Thermistor and Optic Sensors SP-M/SP-IO
Liquid Level Sensors For Storage Tanks and Other Fixed Applications

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuity

DESCRIPTION

Scully offers a 5-year warranty on overfill prevention sensors for fixed tank trailer and storage tank applications. Scully sensors have the longest running safety record in the industry and are manufactured in Scully’s U.S. factory, which prides itself on its strict quality and safety standards.

The Scully SP-M (thermistor) and SP-IO (optic) models are single point liquid level sensors for use with Scully ST-15WX self-checking control monitors. They are used in storage tanks, double containment piping trenches, and double wall storage tank space monitoring. These reliable sensors have no moving parts and thus are virtually maintenance free.

The SP-M and SP-IO style sensors have a .95mm NPT mounting thread and are generally used in conjunction with an SP-O or SP-H style holder. The sensors can be easily extended to the desired installation depth using standard 9.5mm IPS pipe and a pipe coupling. The SP-O elbow holder is generally used when a single sensing point is needed. It can accommodate either an SP-M or SP-IO sensor and mounts into a 19mm NPT opening in the tank. The SP-H holder allows for up to 3 SP-M and/or SP-IO sensors to be conveniently installed into a single 5mm NPT tank opening. SP-H holders are commonly used to implement multiple high-level and low-level warning points. Both sensor holders are threaded to accept a 12.7mm NPT conduit fitting.

FEATURES AND BENEFITS

- Maximum safety with Dynacheck—Automatic and continuous self-checking circuitry when used with Scully monitoring systems.
- Field-proven, level-sensing technology.
- Reliable components with no moving parts.
- Functions within a wide range of temperatures and in a variety of liquid products.
- Years of dependable, virtually maintenance-free operation.
- Easy Installation.
- Custom sensing level adjustment at installation.
- ATEX approved.

NOTE: Scully Thermistor Sensors are available in three temperature ranges. (See reverse side for details). Consult Scully for more information.
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**TECHNICAL SPECIFICATIONS**

**Temperature Range:**
- Standard: -18º to +60ºC (0º to +140ºF)
- Low: -40º to +50ºC (-40º to +122ºF)
- High: -18º to +93ºC (0º to +200ºF)

**Product Range:**
Gasoline through #6 oil, and most low viscosity petro-chemical liquids

**Level Responsibility:**
+/- 1.6mm (1/16")

**Size:**
Refer to diagrams

**Response Time:**
0.5 second maximum, refer to the controller specifications

**Exposed Materials:**
- **Sensors:** Aluminum body, Borosilicate glass sensing element
- **Holders:** Aluminum housings, Viton® seals (SP-H only)

**Electrical Connections:**
- Optic sensors have two-152mm leads. Low temp and Standard Thermistors have two-457mm leads.
- High temp Thermistors have three-457mm leads.

**Compatible Rack Controls:**
- Scully ST-15 Series and other stationary thermistor control units. Consult Technical Data Sheets 60629, 60633

**NOTE:** The SP-H is designed to withstand pressures up to 400 psi.

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>SP-IO 2-Wire Optic Sensor, 3&quot;, 3/8&quot; NPT</td>
<td>08884</td>
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<tr>
<td>SP-O Elbow Style Sensor Holder, 3/4&quot; NPT</td>
<td>09145</td>
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<tr>
<td>SP-H Multi-Sensor Holder, 2&quot;NPT for up to three sensor</td>
<td>07436</td>
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<tr>
<td>SP-HFC Multi-Sensor Holder, 2&quot;BSP, M20 X1.5 Entry Port for up to three sensors</td>
<td>07437</td>
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<td>SP-MHC(SS) Optic Sensor Holder, Stainless Steel, 2&quot; NPT mounting</td>
<td>08585</td>
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<tr>
<td>SP-MHC(SS) Thermistor Sensor Holder, 2&quot; NPT</td>
<td>08587</td>
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