Pump Controls and Liquid Level Controls

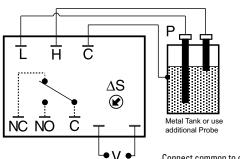
LLC2 SERIES

Open Board Liquid Level Controls





Wiring Diagram



- V = Voltage
- L = Low Probe H = High Probe
- C = Probe Common
- P = Probe
- $\Delta S = Sensitivity$ Adjustment
- NC = Normally
- Closed NO = Normally
- Open

Connect common to conductive tank. Additional probe is necessary for non-conductive or insulated tanks.

Description

The LLC2 Series is a dual-probe conductive liquid level control designed for OEM equipment and commercial appliance applications. Models are available for fill or drain operation. Transformer isolated 12VAC is provided at the probes to prevent electrolysis. A trickle current of less than 1mA determines the presence or absence of liquid between the probes and common. On adjustable units, the sensitivity adjustment allows accurate level sensing while ignoring foaming agents and floating debris. The LLC2 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 high probe, the output relay energizes and remains energized until the liquid level falls below the low probe. The output relay then de-energizes and remains de-energized until the liquid again touches the high probe.

Fill (Pump-Up Mode): When the liquid level falls below the low probe, the output relay energizes and remains energized until the liquid level rises and touches the high probe. The output relay then de-energizes and remains de-energized until the liquid level again falls below the low probe.

Features & Benefits

FEATURES	BENEFITS	
Isolated 12VAC probes	Prevents scale buildup on the probes	
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	

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.

Ordering Information

MODEL	INPUT VOLTAGE	OPERATION	TERMINATION	SENSE RESISTANCE
LLC24A2AN	120VAC	Drain	Terminal block	Adjustable to 100kΩ
LLC24A2F50N	120VAC	Drain	Terminal block	Fixed 50kΩ
LLC24B1AC	120VAC	Fill	0.25" Quick connect	Adjustable to 100kΩ
LLC24B1F26C	120VAC	Fill	0.25" Quick connect	Fixed 26kΩ
LLC24B2F50N	120VAC	Fill	Terminal block	Fixed 50kΩ
LLC26A1F25C	230VAC	Drain	0.25" Quick connect	Fixed 25kΩ

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LLC2 SERIES

Specifications

Control

Type Resistance sensing for high & low level detection of conductive liquids

 Sense Voltage
 12VAC at probe terminals

 Sense Resistance
 Fixed or adjustable to 100KΩ

 Sense Resistance Tolerance
 Adjustable: guaranteed range

Fixed: ±10%

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 Isolated, SPDT

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

1/3 hp @ 120/240VAC

Life Mechanical - 1 x 10⁷; Electrical - 1 x 10⁵

Protection

Isolation Voltage $\geq 1500 \text{V RMS}$ between input, output, & probe

Mechanical

Mounting Surface mount with two or four #6

(M3.5 x 0.6) screws

Termination 0.25 in. (6.35 mm) duplex male quick connect

terminals. Terminal blocks for up to #14 AWG

2.5 mm²) wire

Dimensions (Open Board) H 101.6 mm (4.0"); **W** 76.2 mm (3.0");

D 50.8 mm (2.0")

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 $\approx 9 \text{ oz } (255 \text{ g})$

Mounting Dimensions

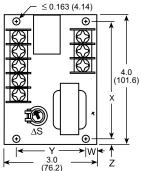


	DIAGRAM	MODEL NUMBERS ENDING IN:			
	KEY	N	С		
)	W	0.440" (11.176 mm)	0.250" (6.350 mm)		
	X	3.620" (91.948 mm)	3.500" (88.900 mm)		
	Υ	2.120" (53.848 mm)	2.500" (63.500 mm)		
	Z	0.190" (4.826 mm)	0.250" (6.350 mm)		