



## INSTALLATION INSTRUCTIONS FOR SYMCOM'S PUMPSAVER®

### MODEL 460-15-XXX-LLS LIQUID LEVEL SENSOR

#### **DANGER!**



HAZARDOUS VOLTAGES MAY BE PRESENT DURING INSTALLATION.  
Electrical shock can cause death or serious injury.

Installation should be done by qualified personnel following all national, state and local electrical codes.



**BE SURE POWER IS DISCONNECTED PRIOR TO INSTALLATION!  
FOLLOW NATIONAL, STATE AND LOCAL CODES!  
READ THESE INSTRUCTIONS ENTIRELY BEFORE INSTALLATION!**

#### **! WARNING !**

UNEXPECTED OUTPUT ACTUATION CAN OCCUR.

Use hard-wired safety interlocks where personnel and/or equipment hazards exist.  
Failure to follow this instruction can result in death, injury or equipment damage.

The PumpSaver® 460-15-XXX-LLS is a liquid level sensor to detect the presence of conductive liquids. (XXX denotes 100 or 200)

### **CONNECTIONS**

1. Mount the PumpSaver® in a convenient location in or near the motor control panel. If the location is wet or dusty, the PumpSaver® should be mounted in a NEMA 4 or 12 enclosure. The PumpSaver® can be mounted to a back panel using two #6 or #8 x 5/8 screws or can be snapped onto a DIN rail.
2. Connect L1 and L2 on the PumpSaver's terminal strip to 120VAC for Model 460-15-100-LLS or 240VAC for Model 460-15-200-LLS.
3. Connect the output relay to the circuitry to be controlled.
4. Connect the probe.

11-460-15-LLS-B



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## CONNECTIONS

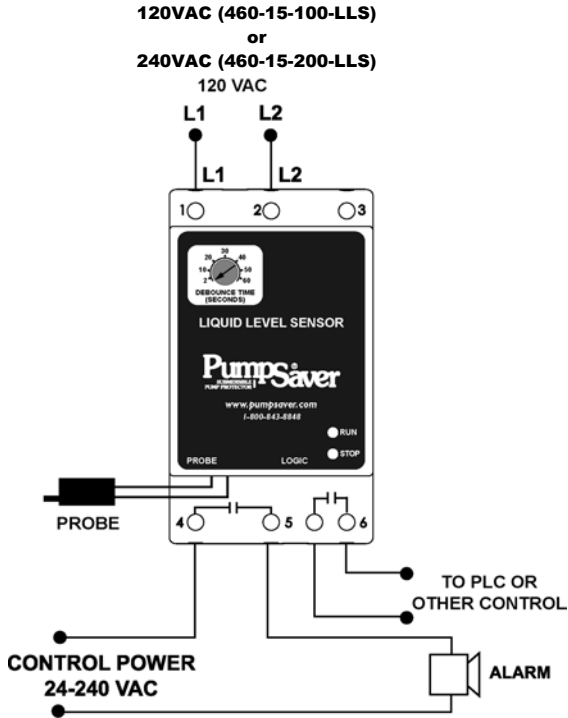


Figure 1. Typical Wiring Diagram

## OPERATION

When a conductive liquid makes contact between the probe it will cause the relay to change state after the debounce time is satisfied. The run LED indicated that liquid is not present, and the stop LED indicates that it is present.

## SETTINGS

1. **Debounce Adjustment:**  
This adjust that amount of time that a conductive liquid is in contact with the probe before the relay changes state.  
**Note:** If the time dial is changed the new setting will take effect after the duration of the new setting.

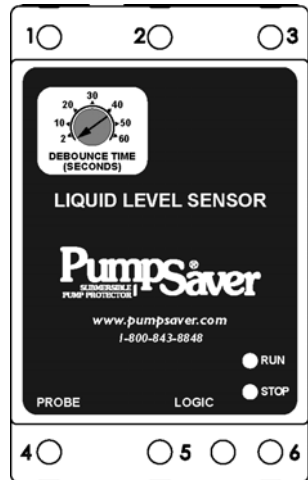
2. **Logic Jumper:**

### **Logic Jumper Installed:**

Relay closes when conductive liquid is in contact with the probe.

### **Logic Jumper Removed:**

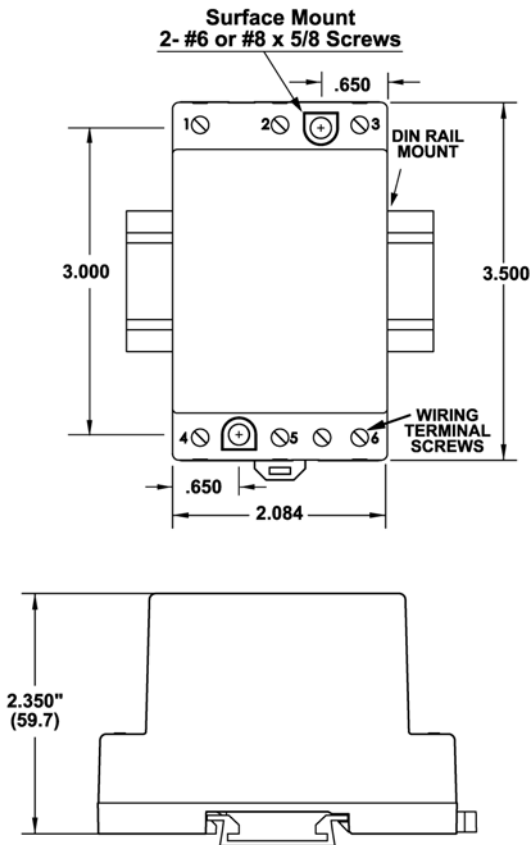
Relay opens when conductive liquid is in contact with the probe.



## PUMPSAVER 460-15-XXX-LLS SPECIFICATIONS

<b>Control Voltage</b>	110/120VAC nominal (Model 460-15-100-LLS)  220/240VAC nominal (Model 460-15-200-LLS)
<b>Frequency</b>	50 or 60Hz
<b>Sensitivity</b>	100k
<b>Output contact Rating – DPST</b>	
Pilot Duty	360VA @ 240VAC
General Purpose	8A @ 240VAC
<b>Power Consumption</b>	2 Watts (max.)
<b>Weight</b>	1 lb. max
<b>Enclosure</b>	Polycarbonate
<b>Terminal</b>	
Torque	6 in.-lbs.
Wire AWG	12-20 AWG
<b>Safety Marks</b>	
UL	UL508 (File # E68520)
<b>Standards Passed</b>	
Electrostatic Discharge (ESD)	IEC 100-4-2, Level 3, 6kV contact, 8kV air
Radio Frequency Immunity, Radiated	159 MHz, 10 V/m
Fast Transient Burst	IEC 1000-4-4, Level 3, 3.5kV input power and controls
<b>Surge</b>	
IEC	IEC 1000-4-5, Level 3, 4kV line-to-line; Level 4, 4kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
Hi-Potential Test	Meets UL508 (2 x rated V + 1000 V for 1 minute)
<b>Environmental</b>	
Temperature Range	Ambient Operating: -20° to 70°C (-4° to 158°F) Ambient Storage: -40° to 80°C (-40° to 176°F)
Class of Protection	IP20, NEMA 1 (finger safe)
Relative Humidity	10-95%, non-condensing per IEC 68-2-3

## DIMENSIONS



SymCom Inc. warrants its microcontroller-based products against defects in material or workmanship for a period of five (5) years from the date of manufacture. All other products manufactured by SymCom shall be warranted against defects in material and workmanship for a period of two (2) years from the date of manufacture. For complete information on warranty, liability, terms and conditions, please refer to the SymCom Terms and Conditions of Sale document.