



# FLUID LEVEL MEASUREMENT

Sensor Optimized for Fluids  
Key Advantages

Accurate and Reliable Measurements  
System Integrator Friendly

SENSORS



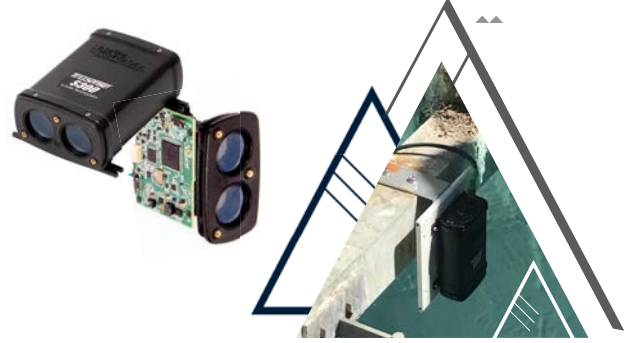
Order from: **C A Briggs Company**  
622 Mary Street; Suite 101; Warminster, PA 18974  
Phone: 267-673-8117 - Fax: 267-673-8118  
[Sales@cabriggs.com](mailto:Sales@cabriggs.com) - [www.cabriggs.com](http://www.cabriggs.com)

## The Ultimate Sensor

After years of research and development, LTI has engineered the ultimate non-contact fluid measurement sensor specifically designed to directly measure fluids that are highly reflective, turbulent and with any dielectric properties.

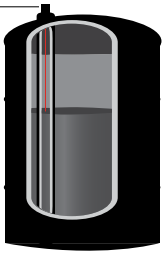
### TruSense® S-300 Series:

- Outputs data in 4-20 mA, SDI-12, and RS232 formats
- Produces accurate results over long ranges
- Aligns the transmit/send lens with a built-in laser pointer
- Expanded SDI-12 command sets allows for complete configuration and adjustments remotely



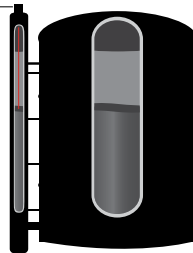
Feature Cased & OEM versions	Visible Alignment Laser	RS-232	4-20/MA	Input/Output Trigger	SDI-12
S-300		✓		✓	✓
S-310	✓	✓		✓	✓
S-330	✓	✓	✓		

TruSense®  
Fluid  
Series



Stilling Well

TruSense®  
Fluid  
Series



By-Pass Pipe

The S300-series can also be used with simple stilling wells and by-pass pipes to measure fluids.

*\*Stilling pipes are restricted by length and width dimensions.  
Contact Laser Tech for more details*

### System Integrator Friendly

- SDI-12
- 4-20 mA
- Minimum Setup Requirements



OEM VERSION

### Accurate and Repeatable Results

- Collects consistent data by smoothing out the reflective peaks and valleys caused by fluids in random motion
- Capable of generating accurate measurements on highly reflective surfaces, such as clear water
- Generates reliable results by stabilizing the reflections picked up by the receiver

### Diffuser Lens

Use the optional diffuser lens to obtain accurate measurements directly to clear or turbulent liquids



## APPLICATIONS

### WATER AND WASTEWATER

- Accurately measure water levels in narrow spaces or next to walls
- Measure in clear, translucent, or opaque liquids.
- With or without suspended particles



### FOOD AND BEVERAGE

- Measure all types of liquids, emulsions, oils, colloids, and suspensions
- Avoid paddles and stirrers
- Mount well above material layer



## Advantages Like No Other

- Provides instantaneous measurements that are very accurate, even over long ranges
- Avoids false echoes by creating a beam with virtually no spread that can be shot through some narrow spaces
- Provides a sensor that can be shot through protective screens and near flat walls
- Installs at the top of a well for easy mounting, access, and maintenance
- Saves time with little to no required calibrations

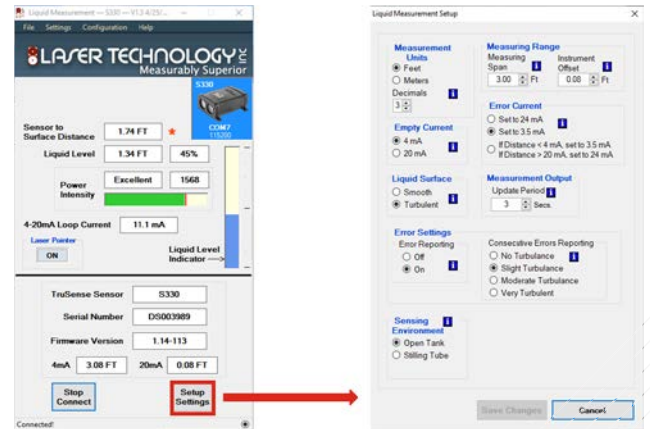
## Simple Set Up & Configuration

The TruSense S330 GUI (Graphical User Interface) Tool allows users to set up the 4-20 mA loop quickly.

- Specific to the S330 SKU only
- Designed to allow the customer to set up the S330 easily, without referring to the sensor commands in the manual
- GUI tool provides all relevant information in a simple, easy-to-read format
- Indicates distance measurement, liquid level, 4-20 loop current, and power intensity return, as well as a graphic representation of the liquid level in the vessel

## Demo Program

Pre-qualified system integrators and end-users can have an opportunity to test a TruSense laser to confirm that LTI's pulse laser technology works in their specific application. Ask an LTI representative about our demo program.



## RUGGEDIZED ENCLOSURE

- Protects the sensor from contamination or damage
- Meets the toughest industrial standards
- Includes a terminal block



Spanner Wrench  
#9034501



### CHEMICALS PROCESSING

- Work across a wide range of temperatures
- Independent of material properties and dielectric constants
- IS-rated ruggedized enclosure



### FLOOD MEASUREMENT

- Work across a wide range of temperatures
- Measure turbulent surfaces
- SDI-12 supported



# PROUDUCT SPECIFICATIONS

Performance	Min Range	1.5 ft (46 cm)
	Max Range	50 m (164 ft)
	Typical Accuracy	± 10 mm (.39 in)
	Data Output Rate	1 Hz to 15 Hz, Dynamic Mode averaging from 2 to 30 seconds; Static Mode averaging from .5 Hz to 14 Hz
	Target Modes	First, Strongest, Last
	Measurement Modes	Static Mode, Dynamic Mode
	Measurement Filters	Dynamic Mode: Low Pass Filter, Median Filter
Optical & Electrical	Wavelength	905 nm (near IR)
	Divergence	3 mrad (equal to 15 cm beam diameter @ 50 m or .5 ft @ 164 ft) 44 mrad using Diffusing Lens (equal to 220 cm beam diameter @ 50 m or 7.33 ft @ 164 ft)
	I/O	S-300 = TRIG, SDI -12, RS232 without alignment laser; S-310 = TRIG, SDI -12, RS232 with alignment laser; S-330 = 4-20mA with alignment laser
	Baud Rate Min/Max	9,600/230,400
	Input Power	12 - 24 VDC
	Current Draw	Measuring = 1.8 Watts, Standby = .48 Watts
Physical	Dimensions (L x W x H)	104.4 x 81.7 x 41.6 mm; (4.11 x 3.22 x 1.64 in)
	Weight	Standard = 138.6 g (4.8 oz); OEM = 76 g (2.7 oz)
	Housing & Frame Material	Glass-filled polycarbonate
Environmental	Eye Safety	Class 1, 7 mm (FDA, CFR21); Class 1 m (IEC 60825 - 1 : 2001)
	Shock/Vibration	MIL-STL-810
	Moisture	IP65
	Operating Temperature	-28° to 60° C (-20° to 140° F)

## SENSOR RESOURCES

### Sensor Videos

[TruSense® S300 Process Control Application](#) [TruSense® S300 Series: The Ultimate Fluid Measurement Sensor](#)  
[www.youtube.com/watch?v=nCcBPR41f18](http://www.youtube.com/watch?v=nCcBPR41f18) [www.youtube.com/watch?v=2DO2o8rG9Xw](http://www.youtube.com/watch?v=2DO2o8rG9Xw)

**Sensor Website** [measuringthefuture.com/sen](http://measuringthefuture.com/sen)

**Live Demo** [measuringthefuture.com/sen/s330-demo](http://measuringthefuture.com/sen/s330-demo)

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