

# LC2/LC3 MANUAL



## LC2/LC3 INTRODUCTION AND CONDUCTIVITY CONTROL

The LC2/LC3 Conductivity Level Controls operate on the principle of passing a small AC current (approximately 2 ma.) through a conductive solution. Advanced solid state circuitry senses the presence or absence of solution level by monitoring current flow. When properly applied and maintained, the LC2/LC3 Conductivity Level Control will provide years of reliable level detection.

## SPECIFICATIONS

**Input:** 120/208-240 VAC, 1 PH, 50/60 HZ, 5 watts

**Output:** SPDT 1-(N/O), 1-(N/C), 240 VAC, 10 Amps, 1/2 HP Max. @ 240 VAC

**Ambient:** 0° to 131°F (-18° to 55°C), 99% RH

**Sensing:** 14.5 VAC, max 70,000 ohm-CM solution resistance.

**Probes:** Fluoropolymer sheathed 316 stainless steel, titanium, Hastelloy C® or carbon tipped.

**Case:** UL Type 1, IP60 flame-retardant plastic.

**Certification:** UL listed, E190611.

Hastelloy C® is a registered trademark of Haynes International, Inc.



**Warning: Do not use in flammable solutions, in the presence of flammable gases or deionized water service.**

## GENERAL OPERATION

Ensure all wiring is installed correctly. Apply power to the level control:

- **POWER** light illuminates (red)
- **LOW LEVEL (LOW LEVEL PUMP UP\*)** light illuminates (amber)
- Alarm sounds (if installed)
- Heater is inoperative (if installed)
- Pump or solenoid energizes\*

\* *LC3 only*

## ESTABLISH NORMAL LIQUID LEVEL

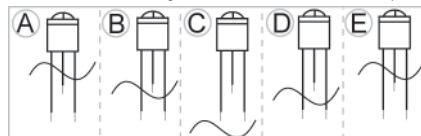
Ensure all wiring is installed correctly before establishing liquid level:

- **POWER** light remains illuminated (red)
- Alarm silences (if installed)
- Pump or solenoid de-energizes\*
- **LOW LEVEL (LOW LEVEL PUMP UP\*)** light extinguishes (amber)
- Heater energizes on temperature demand (if installed)

\* *LC3 only*

## LC3 OPERATION

- Liquid above all probes  
Condition: Heater system on, refill off, LC3 output latched on.
- Liquid drops below short probe  
Condition: Heater system on, refill off, LC3 output latch disabled.
- Liquid below all probes  
Condition: Heater system off, refill on, LC3 output off.
- Liquid returns to longer probes  
Condition: Heater system off, refill on, LC3 output latch engaged.
- Liquid returns to cover all probes  
Condition: Heater system on, refill off, LC3 output latched on.





**CONTROL PANEL MOUNTING DIMENSIONS**

2.625"  
(66.68mm)

**CONDUIT KNOCK-OUTS  
ON BOTH SIDES  
FOR WIRING ACCESS**

3.50"  
(88.9mm)

7.00"  
(177.8mm)

6.188"  
(157.18mm)

3.50"  
(88.9mm)

**CASE MEASUREMENTS**

**INSTALLATION**

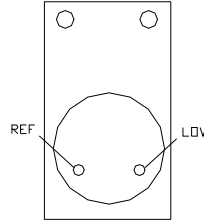
.250 Holes  
(6.35mm)

4 places

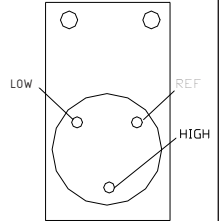
**-Use as a Template-**

With these control panel dimensions and mounting hole layout, select a suitable mounting location for control panel.

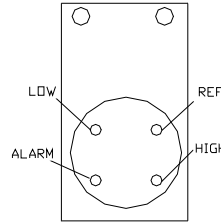
**PROBE DIMENSIONS**



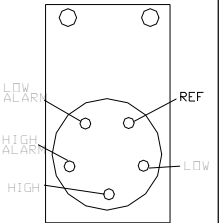
LC2 PROBE WIRING  
(TOP VIEW)



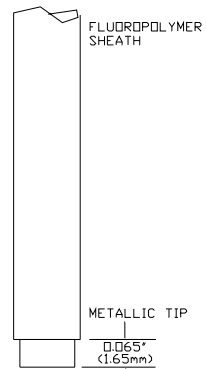
LC3 PROBE WIRING  
(TOP VIEW)



LC4 PROBE WIRING  
(TOP VIEW)

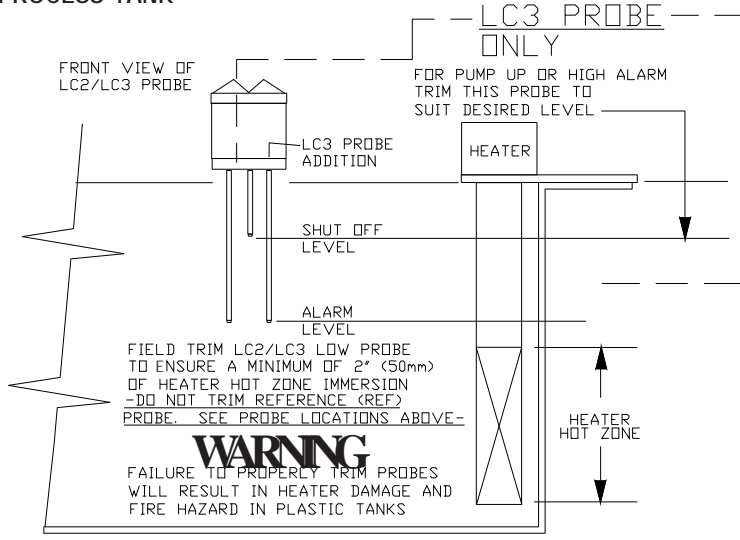


LC5 PROBE WIRING  
(TOP VIEW)

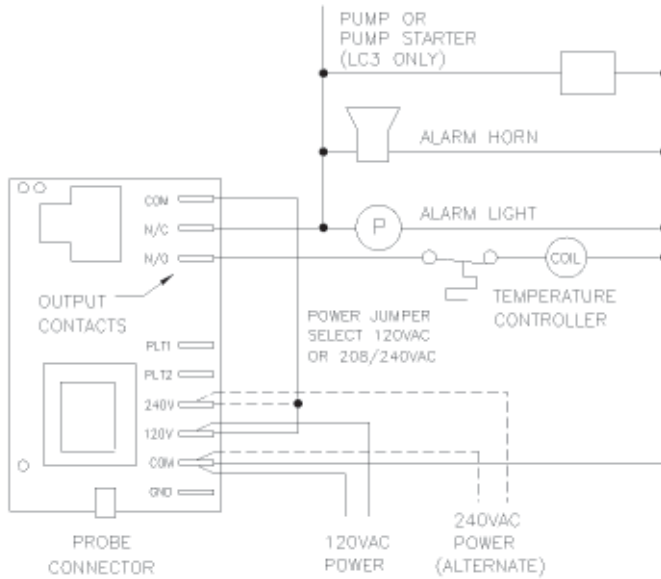


**PROBE TIP**

## CONTROLLED PROCESS TANK



## WIRING



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