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**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolated 12VAC probes</td>
<td>Prevents scale buildup on the probes</td>
</tr>
<tr>
<td>Open PCB design</td>
<td>Cost effective design for OEM equipment and commercial appliances</td>
</tr>
<tr>
<td>Conformally coated PCB</td>
<td>Protects against moisture and corrosion</td>
</tr>
<tr>
<td>Sensitivity adjustment</td>
<td>Provides accurate level sensing while ignoring foam or floating debris</td>
</tr>
</tbody>
</table>

**Accessories**

- **P1015-13 (AWG 10/12), P1015-64 (AWG 14/16)**: 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
- 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
- ≥ 1500V 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
- ≈ 9 oz (255 g)

Mounting Dimensions

<table>
<thead>
<tr>
<th>DIAGRAM KEY</th>
<th>MODEL NUMBERS ENDING IN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>C</td>
</tr>
<tr>
<td>W</td>
<td>0.440” (11.176 mm)</td>
</tr>
<tr>
<td></td>
<td>0.250” (6.350 mm)</td>
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<tr>
<td>X</td>
<td>3.620” (91.948 mm)</td>
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<tr>
<td></td>
<td>3.500” (88.900 mm)</td>
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<tr>
<td>Y</td>
<td>2.120” (53.848 mm)</td>
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<tr>
<td></td>
<td>2.500” (63.500 mm)</td>
</tr>
<tr>
<td>Z</td>
<td>0.190” (4.826 mm)</td>
</tr>
<tr>
<td></td>
<td>0.250” (6.350 mm)</td>
</tr>
</tbody>
</table>