

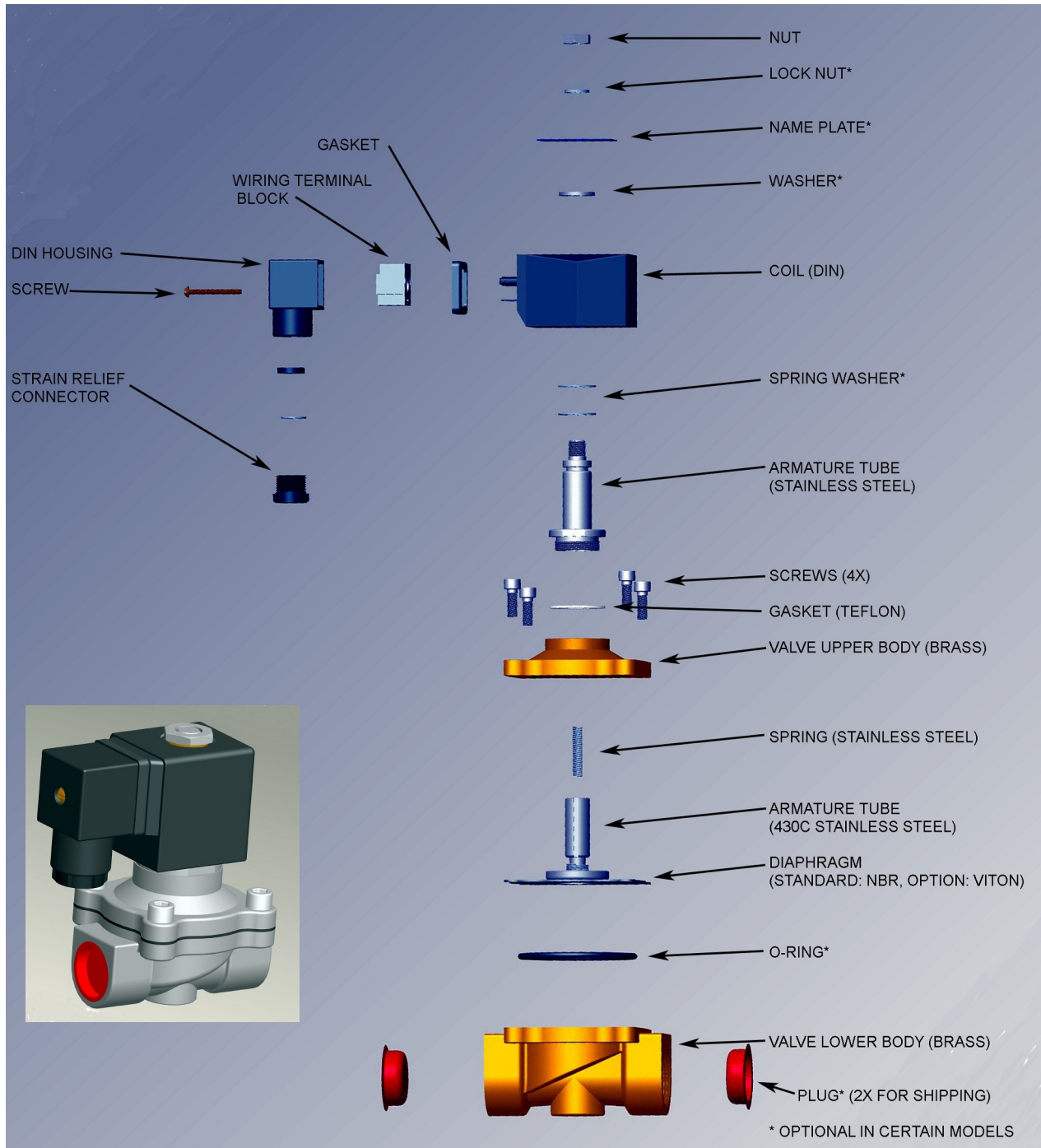
STC 2W160-500 Series Solenoid Valves



2W160-500 Series Solenoid Valve Specifications

Valve Model	2W160-3/8	2W160-1/2	2W200-3/4	2W250-1	2W350-1 1/4	2W400-1 1/2	2W500-2
Valve Type	2 Way, Normally Closed (NC)						
Action	Direct Lift Diaphragm, Uni-Directional						
Orifice (mm)	16	16	20	25	35	40	50
Operating Pressure	0 to 150 PSI						
Proof Pressure	300 PSI						
Operating Temperature	Media: -5 to 80°C (NBR Seal), -5 to 120°C (Viton Seal); Ambient: -5 to 45°C						
Port Size (NPT)	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Body Materials	Brass						
Seal Materials	NBR (Buna N), Options: Viton						
Coil Duty	Class H, IP65, 100% ED						
Voltage	Voltage Options: 12, 24VDC; 24, 110/120, 220/240 VAC, 50/60Hz						
Voltage Tolerance	10% of Specified Voltage						
Coil Power	14W (100 PSI); 20W (150PSI)				38W (Round)		
Electrical Connections	DIN 43650, Form A						
Installation	No Orientation Requirement (Optimum Position: Flow Horizontal and Solenoid Vertical)						
Service	Air, Inert Gas, Liquid, Vacuum						

2W160-500 SERIES SOLENOID VALVE COMPONENTS



Installation and Operation:

To connect the valve Inlet and Outlet:

Connect the inlet and outlet in the direction of the arrow marked on the valve.

To install coil:

Put the coil onto the armature tube of the valve. Put the lock-washer and nut onto the armature tube. Hand tighten the nut, then use a wrench to tighten the nut to a quarter turn; **do not over-tighten the nut, it may cause the armature tube to fail pre-maturely.**

To connect DIN coil:

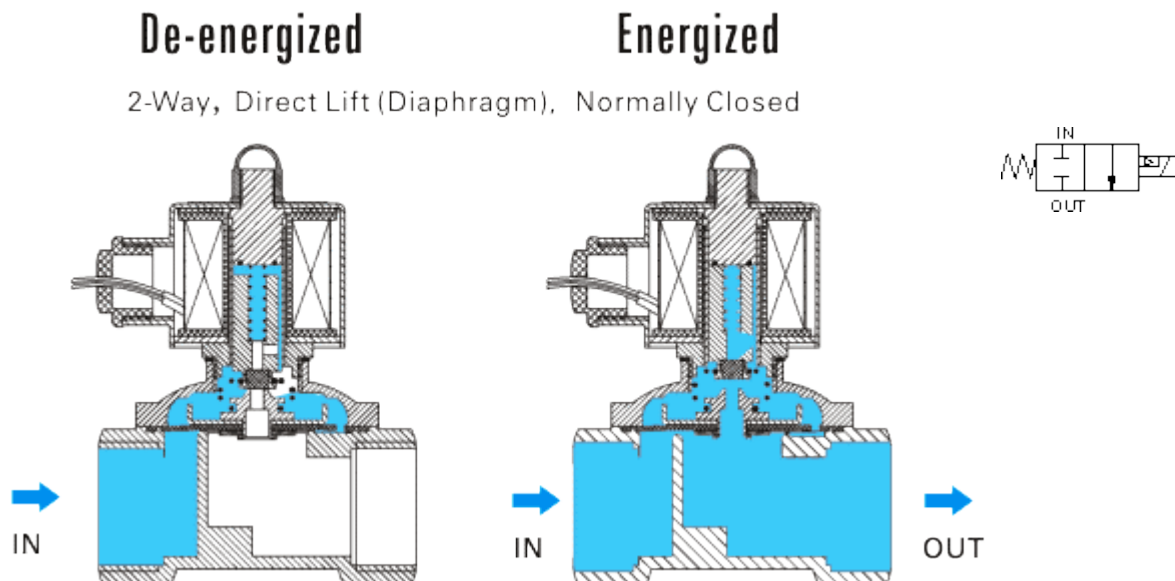
1. Remove the Philip screw from the plastic housing and unplug it from the DIN coil.
2. From the screw opening, push the terminal block out from the plastic housing.
3. Note the 1, 2 and ground markings on underside of DIN enclosure.
4. For DC DIN Coil, Connect 1 to Positive, 2 to Negative.
5. For AC DIN Coil, connect 1 to HOT wire, 2 to Neutral wire, and if required connect

Note: Standard valves are supplied with continuous duty coils. The proper class of insulation for the service is indicated on the coil. 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.

Operation: 2W160-500 series valve is a 2/2 Direct Lift Diaphragm Normally Closed, zero differential, solenoid valve.

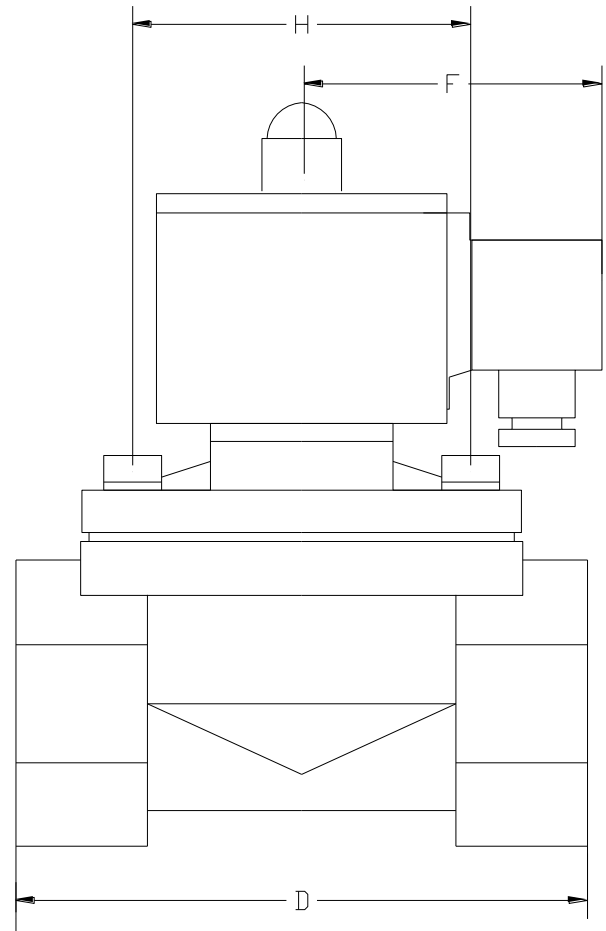
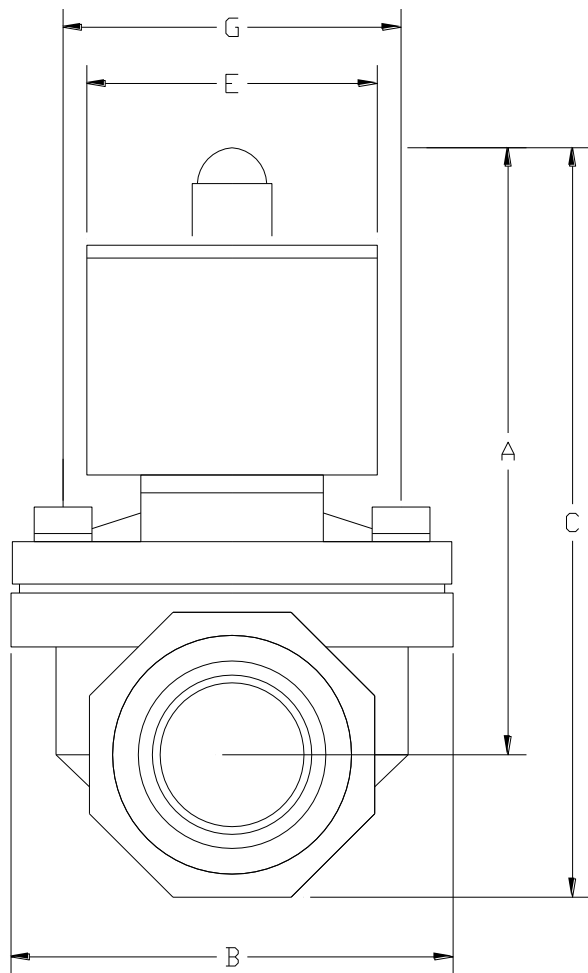
When the valve receives an electrical signal, a magnetic field is formed which attracts the plunger covering the main orifice to lift off, causing system pressure to drop. As system pressure on the top of the diaphragm is reduced, full system pressure on the other side of the diaphragm acts to lift the 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 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.



2W160-500 Series Solenoid Valve Installation Dimensions

2W160-500 SERIES SOLENOID VALVE DIMENSIONS (MM)										
MODEL	PORT (NPT)	A	B	C	D	E	F	G	H	WT. (LB)
2W160	3/8"	86.6	57	101	69	36	56	43	43	1.6
2W160	1/2"	86.6	57	101	69	36	56	43	43	1.8
2W200	3/4"	91.8	57	111	73	36	56	43	43	1.8
2W250	1"	98	71	118	99	36	56	60	60	3.2
2W350	1 1/4"	131	94	162	123	63.5	66.5	70	70	5.7
2W400	1 1/2"	142.0	95	172	123	63.5	66.5	70	70	5.7
2W500	2"	172.0	123	209	168	63.5	66.5	91	91	9.9



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Credit Application: To establish a net 30 day account, please mail or fax three trade references with complete mailing addresses and account numbers.

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Sizto Tech Corporation

892 Commercial Street
Palo Alto, CA 94303 USA

Tel: 650-856 8833 | Fax: 650-856 8811

Email: Sales@StcValve.com; www.StcValve.com