Scully Thermistor Sensor
Liquid Level Sensor for Road Tanker Overfill Prevention

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry

Scully Thermistor Sensor

DESCRIPTION

Scully thermistor sensors are designed for liquid petroleum product overfill prevention and point level detection. They are designed to be used with the Scully Intellitrol®, and ST-15C series gantry control monitors. They can be used for overfill prevention on road tankers, rail cars and storage tanks.

Scully offers a 5-year warranty on overfill prevention sensors for fixed tank trailer and storage tank applications. Scully sensors have the longest running safety record in the industry and are manufactured in Scully's

U.S. factory, which prides itself on its strict quality and safety standards.
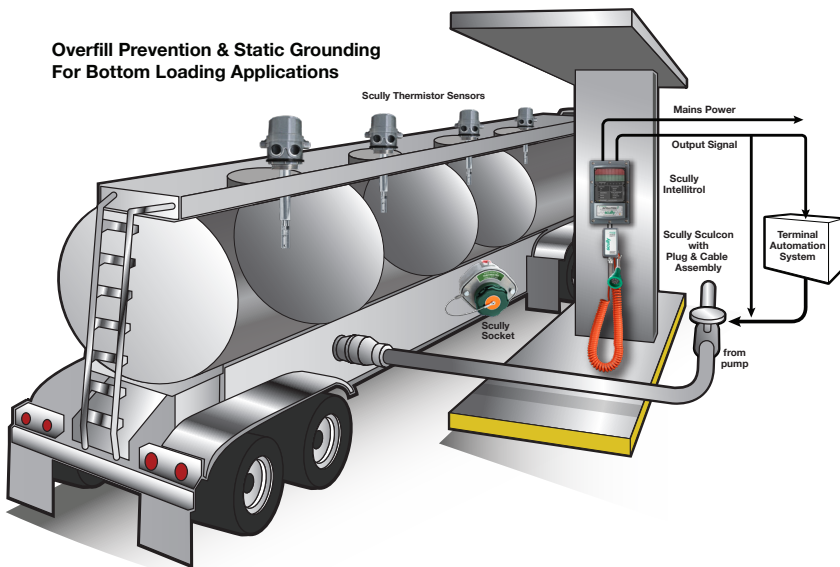
Model SP-BLUK is generally used with unheated petroleum products. Refer to the technical specifications for product temperature range. Scully sensors contain an integral tamper-proof fuse to safeguard against accidental application of high voltage to the sensor. Scully sensors are normally equipped with screw type holders. Flanged holders are available if required.

SAFETY FEATURES

The thermistor sensor incorporates Scully's unique and exclusive Dynacheck® circuitry when connected to Scully monitoring equipment. To ensure that the system will always detect an overfill condition, the controller uses pulsed signals which continuously check the entire system operation. The controller, wiring, connections and sensors are checked for faults up to 30 times

per second. If a sensor comes in contact with liquid, or in the unlikely event of a system fault, the pulsed signals cease and the controller automatically signals for immediate shutdown of the loading operation. No operator involvement is needed! Shutdown is accomplished by controlling pumps, valves, terminal automation systems, etc.
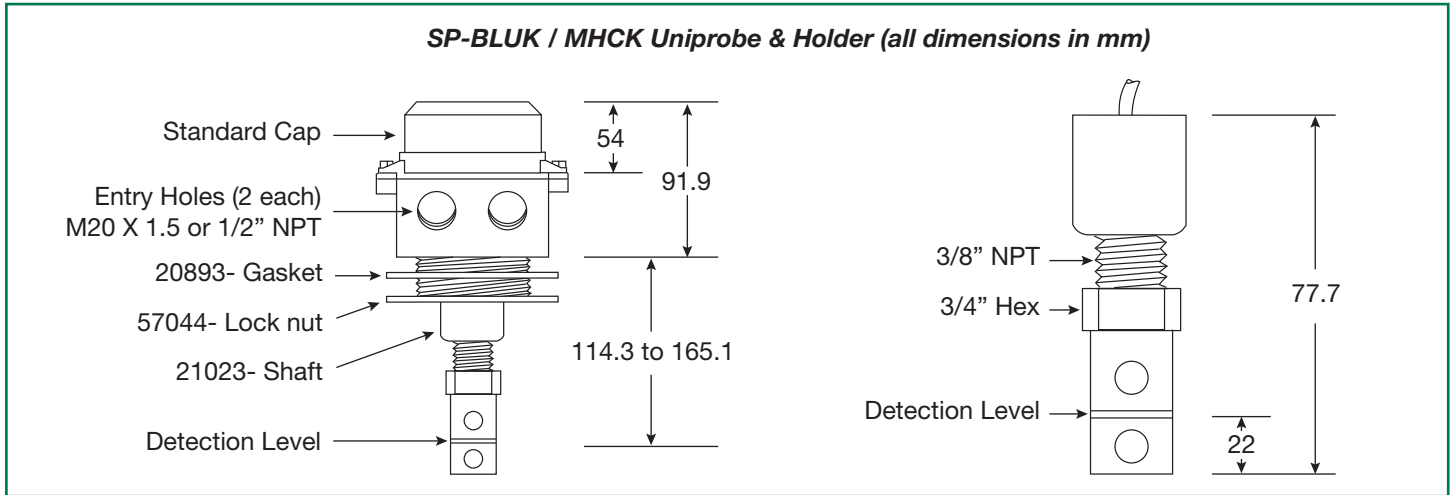
FEATURES AND BENEFITS

- Maximum safety with Dynacheck® – automatic and continuous self-checking circuitry when used with Scully gantry (rack) controls.

- Proven thermistor liquid level sensing for road tankers, rail cars and storage tanks.

- Self-cleaning for use in heavy viscosity products.

- ATEX approved.

- Available in stainless steel and other materials.

- Flanged holders available to replace other manufacturers' sensors.

- Functions within a wide range of temperatures and in a variety of liquid products.

- Field adjustable for a variety of sensing levels.

- Solid state construction, no moving parts.

Overfill Prevention & Static Grounding For Bottom Loading Applications

Scully Thermistor Sensors
Mains Power
Output Signal
Scully Intellitrol
Scully Sculcon with Plug & Cable Assembly
Terminal Automation System
Scully Socket
from pump

Liquid Level Sensor for Road Tanker Overfill Prevention

SP-BLUK / MHCK Uniprobe & Holder (all dimensions in mm)

Standard Cap

Entry Holes (2 each)
M20 X 1.5 or 1/2" NPT

20893- Gasket

57044- Lock nut

21023- Shaft

Detection Level

54
91.9
114.3 to 165.1

3/8" NPT

3/4" Hex

Detection Level

77.7

22

TECHNICAL SPECIFICATIONS

Operating Temperature Range
SP-BLUK: -40° C to +50° C   (-40° F to +122° F).
Petroleum Product Range
Petroleum through #4 oil.
Consult factory for use in chemical applications.
Exposed Materials
Aluminum, Glass and Viton® seals.
Holder Materials
Aluminum and Zinc.
Detection Level
The detection level is adjustable, refer to diagram.

Size
Refer to diagram.
Level Repeatability
0.8 mm.
Electrical Leads
198 cm long, 0.82 mm^2 (#18 AWG).
Approvals
Baseeefa03ATEX0618X
Ex ia IIA T4 Ga
-40°C ≤ Ta ≤ +50°C

CE   Ex II1G

ORDERING INFORMATION

Model	Description	Part Number
SP-BLUK/MHCKE	Sensor and holder, 2" BSP mounting thread	08657
SP-BLUK/MHCK	Sensor and holder, 2" NPT mounting thread	08526
SD-5CE	5 Element Electronic Dummy	08542

REPLACEMENT PARTS

Description		Part Number
SP-BLUK	Thermistor Sensor without holder	07880
Gasket	GSKT,VITON,2.375ID X3.123OD X.188	20893
Lock Nut	P LK NUT,2" NPT CONDUIT	57044
Shaft	M SHAFT,MACH,SP-BLUK/MHCK,MHCFEK SNSR	21023

scully

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Dynamic Self-Testing® Overfill Prevention Systems