Liquid Level Control LLC1 Series Single Probe



See accessory pages for specifications.

The LLC1 Series is a single probe conductive liquid level control designed for OEM equipment and commercial appliances. This device may be ordered in one of two modes: Fill or Drain. A factory fixed time delay (1-60 s) prevents rapid cycling of the output relay. On adjustable units, the sensitivity adjustment allows accurate level sensing while ignoring foaming agents and floating debris. Transformer isolated 12 V AC is provided at the probe to prevent electrolysis. A trickle current of less than 1 mA determines the presence or absence of liquid between the probe and common. The LLC1 Series printed circuit board is conformal coated to resist moisture

Drain: When the liquid level rises and touches the probe, a fixed time delay begins. This time delay prevents rapid cycling of the output relay and its load. At the end of the time delay, the output relay energizes and remains energized until the liquid level falls below the probe. The output relay then de-energizes and remains de-energized until the liquid again touches

Fill: When the liquid level falls below the probe, a fixed time delay begins. This time delay prevents rapid cycling of the output relay and its load. At the end of the time delay, the output relay energizes and remains energized until the liquid level rises and touches the probe. The output relay then de-energizes and remains de-energized until the liquid level again

Connection



Connect common to conductive tank or an additional probe as required. Contacts A, B, & C are isolated.

> P = Probe L = Load V = Voltage ΔS = Sensitivity Adjustment



9.4

9

Liquid Level Control LLC1 Series Single Probe

Technical Data

Control Type Sense Voltage Sense Resistance Sense Resistance Tolerance	ON/OFF (Single Level) Resistance sensor with built-in time delay to prevent rapid cycling 12 V AC at probe terminals Factory fixed or adjustable to $250 K\Omega$ Adjustable - guaranteed range Factory fixed +/-10%
Input Voltage Tolerance 24 V AC 120 & 230 V AC	24, 120, or 230 V AC -15% +20% -20% +10% 50 60 Hz
Output	
Type	Electromechanical relay
Rating	10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC
Protection	
Isolation Voltage	≥ 1500 V RMS between input, output, & probe
Mechanical	
Mounting	Surface mount to probe COMMON with two #6 (M3.5 x 0.6) screws or 0.50 inch (12.7 mm) nylon standoffs with three #6 (M3.5 x 0.6) screws (use Terminal 5 for probe COMMON)
Termination	0.25 in. (6.35 mm) male quick connect terminals
Package (Open Board)	3.5 x 2.75 x 2 in. (88.9 x 69.9 x 50.8 mm)
Environmental	
Operating / Storage Temperature	-20°C +55°C / -40°C +80°C
Protection Weight	Printed circuit board is conformal coated to resist moisture and corrosion $\approx 8.7 \text{ oz} (247 \text{ g})$

Mechanical View



Low Voltage Products & Systems

9.5