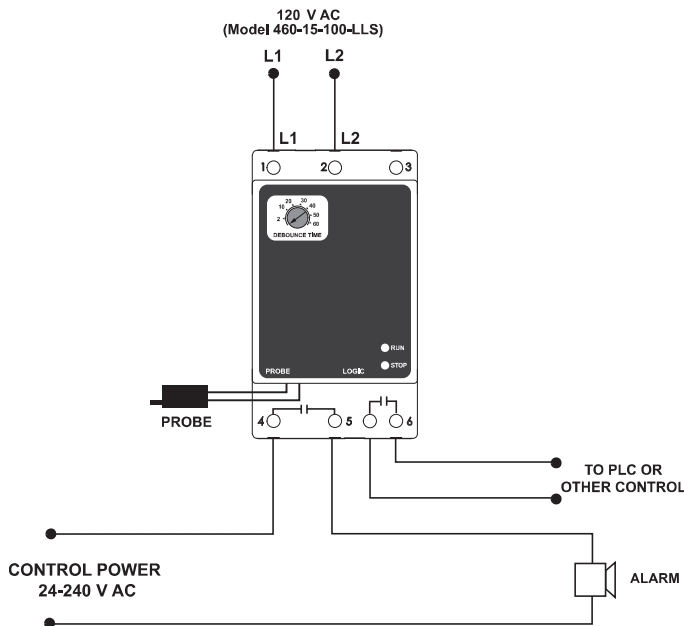


# 460-15-100-LLS

## Single-Channel Liquid Level Sensor



### Wiring Diagram



For dimensional drawing see: Appendix, page 510, Figure 10.

### Description

The 460-15-100-LLS is a liquid level sensor to detect the presence of conductive liquids. A probe is mounted at the desired tank level and connected to the PumpSaver®. When the probe is submersed, the relay's output contacts will change state as soon as the debounce time expires. The adjustable debounce timer is intended to prevent nuisance actuating due to waves or splashing in the tank.

Relay logic can be inverted so the relay's output contacts change state when the probe is no longer submersed. This makes the unit versatile for use in pump-up and pump-down applications.

### Features & Benefits

FEATURES	BENEFITS
<b>Unique Probe Protection</b>	Probes are protected from scale build up through pulsed DC signal between the probes
<b>Invertible relay logic</b>	Allows flexibility to be used in pump-up and pump-down applications
<b>Adjustable debounce timer</b>	Prevents nuisance actuating caused by waves or splashing in the tank
<b>LED status indicators</b>	Provides visual indication of the relay status

### Specifications

<b>Input Characteristics</b>	
<b>Control Voltage</b>	110/120VAC nominal
<b>Frequency</b>	50/60Hz ( <i>Note: 50Hz will increase all delay timers by 20%</i> )
<b>Sensitivity</b>	100kΩ
<b>Functional Characteristics</b>	
<b>Probe Sense Voltage</b>	5vdc pulsed
<b>Debounce Time Delay</b>	2-60 seconds
<b>Output Characteristics</b>	
<b>Output contact Rating</b>	– (Two Form A - SPST)
<b>Pilot Duty</b>	360VA @ 240VAC
<b>General Purpose</b>	8A @ 240VAC
<b>General Characteristics</b>	
<b>Ambient Temperature Range</b>	
<b>Operating</b>	-20° to 70°C (-4° to 158°F)
<b>Storage</b>	-40° to 80°C (-40° to 176°F)
<b>Maximum Input Power</b>	2 W
<b>Class of Protection</b>	IP20, NEMA 1 (finger safe)
<b>Relative Humidity</b>	10-95%, non-condensing per IEC 68-2-3
<b>Terminal Torque</b>	4.5 in.-lbs.
<b>Wire</b>	12-20 AWG
<b>Standards Passed</b>	
<b>Electrostatic Discharge (ESD)</b>	IEC 61000-4-2, Level 3, 6kV contact, 8kV air
<b>Radio Frequency Immunity, Radiated</b>	150MHz, 10 V/m
<b>Fast Transient Burst</b>	IEC 61000-4-4, Level 3, 3.5kV input power and controls

## 460-15-100-LLS

<b>Surge</b>	
<b>IEC</b>	IEC 61000-4-5, Level 3, 4kV line-to-line; Level 4, 4kV line-to-ground
<b>ANSI/IEEE</b>	C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
<b>Hi-Potential Test</b>	Meets UL508 (2 x rated V + 1000 V for 1 min.)
<b>Safety Marks</b>	
<b>UL</b>	UL508 (File #E68520)
<b>CE</b>	IEC 60947
<b>Enclosure</b>	Polycarbonate
<b>Dimensions</b>	<b>H</b> 88.9 mm (3.5"); <b>W</b> 52.93 mm (2.08"); <b>D</b> 59.69mm (2.35")
<b>Weight</b>	1 lb. (16 oz., 453.59 g)
<b>Mounting Method</b>	35mm DIN rail or Surface Mount (#6 or #8 screws)