

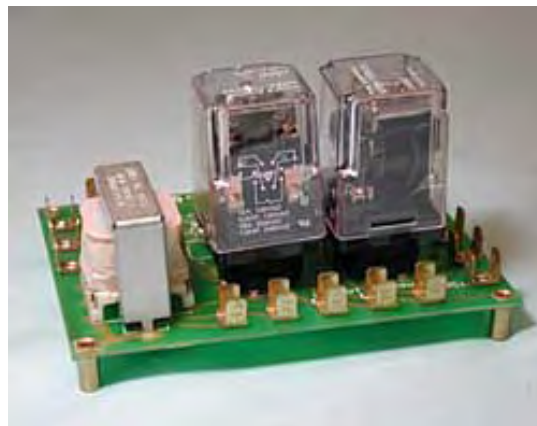
# Curtis® liquid level controls

## Models DLC

## Dual-level control with lockout feature

### Features

- Ideal for Pump and Heater Applications Requiring Lockout in the Event of Loss of Water or Product Being Controlled
- Circuit Design Limits Short Circuit Probe Current to 10MA/24VAC
- Three-Probe Circuit Eliminates "Hunting" or Relay Chatter
- Built-in Holding Circuit for Differential Levels or Manual Reset
- Has Provision for Priming Switch for Applications Requiring Manual Priming of System
- Solid-State Amplifier with SCR and Control Relay
- Sensitivity to 100,000 ohms



### Specifications

	Model	Input Supply
Input Supply:	DLC-1	120VAC, 50/60 Hz
	DLC-2	240VAC, 50/60 Hz
	DLC-3	24VAC, 50/60 Hz.
Maximum Allowable Supply Voltage Variation: $\pm 10\%$		
Maximum Power Consumption: 3 Watts		
Sensitivity Range: External circuit sensitivity fixed at 100,000 ohms; Lockout circuit sensitivity fixed at 15,000 ohms		
Operating Point Differential: 3% (Typical)		
Maximum Signal or Probe Voltage: 24VAC		

**Maximum Signal or Probe Current:** 10MA

**Control Relay:** Plug-in types with dust cover

**Probe Contacts:** Internally connected for holding circuit

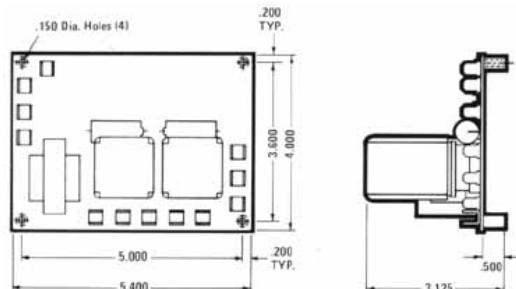
**Load Contacts:** 1/6 HP, 10 amp, Non-inductive/120VAC, 1/3 HP at 240VAC

One side of No. 1 relay actuates fill water solenoid valve, a second set of contacts function as an internally connected holding circuit. One side of No. 2 relay is used to operate a heater load contactor.

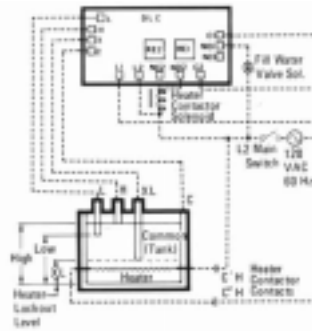
**Ambient Operating Temperature:** +32° F to +140° F

**Standard Termination:** .250" quick-connects

### Outline and Mounting Dimensions



### Description and Special Notes



The DLC control maintains liquids between a low and a high level. Activating the main switch on this dual-relay unit pulls in control relay No. 1 and starts filling boiler tank through the solenoid valve. When liquid rises to "XL", minimum level, lockout control relay No. 2 energizes to operate the pump, heater core or contactor. The solenoid valve continues to fill the tank until liquid reaches the "H" probe. When the liquid drops below the "L" probe, the solenoid fill valve is again activated. Relay No. 2, the lockout control, remains energized as long as liquid level remains above "XL" minimum level.

### Ordering Information

#### Typical Curtis Model Number

Model (Also refer to "Specifications" above) \_\_\_\_\_

Contactor (add "C" if desired) \_\_\_\_\_

Enclosure – specify only if necessary –

N3-NEMA 3, N3C-NEMA 3/

Contactor, N4 – NEMA 4 JIC \_\_\_\_\_

DLC-1 - -

The composite number above reads as a "DLC amplifier for 120VAC supply, without enclosure and without contactor.

Unless otherwise noted, when a contactor is ordered for the DLC unit, it is wired into the output of the No. 2 (heater control) relay. Contactors may be wired into the output of the No. 1 (solenoid valve control) relay or both No. 1 and No. 2 relays, as application may require. Specify with order. Refer to "Control Accessories," page 7, for additional information.

For further information on catalog listed controls contact your area Curtis representative or Curtis distributor.

For custom design or modification contact your area Curtis representative or the factory direct.