

Specifications for Control Units with Model ECID Relays



Reliance®

A PRODUCT OF CLARK-RELIANCE

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Caution: Before proceeding, follow any and all plant lock out - tag out procedures required. Verify that all power is turned off to the probes. If under pressure, the equipment should be isolated, or the boiler should be shut down *before* proceeding with the installation. Open drain valve to eliminate any trapped pressure. Any trips or alarms connected to the controller should be bypassed. All inspection and installation steps should be performed by a qualified technician and should be executed in accordance with all applicable national and local codes.

This bulletin should be used by experienced personnel as a guide to the installation of model RECID controls. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact the Clark-Reliance Corporation or its representative if further information is required.

SPECIFICATIONS

Control Design: Solid State components enclosed in a clear Lexan plug-in style housing. Housing carries no NEMA rating.

Contact Design: DPDT (2 form C): two normally open (N.O.) and two normally closed (N.C.) non-powered contact.

Contact Ratings: 5A @ 120, 240 VAC resistive, 1/3 H.P. @ 120, 240 VAC, 5A @ 30 VDC.

Contact Life: Mechanical – 5 million operations. Electrical – 100,000 operations minimum at rated load.

Supply Voltage: 24, 120, and 240 VAC models 10%, minus 15%, 50/60 Hz.

Supply Current: 24, 120, and 240 VAC, Relay energized 4.4 VA

Secondary Circuit: 12 VAC RMS voltage on probes, 1.5 milli-amp current.

Sensitivity: Models operate from 0 – 100,000 OHM maximum specific resistance.

Temperature: -40 to 150° F. ambient.

Terminals: All connections #6-32 screw type terminals with pressure clamps

Listings: U.L. listed, Industrial Motor Control (508), CSA approved Industrial Control.

LED Terminal Output: Probe in water, +12VDC, Probe out of water, -12 VDC.

MODEL NUMBER INFORMATION

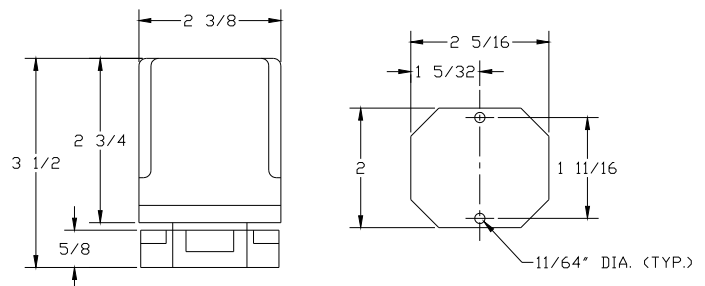
SUFFIX	SENS. (ohms)	MODE	SUPPLY
-22R	28K	DIRECT	120VAC
-23R	50K	DIRECT	120VAC
-24R	100K	DIRECT	120VAC
-26R	28K	INVERSE	120VAC
-28R	50K	INVERSE	120VAC
-27R	100K	INVERSE	120VAC
-28R	28K	DIRECT	24VAC
-29R	50K	DIRECT	24VAC
-30R	100K	DIRECT	24VAC
-31R	28K	INVERSE	24VAC
-32R	50K	INVERSE	24VAC
-33R	100K	INVERSE	24VAC
-118	28K	DIRECT	240VAC
-58R	50K	DIRECT	240VAC
-121R	100K	DIRECT	240VAC
-72	50K	INVERSE	240VAC

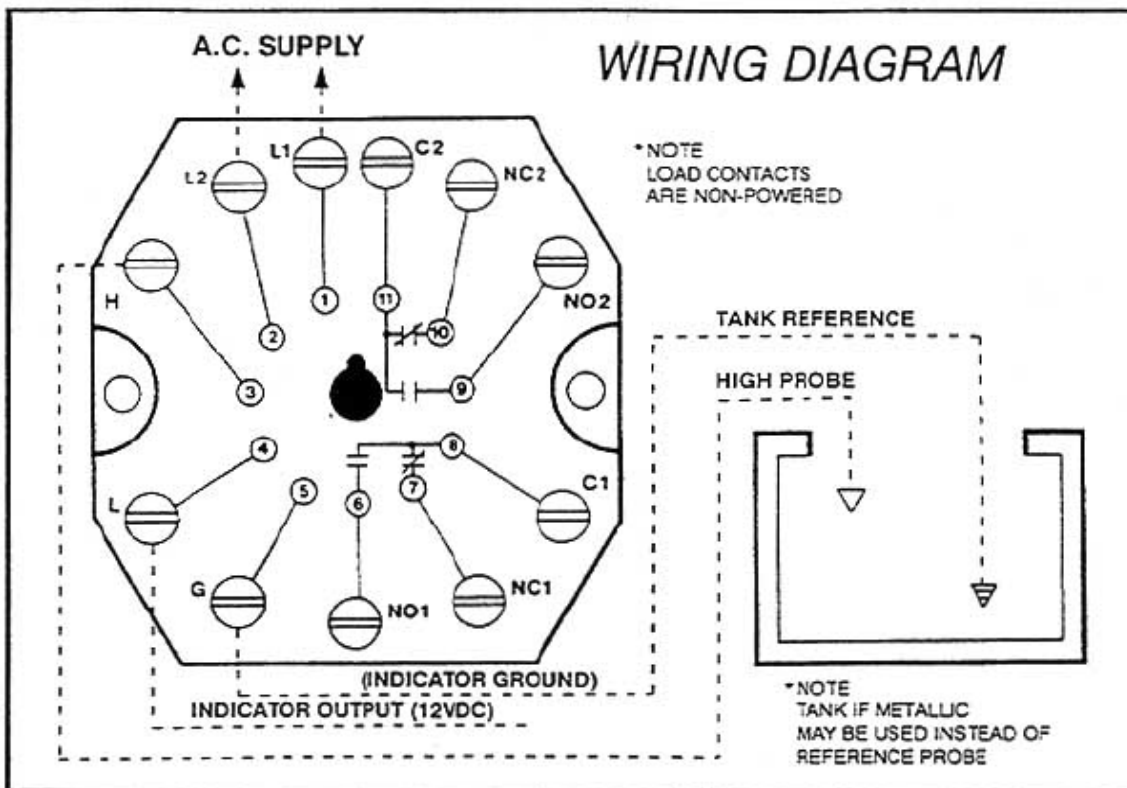
INSTALLATION

- 1) Install octal socket in appropriate enclosure using two (2) #6 or #8 metal screws.
- 2) Wire control per wiring diagram, following N.E.C. and local codes.
- 3) Install control module in socket.

SENSITIVITIES VS MAXIMUM PROBE WIRE DISTANCE

SEN. (K ohms)	DISTANCE (ft.)
28	2.200
50	1.075
100	0.670





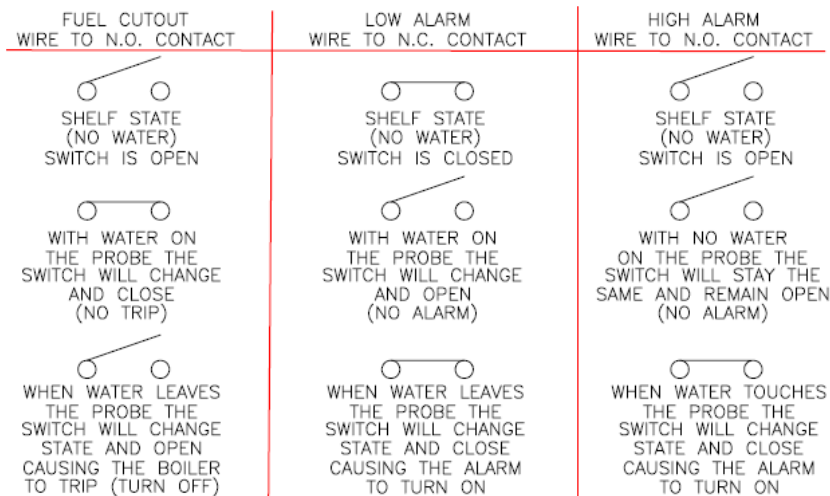
Direct Mode: Single Level Service:

With power applied to the control and the probe on terminal 3 out of the liquid, the load contacts are in their shelf position and a negative 12 VDC signal is present on terminal 4. (LED will not be lit) When the liquid rises to the electrode on terminal 3, the control energizes, changing the state of the load contacts and providing a plus 12 VDC signal on terminal 4. (LED will be lit)

Inverse Mode: Single Level Service:

With power applied, with the probe on terminal 3 out of the liquid, the control energizes, changing the state of the load contacts and providing a negative 12VDC signal on terminal 4. (LED will be lit) When liquid rises to the electrode on terminal 3, the control de-energizes, returning the load contacts to their shelf position and a plus 12VDC signal on terminal 4.

Typical Relay Wiring Examples





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Questions? Contact a Reliance Applications Engineer at
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