



# Scully Bio-Sense™ Two-Wire Optic Retain Sensor

## Retain Sensors for Bottom of Tank Truck - Residual Product Monitoring

Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry



### Scully Bio-Sense™ 2-Wire Optic Retain Sensor

The Scully Bio-Sense™ design is API compliant and withstands temperature-related stresses, dramatically improving reliability across a wide operating range.

### DESCRIPTION

Clean fuels have been utilized in many applications worldwide, and Scully Bio-Sense™ Retain Sensor has been built to comply with most biofuels and special blends produced from a variety of sustainable processes.

The Scully Bio-Sense™ Retained Product Sensor is designed to sense residual (retained) product in the bottom of a tank trailer compartment. It is intended for use as part of the Scully IntelliCheck® Overfill & Retained Product Monitoring System for the ultimate safety in loading/unloading clean fuels.

When properly installed at the lowest point in the compartment, using the Scully supplied weld coupling, the sensor will detect approximately 3/8"-1/2" of residual product in the compartment.

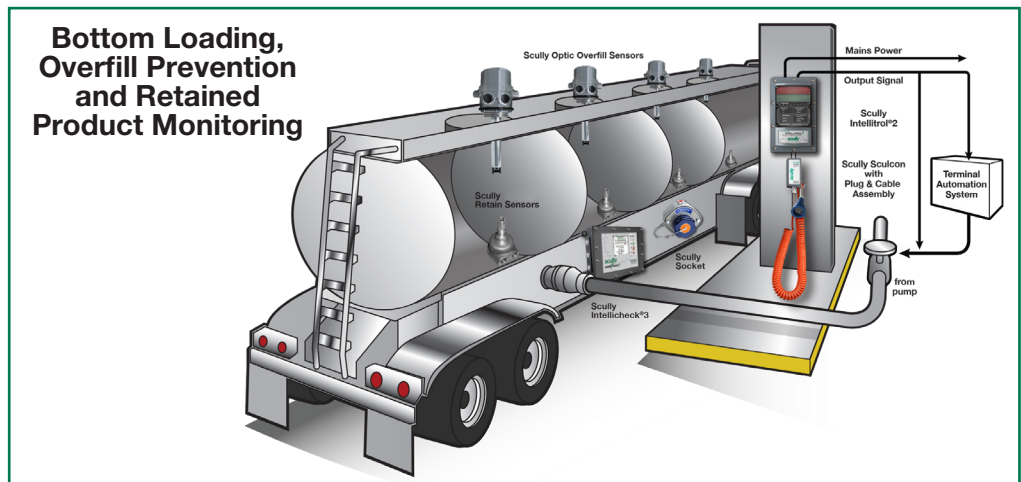
The two-wire optic retain sensor is a critical component in Scully's unique and patented Dynacheck® circuit design.

Our retain protection sensor will provide consistent failsafe monitoring when used in conjunction with Scully electronic monitoring equipment.

By constantly checking a "closed-loop" pulsing signal across the entire system, Scully ensures a safe and reliable loading operation.

When used together with the Scully IntelliCheck® Overfill & Retained Product Monitoring System, the Scully Bio-Sense™ Retained Product Sensor helps prevent product mixing and provides safety features such as 'lock-out' and a retained product acknowledge button for loading to occur.

Scully offers an industry leading warranty on these models of retain sensors. 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.

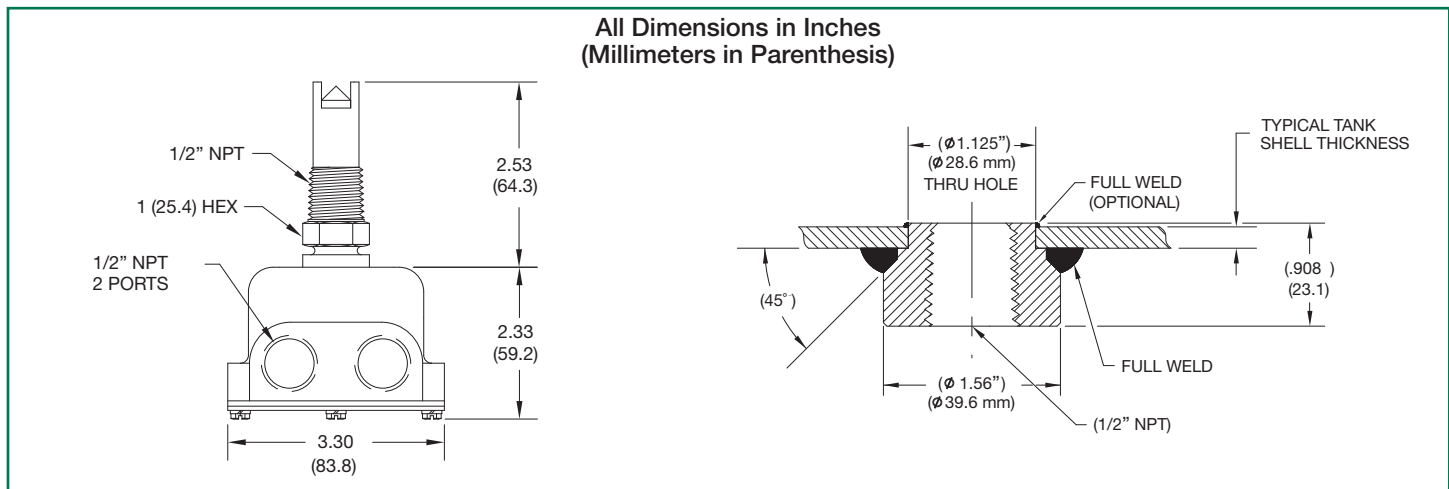


### FEATURES AND BENEFITS

- Maximum safety with Dynacheck® – Automatic and continuous self-checking circuitry when used with Scully electronic rack and vehicle onboard monitoring systems.
- Scully's field-proven electro-optics latest technology using special seals for particular biofuels - First in the industry to create technology for sustainable and greener fuels!
- Detection of approximately 3/8"-1/2" of residual product in the compartment.
- Weld coupling material in Carbon-Steel or Aluminum.
- Instant-On™ – Instant permissive signal. No warmup time is required.
- FM approvals for Class I, Division 1, Groups C and D hazardous locations in the US and Canada.
- Meets requirements of API Recommended Practice RP-1004.



# Retain Sensors for Bottom of Tank Truck - Residual Product Monitoring



## TECHNICAL SPECIFICATIONS

**Operating Temp. Range:** -40°F to +140°F.  
(-40°C to +60°C).

**Product Range:** Biofuels & Special Blends (Consult factory for specific applications). Gasoline blends and light fuel oils.

**Exposed Materials:** Aluminum, Borosilicate (Pyrex®) glass, Stainless Steel, Kalrez® seal.

**Level Repeatability:** ±1/16" (±1 mm).

**Electrical Leads:** 60" (152cm) long.  
22 AWG (0.33 mm<sup>2</sup>).

**Cable Entry:** Two holes, 1/2" NPT threads.

**Detection Level:** When properly installed at the lowest point in the compartment, using the Scully supplied weld coupling (or equivalent mounting), the sensor will detect approximately 3/8"-1/2" of residual product in the compartment.

**Approvals:** The sensor is Intrinsically Safe for mounting in Class I, Division 1, Groups C & D Hazardous location in accordance with Scully Control Unit approval ratings.

**SIL Capable**



## ORDERING INFORMATION

Model	Description	Part Number
SP-IR-BIO	Standard length BIO seal retain sensor w/ 6061-T651 aluminum weld coupling	092000295
SP-IR-BIO	Standard length BIO seal retain sensor w/ carbon steel weld coupling	092000293

Copyright © 2023 Scully Signal Company. Dynacheck, Dynamic Self-Checking, Dynamic Self-Testing, Faylsafe, IntelliCheck, Intellitrol are registered trademarks of Scully Signal Company. All Rights Reserved. Specifications are subject to change without notice.

Kalrez® is a registered trademark of DuPont Polymers, INC. Pyrex® is a registered trademark of Corning.

02-11  
June 2023



**Scully Signal Company**  
800 272 8559  
sales@scully.com  
Wilmington, MA, USA

**Scully Systems Europe NV**  
+32 (0) 15 56 00 70  
sales@scully.be  
Mechelen, Belgium

**Scully UK Ltd**  
+44 (0) 1606 553805  
sales@scullyuk.com  
Winsford Cheshire, UK

**Scully Systems India**  
+91 9821 799566  
salesindia@scully.com  
Maharashtra, India

Dynamic Self-Testing® Overfill Prevention Systems

