Z-one™ Relay
single zone switching relay
ZSR101

Function
The ZSR101 single zone switching relay is operated by low voltage thermostats. The ZSR101 single zone switching relay incorporates Power In, Relay 1 and Relay 2 connection terminals to provide a convenient and cost effective way to control a circulator and a boiler operating control in a single zone hydronic heating system. The ZSR101 single zone switching relay saves hours in installation time and provides a clean and professional installation.

Features
- Compatible with 2, 3 and 4-wire thermostats or other low voltage controllers with switching action
- 120 VAC input
- Heavy duty, sealed, DPDT, fuse protected relay (with spare fuse)
- Two outputs (Relay 1 and Relay 2) for operating 120 VAC pump with boiler enable, or two devices without boiler enable
- 5 A capacity each relay - 10 A total
- Conventional R,W,C and T,T,COM dual labeling at thermostat terminals
- Rear knock-outs for mounting onto 4” x 4” junction box
- High capacity 6 VA transformer
- Automatic resettable fuse on 24 V circuit
- Simplified wiring with pre-installed jumper
- Large screw terminals. On-board ground terminals
- Front panel LED indicator light for functional status
- 100% factory tested with 3 year warranty
- ETL certified to CSA and UL standards

Product range
Code ZSR101 Z-one™ Relay switching relay ..............................................................................................................................................single zone

Technical specifications
Materials
Housing plastic: ABS
Front display lights: LED
Electrical knockouts: (6) 1/2” size

Performance
Power supply: 120 VAC, 50/60 Hz
Transformer voltage: 24 VAC
Maximum transformer load: 6 VA
Temperature limits for:
  Shipping and storage max: 110°F (43°C)
  Maximum operating: 110°F (43°C)
Maximum humidity: 90% non-condensing
Electrical switch rating: 10A Max combined
Replaceable fuses: Type 2AG, 5A slow blow
Approvals: ETL Certified to CSA C22-2 No.24, Conforms to UL Standard 873

Dimensions

<table>
<thead>
<tr>
<th>Code</th>
<th>Zones</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Wgt. (lbs)</th>
</tr>
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<tbody>
<tr>
<td>ZSR101</td>
<td>1</td>
<td>5 3/8&quot;</td>
<td>4 5/8&quot;</td>
<td>2 5/8&quot;</td>
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Operating principles (illustrative example)

When a zone has a demand from a thermostat (T T or R W) the relay will close sending 120 VAC to Relay 1 NO terminal switching ON the pump. Relay 2 closes C to NO dry contact, signaling the boiler of a heating demand. Refer to Z-one™ Relay Wiring Guide for more system wiring diagrams.

Large screw terminal connections makes wiring easy. Power IN 120V AC to N and L screw terminals with a factory installed jumper from L terminal to the C terminal of Relay 1 for simplified pump connection.