

PLASTIC SOLENOID VALVE

MODELS: P442, PP442, P443 & PP443

INSTALLATION INSTRUCTIONS

1. INSTALLATION:

Models P442 have 1/4" NPT pipe connections and Models P443 have 3/8" NPT pipe connections. The valve may be in any position except with the solenoid coil underneath. Connect piping to the valve so that the flow through the valve will follow the directional marking on the valve body. Apply pipe compound sparingly to the male fittings only. Note: If applied to the valve's threads, it may enter the valve and interfere with the valve operation. Avoid over tightening pipe to valve body and support and align pipe to eliminate pipe strain on valve body. **NOTE: Wiring must comply with Local and National Electrical Codes.**

WARNING: Do not use Teflon® tape to seal internal plastic threads as the extra thickness of the tape may cause the plastic to crack. Use a non-welding liquid sealant instead.

2. FLUIDS:

Valves are intended for water, air, light oil, and other noncorrosive fluids. They should *not* be used for gasoline and other hazardous or explosive fluids. Maximum fluid temperature is 180° F (82°C). Ambient temperature shall not exceed 120°F (48.8°C).

WARNING: NOT FOR USE WITH HAZARDOUS OR CORROSIVE OR EXPLOSIVE FLUIDS.

3. OPERATION:

When the solenoid coil is energized the plunger is pulled up, thus opening the small "pilot port" in the center of the diaphragm plate. This releases the pressure on top of the diaphragm allowing incoming pressure to lift it off the larger center port. When the coil is de-energized the solenoid plunger is pushed down by the kick-off spring and closes the pilot port. Fluid passes through the small diaphragm bleed hole until pressure is equalized on both sides of the diaphragm to shut off the larger port.

4. SPECIFICATIONS:

Maximum operating pressure differential: 125 PSI
Safe working pressure: 150 PSI
Flow factor (C_v): 1.0
Maximum temperature: 180°F fluid temp; 120° ambient temp.
Power: 10 Watts
Volt-Amp rating: Inrush - 16.0 VA
Holding - 11.5 VA

5. TROUBLE SHOOTING:

A) Failure to open or close:

1. Coil burnout (over-voltage) or an open circuit to coil connections.
2. No power or low voltage.
3. Dirt, scale or sludge may prevent the plunger and diaphragm from operating.
4. High differential pressure that exceeds the MOPD rating of valve (125 PSI Max.).
5. Low differential pressure (3 PSI Min.).

B) Water Hammer:

Quick acting valves may cause water hammer when operated. If this occurs, it may be minimized by the use of a standpipe or other commercially available shock absorber installed near the valve inlet.

CAUTION: WHEN SERVICING UNIT BE SURE THAT REPLACEMENT PARTS HAVE BEEN INSTALLED ACCORDING TO DRAWING.

RETURNS: NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.

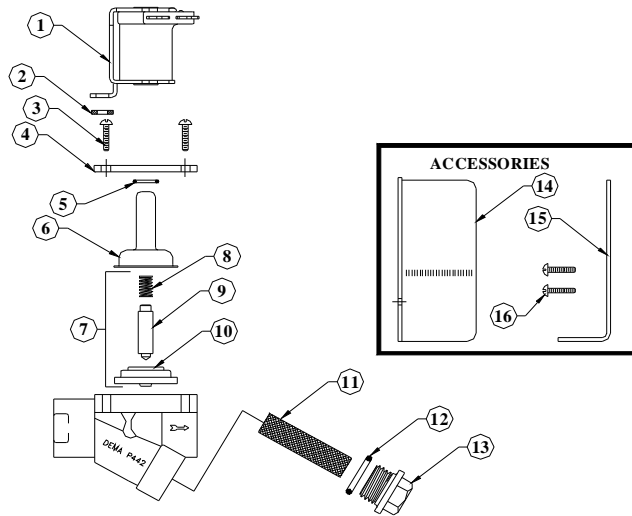
WARRANTY: DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"-rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.

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NO.	PART NO.	DESCRIPTION
1	41-9-5	Solenoid Coil (Specify Voltage)
2	41-41	Nylon Washer
3	41-116-1 44-116-2	Screw #8-18 x 1/2 LG (2 Reqd.) Screw #8-18 x 3/8 LG (1 Reqd.)
4	41-37	Flange
5	41-34	Spacer Ring
6	41-7-25	Enclosing Tube (Stainless)
8	41-1-8	Kick-Off Spring
9	41-10-11	Plunger
10	41-15-10	Diaphragm
11	41-36-1	Strainer Screen
12	21-8	O-Ring Seal
13	41-60	Screen Cap (P442 & P443)

ACCESSORIES

NO.	PART NO.	DESCRIPTION
7	61-78	Valve Repair Kit
14	41-38	Solenoid Cover
15	41-39	Mounting Bracket
16	41-40	Screw #6-32 x 5/16 LG (2 Reqd.)