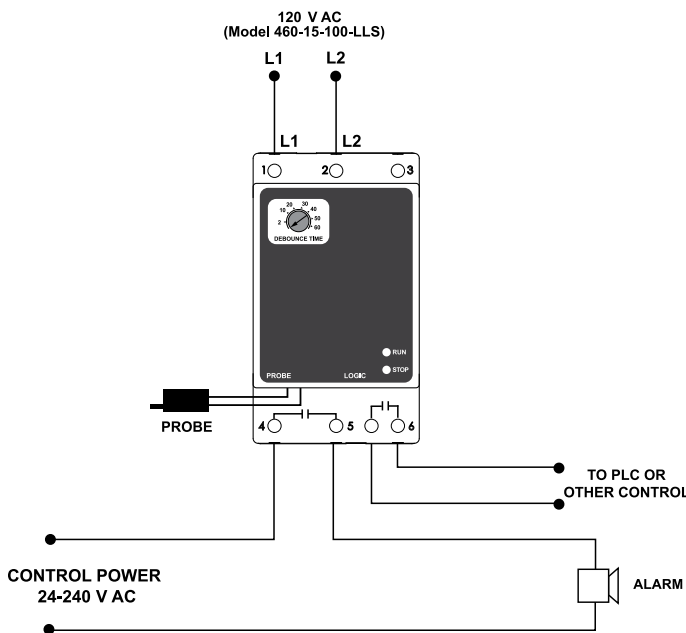


460-15-100-LLS

Single-Channel Liquid Level Sensor



Wiring Diagram



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
Unique probe protection logic	Probes are protected from scale build up through pulsed dc signal between the probes
Invertible relay logic	Allows flexibility to be used in pump-up and pump-down applications
Adjustable debounce timer	Prevents nuisance actuating caused by waves or splashing in the tank
LED status indicators	Provides visual indication of the relay status

Specifications

Input Characteristics

Control Voltage	110/120 V ac nominal
Frequency	50/60 Hz (<i>Note: 50 Hz will increase all delay timers by 20%</i>)
Sensitivity	100 kΩ

Functional Characteristics

Probe Sense Voltage	5 V dc pulsed
Debounce Time Delay	2-60 seconds

Output Characteristics

Output contact Rating – (Two Form A - SPST)	360 VA @ 240 V ac
Pilot Duty	8 A @ 240 V ac
General Purpose	

General Characteristics

Ambient Temperature Range	
Operating	-40 °C to 70 °C (-40 °F to 158 °F)
Storage	-40 °C to 80 °C (-40 °F to 176 °F)
Maximum Input Power	2 W
Class of Protection	IP20, NEMA 1 (finger safe)
Relative Humidity	10-95 %, non-condensing per IEC 68-2-3
Terminal Torque	4.5 in.-lbs.
Wire	12-20 AWG

Standards Passed

Electrostatic Discharge (ESD)	IEC 61000-4-2, Level 3, 6 kV contact, 8 kV air
Radio Frequency Immunity, Radiated	150 MHz, 10 V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5 kV input power and controls

Protection Relays

Pump Controls and Liquid Level Controls

460-15-100-LLS

Surge	
IEC	IEC 61000-4-5, Level 3, 4 kV line-to-line; Level 4, 4 kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6 kV line-to-line
Hi-Potential Test	Meets UL 508 (2 x rated V + 1000 V for 1 min.)
Safety Marks	
UL	UL 508 (File #E68520)
CE	IEC 60947
Enclosure	Polycarbonate
Dimensions	H 88.9 mm (3.5"); W 52.93 mm (2.08"); D 59.69mm (2.35")
Weight	1 lb. (16 oz., 453.59 g)
Mounting Method	35 mm DIN rail or Surface Mount (#6 or #8 screws)