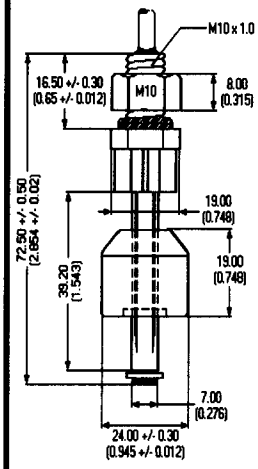
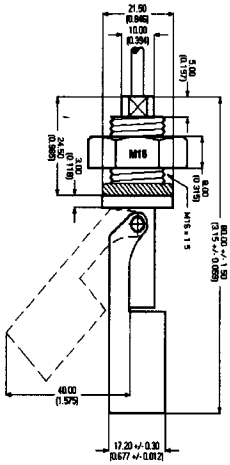
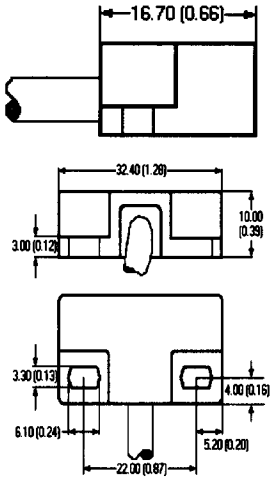
*Products for tomorrow...*

| |  **LS02 Series** Level Sensors with magnet floats |  **LS03 Series** Level Sensors with magnet floats |  **MK2 Series** **MK 2/0 -2/1** Magnetic bridging Sensors for industrial applications |  **MK2 Series** **MK 2/2 - 2/3** Magnetic bridging Sensors for security applications |
|---|---|---|---|---|
| **DIMENSIONS** *Tolerance 0.10 mm (0.004 in)* *except as noted* |   |   |   | |
| **FEATURES** | Form A or B available<br>Two designs available: PP for water & slightly acidic water, PA for oil, petrol, & brake fluid<br>Standard cable is a PVC round-cable with 2x 0.14 mm² & 500 mm length (other lengths available on request | Form A or B available<br>Two designs available: PP for water & slightly acidic water, PA for oil, petrol, & brake fluid<br>Standard cable is a PVC round-cable with 2x 0.14 mm² & 500 mm length (other lengths available on request | Unique magnetic circuit only a simple piece of iron is required to activate switching position<br>Form A or B available<br>Standard cable is a UL-listed round twin core 2 x 0.35mm² | Unique magnetic circuit only a simple piece of iron is required to activate switching position<br>Standard cable is a 4 wire round core 4x 0.14mm² |
| **APPLICATIONS** | Level sensing in household devices, automotive applications & measurement technology | Level sensing in household devices, automotive applications & measurement technology | End switch for limit sensing<br>Position control<br>Control functions in plant & utilities | Door & window control<br>Opening recognition control<br>Fastening bolt control<br>Fire protection doors |
| **SPECS** | | | | |
| Contact style | 1A, 1B | 1A, 1B | 1A, 1B | 1A, 1B |
| Operating temp (°C) | PA -20/100; PP -20/90 | PA -20/100; PP -20/90 | -20 / 85 | -20 / 85 |
| Storage temp (°C) | PA -20/100; PP -20/90 | PA -20/100; PP -20/90 | -35 / 85 | -35 / 85 |
| Operating time (µs) | 500 Typ. | 500 - 2000 | 500 - 700 | 500 -700 |
| Release time (µs) | 100 Typ. | 100 | 100 - 1000 | 100 - 1000 |
| Rated power (Watts) | 10 - 30 | 10 - 30 | 3 - 10 | 3 - 10 |

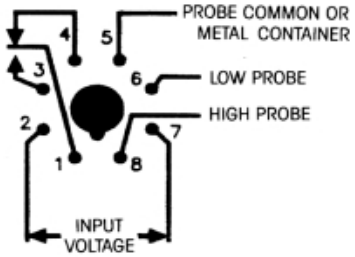
## LIQUID LEVEL CONTROLS - DUAL PROBE

Provides high and low sensing with Pump Up or Pump Down capabilities. Standard octal plug-in housing. Probe and sensing circuit are isolated from line voltage through a transformer. Probe is driven by AC signal to prevent plating. Output is an electro-mechanical relay rated 10 amps.

| Mfr. No. | Logic Type | Input Voltage |
|---|---|---|
| LNC-00DLA-447 | "A" Pump Down | 24VAC |
| LNC-00DLA-441 | "A" Pump Down | 120VAC |
| LNC-00DLA-445 | "A" Pump Down | 230VAC |
| LNC-00DLB-447 | "B" Pump Up | 24VAC |
| LNC-00DLB-441 | "B" Pump Up | 120VAC |
| LNC-00DLB-445 | "B" Pump Up | 230VAC |


### ACCESSORIES

| Mfr. No. | Description |
|---|---|
| LLH-01138-010 | Probe holder |
| LLH-11383-010 | Probe holder with ground |
| LLP-06.00-OSS | Probe, 6" long, ¼" dia., SS |
| LLP-12.00-OSS | Probe, 12" long, ¼" dia., SS |
| LLP-24.00-OSS | Probe, 24" long, ¼" dia., SS |
| MSO-0008P-012 | Octal socket, back panel mount |
| ASY-STRAP-7.00L | Hold down strap for control |



Connection Diagram

## DUST COLLECTOR CONTROLS

### MODELS T2003 - T2032

Input power is applied to the control at all times. For "On Demand" cleaning, closure of isolated control contacts (pressure switch) initiates the "Off" time. At the end of the off time the control energizes solenoid no. 1 to provide a cleaning pulse; it then transfers to the next compartment initiating the off time again. This cycle continues until the control contacts open. The control remembers the last output activated and will activate the next one in line when the control contacts reclose. For "continuous" cleaning the pressure switch terminals should be shorted together. A program wire allows for field selection of number of outputs required.

**Off Time**: Range A—adjustable from 1.5 to 30 seconds. **Off Time**: Range B—adjustable from 8.5 to 180 seconds. **Output**: Solid-state switch rated at 200 VA max. per output.

| Mfr. No. | Max. No. Outputs | Input Voltage (VAC) | Dimensions | | UL File No. | CSA File No. |
|---|---|---|---|---|---|---|
| | | | Length (in) | Width (in) | | |
| DNC-T2003-A10 | 3 | 120 | 6.75 | 4.875 | E-65038 | LR-33434 |
| DNC-T2003-B10 | 3 | 120 | 6.75 | 4.875 | E-65038 | LR-33434 |
| DNC-T2006-A10 | 6 | 120 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2006-B10 | 6 | 120 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2010-A10 | 10 | 120 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2010-B10 | 10 | 120 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2020-A10 | 20 | 120 | 10.75 | 8.875 | E-65038 | LR-33434 |
| DNC-T2020-B10 | 20 | 120 | 10.75 | 8.875 | E-65038 | LR-33434 |
| DNC-T2032-A10 | 32 | 120 | 12.75 | 10.875 | E-65038 | LR-33434 |
| DNC-T2032-B10 | 32 | 120 | 12.75 | 10.875 | E-65038 | LR-33434 |
| DNC-T2006-A220 | 6 | 220 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2006-B220 | 6 | 220 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2010-A220 | 10 | 220 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2010-B220 | 10 | 220 | 8.75 | 6.875 | E-65038 | LR-33434 |
| DNC-T2020-A220 | 20 | 220 | 10.75 | 8.875 | E-65038 | LR-33434 |
| DNC-T2020-B220 | 20 | 220 | 10.75 | 8.875 | E-65038 | LR-33434 |

### NEMA 4 ENCLOSURES

| Mfr. No. | Description/ Required Size (in.) |
|---|---|
| BOX-A0806-CHNF | 8 × 6 × 3½ |
| BOX-A1008-CHNF | 10 × 8 × 4 |
| BOX-A1210-CHNF | 12 × 10 × 5 |
| BOX-A1412-CHNF | 14 × 12 × 6 |
| MSW-ODPST-011 | Switch |
| ASL-OORED-NEMA4 | Red lamp |

# Octal Plug-in Conductive Liquid Level Controls

11

CONTROLS & SENSORS

✓ *Isolated 12VAC Probe Voltage Reduces Probe Electroplating*

1.78"x 2.39" x 2.90"
(45x61x74mm)

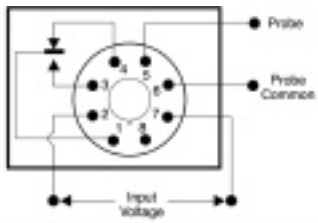
## LLC4 Series (Single Probe Sensing)

- 8 Pin Octal Plug Construction
- Adjustable Sensing up to 250,00 Ohms
- Time delay to prevent rapid cycling of valve or pump
- Isolated AC Voltage on the Probes
- 4 Amps Resistive SPDT Isolated Contacts
- Moisture Protected Circuitry
- 120 VAC Input Voltage

**Drain Mode:** When the liquid is not in contact with the probe, the output relay is de-energized. When the liquid touches the probe, the time delay begins. At the end of the time delay, the relay energizes until the liquid no longer touches the probe.

**Fill Mode:** With the liquid in contact with the probe, the output relay is de-energized. When the liquid no longer touches the probe, the time delay begins.At the end of the time delay, the relay energizes and remains energized until the liquid touches the probe.

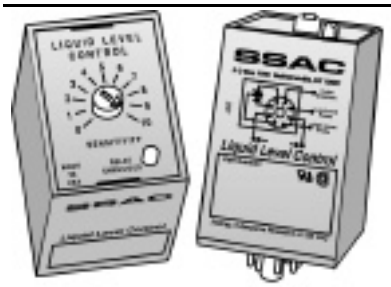
### Connection Diagram




RELAY CONTACTS ARE ISOLATED FROM INPUT VOLTAGE

| Mode | Voltage | Time Delay | Part Number |
|---|---|---|---|
| Drain | 120VAC | 10 S | LLC44A10A |
| Drain | 120VAC | 60 S | LLC44A60A |
| Fill | 120VAC | 10 S | LLC44B10A |
| Fill | 120VAC | 60 S | LLC44B60A |

Other options and voltages available



1.78" x 2.39" x 3.30"
(45x61x84mm)

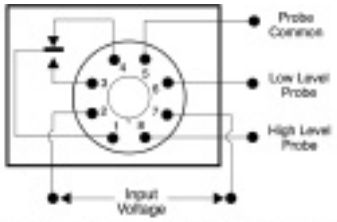
## LLC5 Series (Dual Probe Sensing)

- 8 Pin Octal Plug-in Construction
- Onboard Knob Sensing, 2k to 100K Ohms
- LED Indicator Reduces Adjustment Time
- 24 or 120 VAC Input Voltage
- 5 Amps SPDT Isolated Contacts
- Moisture Protected Circuitry

**Fill Mode:** When the level falls below the lower probe, the output energizes a pump or valve to restore the liquid to the upper probe.

**Drain Mode:** When the liquid rises to the upper probe, the output energizes a pump or valve to lower the level to the lower probe.

### Connection Diagram

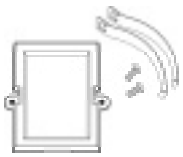



RELAY CONTACTS ARE ISOLATED FROM INPUT VOLTAGE

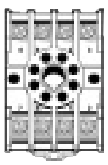
| Mode | Voltage | Part Number | In Stock Part Numbers |
|---|---|---|---|
| Drain | 24VAC | LLC52AA | |
| Drain | 120VAC | LLC54AA | • |
| Fill | 24VAC | LLC52BA | |
| Fill | 120VAC | LLC54BA | • |

Other options and voltages available

### Accessories



**BZ1**
Panel Mount Kit for use with all SSAC Plug-in Time Delay Relays



**NDS-8**
8 Pin Octal Socket
**Fits 35mm DIN Rail**

**WCC-1138**
Liquid Level Control Electrode

**WCC-1138-3**
Electrode with Common Connection

**LLP-24**
24" (61cm) ThreadedStainless Steel Probe



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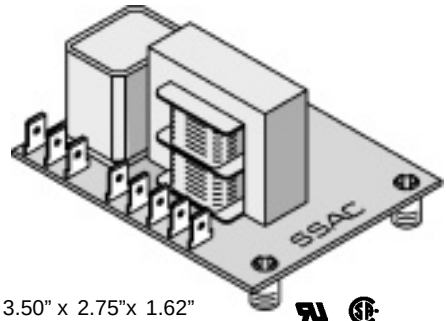
# Open PC Board Conductive Liquid Level Controls

✓ *Isolated 12VAC Probe Voltage Reduces Probe Electroplating*




3.50" x 2.75"x 1.62"
(89x70x41mm)

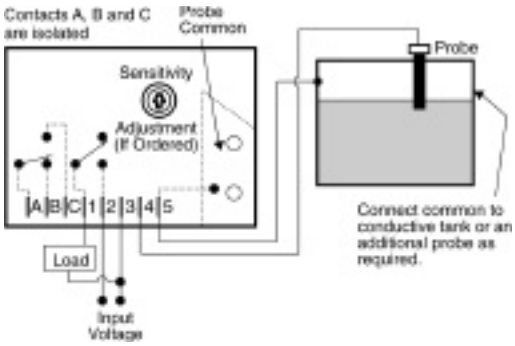
## **LLC1 Series** (Single Probe Liquid Level Control)

- Open PC Board Construction
- Clear Coated Electronics
- Adjustable Sensing up to 250,000 Ohms
- 120 VAC Input Voltage
- Time delay to prevent rapid cycling of valve or pump
- Quick Connect Terminals
- 10 Amps SPDT Isolated & SPST Non-isolated Contacts
- Isolated AC Voltage on the Probes
- 0.38" ( 9.5mm) Nylon Standoffs, #6 Screw

**Drain Mode:** When the liquid is not in contact with the probe, the output relay is de-energized.When the liquid touches the probe, the time delay begins. At the end of the time delay, the relay energizes until the liquid no longer touches the probe.

**Fill Mode:** With the liquid in contact with the probe, the output relay is de-energized.When the liquid no longer touches the probe, the time delay begins. At the end of the time delay, the relay energizes and remains energized until the liquid touches the probe.

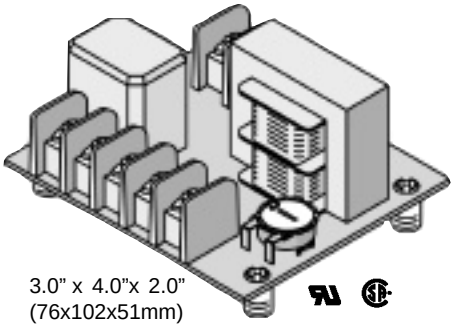
### Connection Diagram




| Mode | Voltage | Time Delay | Part Number |
|---|---|---|---|
| Drain | 120VAC | 10 S | LLC14A10AX |
| Drain | 120VAC | 60 S | LLC14A60AX |
| Fill | 120VAC | 10 S | LLC14B10AX |
| Fill | 120VAC | 60 S | LLC14B60AX |

Other options and voltages available

| Accessories for LLC1 and LLC2 Series | Part Number |
|---|---|
| Liquid Level Control Electrode (UL) | WCC-1138 |
| Electrode with Common Connection | WCC-1138-3 |
| 24 inch (61cm) Stainless Steel Probe | LLP-24 |



3.0" x 4.0"x 2.0"
(76x102x51mm)

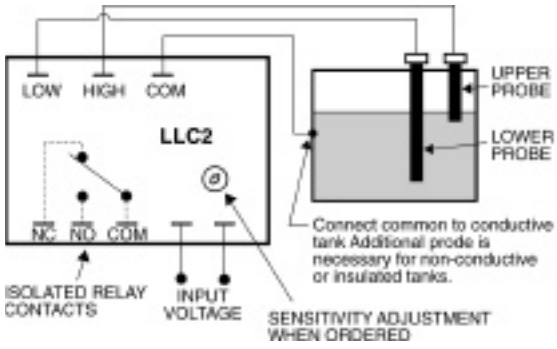
## **LLC2 Series** (Dual Probe Liquid Level Control)

- Open PC Board Construction
- Clear Coated Electronics
- Adjustable Sensing up to 100,000 Ohms
- 120 Models are Available
- 10 Amps SPDT Isolated Contacts
- Isolated AC Voltage on the Probes
- Terminal Block

**Fill Mode:** When the level falls below the lower probe, the output energizes a pump or valve to restore the liquid to the upper probe.

**Drain Mode:** When the liquid rises to the upper probe, the output energizes a pump or valve to lower the level to the lower probe.

### Connection Diagram




| Mode | Voltage | Connection | Mounting Dimensions | Part Number |
|---|---|---|---|---|
| Drain | 120VAC | Terminal Block | 3.62" x 2.12" (92x54mm) | LLC24A2AN |
| Drain | 120VAC | Terminal Block | 3.5" x 2.5" (89x64mm) | LLC24A2AC |
| Fill | 120VAC | Terminal Block | 3.62" x 2.12" (92x54mm) | LLC24B2AN |
| Fill | 120VAC | Terminal Block | 3.5" x 2.5" (89x64mm) | LLC24B2AC |

Other options and voltages available