

# TYPE W11 MOLDED SOLENOID COIL & ENCLOSURE INFORMATION

## INSTALLATION - Refer to drawing on reverse side

PLAST-O-MATIC solenoid coils are molded with corrosion resistant polyester and are designed to meet NEMA 4 standards. These coils are water and dust tight and are supplied standard with a 1/2" NPT female nylon connector assembly. A connector assembly with an optional indicator light and other choices can be found in the PLAST-O-MATIC catalog. The coil is intended for indoor or outdoor use in general purpose applications as well as those where conditions such as dust, blowing dirt or splashing water are likely to be found. They should never be submerged in water.

These coils are equipped with a DIN standard connector assembly (DIN 43650 and ISO 4400). The standard external connection is 1/2" NPT. This type of connector allows internal electrical connections to be made easily while disconnected from the coil. The external cable connection to the housing may be arranged at any one of 4 angles (90° increments) to facilitate valve installation.

The coil can be rotated to any position in relation to the valve by loosening the cap nut on top of the coil. Rotate the coil to the desired position. Retighten the cap nut snugly to be sure the O-rings and gasket seal properly. Hand tight is sufficient.

**WIRING INSTALLATION:** Three wires (one is ground) are recommended. To connect the wires loosen screw and pull connector assembly away from coil. Use a small screwdriver and carefully pry the inside connector from housing using the visible slot at the corner of the connector. Screw your conduit or cable fitting into the housing. Pass the wires through your fitting and the housing and then connect them to the terminals on the connector. One terminal is marked with a ground symbol (≡) and the other two are hot leads. Reassemble, paying attention to the desired orientation of the conduit connection. Tighten the conduit fitting to secure the conduit. Make sure the two gaskets are properly seated before tightening the connector assembly to the coil. Do not over-tighten. For three-phase power systems the terminals can be connected to any two of the three phases. All local wiring codes should be followed when wiring the coil.

**IMPORTANT MOUNTING INFORMATION:** Solenoid valves with 11 watt molded coils will operate in any position, however, it is recommended that they be mounted in an up-right position for maximum cycle life.

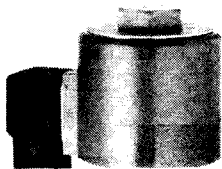
## OPERATION

PLAST-O-MATIC molded solenoid coils are rated for continuous duty up to 95°F (35°C) ambient. Above this temperature they are rated intermittent duty requiring a cool down period before re-energizing. A general rule of thumb for ambient temperatures between 95°F (35°C) and 122°F (50°C) is to allow an equal amount of cool-down time as compared to energized time with a maximum on time of 1/2 hour. At higher temperatures more cool-down time is needed.

Coils can be operated up to 15% below their listed nominal voltages, however, the inlet pressure rating of the valve will be about 30% lower. Also, coils exposed to voltages in excess of their rated nominal voltage will operate hotter than intended which could lead to coil and valve failure. Consult factory for specific information.

PLAST-O-MATIC solenoid valves will operate properly and offer trouble-free service when the valves' pressure ratings are adhered to. Pressure ratings can be found both in the PLAST-O-MATIC solenoid valve catalog (EAST) and on the valves' body labels.

**STYLE  
W11**  
11 WATT  
CLASS "F"  
COILS  
Continuous Duty



- CORROSION RESISTANT
- CONTINUOUS DUTY
- SAFE OPERATING TEMP.
- NEMA 4 WATER AND DUST TIGHT ENCLOSURE
- MOISTURE PROOF
- FUNGUS PROOF

INSULATION CLASS	F
COIL SURFACE TEMPERATURE	185 °F 85 °C
MAX. ALLOWABLE AMBIENT TEMP. *	95 °F 35 °C
VA INRUSH	66
VA HOLDING	24

NOTE: For specific information on DC voltages (e.g. 24 Volt DC), contact the factory.

\* WITH POWER ON CONTINUOUSLY

## POWER CONSUMPTION

The power consumption of PLAST-O-MATIC solenoid valves may be determined from the above coil ratings which list the volt-ampere "inrush" and volt-ampere "holding". The volt-ampere "inrush" is the momentary current surge which occurs the moment the solenoid is energized. The volt-ampere "holding" is the continuous rating after the initial "inrush".

To determine the current rating for either the "inrush" or "holding", divide the voltage into either of the volt ampere ratings.

$$** \text{AMPS ("inrush")} = \frac{\text{volt-ampere "inrush"}}{\text{voltage}}$$

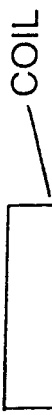
$$\text{AMPS ("holding")} = \frac{\text{volt-ampere "holding"}}{\text{voltage}}$$



CAP NUT



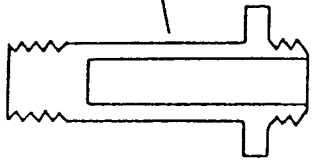
COIL O-RING



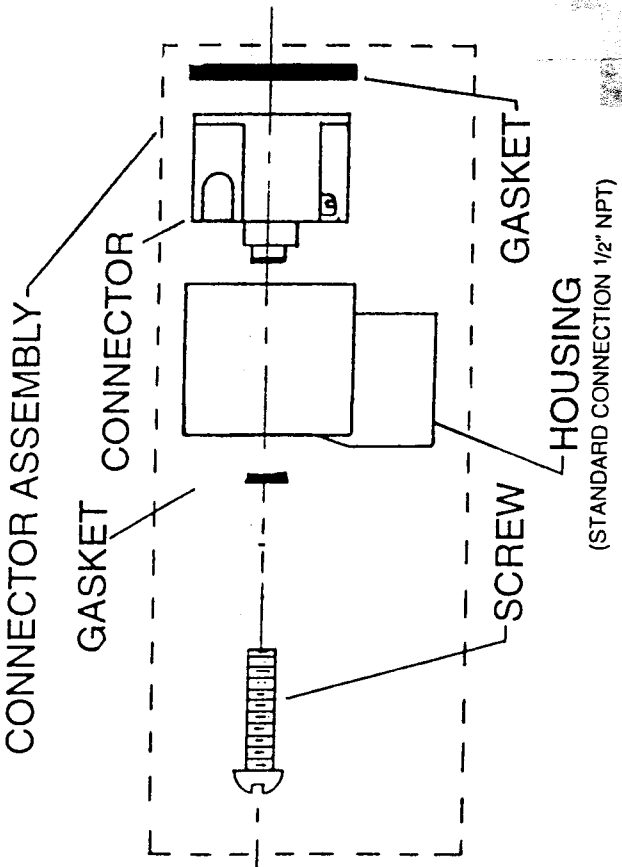
COIL



GASKET



CORE TUBE



CONNECTOR ASSEMBLY

CONNECTOR

GASKET

SCREW

GASKET

HOUSING

(STANDARD CONNECTION 1/2" NPT)