Series LTS Tilt Switch Probe

Specifications - Installation and Operating Instructions

The SERIES LTS Tilt Switch Probes are able to sense either the presence or absence of material when other sensors won’t work due to bin vibration, or actual walls aren’t available for mounting other types of measuring units. The probes are designed for use where the bulk material to be sensed is exposed or open. Typical applications include high or low level detection in large hoppers, silos, crushers, or trippers; high level control under stackers, and detection of plugged conditions at conveyor transfer points. Series LTS probes can also be used to detect the presence or absence of bulk material on belt conveyors, on chutes to indicate product flow, and to aid in loading rail cars or trucks.

Tilt Switch Probes are available containing a SPST, normally closed non-mercury switch. All probe models are airtight, dust tight, and waterproof. Series LTS probes feature a probe activation angle of 25° from vertical. The units come in a standard heavy-duty model as well as a compact model. The compact probe should be used for applications involving small bins and hoppers where space is limited, while the heavy duty probe should be used for applications where a heavy duty abrasion-resistant probe is necessary.

INSTALLATION INSTRUCTIONS

PROBE INSTALLATION
The probe should be suspended using a fixed support, such as a mounting bracket or S-hook, at a position where it will easily intercept the bulk material at the desired indication point. There must be a free flow of material both to and away from the probe. In some installations, it is necessary to install a baffle or shield above the probe assembly to protect it from product surges.

Figure 2: Typical Applications

SPECIFICATIONS
Service: Powder and bulk.
Temperature Limit: -4 to 104°F (-20 to 40°C).
Switch Type: SPST, normally closed.
Electrical Rating: < 50 mA@12 VDC as supplied by Series LTC controller.
Electrical Connection: 3-wire +12 VDC (supplied by controller).
Cable Length: 25 ft (7.6 m) unless otherwise specified.
Probe Length: Standard: 9˝ (23 cm); Compact: 6˝ (15 cm).
Contact Rating: When not used with LTC controller: 60 V max., 0.25 A max.
Actuation Angle: 25° from vertical.
Material: Steel or 302/304 SS.
Switch Surrounding: Epoxy encapsulated.
Mounting Orientation: Vertical.
Weight: Standard: 4.75 lbs (2.15 kg); Compact: 2.5 lbs (1.13 kg).
Agency Approvals: Meets NEMA 4.

WIRING
All wiring should be in compliance with applicable Local, Federal, and State codes. Probe connection cable is 16-3 type SO and is attached to the probe. Probe cable length is supplied as specified per order, and may be spliced.

MAINTENANCE
The Series LTS Tilt Switch Probes are not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

MODEL CHART

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<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Probe Material</th>
<th>Switch Material</th>
<th>Electrical Connection</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS-N11G-025</td>
<td>Standard</td>
<td>Steel</td>
<td>Non-mercury</td>
<td>Standard: 16-3 type SO connection cable</td>
<td>25 ft</td>
</tr>
<tr>
<td>LTS-N21G-025</td>
<td>Compact</td>
<td>Steel</td>
<td>Non-mercury</td>
<td>Standard: 16-3 type SO connection cable</td>
<td>25 ft</td>
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<tr>
<td>LTS-N12G-025</td>
<td>Standard</td>
<td>Stainless steel</td>
<td>Non-mercury</td>
<td>Standard: 16-3 type SO connection cable</td>
<td>25 ft</td>
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<tr>
<td>LTS-N22G-025</td>
<td>Compact</td>
<td>Stainless steel</td>
<td>Non-mercury</td>
<td>Standard: 16-3 type SO connection cable</td>
<td>25 ft</td>
</tr>
</tbody>
</table>

Consult factory for custom cable lengths.
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