



# 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 Circuitry



SP-H Holder  
(for 1–3 sensors)



SP-O



SP-M Sensor



SP-IO Sensor

### DESCRIPTION

The Scully SP-M (thermistor) and SP-IO (optic) models are single point liquid level sensors for use with Scully ST-15-WXC 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 9.5mm 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 50.8mm 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.

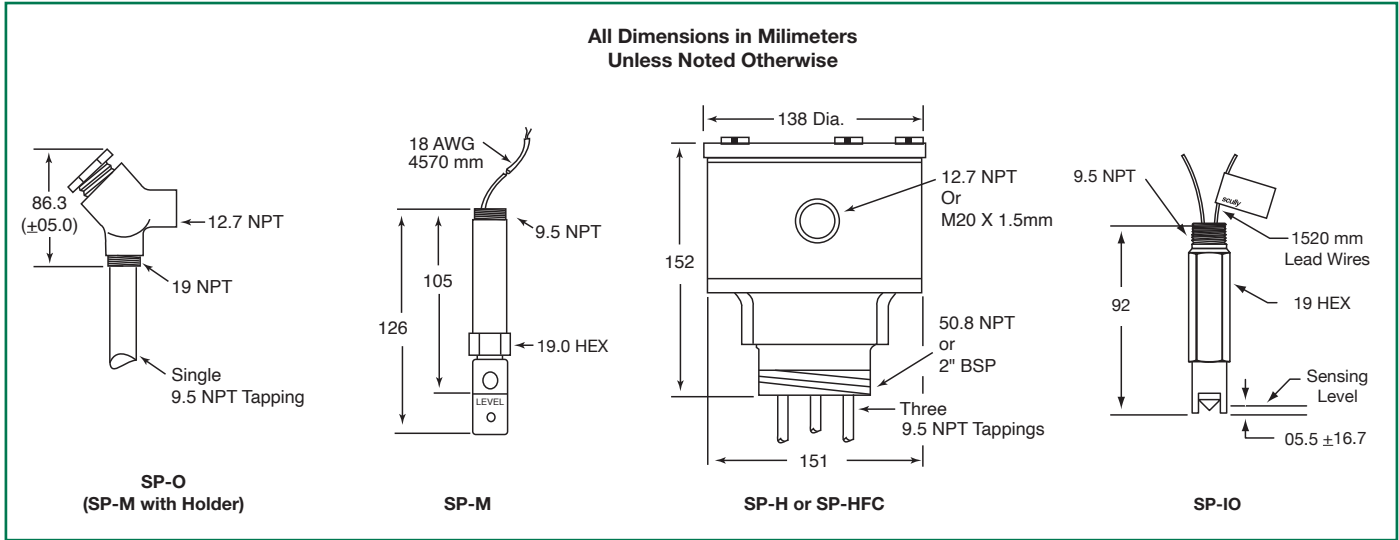
### FEATURES AND BENEFITS

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

**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:

SP-M Style Sensors:

Standard; -18° to +60°C (0° to +140°F).

High; -18° to +93°C (0° to +200°F).

Low; -40° to +48°C (-40° to +120°F).

SP-IO Style Sensor:

-40°C to +60°C (-40°F to +140°F).

### Product Range:

Gasoline through #6 oil, and most low viscosity petro-chemical liquids.

### Level Repeatability:

+/- 1.6mm (1/16").

### Size:

Refer to diagrams.

### Response Time:

High-Level: .5 seconds maximum.

Low-Level: 3-7 seconds.

### Exposed Materials:

**Sensors:** Aluminum body, Borosilicate glass sensing element.

**Holders:** Aluminum housings, Viton® seals (SP-H only).

### Electrical

#### Connections:

Optic sensors have two- 1520mm leads. Low temp and Standard Thermistors have two- 4570mm leads. High temp Thermistors have three- 4570mm leads.

#### Compatible

**Rack Controls:** Scully ST-15 Series and other stationary thermistor control units.

#### Approvals:

SP-IO: UL21ATEX2636X

IECEXUL21.0114X

UL22UKEX2273X

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Thermistor sensors are ATEX Simple Apparatus.



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

## ORDERING INFORMATION

Item	Low Temp	High Temp	Standard
SP-H Multi-Sensor Holder (up to three sensors)			07436
SP-HFC Multi-Sensor Holder, 2" BSP, M20 X1.5 Entry Port (up to three sensors)			07437
SP-O Mounting Holder			09145
SP-O Mounting Holder with Thermistor Sensor	07997	07544	07510
SP-M Style Sensors	07996	07545	07611
SP-IO Style Sensors			08884

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