

# SSI Technologies, Inc

## Fluid-Trac® Ultrasonic Level Sensors

### Product Overview

The Fluid-Trac® level sensor is a non-contact liquid level sensor that offers a wide variety of input and output options.

### Measurement Technology

Fluid-Trac® uses ultrasonic technology to generate a high frequency sound wave and measure the time for the echo to reflect off of the liquid's surface and return. The distance from the level sensor to the liquid is calculated based on the speed of sound. The measured distance is converted into a voltage that drives the gauge based on a strapping table contained in the level sensor.

### Product Features

**Increased Accuracy:** +/- 0.125 inches (1/8<sup>th</sup> inch).

**Increased Reliability:** Fluid-Trac® is non-contacting.

**Non-Invasive**

**Easy to Install**

**Digital Filtering:** Digital filtering eliminates errors due to liquids sloshing in mobile tanks.

**Tank Profiling:** Factory programmable strapping tables for unique tank shapes.

**Chemical Compatibility:** Fluid-Trac® works with a wide variety of media including gasoline, diesel fuel, motor oil, hydraulic fluid, black water.

**Minimal Dead Band:** No bottom dead band like on other senders. Optional Fluid-Trac® mounting adapter can be used to reduce or potentially eliminate the top dead band.

**Repeatable performance:** Because of the electronic nature of the product, the Fluid-Trac® will generate the same signal every time with a tolerance of + 2% of reading, full scale.

**Reproducible performance:** With no coils or moving parts, customers can be certain that the Fluid-Trac® that is installed on one product will have identical performance as the next unit.

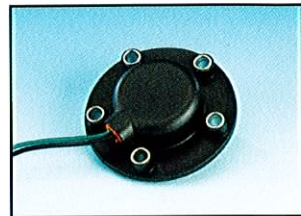
**American Boat and Yacht council (ABYC) Certified**

### Product Description

#### Fluid-trac® Two Wire (Resistive Emulation) Fluid Level Sensor

Non-contact fluid level sensors accepts a 12V or 24V analog gauge to replace 33 to 240 ohm resistive float senders, reed-switch tube sensors, and capacitive tube senders.

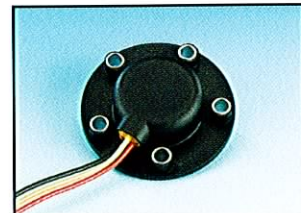
Commonly used on marine products (boats, yachts, etc.) and construction equipment. The fluid level sensor is easier to install with no moving parts and is more accurate (1/8 inch distance) than resistive float senders, reed switch tube sensors and capacitive tube senders. Digital filtering on the fluid level sensor eliminates errors due to fluids sloshing in mobile tanks or fluid agitation in stationary containers.



#### Fluid-trac® Three Wire (Voltage Output) Fluid Level Sensor

Non-contact continuous fluid level monitoring device. Can work as a replacement for 33 to 240 ohm resistive float senders feeding electronic dashboards.

Interfaces with 12V or 24V electronic gauges typically found in marine, agricultural and construction applications. Interfaces with control modules to indicate tank volume levels. Interfaces with existing PLC controllers or data acquisition systems for liquid level measurements.



For additional information refer to our website [www.ssitechnologies.com](http://www.ssitechnologies.com) or contact our inside sales associates at (608) 758-1500.

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# SSI Technologies, Inc

## Acu-Trac<sup>®</sup> Ultrasonic Fluid Level Sensors

### Product Description

The Acu-trac<sup>®</sup> ultrasonic level sensor family is ideal for tanks or storage containers that have a depth/height up to 118 inches (3.0 meters) and also has real time processing of level data and messaging over a RS-485 bus. These ultrasonic level sensors are chemically compatible with diesel fuels, ethanol, oils, fresh water, sewage water, urea (AdBlue) and engine coolants.



### Product Features

- **Increased Accuracy:** 2% of tank volume.
- **Increased Reliability:** Acu-Trac<sup>®</sup> is non-contacting.
- **Non-Invasive**
- **Easy to Install**
- **CE Mark Class B Ratings**
- **NEMA 4 or 6**
- **Self Test/Diagnostics**
- **Chemical compatibility:** Acu-Trac<sup>®</sup> works with a wide variety of media including diesel, motor oil, hydraulic fluid and black water.
- **Digital Filtering:** User programmable time constant in digital filtering eliminates errors due to fluids sloshing in mobile tanks.
- **Tank Profiling:** User programmable strapping tables for unique tank shapes.
- **Real Time Fuel Data:** Real time fuel data over the J1708 data link for both on vehicle and off vehicle communication.

### Measurement Technology

Acu-Trac<sup>®</sup> uses ultrasonic technology to generate a high frequency sound wave and measure the time for the echo to reflect off of the liquid's surface and return. The distance from the level sensor to the fuel is calculated based on the speed of sound. The measured distance is converted into a voltage that drives the fuel gauge based on a strapping table contained in the level sensor. The measured distance is converted into a percentage of tank capacity (Full to Empty), and volumes in gallons based on the geometry of the tank.

### Product Specifications

- **Supply Voltage:** 12V (11 to 16V) & 24V (11 to 16V)
- **Output Type:** Ratiometric Voltage (.5 – 9.5V) or Current (4-20mA)
- **Range:** NEMA4 up to 59" (1.5m) NEMA6 up to 118" (3m)
- **Mount Style:** NEMA4 – ¾" NPT or SAE 5 Bolt  
NEMA6 – 1" Threaded or SAE 5 Bolt
- **Housing Material:** NEMA4 – Stainless Steel  
NEMA6 – KYNAR

### Typical Markets

- Heavy Truck Fleets – Remote Fuel Tracking
- Railroad Locomotive / 12V Gauges
- Heavy Construction/Agricultural Equipment
- Digital Instrumentation
- Control Modules
- PLC Controllers
- DAQ Systems

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