

A-E20-00-17-DJR0

Enclosed Relay 20 Amp SPST Automatic Load Control Relay, 120-277 Vac Coil Input, 0-10V Dimmer Override



Specifications

Relays & Contact Type: One (1) SPST Continuous Duty Coil Expected Relay Life: 10 million cycles minimum mechanical Operating Temperature: -30 to 140° F Operate Time: 18ms LED: Green = Normal Power Red = Emergency Power (50/60 Hz) Yellow = Load Power Dimensions: 4.0" x 4.57" x 1.80" with .50" NPT Nipple (50/60 Hz) Wires: 16", 600V Rated Contact Ratings: Approvals: UL Listed, UL924, C-UL, CE, RoHS Housing Rating: UL Accepted for Use in Plenum, NEMA 1 Gold Flash: No Override (Test Switch): Yes Humidity Range: 5-95% (noncondensing)

Bypass/Shunt Relay Application

Our Bypass/Shunt Relays are UL924 Listed and suitable for shunting around wall switches and/or lighting control panel circuits, in order to turn on emergency lighting when normal utility power is lost.

Troubleshooting

Coil Current:

Normal Power = 24 mA max Emergency Power = 118 mA max

Coil Voltage Input:

Emergency Input: 120-277 Vac Normal Input: 120-277 Vac

20 Amp Magnetic Ballast @ 277 Vac 16 Amp Electronic Ballast @ 277 Vac 10 Amp Tungsten @ 120 Vac

UL924 / 20 AMP AUTOMATIC LOAD CONTROL RELAY

Lighting Controls

Functional Devices, Inc:



Testing

Initial Test for Correct Wiring

Apply Emergency Power to the Emergency Power Input and Normal Power to the Normal Power Input. (If using the Wall Switch Input, apply Normal Power to the switch also, but keep the switch OFF/OPEN.)

- a. The Red LED (Emergency Power available) should be ON.
- b. The Green LED (Normal Power available) should be ON.
- c. The Yellow LED (Load Status) should be OFF.
- d. The Load should be OFF.
- e. The Feedback/Dimmer Contact should be CLOSED.

Local Test Button

- 1. Turn switched circuit OFF. Emergency light should be OFF.
- 2. Press and hold "Local Test Button"
- 3. Emergency light should turn ON.
- 4. Release "Local Test Button" and emergency light should turn OFF.
- Remote Test Button (Model ESRTB sold separately)
- 1. Turn switched circuit OFF. Emergency light should be OFF.
- 2. Press and hold "Remote Test Button"
- 3. Emergency light should turn ON.
- 4. Release "Remote Test Button" and emergency light should turn OFF.

Wall Switch or Controller Contact

- 1. Turn ON switch if not already on.
- 2. Emergency light should turn ON.
- 3. Turn wall switch OFF.
- 4. Emergency light will remain on for two seconds before turning OFF.

Condition	Action
Red LED is OFF	Check Emergency Power Input wiring (BROWN and YELLOW wires) and voltage.
Green LED is OFF	Check Normal Power Input wiring (BLACK and RED wires) and voltage.
Yellow LED is ON but Load is OFF	 Check Load wiring (BLUE wire and Load's neutral). Verify Load's operating voltage is the same as the Emergency Power Input Voltage. Check bulbs and ballast. Replace unit.
Load is ON but Yellow LED is OFF	Replace unit.
Yellow LED and Load do not turn on when being tested	 Check bulbs and ballast. Check wiring connections if using a remote test option. Press local test button on the unit. Replace unit.
Yellow LED and Load will not turn OFF	 Verify status of Normal Power Input. Open Wall Switch Input. Verify that no test inputs are stuck closed. (i.e. Remote Test Input is not closed).

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Typical Applications

Using Emergency Lighting as Normal Lighting



Overriding a 0-10Vdc Dimmer

