

January 1992

## ENGINEER'S SPECIFICATION

## EPG Series L930PT PumpMaster™ Controller Manual Start Simplex 1Ø Control Panel

Furnish one EPG Companies Inc., UL listed, L930PT control panel to operate pump motor and auxiliary equipment. The panel enclosure will be either NEMA type 4 or 4X.

The enclosure shall be equipped with a window in the outer door, an inner door, a stainless steel drip shield, and a tamper resistant latch. The NEMA 4 (standard) enclosure is finished with polyester urethane paint. The NEMA 4X (optional) enclosure can be either stainless steel or non-metallic.

The control system will operate from a \_\_\_\_ Volt, \_\_\_\_ Hertz, single phase power supply. Pump control components will be sized to operate pump motor of specified horsepower.

The control panel shall include the following as standard features:

**Main \_\_\_\_ Amp Disconnect Switch with Door Interlock:** Shall prevent opening of panel while power is on and includes \_\_\_\_ Volt, \_\_\_\_ Amp dual element type fuses.

**"Start" Push Button:** Allows manual start of pump. The push button shall be a heavy duty, oil tight NEMA 4 rated switch mounted on the inner door.

**"Stop" Push Button:** Allows manual stop of pump. The push button shall be a heavy duty, oil tight NEMA 4 rated switch mounted on the inner door.

**Running Light:** Indicates energization of motor circuit. It shall be heavy duty, oil tight, NEMA 4 rated and shall have an LED lamp with 100,000 hour life.

**Motor Start Winding Control with Start Capacitors and Start Winding Relay:** Capacitor is used to start motor. Relay is used to remove startwinding from circuit when motor reaches operating speed.

**LevelMaster™ Level Control:** The LevelMaster shall be mounted on the inner door. Meter shall have a digital readout and the capability to monitor and maintain pumping operations as well as at least two other level signals. Level control shall be accurate to within 0.1 inch.

**Level Simulator:** The level simulator shall be mounted on the inner door. The level simulator is a built-in test circuit designed to simulate a 4-20 mA load to assist in level setup and troubleshooting.

**Control Transformer:** Transformer with fused primary to isolate control circuit from power circuit and for easier and safer field wiring of accessories. It shall lower incoming voltage to 120 Volts.

**Heater with Adjustable Thermostat:** To promote even distribution of heat and elimination of hot spots and condensation. Heater element shall be mounted in space between the sub-panel and the back of the enclosure and provide a minimum of 100 inches square of heating area.

**Lightning Arrestor:** Shall be grounded, metal to metal, to water strata.

**Remote Tank Full Sensor:** The tank full sensor is commonly used to monitor the liquid level in a water or product storage tank. It is installed into the top of the tank and will float when submerged in water or petroleum products. Sensor shall be stainless steel.

**Terminal Strip:** Provides easy connection of external components.

**Corrosion Inhibitor Emitter:** Inclusion of an industrial corrosion inhibitor emitter that shall protect internal components of control panel from corrosion for up to one year.

**Options are available to meet specific needs.**

continued on back

The EPG submersible pressure transmitter level sensor shall have a range of 0 to \_\_\_\_ feet with a 4-20 mA output signal. Transmitter construction shall be stainless steel body, stainless steel diaphragm and Viton seals with chemical resistant signal cable. The transmitter circuit shall be protected by intrinsically safe barriers.

#### **SYSTEM OPERATION**

This system is designed to manually start a transfer pump to pump into a tanker truck and automatically stop the pump on either a signal from the tanker full sensor or the storage low level sensor. When the liquid level changes beyond set points, a high and/or low level alarm will be annunciated.