

## Floating Roof Tanks Spill Prevention



### Specifically designed for Floating Roof Tanks (Internal and External roofs) with Flexible Sensing Element 700-0005-594

- Field Adjustable lengths from 1' to 18' (0.3 to 5.48 m) 12" to 216" (305mm to 5486 mm)
- Wetted Parts: 316SS 3/4" NPT Mounting, 3/16" FEP insulated flexible and adjustable cable, Non-Sparking Brass Sensor.

#### Features:

- Alarm trip points with any contact of internal or external roof.
- Alarm trip points in "Sunken Roof" applications with less than 1" product.
- One system will fit most floating roof tank application needs, reducing field spares.

#### Intelligent Electronics

- Meets API 2350 regulations.
- For use in safety related systems with requirements for functional safety for SIL2 (SIL 3 with Redundant Switch) In accordance to IEC61508-2, Sec. 7.4.3.1 1999 (Conforms to SIL, FMEDA Requirements - Exida)

- No calibration or setpoint adjustments.
- Automatically recognizes and ignores coatings to prevent false alarms.
- Continuous Self-Test monitors circuits and sensing elements for faults
- Remote or Integral Electronics

#### Dual Compartment Housing

The dual compartment housing separates the customer wiring from the sensing element and operating circuits. The encapsulated power supply/terminal block design eliminates the possibility of damage caused by moisture in the conduit.

#### Self-Test Feature

Automatic and Local or Remote Manual test functions ensure proper system operation.

#### Auto Verify™

Each IntelliPoint™ is supplied with a continuous self-test feature that constantly monitors the integrity of not just the electronics, but the sensing element and interconnecting cable. If a fault is detected, the IntelliPoint Auto Verify™ feature alerts plant personnel.

#### Manual Certify™

The IntelliPoint™ provides a method to manually test the entire system without removing the sensor from the tank. The Manual Certify Test checks that the Auto Verify circuits are operating and confirms the probe and cables are properly connected. The Manual Certify also allows the IntelliPoint™ electronics to sense changes in the probe that simulate contact with the media or a floating roof. This provides the user with a method to insure working performance without having to climb the tank. At the completion of the Certify test routine, the output is momentarily held in the alarm state so personnel can confirm that the control circuits connected to the Final Control Element are functioning properly.

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## Specifications

### Technology:

RF Admittance

### Calibration:

None

### Modes Of Operation:

High Level Fail Safe

### Repeatability:

2 mm (0.08 inch) conductive liquids

### Response Time:

Less than one second

### Ambient Electronic Temperature:

-40 to 70°C (-40 to 158°F)

### Storage Temperature:

-40 to 85°C (-40 to 185°F)

### Indicators:

LEDs: Green Power, Red Alarm

### Self-Check:

AutoVerify automatically and continuously checks electronics and sensing element for faults. Manual Certify checks that the AutoVerify circuits are functioning.

### Time Delay:

0-60 seconds, forward acting

### Supply Voltage:

13-30 Vdc

### Power Consumption:

2 watts maximum

### Output:

8 mA - Alarm		8 mA - Normal
16 mA - Normal	or	16 mA - Alarm
22 mA - Fault		5 mA - Fault

### Housing:

Dual Compartment, Powder-Coated aluminum with two cable entries

### Cable Entry:

M20 x 1.5 CENELEC  
¾-inch NPT FM/CSA

### Ingress Protection:

IP66 NEMA 4, 4X

### Approvals:



FM approved. Explosion-proof for use in Class I, Division 1, Groups A, B, C, & D; Dust-Ignition proof for Class II, III, Division 1, Groups E, F, & G; Non-incendiary for use in Class I, Division 2, Groups A, B, C & D; Suitable for Class II, III, Division 2, Groups F & G Hazardous (Classified) Indoor and Outdoor Type 4, 4X, IP66 locations with Intrinsically Safe connections to Class I, II, III, Division 1, Groups A, B, C, D, E, F, and G hazardous (Classified) locations in accordance with entity requirements and control drawing 420-0004-173-CD.



Class I, Groups A, B, C, and D with Intrinsically Safe sensing element; Class II, Groups E, F & G; Class III



II 1G EEx ia IIC T5 Ta = -30°C - +75°C  
II 1D T90°C



### MTTF (Mean Time to Failure):

110 Years, Independently Tested

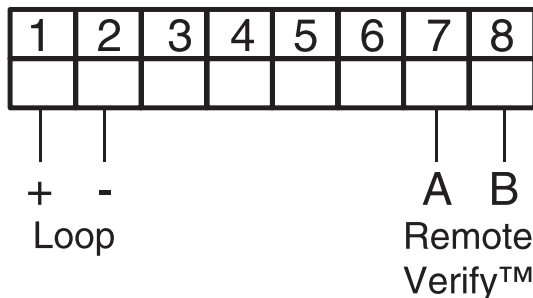
### Safety

SIL2 (SIL 3 with Redundant Switch)

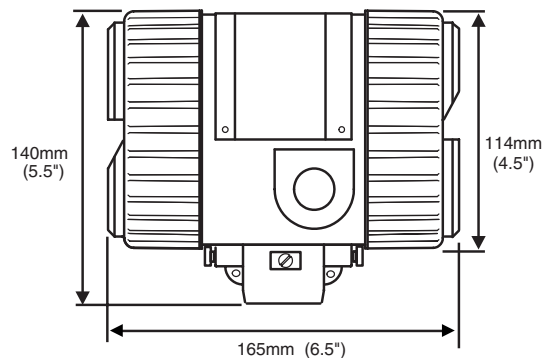
IEC61508-2, Sec. 7.4.3.1 1999

FMEDA Tested for conformity by Exida.com®

## Wiring



## Dimensions



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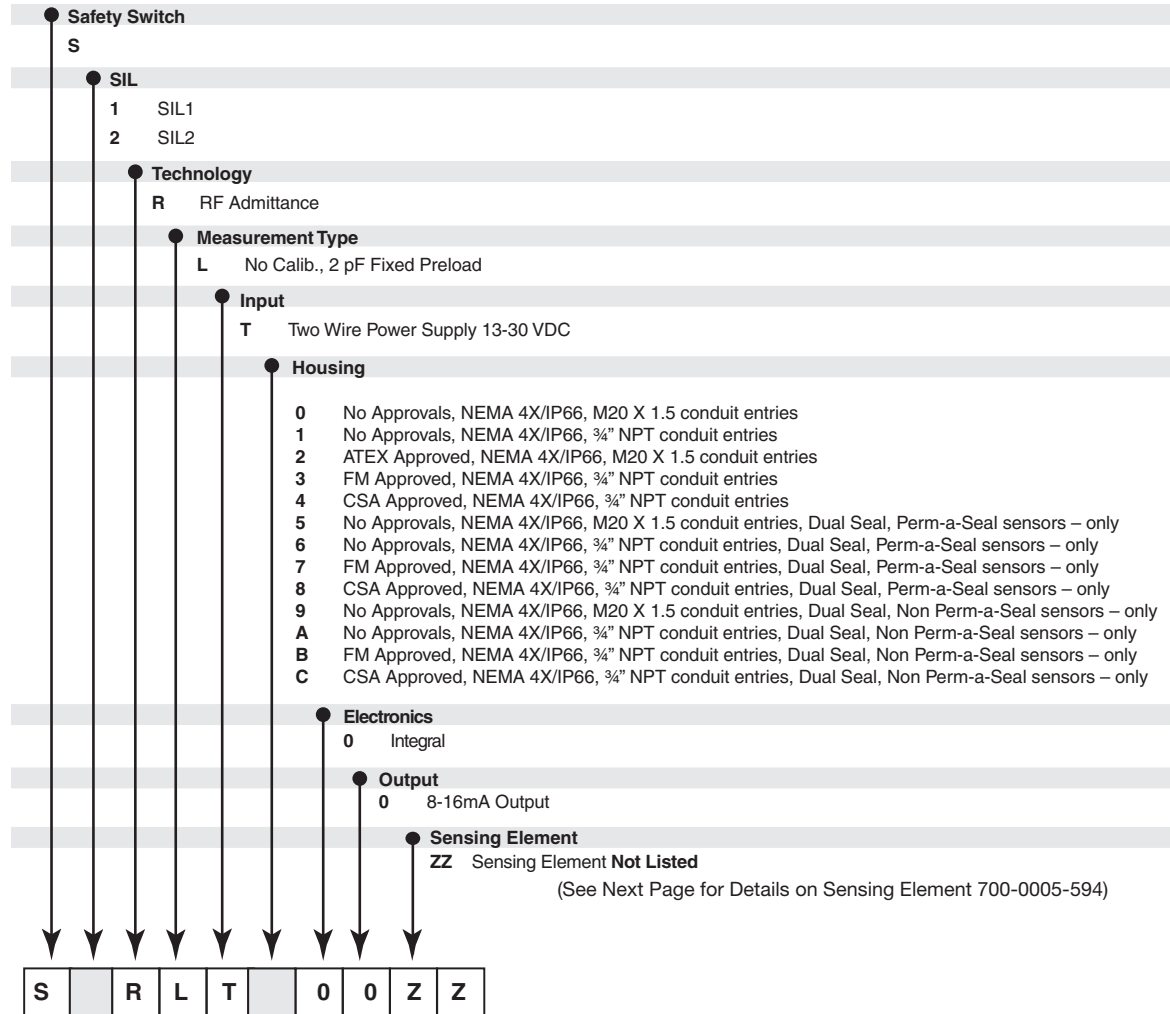
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## Floating Roof Tanks

### Model Numbering



## IntelliPoint RF™ Series

### Sensing Element for Floating Roof Tanks

### 700-0005-594-1216.0 BAO

