



# Portable Liquid Level Sensors

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry



## DESCRIPTION

The SP-PY, SP-PYH, SP-PYU and SP-PYIO liquid detection sensors are single point sensors, and are used in numerous top loading applications such as rail cars and chemical trailers. They provide overflow protection by determining when liquid product has reached a predetermined level in the tank compartment.

These sensors are intended for use with Scully control monitors, which incorporate Dynacheck®. Dynacheck® circuitry monitors the sensor, wiring, connections, and its own operation 30 times per second. When a sensor comes in contact with liquid, or if an unlikely fault occurs within the system itself, Dynacheck® signals for the immediate shutdown of the loading operation and/or sounds an audible alarm.

The SP-PY, SP-PYU and SP-PYIO sensors are used in unheated liquids. The SP-PYH sensor is used in heated liquids. Each model has an adjustable clamp or coupling depending on its intended use.

Scully SP-PY, SP-PYH, SP-PYU and SP-PYIO sensors are portable style units which connect to the rack via a plug and cable. A socket is mounted to the rack for this purpose. They may also be wired directly.

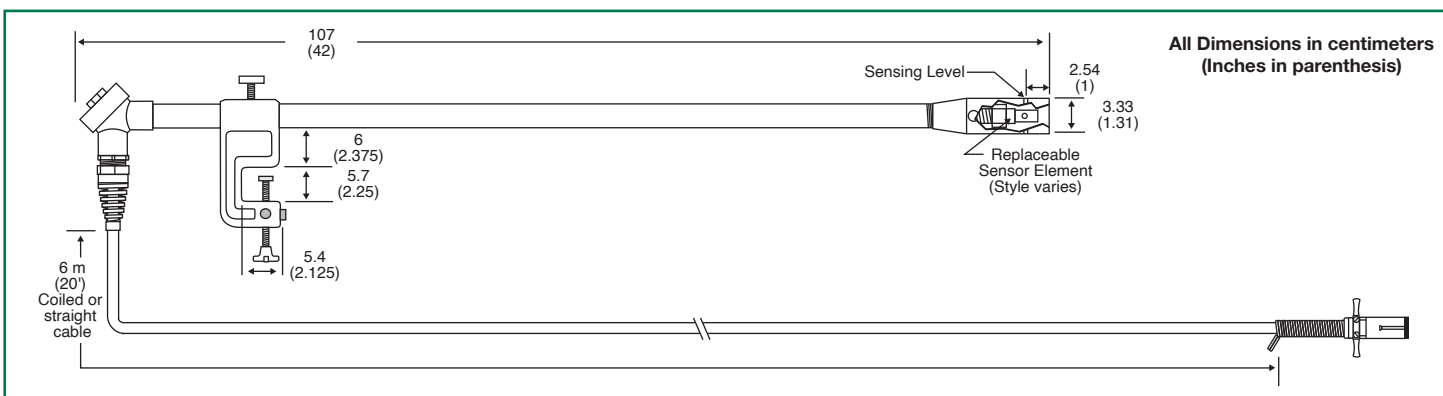
They are hung at the rack location or stored elsewhere when not in use. The sensor is inserted into the tank compartment. An adjustable clamp or coupling lets you determine the sensing level and holds the sensor in place in the tank.

Scully portable sensors are available in aluminum or stainless steel. Units with connection cables that detach from the rack location are also available.

The SP-PY, SP-PYH, SP-PYU and SP-PYIO sensors are compatible with Scully ST-15C series control monitors. SP-PYFU sensors are compatible with Scully ST-35C series & Intellitrol®2 control monitors.

## FEATURES AND BENEFITS

- Incorporates Dynacheck® automatic and continuous self-checking circuitry when used with Scully control monitors.
- Signals for the immediate shutdown when the vehicle is fully loaded.
- Adjustable sensing depth.
- Uses proven thermistor or optic sensing technology.
- Stores easily at the rack location.
- Can be used for a wide range of liquid products.
- Over 30 years of reliable operation.



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## TECHNICAL SPECIFICATIONS

**Temperature:** SP-PYU; -40° to +48°C (-40° to +120°F)  
 SP-PYH; -18° to +93°C (0° to +200°F)  
 SP-PYFU; -40° to +60°C (-40° to +140°F)  
 SP-PYIO; -40° to +60°C (-40° to +140°F)  
 SP-PYTO; -40° to +60°C (-40° to +140°F).

**Construction:**

SP-PYU, SP-PYH and SP-PYIO wetted parts:  
 Aluminum, Teflon®, Borosilicate (Pyrex®) glass.

SP-PYU(SS) and PYH(SS) wetted parts:  
 316 stainless steel, Teflon®, Borosilicate (Pyrex®) glass.

SP-PYFU(SS) and SP-PYTO(SS) wetted parts:  
 316 Stainless Steel, SIMRIZ®, Borosilicate (Pyrex®) glass.

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

**Size:** Refer to diagram.

**Cable:** 6m (20') fuel resistant.

**Approvals:**

SP-PYFU: UL21ATEX2635X  
 IECExUL21.0113X  
 UL22UKEX2272X  
 II 1 G Ex ia IIB T5 Ga

SP-PYTO & IR: UL21ATEX2636X  
 IECExUL21.0114X  
 UL22UKEX2273X  
 II 1 G Ex ia IIB T5 Ga

SP-U & H are ATEX Simple Apparatus.



## ORDERING INFORMATION

Description	Part Number
SP-PYIO/4P Portable Cane Sensor, 91.44 cm, 4-Pin Plug, 6m Straight Cable	09188
SP-PYFU/4P Portable Cane Sensor, 91.44cm, 4-Pin Plug, 6m Coil Cable	08835
SP-PYTO(SS)/4P Portable 2-Wire Optic Chemical Cane Sensor 91.44 cm, 4-Pin Plug, 6m Straight Cable	09466
SP-PYFU/SS/4P Portable 5-Wire Optic Chemical Cane Sensor, 91.44 cm, 4-Pin, 6m Coil Cable	09483
SP-PYU/4P Portable Cane Sensor, 91.44 cm, 4-Pin Plug, 6m Straight Cable	07725
SP-PYH/4P Portable Cane Sensor, 91.44 cm, 4-Pin Plug, 6m Straight Cable	07726
SP-PYH(SS)/4P Portable Cane Sensor, 91.44 cm, 4-Pin Plug, 6m Straight Cable	08261
SP-PYU(SS)/4P Portable Cane Sensor, 91.44 cm, 4-Pin Plug, 6m Straight Cable	08839
SP-PYUG/4P Portable Cane Sensor, GATX Coupling, 4-Pin Plug, 6m Straight Cable	07756
SP-PYHG/4P Portable Cane Sensor, GATX Coupling, 4-Pin Plug, 6m Straight Cable	07757
SP-PYU/SS/4R Portable Cane Sensor, 5.08 cm Coupling, 4-Pin Socket	09326
SP-PYU/4P Portable Cane Sensor, 91.44 cm, 2.54 cm Coupling, 4-Pin Plug, 6m Straight Cable	09673I
SP-PYIO/4P Portable Optic Cane Sensor, 91.44 cm, 2.54 cm Coupling, 4-Pin Plug, 6m Straight Cable	09673IO

## REPLACEMENT PARTS

SP-PYIO Replacement Optic Cane Sensor	09189
SP-PYFU Replacement Optic Cane Sensor	09187
SP-PYTO Sensor Assy, 2-Wire Optic, Chemical	09375L1
SP-PYFU Sensor Assy, 5-Wire Optic, Chemical	09376L1
SP-PYU Replacement Cane Sensor (Low Temp Thermistor)	09190
SP-PYH Replacement Cane Sensor (High Temp Thermistor)	09191
SP-PYU(SS) Replacement Cane Sensor (Low Temp Thermistor SS)	09183
SP-PYH(SS) Replacement Cane Sensor (High Temp Thermistor SS)	09184
SJ-4D Pole Pattern Socket, 4-Pin for Cane Probes	07707
Signal Conditioner for Rack Mounting ST-47 Dual Mode Operation	31504
SJ-6S Thermistor Socket for Bottom/Top Loading Operation	07720
Clamp Assembly, Horiz/Vertical Portable Cane	09478

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