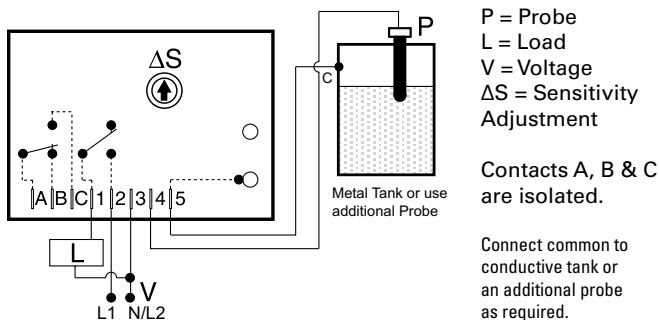


LLC1 SERIES

Open Board Liquid Level Controls



Wiring Diagram



Description

The LLC1 Series is a single probe conductive liquid level control designed for OEM equipment and commercial appliances. This unit may be ordered with fixed fill or fixed drain operation. A time delay (1-60s) prevents rapid cycling of the output relay. On adjustable units, the sensitivity adjustment allows accurate level sensing while ignoring foaming agents and floating debris. Isolated AC voltage is provided at the probe to prevent electrolysis. A trickle current of less than 1mA determines the presence or absence of liquid between the probe and common. The LLC1 Series printed circuit board is conformal coated to resist moisture and corrosion.

Operation

Drain (Pump-Down Mode): 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 the probe.

Fill (Pump-Up Mode): 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 falls below the probe.

Features & Benefits

FEATURES	BENEFITS
Isolated AC voltage on probe	Prevents scale buildup on the probe
Open PCB design	Cost effective design for OEM equipment and commercial appliances
Conformally coated PCB	Protects against moisture and corrosion
Sensitivity adjustment	Provides accurate level sensing while ignoring foam or floating debris

Ordering Information

MODEL	INPUT VOLTAGE	OPERATION	TIME DELAY	SENSE RESISTANCE	MOUNTING
LLC14A1AX	120VAC	Drain	1s	Adjustable	0.5 in nylon standoffs (3)
LLC14A5AX	120VAC	Drain	5s	Adjustable	0.5 in nylon standoffs (3)
LLC14B15AX	120VAC	Fill	15s	Adjustable	0.5 in nylon standoffs (3)
LLC14B1AX	120VAC	Fill	1s	Adjustable	0.5 in nylon standoffs (3)
LLC14B60AX	120VAC	Fill	60s	Adjustable	0.5 in nylon standoffs (3)
LLC16A25AX	230VAC	Drain	25s	Adjustable	0.5 in nylon standoffs (3)
LLC16A3AX	230VAC	Drain	3s	Adjustable	0.5 in nylon standoffs (3)

If you don't find the part you need, call us for a custom product 800-843-8848

LLC1 SERIES

Accessories



P1015-13 (AWG 10/12), **P1015-64** (AWG 14/16),
P1015-14 (AWG 18/22) **Female Quick Connect**
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



P1015-18 Quick Connect to Screw Adapter
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



PHST-38QTN Electrode
Designed for a maximum steam pressure of 240 PSI; 400° F. UL353 Recognized.



LLP-24 Threaded Probe (24")
Threaded stainless steel probe measuring 24" (61 cm) long. For use with PHST-38QTN liquid level control electrodes.

Specifications

Control Type

ON/OFF (single level) resistance sensor with built-in time delay to prevent rapid cycling
Low voltage AC between probe & common.
Isolated from input & output.

Sense Voltage

Sense Resistance

Sense Resistance Tolerance

Fixed or adjustable to 250KΩ
Adjustable - guaranteed range
Factory fixed ±10%

Time Delay

Range

Fixed 1 - 60s in 1s increments

Input

Voltage

24, 120, or 230VAC

Tolerance

24VAC

-15% - 20%

120 & 230VAC

-20% - 10%

AC Line Frequency

50/60 Hz

Output

Type

Electromechanical relay

Form

Non-isolated, SPST & Isolated, SPDT contacts

Rating

10A resistive @ 120/240VAC & 28VDC;

1/3 hp @ 120/240VAC

Mechanical - 1×10^7 ; Electrical - 1×10^5

Life

Protection

Surge

IEEE C62.41-1991 Level A

Isolation Voltage

≥ 1500V RMS between input, output & probe

Mechanical

Mounting

Surface mount to probe common with two #6 (M3.5 x 0.6) screws or 0.50 in. (12.7 mm) nylon standoffs with three #6 (M3.5 x 0.6) screws (use Terminal 5 for probe common)
0.25 in. (6.35 mm) male quick connect terminals
H 88.9 mm (3.5"); **W** 69.9 mm (2.75");
D 50.8 mm (2.0")

Termination

Dimensions (Open Board)

Environmental

Operating/Storage

Temperature

-20° to 55°C/-40° to 80°C

Coating

Printed circuit board is conformal coated to resist moisture and corrosion

Weight

≅ 8.7 oz (247 g)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Littelfuse:](#)

[LLC16A3AX](#) [LLC16A25AX](#) [LLC14A5AX](#) [LLC14B60AX](#) [LLC14B15AX](#) [LLC14B1AX](#) [LLC14A1AX](#)