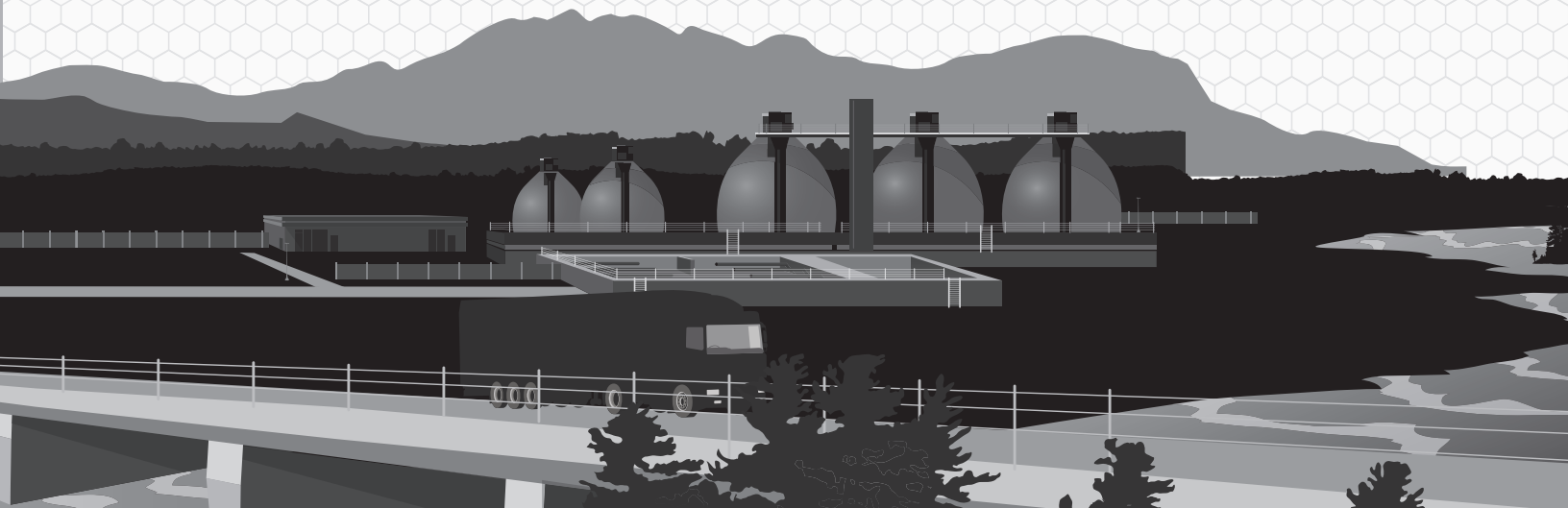# FLUID LEVEL MEASUREMENT
TRUSENSE S300 SERIES

+ Sensor Optimized for Fluids

+ Accurate and Reliable Measurements

+ Key Advantages of Lasers

LASER TECHNOLOGY INC

Measurably Superior®

The Ultimate Sensor Engineered to Measure Fluids without Contact

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.
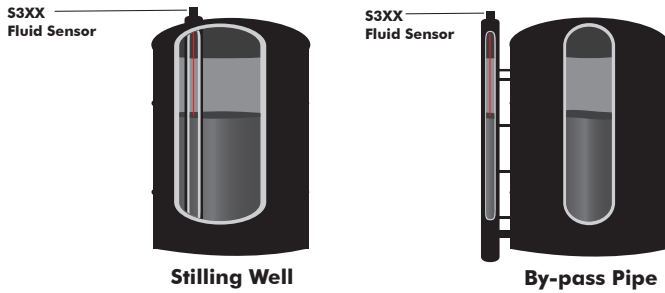

TruSense® S-300 Series:

- 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

Accurate and Repeatable Results

- 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
- Collects consistent data by smoothing out the reflective peaks and valleys caused by fluids in random motion

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

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 narrow spaces or small-diameter stilling wells
- 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

Stilling Well

By-pass Pipe

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

System Integrator Friendly

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

• **OEM VERSION**

Ideal Applications and Industries

WATER AND WASTEWATER
Accurately measure water levels in narrow spaces or next to walls whether the water is clear, translucent, or opaque, and with or without suspended particles.
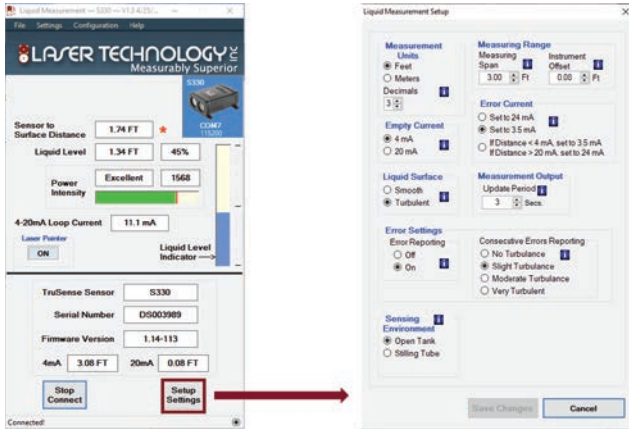

CHEMICALS PROCESSING
Work across a wide range of temperatures, and is independent of material properties and dielectric constants, with an IS-rated ruggedized enclosure.

LAser TECHNOLOGY INC

Simple Set Up & Configuration

The TruSense S330 GUI (Graphical User Interface) Tool allows users to se 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.

Diffuser Lens

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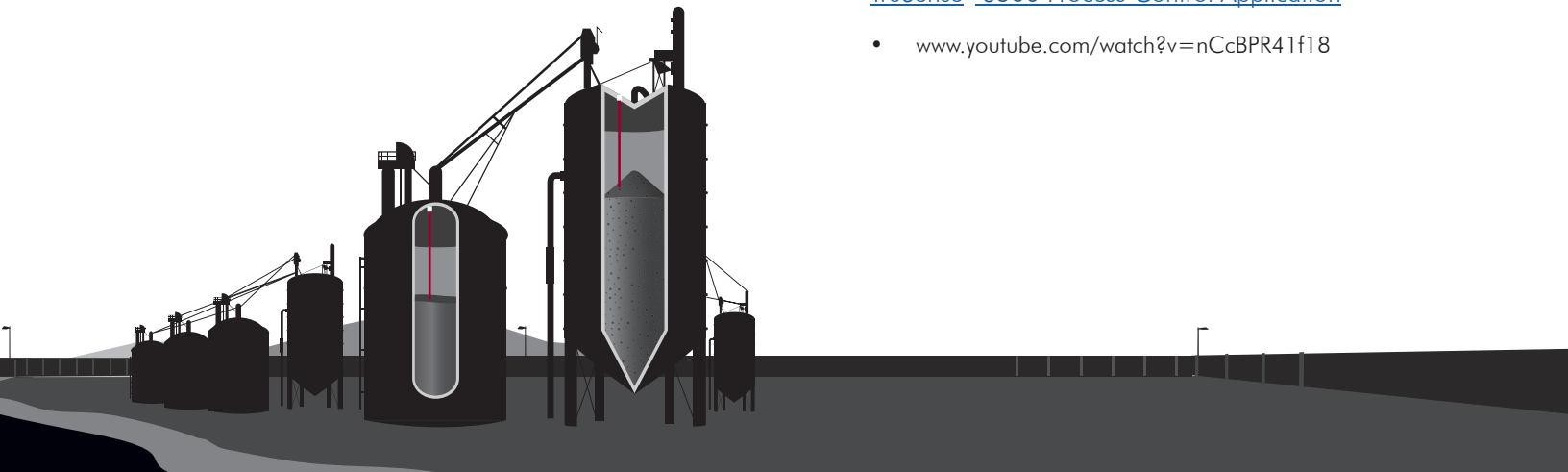
Sensor Website

measuringthefuture.com/sen

Videos

TruSense® S300 Series:
The Ultimate Fluid Measurement Sensor

- www.youtube.com/watch?v=2DO2o8rG9Xw

TruSense® S300 Process Control Application

- www.youtube.com/watch?v=nCcBPR41f18

FOOD AND BEVERAGE
Accurately measure all types of liquids, emulsions, oils, colloids, and suspensions. The non-contact feature avoids paddles and stirrers and can be mounted well above the material layer.

FLOOD MEASUREMENT
Work across a wide range of temperatures and measure turbulent surfaces accurately. SDI-12 supported.

Specifications

		TruSense S-300 Series
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 .5Hz to 14Hz
	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 1m (IEC 60825 - 1 : 2001)
	Shock/Vibration	MIL-STD-810
	Moisture	IP65
	Operating Temperature	- 28° to 60° C (- 20° to 140° F)

Ruggedized Enclosure

- Protects the sensor from contamination or damage
- Combines with a tank adaptor to fit most tanks/silos
- Meets the toughest industrial standards
- Includes a terminal block

Tank Adaptor
(air-purge ready)
#7035146

4-In Flange
#3004960

Dust Tube
#3004957

Spanner Wrench
#9034501

Laser Technology

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