

PROTECTIVE HEAT SHRINK LOCATION

- Connect the probes to the liquid level controller.
- 2) Slide the extra piece of shrink tubing over the connector where it will touch the side of the control
- 3) Use a heat gun or other heat source to shrink the tubing around the connector, sealing it from harmful vapors.
- 4) This shrink tubing will protect the pins inside the connector from corrosion.



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M-37-02 LC2/LC3 Manual

Revision - Date: 02 - 02/21/13

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 of 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

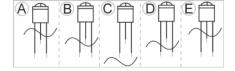
ESTABLISH NORMAL LIQUID LEVEL

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

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



TROUBLESHOOTING

- No Lights—Power interruption, check circuit breaker, fuse on incoming power line.
- Check incoming power line for breaks.
- POWER ON Light is illuminated, no amber LOW LIQUID light on, even though level is below probes—Shorted probe. Unplug probe connector from control. If LOW LIQUID light illuminates, replace probe assembly; or:
- Defective control. If above did not work, replace control.
- POWER ON light is illuminated, amber LOW LIQUID light is illuminated, alarm sounds, liquid level normal—Occluded probe tips: Remove probe assembly and examine tips for salts buildup or oil

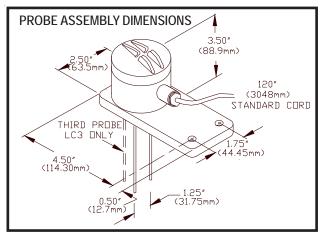
fouling. Cleanse tips and reinstall; or:

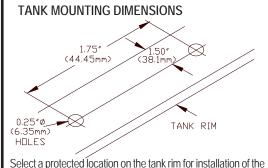
Solution resistivity is too high: Remove probe assembly and install a temporary jumper between tips. If amber **LOW LIQUID** light extinguishes and alarm silences, the liquid solution resistivity may be too high. Consult factory.

MAINTENANCE

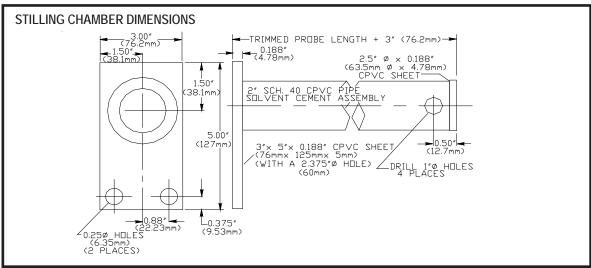
Inspect and clean probe assembly frequently—excessive conductive deposits may cause bridging between the probes and control failure. Inspect and, if necessary, clean probe tips on a monthly basis to avoid calcium and other mineral buildup that creates increased measured resistance. Replace probes showing excessive etching. For special tips designed for aggressive chemistry applications, consult factory.

DIMENSIONS AND MOUNTING



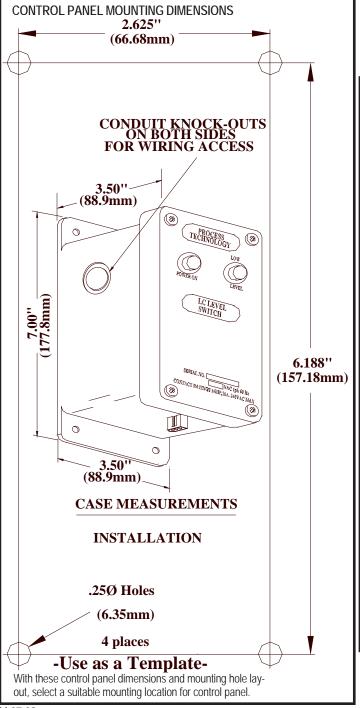


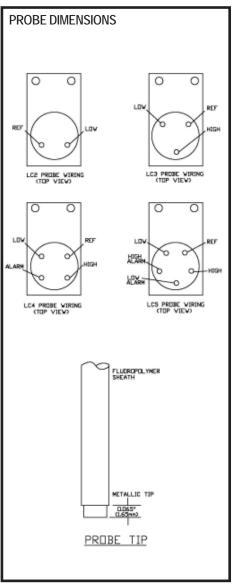
probe assembly. (It may be necessary to fabricate a "stilling chamber" when solutions are highly agitated or when foam/ball blankets are being used.) Do not mount under a tank cover.



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M-37-02 LC2/LC3 Manual Printing Instructions

Print in black and white.

Print two-sided on 8-1/2" x 14" 24lb paper and fold into "booklet".