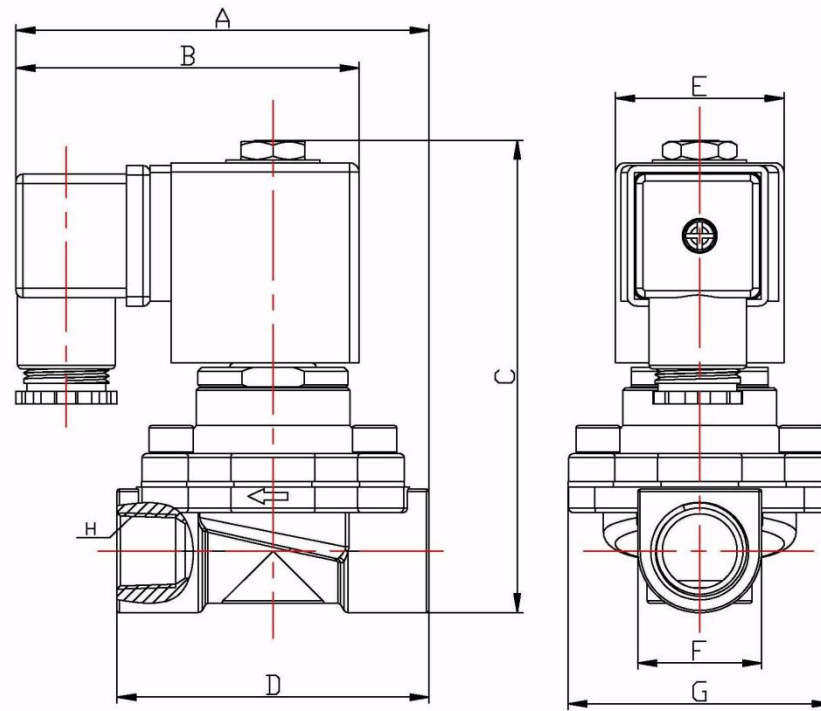


2P Series 2/2 Direct Lift Diaphragm Normally Open Solenoid Valve:

To close: when the valve is energized, it attracts the plunger. Then the plunger covers the main orifice. The system pressure builds up on the top of the diaphragm/piston through the bleed orifice, forcing the diaphragm/piston down until it covers the main orifice and stops media flow through the valve. When the system pressure is 0 PSI, the valve also can be operated.

To open: when the valve is de-energized, it releases its hold on the plunger. The plunger uncovers the pilot orifice causing system pressure holding the diaphragm/piston closed to drop. As system pressure on the top of the diaphragm/piston is reduced, full system pressure on the opposite side of the diaphragm/piston acts to lift the diaphragm/piston away from the main orifice, which allows the full media flow through the valve. When the system pressure is 0 PSI, the valve also can be operated.





MODEL: 2W & 2S 160-500 SERIES VALVES UNIT IN MM (NOT TO SCALE)

Model: 2S & 2W Series (MM)		A	B	C	D	E	F
2S160-3/8	2W160-3/8	101.5	57	117	69	50	36
2S160-1/2	2W160-1/2	101.5	57	117	69	50	36
2S200-3/4	2W200-3/4	107.0	57	124	73	50	36
2S250-1	2W250-1	111.5	74	135	99	50	36
2S350-1 1/4	2W350-1 1/4	142.0	95	172	123	70.5	56
2S400-1 1/2	2W400-1 1/2	142.0	95	172	123	70.5	56
2S500-2	2W500-2	172.0	123	209	168	70.5	56