

# DEMA NORMALLY CLOSED SOLENOID VALVE

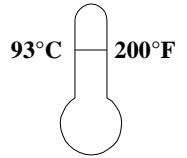
## Model 478PS

### INSTALLATION INSTRUCTIONS

**Notice:** Wiring must comply with local and national electrical codes.

**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 200° F (93.3°C). Ambient temperature shall not exceed 120°F (48.8°C).



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

**A. INSTALLATION:**

Model 478PS has a stainless steel body with 1” NPT thread connections. The valve may be mounted in any position other than with the coil lower than the body. It is available with either a 120VAC, 24VAC 60Hz coil, or 230 VAC 50 Hz coil. The coil can rotationally be oriented in any convenient direction.

**B. OPERATION:**

When the solenoid coil is energized, a plunger is pulled away from a pilot port thus relieving the pressure on top of the diaphragm and allowing input pressure from underneath to push the diaphragm up and open the outlet port.

**C. SPECIFICATIONS:**

Elastomer / Rubber: Buna-N  
 M.O.P.D. (Maximum Operating Pressure Differential): 150 PSIG  
 M.R.P. (Maximum Rated Pressure): 400 PSIG  
 Flow Factors: Cv = 13.0  
 Maximum Ambient Temperature: 120°F  
 Maximum Fluid Temperature: 200°F  
 Buna-N rubber diaphragm: 200°F

Electrical: 10 Watts AC  
 Fluid: Water, air, light oil and other non-corrosive and non explosive fluids.

AMPERS	120V / 60 Hz	24 V / 60 Hz	230 V / 50 Hz
Inrush	.190	.94	.060
Holding	.110	.56	.020

**D. TROUBLE SHOOTING:**

**CAUTION: TURN OFF WATER SUPPLY & ELECTRICITY BEFORE SERVICING.**

**Failure to open:**

- 1) No power or low voltage.
- 2) Coil burnout (overvoltage) or an open circuit to coil connections.
- 3) Dirt, scale or sludge may prevent the plunger from operating.
- 4) Pressure differential exceeds the MOPD rating of the valve.

**Failure to close:**

- 1) Coil still energized.
- 2) Pressure in the outlet or valve installed backward.
- 3) Dirt deposits on valve seat or enclosing tube keeping plunger from closing.
- 4) O-Ring beneath valve seat may be missing.

**Water-hammer:**

- 1) 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 FIGURE 1.**

# DEMA NORMALLY CLOSED SOLENOID VALVE

## Model 478PS

### INSTALLATION INSTRUCTIONS

#### RETURNS:

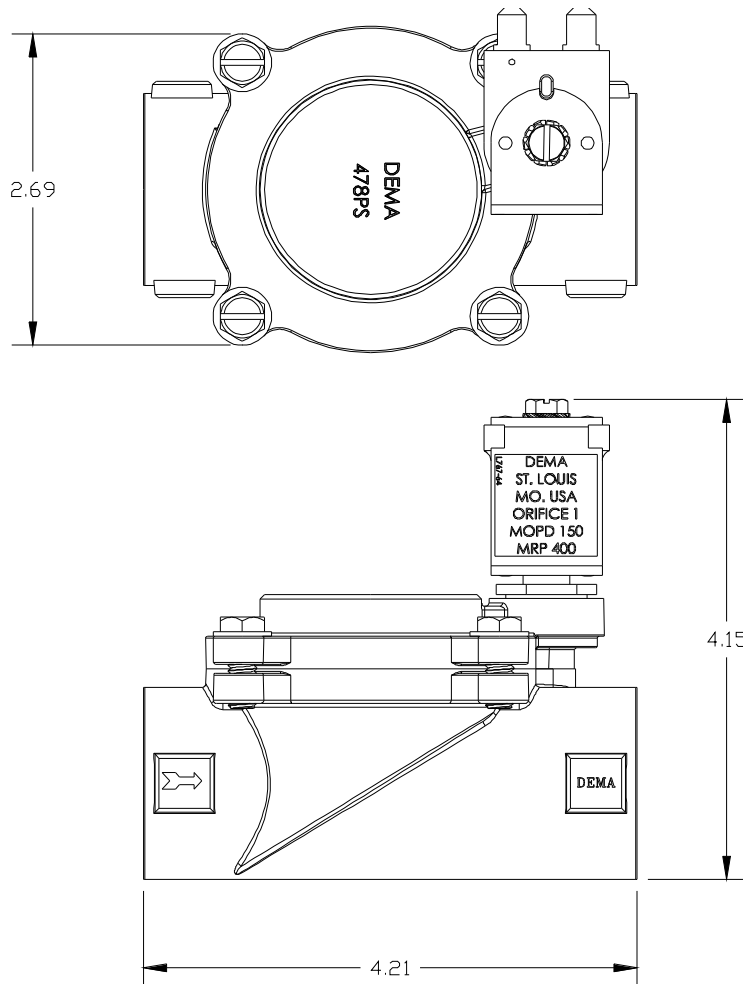
NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.

#### 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.

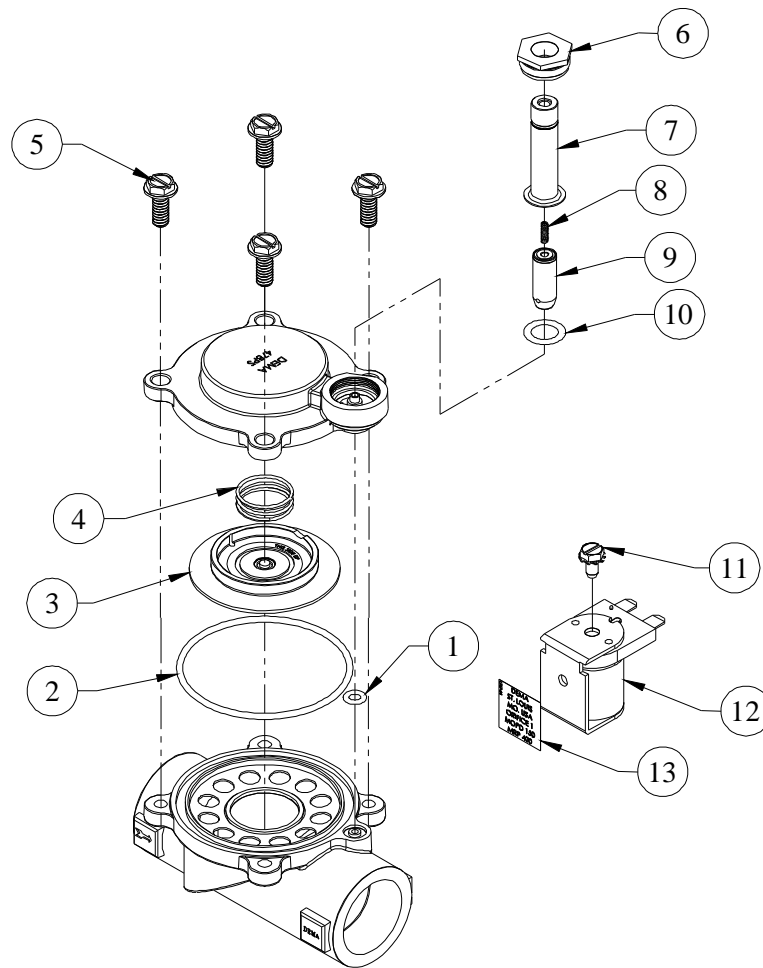
#### OVERALL DIMENSIONS



# DEMA NORMALLY CLOSED SOLENOID VALVE

## Model 478PS

### INSTALLATION INSTRUCTIONS



**FIGURE 1**

NO.	PART NO.	DESCRIPTION
1	24-49	O-Ring (Buna-N)
2	41-12-7	O-Ring (Buna-N)
3	41-15-11	Diaphragm Assy.– Buna-N (For 478PS-B)
4	41-4-6	Spring
5	41-16-10	Hex Machine Screw
6	49-5	Tube Nut
7	49-4	Enclosing Tube Assy.
8	49-7	Kick-Off Spring
9	49-3-B	Plunger Assy. - Buna-N (For 478PS-B)
10	41-5-8	O-Ring (Buna-N)
11	41-14-1	Top Plug Screw
12	41-9-7B-3	Coil & Bracket Assy. (24V 60Hz)
	41-9-7B-6	Coil & Bracket Assy. (120V 60Hz)
	41-9D-7-21	Din Coil (230 V 50 Hz) – Not Shown
13	L767-64	Label (For 24V & 120V 60 Hz only)
14	41-56-2	Repair Kit (For 478PS-B) – Not Shown