



# Thermistor Sensors SP-BL

Liquid Level Sensors for use in Tank Trucks and Rail Cars

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry



SP-BL / MHC

## DESCRIPTION

Scully Thermistor Sensors are designed for liquid petroleum product overflow prevention and point level detection. They are used in tank trucks and rail cars during loading operations.

Three models are available for different climate/product operating conditions; the standard SP-BL, the SP-BLU for low ambient temperature operation, and the SP-BLH for heated product sensing.

All three sensors are compatible with the Scully ST-15 rack control monitor.

The Scully SP-MHC sensor holder is designed for mounting in a 2" NPT tapping. The SP-MHCF is a flanged style unit with a pre-drilled six bolt pattern on a 4<sup>1/4</sup>" diameter bolt circle to match the standard TTMA 2<sup>1/2</sup>" flange. It is also spotted for a four hole, 4<sup>1/2</sup>" diameter mounting pattern. The holders allow for convenient mounting in both tank trucks and rail cars.

The sensing level may be adjusted up or down during installation within a range of 4<sup>5/8</sup>" and 7".

## FEATURES AND BENEFITS

- Dynacheck® – Automatic and continuous self-checking circuitry when used with Scully rack control systems.
- Functions within a wide range of temperatures and in a variety of liquid products.
- Sensor and holder assemblies comply with pressure test requirements of DOT HM-183C rule for 400 series cargo tanks.
- Field adjustable for a variety of sensing levels.
- Proven thermistor liquid level sensing for tank trucks and rail cars.
- Solid construction, no moving parts. FM and CSA approved.
- Self-cleaning for use in heavy viscosity products.



SP-BLH



SP-BL



SP-BLU

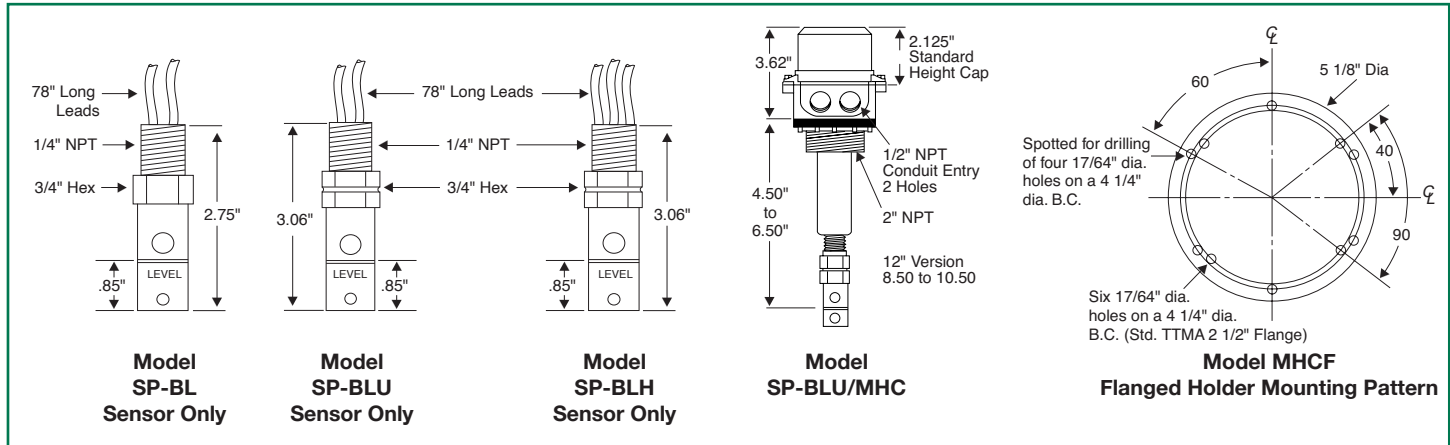
The Thermistor sensor incorporates Scully's unique and exclusive Dynacheck® feature when connected to Scully monitoring equipment.

Using pulsed signals the monitor automatically and continuously checks the entire system operation; controller, wiring, connections and sensors, for faults up to 30 times per second.

If liquid comes in contact with the sensor tip, or in the unlikely event a fault occurs, the pulsed signals cease and the monitor signals for immediate shutdown of the loading operation. No operator involvement is needed.



# Models SP-BL, SP-BLH, SP-BLU and SP-BLU/MHC Specifications



## 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).

### Detection Level:

Adjustable, refer to diagram. Should be set slightly above each compartment's maximum capacity level weights and measure marker.

### Electrical Leads:

- SP-BL and BLU one black, and one white, 78" long leads.
- SP-BLH one black, white and green, 78" long leads.

### Wetted Materials:

Aluminum, Glass, and Viton® seals.

### Level Repeatability:

+/- 1/16".

### Size:

Refer to diagrams.

### Weight:

- Sensor Tips; .13 lbs. (.06 kgs.)
- SP-MHC Holder; 2.0 lbs. (.91 kgs.)
- SP-MHCF Holder; 2.4 lbs. (1.1 kgs.)

### Product Range:

- SP-BL and SP-BLU; Gasoline through #4 oil.
- SP-BLH; Gasoline through #6 oil.

### Approvals:

Rated for Class I, Division 1, Groups C & D Hazardous Locations, by FM Global (FM) to Canadian and United States standards.



## ORDERING INFORMATION

Description	Part Number
SP-BLU Thermistor Sensor, Low Temperature, Mounting Shaft, SP-MHC Holder	07730
SP-BLU Thermistor Sensor, Low Temperature, Mounting Shaft, SP-MHCF Flanged Holder	07898
SP-BLU Thermistor Sensor, Low Temperature, Sensor Only, No Holder	07558
SP-BL Thermistor Sensor, Standard Temperature, Mounting Shaft, SP-MHC Holder	07729
SP-BL Thermistor Sensor, Standard Temperature, Sensor Only, No Holder	07619
SP-BLH Thermistor Sensor, Heated Product, Mounting Shaft, SP-MHC Holder	07731
SP-BLH Thermistor Sensor, Heated Product, Sensor Only, No Holder	07594
SP-MHC Holder Only, Mounting Shaft, Less Sensor	07728
SP-MHCF Flanged Holder Only, Less Sensor And Mounting Shaft	08265
Mounting Shaft Only, SHAFT, MACH, SNSR HLDR, 6", 1/4 NPT(1 END)	20891

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