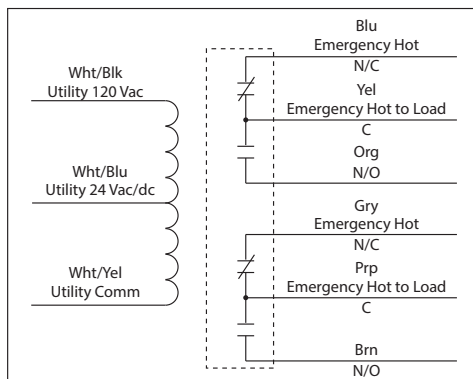


## UL924 / 10 AMP BYPASS / SHUNT RELAY

### ESR2401D

UL924 Emergency Lighting Bypass/Shunt Relay, 10 Amp DPDT, 24 Vac/dc/120 Vac Coil, NEMA 1 Housing



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 = Normal power present  
**Dimensions:** 1.70"H x 2.80"W x 1.50"D with 0.50"NPT nipple  
**Housing Detail:** See **Housing A** in housing guide for dimensions  
**Origin:** Made of US and non-US parts  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL924, C-UL, CE, RoHS  
**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  
 31 mA @ 120 Vac

**Coil Voltage Input:**  
 24 Vac/dc; 120 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 and Transfer Power.
2. Wire relay according to wiring diagram.
3. Energize Transfer Power. Emergency Lights should illuminate.
4. Energize Normal Power. Emergency Lights will turn OFF.  
Red LED will turn ON.
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 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.

