



Portable Liquid Level Sensors

Models SP-PY, SP-PYH, SP-PYU, and SP-PYIO

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 incorporates 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.

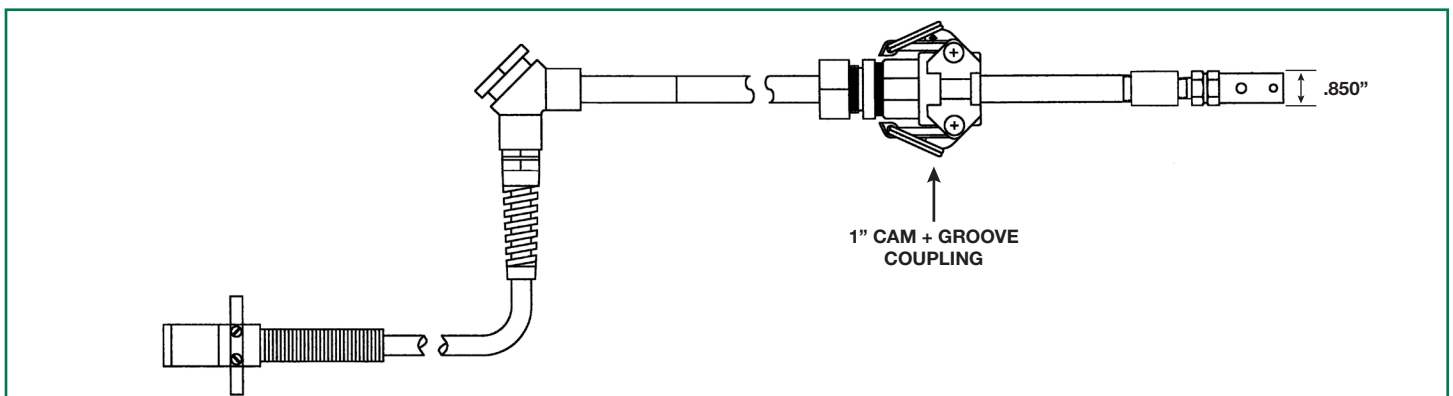
They are hung at the rack location or stored elsewhere when not in use. The sensor is inserted into the tank compartment. An adjustable clamp or coupling lets you determine the sensing level and holds the sensor in place in the tank.

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-15 series control monitors which have housing and indicator options. Consult data sheets #60629. SP-PYFU sensors (not shown) are compatible with Scully ST-35 series control monitors. Consult ST-35 data sheet #67253.

FEATURES AND BENEFITS

- Incorporates Dynacheck® automatic and continuous self-checking circuitry when used with Scully control monitors.
- Signals for the immediate shutdown or sounds an audible alarm 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 25 years of reliable operation.



60632 Rev E

Models SP-PY, SP-PYH, SP-PYU, and SP-PYIO

TECHNICAL SPECIFICATIONS

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

Construction:

- SP-PY and PYH wetted parts (Pyrex®):
 Aluminum, Viton®, Borosilicate glass.
- SP-PY(SS) and PYH(SS) wetted parts:
 316 stainless steel, Teflon®, borosilicate (Pyrex®) glass.
- SP-PYU wetted parts:
 Aluminum, Viton®, Epoxy. All models have Stainless Clamp screws.
- SP-PYIO wetted parts:
 Aluminum, zinc, borosilicate (Pyrex®) glass, epoxy, conductive nylon and Viton® seals

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

Size: Refer to diagram

Cable: 20' (6m) fuel resistant

Scully SP-PY, SP-PYH, SP-PYU and SP-PYIO portable sensors are part of an intrinsically safe system using entity parameters in conjunction with Scully control monitors approved by FMC.

The intrinsically safe outputs of these control units allow the sensors to be used in Class I Division 1, Group D Hazardous Locations. Consult Scully for other specific details.

ORDERING INFORMATION

Description	Part Number
SP-PYIO/4P Optic Portable Cane Sensor, 36", 4-Pin Plug, 20' Straight Cable, 1" Coupling	09673 IO
SP-PYIO/4P Portable Cane Sensor, 36", 4-Pin Plug, 20' Straight Cable	09188
SP-TO/SS/4P Portable Chemical Cane Sensor	09466
SP-PY/4P Portable Cane Sensor, 36", 4-Pin Plug, 20' Straight Cable, 1" Coupling	09673 I
Portable Cane Sensor, SP-PYU/4P, 36", 4 Pin Plug, 20' Straight Cable	07725
Portable Cane Sensor, SP-PYH/4P, 36", 4 Pin Plug, 20' Straight Cable	07726
Portable Cane Sensor, SP-PYH(SS)/4P, 36", 4 Pin Plug, 20' Straight Cable	08261
Portable Cane Sensor, SP-PYU(SS)/4P, 36", 4 Pin Plug, 20' Straight Cable	08839
SP-PYUG/4P Portable Cane Sensor, GATX Coupling, 4-Pin Plug, 20' Cable	07756
SP-PYHG/4P Portable Cane Sensor, GATX Coupling, 4-Pin Plug, 20' Cable	07757
SP-PYU/SS/4R Portable Cane Sensor, 2" Coupling	09326
SP-PYU/SS/4P Portable Optic Chemical Sensor Care Probe, 36", 4 Pin, 20' Coil Cable	09483

REPLACEMENT PARTS

SP-PYIO Replacement Optic Cane Sensor	09189
Sensor Assy, 2-Wire Optic,Chemical (SS) BAS/FMc	09375L1
Sensor Assy, 5-Wire Optic,Chemical (SS) BAS/FMc	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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