ScuL-Sense™ Stainless Steel Thermistor Sensor
Liquid Level Detection and Overfill Protection

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry

DESCRIPTION

The Stainless Steel Thermistor Sensors are designed for liquid chemical and petroleum overfill prevention and point level detection. They are used in storage tanks, tank trucks and other vessels during loading operations.

Three models are available for different climate/product operating conditions; the SP-BLU(SS) for wide ambient temperature operation and unheated product, the SP-BLH(SS) for heated product, and the SP-BL(SS) for standard temperatures.

Sensor models SP-BLU(SS) and SP-BL(SS) are compatible with the Intellitrol® series loading rack control monitors. Both these sensors plus the SP-BLH(SS) sensor model are compatable with Scully's single point ST-15 Rack Control Monitor.

Thermistor Chemical Sensor

FEATURES AND BENEFITS

- Maximum safety with Dynacheck® - automatic and continuous self-checking circuitry - when used with Scully Controllers.
- Scully Stainless Steel Thermistor Sensors are part of an automatic and continuous self-checking system you can count on.
- Versatile point liquid level sensing for use in storage tanks, tank trucks and other applications.

- SS 316 Stainless Steel construction used for corrosion resistance.
- Functions within a wide range of ambient temperatures in a variety of liquid chemicals.
- Dependable solid state construction.

SAFETY

Stainless Steel Thermistor Sensors incorporate Scully's unique and exclusive Dynacheck® circuitry when connected to Scully monitoring equipment. The monitor automatically and continuously checks the entire system operation; controller, wiring, connectors and sensors for faults 30 times per second. If liquid comes in contact with the sensor, or in the event a fault occurs, the pulsed signals cease and the monitor signals for immediate shutdown of the loading operation. No operator involvement is needed.
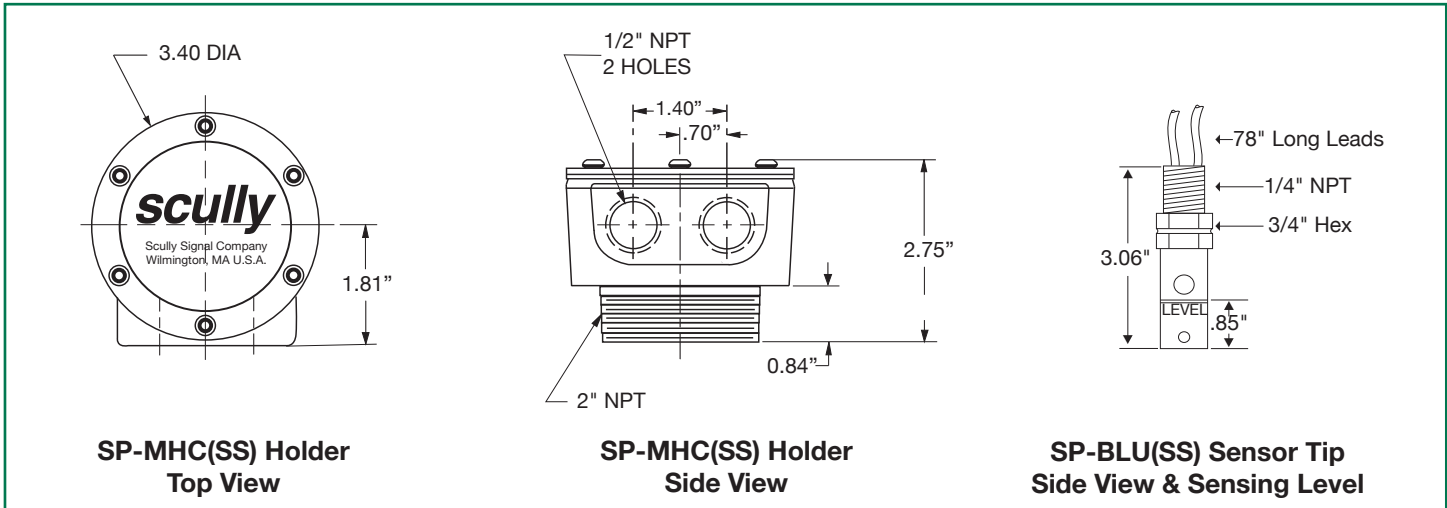
IEC 61508 SIL 3 Capable

SENSOR HOLDER

The Scully SP-MHC(SS) sensor holder is designed for mounting in a 2" NPT tapping. This allows for convenient mounting in both storage tanks and tank truck vehicles.The fixed-length stainless steel sensors thread into the holder using a 3/8" X 1/4" reducing coupling and the appropriate length of 3/8" stainless steel pipe. Consult Scully for assistance.

Liquid Level Detection and Overfill Prevention

SP-MHC(SS) Holder
Top View

SP-MHC(SS) Holder
Side View

SP-BLU(SS) Sensor Tip
Side View & Sensing Level

TECHNICAL SPECIFICATIONS

Temperature Range:
  BL; 0° to +140°F (-18° to +60°C).
  BLU; -40° to +120°F (-40° to +48°C).
  BLH; 0° to +200°F (-18° to +93°C).

Product Range:
  Group D hazardous materials and nonhazardous materials which are compatible with thermistor sensing technology. Consult the factory with specific questions.

Exposed Materials:
  SS 316 Stainless Steel, Borosilicate (Pyrex®) Glass, Teflon® Seal.

Detection Level:
  Fixed, refer to diagram. The sensor may be adjusted to any length using 3/8" stainless steel pipe and a 3/8 x 1/4" reducing coupling.

Level Repeatability:
  ±1/16" (1 mm).

Electrical Leads:
  Two color coded, 78" Long Teflon® insulated wires.

Cable Entry:
  Two holes, 1/2" NPT threads.

Weight:
  Sensor: 3.7 oz (0.104 kg).
  Holder: 2.8 lbs (1.27 kg).

Approvals:
  SIL Capable
  The sensor is intrinsically safe for mounting in Class I, Division 1, Group D Hazardous location in accordance with Scully Control unit approval ratings.

ORDERING INFORMATION

Description	Part Number
SP-BL(SS) Stainless Steel Thermistor Sensor Standard Temperature	07834
SP-BLU(SS) Stainless Steel Thermistor Sensor for Low Temperature	07837
SP-BLH(SS) Stainless Steel Thermistor Sensor for Heated Product	07836
SP-MHC(SS) Stainless Steel Thermistor Sensor Holder, 2" NPT X 3/8" NPT	08587
Replacement Sensor Holder Cap	31605
Replacement Sensor Holder Gasket	31606

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Dynamic Self-Testing® Overfill Prevention Systems