



**LL051.001 Liquid Level Controller:** provides high-level, low-level or bilevel control in a convenient octal plug-in package.

**LL050 Series**  
**LL051 Level Controllers**

The LL051-type liquid level controllers provide high-level, low-level or bilevel control in a convenient octal plug-in package. Models are available for pump-up or pump-down operation. Transformer isolated AC voltage on the probes prevents electrolytic plating. Less than 1/1000 of an amp of current is used to sense the presence of conductive liquid between the probes and common. Onboard sensitivity-adjustable units eliminate false tripping caused by floating debris and foaming agents. Isolated electromechanical relay contacts can be directly connected to the control circuitry or control pumps and solenoids. The LL051-type controllers can be used at a distance of up to 500 feet from probes, and twisted pair or shielded cable is recommended.

**Typical Controller Hookup to Switches:**

1. Set switches "Normally Open."
2. Connect Upper switch to pins 6 and 8, Lower switch to pins 5 and 6.
3. Connect the switched voltage to terminal 1 (AC or DC Volts).
4. FOR PUMP-UP: Connect one end of the pump/valve to terminal 4 and the other end to the switched voltage return.  
FOR PUMP-DOWN: Connect one end of the pump/valve to terminal 3 and the other end to the switched voltage return.
5. Connect line voltage to terminals 2 and 7.

**Features:**

- Dual probe level detection
- Solid state circuitry, coated for moisture protection
- Factory-fixed or adjustable sense resistance
- UL and CSA approvals
- Electromechanical relay output for isolation and reliability

**Specifications:**

**Control**

Sensing Type	ON/OFF Resistance
Voltage at Probe Terminals	12 VAC nominal
Sensing Resistance	Factory-fixed or adjustable to 100,000 ohms
Sensing Resistance Tolerance	Factory-fixed – $\pm 10\%$ ; adjustable – guaranteed range

**Operating Voltage**

Voltage	24, 120 or 230 VAC
Tolerance	$\pm 15\%$ nominal
Frequency	50/60 Hertz

**Output**

Type	Electromechanical relay
Contact	SPDT isolated
Output Contact Ratings (1-3 or 1-4)	5A @ 220 VAC 10A @ 120 VAC 10A @ 30 VDC

Socket Rating 10A @ 300 VAC

**Dimensions**

Controller 1-3/4" x 2-3/8" x 2-3/4"

Socket 1-9/16" x 2" x 11/16"

Total Installed Height 3-11/16"

**Transient Protection** Dielectric Breakdown: 1500 volts RMS minimum

**Environmental** -20°C to 60°C Operating Temperature

**Mechanical** Plug-In Mounting: DIN-type track mount/surface mount  
8-pin socket termination: Octal 8-pin plug

**Mounting Connection** Two molded thru holes for mounting with #8 screws or bolts; can be DIN rail-mounted