FLUID LEVEL
MEASUREMENT

+ Sensor Optimized for Fluids

+ User-Configured Parameters

+ Key Advantages of Lasers

LASER TECHNOLOGY INC

Measurably Superior®
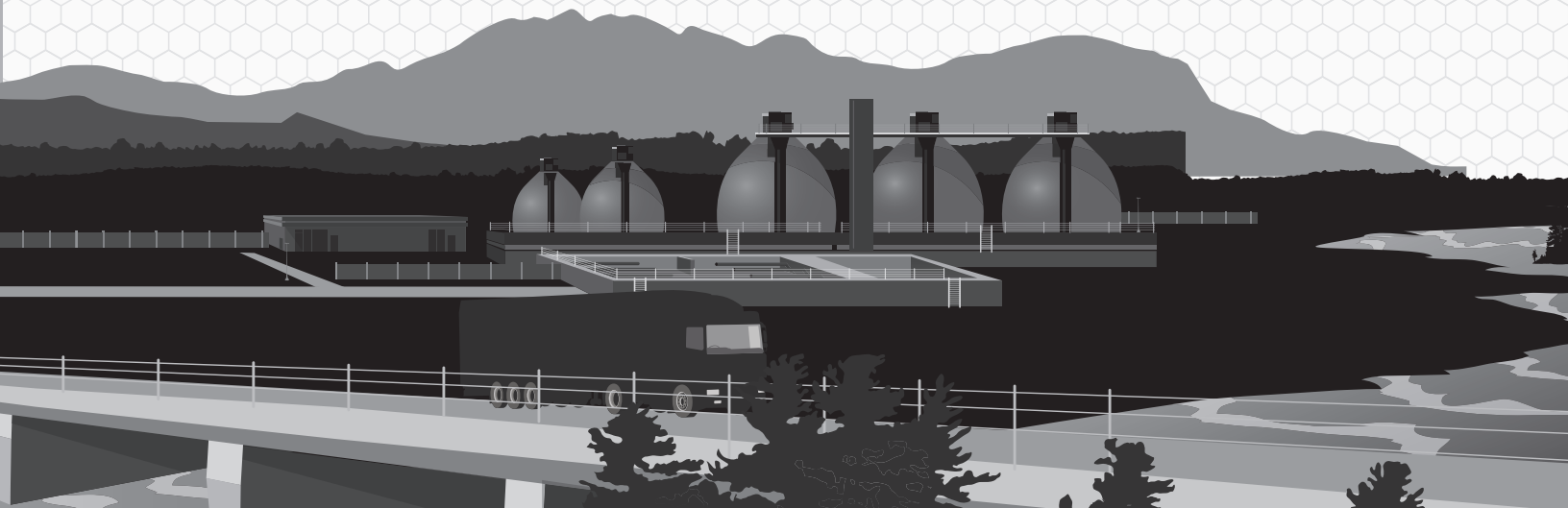
The Ultimate Sensor Engineered to Measure Fluids without Contact

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.
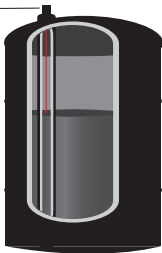
TruSense® S-300 Series:

- Outputs data in 4-20, 4-20 HART and RS232 formats
- Produces accurate results over long ranges
- Aligns the transmit/send lens with a built-in laser pointer
- Installs and configures easily

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

## 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

S3XX Fluid Sensor

Stilling Well

S3XX Fluid Sensor
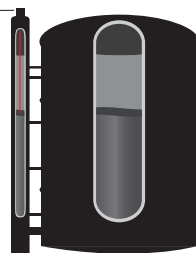
By-pass Pipe

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

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
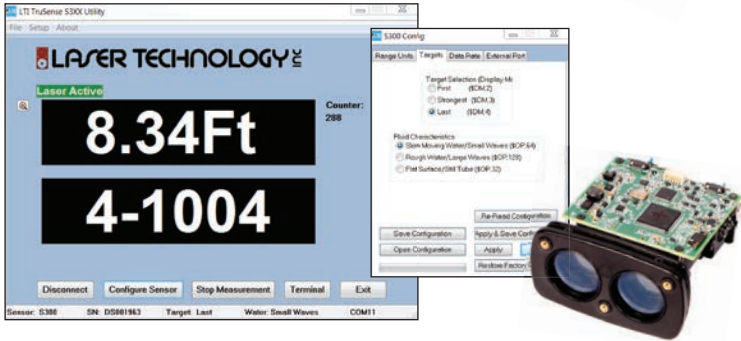- Saves time with little to no required calibrations

Applications and Industries

- Water and Wastewater
- Chemicals Processing
- Food and Beverage

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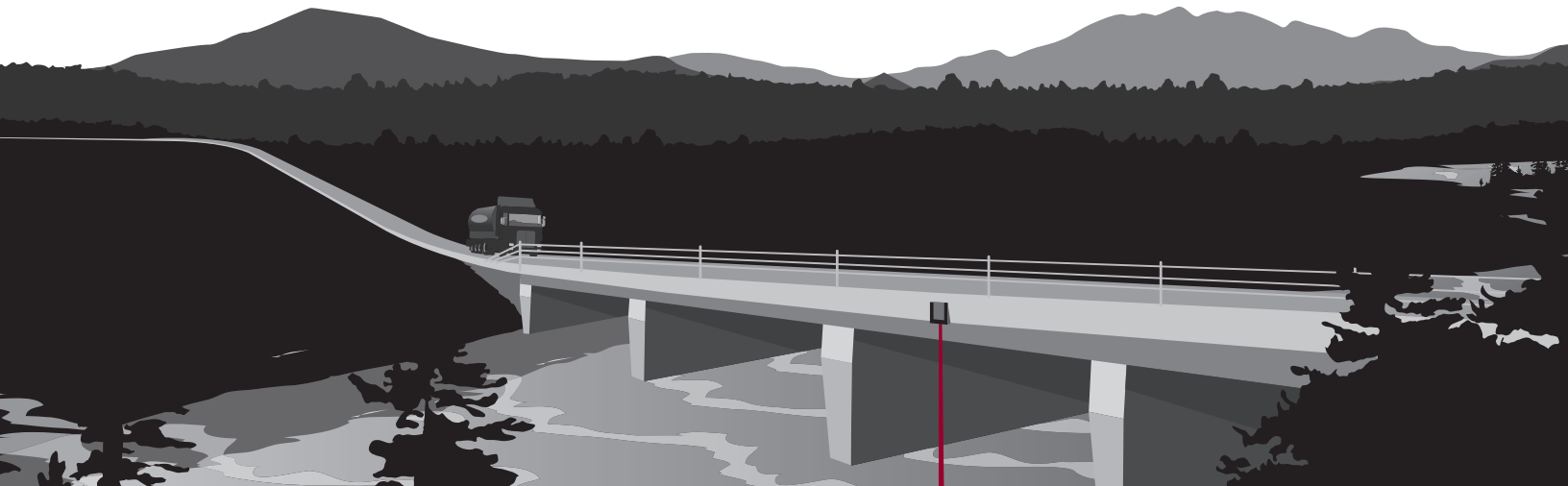
System Integrator Friendly

- Use the TruSense OEM versions
- Access application support
- Experience intuitive user interface software
- Configure your sensor with the Power/Comm cable

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 liquids

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

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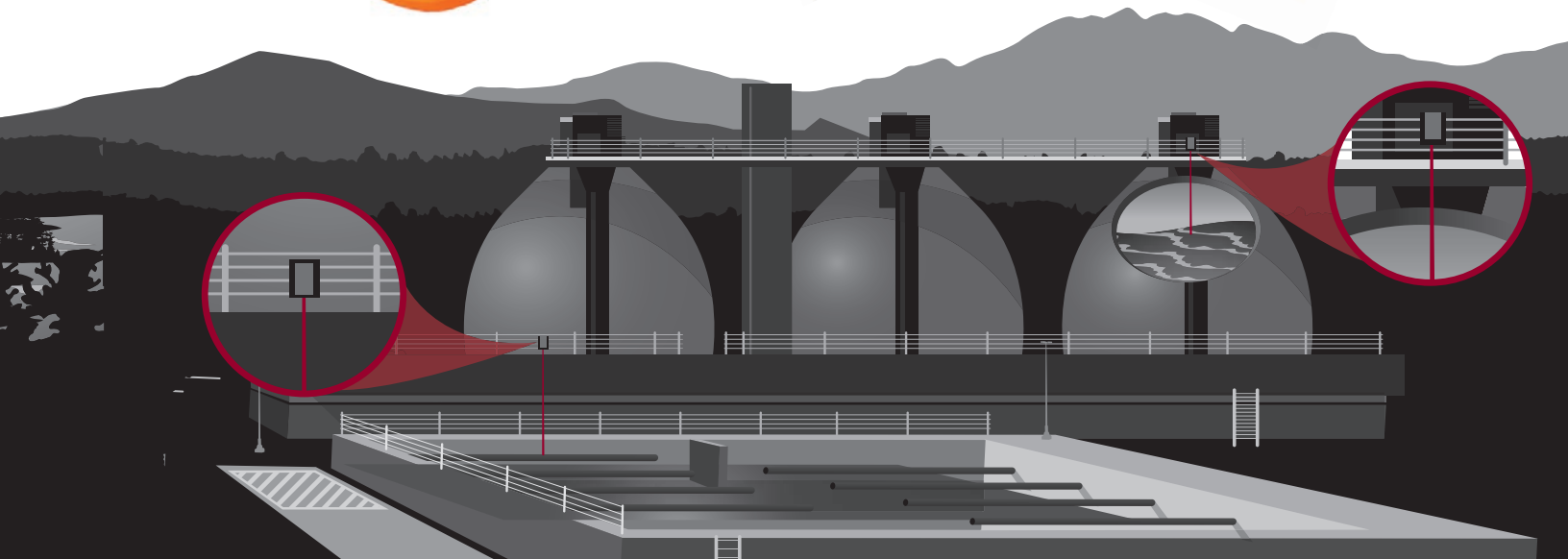
Specifications

Specifications		TruSense S-300 Series
Performance	Min Range	1.5 ft (46 cm)
	Max Range	200 m; 50 m with diffuser lens option
	Accuracy	±4 cm
	Data Output Rate	<1 Hz to 14 Hz
	Target Modes	First, strongest, last
Optical & Electrical	Wavelength	905 nm (near IR)
	Divergence	3 mrad (equal to 1-ft beam diameter @ 328 ft or 30 cm @ 100 m)
	I/O	S-300 = TRIG, SDI-12, RS232 without alignment laser S-310 = TRIG, SDI-12, RS232 with alignment laser S-330 = 4-20, 4-20 HART with alignment laser
	Baud Rate Min/Max	9,600/230,400
	Input Power	24 VDC
	Current Draw	Measuring = 150 mA, Standby = 40 mA
Physical	Dimensions (L x W x H)	4.11 x 3.22 x 1.64 in (104.4 x 81.7 x 41.6 mm)
	Weight	Standard = 4.8 oz (138.6 g) OEM = 2.7 oz (76 g)
	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	IP67
	Operating Temperature	- 20° to 140° F (- 28° to 60° C)

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Ruggedized Enclosure:

Weight: 8 lbs (3.62 kg)
Dimensions: 5 in diameter x 10 in long (12.7 x 25.4 cm)
Conduit Fitting: 3/4-in NPT

U.S. Ratings for Enclosure:
Division Ratings
Classified
Class I, Div 1 Groups B, C, D
Class II, Div 1 Groups E, F, G
Class III Type 4x
Zone Ratings
Class I, Zone 1, AEx d IIC
Ex d IIC
Class III
Type 4x
Approved Instrument Housing
Class I, Div 1 Groups B, C, D
FM 3615
Class II, Div 1 Groups E, F, G
Type 4x

Global Ratings:
ATEX (flameproof–DEMKO)
II 2G Ex d IIB+H2
II 2D Ex tD A20
IP66
IECEx (flameproof–UL)
Ex d IIB+H2
IP66   IEC60529