

# UL924 Listed Emergency Lighting Bypass / Shunt RIB® Relays

## Description

Our UL924 Listed RIB® relays are suitable for shunting around wall switches, lighting panels, and controllers, which turn on emergency lighting in the event of the loss of normal utility power. Emergency power is supplied by either a generator or inverter system switched by an automatic transfer switch. This is typically done close to the emergency power source.

Our UL924 Listed RIB® relays can be ordered with various configurations of LED indicators, which are used for initial wiring verification and field inspection. Many models allow for remote testing, giving your inspector access during scheduled inspections. Some models are available with a dimming override, enabling full brightness when emergency power is present. Other models can be used when the designated emergency light is needed for normal lighting, both controlled by a single switch.

## Operation

When normal power is present, the relay coil is activated, and the emergency panel is fed from normal power. The lighting load can be switched on or off using an individual wall switch. When normal power drops out, the relay coil is deactivated, and N/C contact closes, creating the pathway for the emergency backup power to flow. The automatic transfer switch changes over to backup (generator) power, and the lighting load is illuminated regardless of the position of the wall switch or controller scheme.

## Features

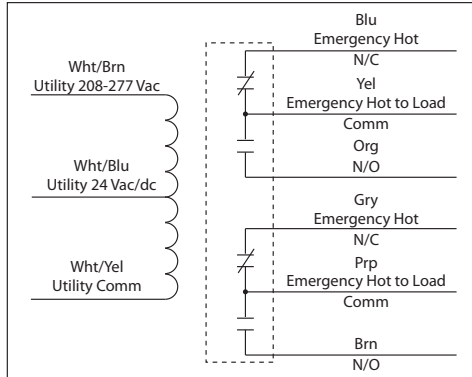
- Multi-coil voltage input
- 10 and 20 Amp contact ratings
- 16 Amp electronic ballast rating (specific models)
- 0-10 Vdc dimmer override
- Remote test capability
- NEMA 1 enclosure with bright yellow color for easy identification
- Pre-wired and prepackaged for convenience
- LED indicator of utility and emergency voltage
- Nipple mount, wall mount, or ballast channel mount
- UL 924 Listed & California State Fire Marshall
- DPDT configurations available
- 5-year warranty
- Made in the U.S.A.



## ESR2402D

Enclosed Relay 10 Amp DPDT with 24 Vac/dc/208-277 Vac

UL924 / 10 AMP EMERGENCY BYPASS / SHUNT RELAY



Not rated for use as a UL1008 Transfer Device

## Specifications

**# Relays & Contact Type:** One (1) DPDT Continuous Duty Coil  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Operate Time:** 8mS  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL924, C-UL  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override (Test Switch):** No

**Contact Ratings:**  
 10 Amp Resistive @ 30 Vdc  
 10 Amp General Use @ 277 Vac  
 1/2 HP @ 120/240 Vac (N/O)  
 1/3 HP @ 120/240 Vac (N/C)  
 B300 Pilot Duty  
 120 Vac 30A Make 3A Break (360 VA)  
 240 Vac 15 A Make 1.5A Break (360 VA)  
 208 Vac 17.3A Make 1.73A Break (360 VA)  
 277 Vac 13A Make 1.3A Break (360 VA)  
 24 Vac 30A Make 5A Break (120 VA) 5A Max

**Coil Current:**  
 24 mA @ 18 Vac      20 mA @ 20 Vdc  
 32 mA @ 24 Vac      24 mA @ 24 Vdc  
 40 mA @ 30 Vac      36 mA @ 30 Vdc  
 36 mA @ 208-277 Vac

**Coil Voltage Input:**  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 20 Vdc

**Notes:**  
 • Not rated for use as a UL1008 Transfer Device.

## Initial Wiring Verification

1. Turn OFF Normal Power, Transfer Power, and Wall Switch.
2. Wire relay according to wiring diagram.
3. Energize Transfer Power. Emergency Lights should illuminate.
4. Energize Normal Power. Emergency Lights will turn OFF.
5. Turn ON Wall Switches. Emergency Lights should illuminate.

## Field Inspection

1. Ensure Normal Power and Transfer Power are energized.
2. Turn OFF Wall Switches. Lights will turn OFF.
3. Red LED will be illuminated.
4. Turn OFF Normal Power. Red LED will turn OFF. Emergency Lights will illuminate.

## Shunt Relay Application

Our Emergency Bypass / Shunt Relays are UL924 listed and suitable for shunting around wall switches in order to turn on emergency lighting in the event of loss of normal utility power.

When Normal Power is present, the ESR relay coil is activated and the emergency panel is fed from Normal Power. The lighting load can be switched on/off using an individual wall switch.

When Normal Power drops out, the ESR coil is deactivated and N/C contact falls closed. The Automatic Transfer Switch changes over to backup (generator) power, and the lighting load is illuminated regardless of the position of the wall switch or controller scheme.

