Grounded Probe Switch ST

FEATURES
- Solid state—no moving parts
- 115 Vac completely self-contained
- Probes up to ten feet long
- High current output—no relay required for most applications
- Rapid response—no warm-up time

DESCRIPTION
The touch-operated limit switch is a highly reliable solid state limit switch designed for precise conductivity sensing. Applications include high temperature environment, very light targets (conductive), and positive end-point sensing. All models have a neon pilot light to visibly indicate operation of the switch.

GENERAL SPECIFICATIONS
- Operating Voltage: 105–130 Vac, 50/60 Hz
- Maximum Load: 3 A break (inductive or resistive)
- Maximum Inrush: 10 A
- Minimum Load: 50 mA
- Temperature Range: -40 °F to +160 °F
- Warm-up Time: None
- Housing Rating: NEMA 1, 4, 13

HAZARDOUS VOLTAGE
Turn off power before installing or servicing.
Failure to follow this instruction will result in death or serious injury.
OPERATION

The switch is actuated by establishing a conductive path between the probe terminal and ground (1 MΩ or less). The electrical contact to ground operates the switching thyristor. Internal RC snubber and thyrector provide effective protection from typical transients. Normally open models have a 10 ms (maximum) turn-on time. Different off-delay times are offered, so that the design engineer can compensate for relay chatter when the probe is subjected to bounce from irregular contact with the grounded metal point of contact.

PROBE CHARACTERISTICS

The probe terminal is an 8-32 stud protruding from the center of the head. Extensions may be electrically conductive wire or material suitably insulated from grounded surface and limited in length to 10 ft or less.

- Open voltage: 12 Vdc
- Peak Current: 1 mA

NOTE: If ground is not available, connect the ground terminal of the switch to the neutral (L2).

MODELS

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Circuit</th>
<th>On Response</th>
<th>Off Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>STO-8164</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>100 ms</td>
</tr>
<tr>
<td>ST1-8165</td>
<td>Normally Closed</td>
<td>100 ms</td>
<td>30 ms</td>
</tr>
<tr>
<td>STO-8166</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>400 ms</td>
</tr>
<tr>
<td>STO-8167</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>20 ms</td>
</tr>
</tbody>
</table>

Prewired with three feet of no. 16-4 SJTO cable, sealed

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</tr>
</thead>
<tbody>
<tr>
<td>STO-8001</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>100 ms</td>
</tr>
<tr>
<td>ST1-8002</td>
<td>Normally Closed</td>
<td>100 ms</td>
<td>30 ms</td>
</tr>
<tr>
<td>STO-8036</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>400 ms</td>
</tr>
<tr>
<td>STO-8042</td>
<td>Normally Open</td>
<td>10 ms</td>
<td>20 ms</td>
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