UL924 Emergency Bypass / Shunt Relays

• Description

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.

Models can also be ordered with various configurations of LED indicators used for initial wiring verification as well as field inspection. Certain models can be ordered equipped with a wireless receiver which responds to signals transmitted by the ESRT remote test transmitter and are used for field inspection in accordance with Article 700.3 of the 2011 NEC (National Electric Code). Still others can be used when the emergency light is needed as part of the normal lighting scheme and controlled by a single switch (models with ESRBE prefix).

• Operation

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.

• Features

• Multi-coil voltage input
• 10, 15, 20 Amp contact ratings
• Override capabilities for wiring verification and field inspection
• NEMA 1 enclosure
• Pre wired and prepackaged for convenience
• LED indicator of utility and emergency power
• Mounts easily through ½” knockout or remotely on flat surfaces
• Bright yellow color for easy identification
• Panel style for use inside control panels
• UL 924 & California State Fire Marshall
• DPDT configurations
• 5 year warranty
• Made in USA
Specifications

Specifications

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<th>Relays &amp; Contact Type</th>
<th>Operating Temperature</th>
<th>Operate Time</th>
<th>Relay Status</th>
<th>Dimensions</th>
<th>Approvals</th>
<th>Housing Rating</th>
<th>Gold Flash</th>
<th>Override (Test Switch)</th>
<th>Contact Ratings</th>
<th>Coil Voltage Input</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) SPDT Continuous Duty Coil</td>
<td>-30 to 140°F</td>
<td>18mS</td>
<td>LED On = Activated</td>
<td>2.30” x 3.20” x 1.80” with .50” NPT Nipple</td>
<td>UL Listed, UL924, C-UL, CE</td>
<td>UL Accepted for Use in Plenum, NEMA 1</td>
<td>No</td>
<td>Yes - With Radio Frequency Remote (Model ESRT)</td>
<td>20 Amp Resistive @ 277 Vac</td>
<td>24 Vac/dc; 208-277 Vac ; 50-60 Hz</td>
<td>• For use with ESRT Remote Tester (sold separately)</td>
</tr>
</tbody>
</table>

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 relay 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.

ESRT
Remote Tester for Use with Radio Frequency-Enabled UL924 Emergency Bypass / Shunt Relays

Specifications

<table>
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<tr>
<th>Battery</th>
<th>Expected Battery Life</th>
<th>Operate Time</th>
<th>Dimensions</th>
<th>Radio Certifications</th>
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<tbody>
<tr>
<td>CR2032, 3V Lithium</td>
<td>2 years</td>
<td>500 mAh</td>
<td>2.30” x 1.40” x .50”</td>
<td>FCC Part 15 (USA), IC (Canada)</td>
<td>• Control one or more radio frequency-enabled ESR relays with a single transmitter</td>
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<td>• Typical transmission distance:</td>
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<td>• Up to 50 feet indoors</td>
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<td>• For use with models with -RF suffix</td>
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</tbody>
</table>

Remote Test for RF-Equipped ESR Models

Models ESR2401B-RE, ESR2402B-RE, ESR8001C-RE, ESR801C-RE, ESR8277C-RE, & ESR8277C-RE are equipped with a wireless receiver which responds to signals transmitted by the ESRT remote test transmitter. When the signal is received, the coil of the relay is disconnected, allowing the emergency power to flow to the contacts of the relay, thus switching the designated emergency lighting on. For this operation to occur, the light switch or lighting control must be off during the test procedure.

Together these models are used to enable an inspector, in accordance with Article 700.3 of the 2011 NEC (National Electrical Code), to easily activate the UL924 Emergency Bypass / Shunt Relay wirelessly with the ESRT remote test transmitter, as to prove the ability of the system to bypass the wall switch or other lighting control.

Initial Wiring Verification

1. Turn OFF Normal Power, Transfer Power, and Wall Switch.
2. Wire relay according to wiring diagram.
4. Energize Transfer Power. Yellow LED should illuminate.
5. Press button on ESRT and hold until Red LED goes OFF, then release. This indicates Emergency Power will be switched to the load.
6. Red LED will remain OFF for 8-10 seconds and then return to being illuminated.

Field Inspection

1. Turn wall switch off or disable control.
2. Point remote test transmitter (ESRT) towards ESR relay.
3. Press button on ESRT and hold until emergency light comes on, then release.
4. Emergency light will stay on for 8-10 seconds.

Notes:

• CR2032, 3V Lithium Battery
• 2 years
• 500 mAh
• 2.30” x 1.40” x .50”
• FCC Part 15 (USA), IC (Canada)
• Control one or more radio frequency-enabled ESR relays with a single transmitter
• Typical transmission distance: Up to 50 feet indoors
• For use with models with -RF suffix