

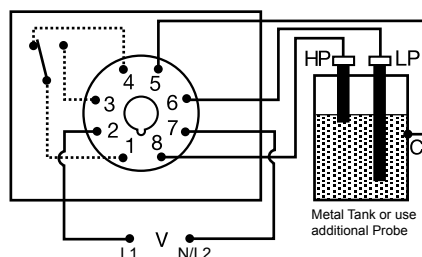
## LLC5 SERIES

### Liquid Level Controls



8-PIN

### Wiring Diagram



HP = HIGH LEVEL PROBE  
LP = LOW LEVEL PROBE  
C = PROBE COMMON  
V = VOLTAGE

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

For dimensional drawing see: Appendix, page 514, Figure 43.

### Ordering Information

MODEL	LINE VOLTAGE	DESCRIPTION
LLC52AA	24VAC	For Drain (pump-down) operation with adjustable sense resistance
LLC52BA	24VAC	For Fill (pump-up) operation with adjustable sense resistance
LLC54AA	120VAC	For Drain (pump-down) operation with adjustable sense resistance
LLC54AAS	120VAC	For Drain (pump-down) operation with adjustable sense resistance and reverse connection (#8 low, #6 high)
LLC54AF10	120VAC	For Drain (pump-down) operation with fixed sense resistance of 10 kΩ
LLC54BA	120VAC	For Fill (pump-up) operation with adjustable sense resistance
LLC54BAS	120VAC	For Fill (pump-up) operation with adjustable sense resistance and reverse connection (#8 low, #6 high)
LLC56AA	230 VAC	For Drain (pump-down) operation with adjustable sense resistance

### Description

The LLC5 provides dual probe conductive liquid level control in a convenient octal plug-in package. Models are available for fixed fill or drain operation. Isolated, pulsed DC voltage on the probes prevents electrolytic plating. Less than 1 mA of current is used to sense the presence of conductive liquid between the probes and common. On adjustable units, the sensitivity adjustment eliminates false tripping caused by floating debris and foaming agents.

#### Operation

**Drain (Pump-Down Mode):** When the liquid level rises and touches the high level probe, the output relay and LED energize and remain energized until the liquid level falls below the low level probe. The output relay and LED de-energize and remain de-energized until the liquid rises and touches the high level probe.

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

### Features & Benefits

FEATURES	BENEFITS
<b>Unique Probe Protection logic</b>	Probes are protected from scale build up through pulsed DC signal between the probes.
<b>LED status indicator</b>	Visual indication of relay engagement in pump-up or pump-down activity
<b>Isolated 5A SPDT contacts</b>	Allows control of loads for AC voltage

### Accessories



#### BZ1 Front Panel Mount Kit

Provides an easy method of through-the-panel mounting of 8- or 11-pin plug-in timers, flashers, and other controls.



#### NDS-8 Octal 8-pin Socket

8-pin 35mm DIN rail or surface mount. Rated at 10A @ 300VAC. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC8 hold-down clips.



#### PSC8 Hold-down Clips

Securely mounts plug-in controls in any position. Provides protection against vibration. Use with NDS-8 Octal Socket. Sold in pairs.

**Note:** use of the PSC8 clips partly covers the LED window of the LLC5 unit. Use of alternative socket base P1011-6 with its corresponding hold down clips PSCRB8 do not cover up the LED window, but the socket base is not DIN rail mountable.

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

## LLC5 SERIES

### Accessories



#### 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

Resistance sensing for high & low level detection of conductive liquids  
Pulsed DC at probe terminals  
Factory fixed or adjustable to 100K $\Omega$

##### Sensing Voltage

##### Sensing Resistance

##### Sensing Resistance

##### Tolerance

Adjustable: 1K  $\pm$ 500 $\Omega$  at low end;  
100K $\Omega$   $\pm$ 25%, 0% at high end  
Factory fixed:  $\pm$ 10% or 500 $\Omega$  whichever is greater  
Debounce time delay <1s

#### Response Time

##### Input

##### Tolerance

##### 24VAC

##### 120 & 230VAC

##### AC Line Frequency

-15%, +20%

-20%, +10%

50/60 Hz

##### Output

##### Type

##### Form

##### Rating

##### Protection

##### Isolation Voltage

##### Mechanical

##### Mounting

##### Dimensions

Electromechanical relay

Isolated, SPDT

5A resistive @ 240VAC, 1/10 hp @ 240VAC

$\geq$  1500V RMS between input, output, & probe

Plug-in socket

**H** 60.7 mm (2.39"); **W** 45.2 mm (1.78");

**D** 76.5 mm (3.01")

##### Termination

##### Environmental

##### Operating/Storage

##### Temperature

##### Weight

Octal 8-pin plug-in

-20° to 60°C / -40° to 80°C

6 oz (170 g) approx.

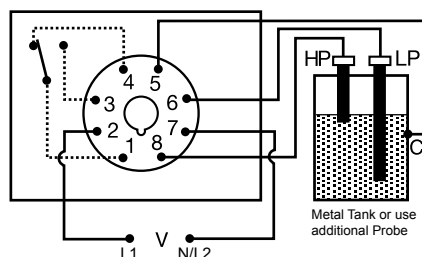
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