

LISST-AOBS

SUPER-TURBIDITY SENSOR

- **Suspended Sediment Concentration**
 - **Total Suspended Solids**
 - **Turbidity**

The LISST-AOBS is a simple, low-cost Super-Turbidity sensor to measure suspended sediment concentration (SSC). Super-Turbidity is a new technology developed by Sequoia Scientific, Inc. It involves pairing a LISST-ABS with a turbidity sensor using a weight factor, which results in a single, combined output from the two sensors. Once paired, the LISST-AOBS retains near-constant calibration for SSC over a wide grain-size range. The LISST-AOBS Super-Turbidity sensor is supplied by Sequoia as an integrated and paired turbidity and acoustic sensor with a variety of cabling and data logger options.



FEATURES

- Paired acoustic and optical technologies
- Near-constant calibration within a factor of two for grain-sizes from 1 μm – 500 μm
- Complete, integrated package pairing a LISST-ABS and a Turner Designs Turbidity Plus™
- NOTE: Turbidity Plus™ sensors are NOT factory-calibrated
- Included Y-cable integrates SDI-12 and RS-232 communication and power for both sensors
- Tolerant to biofouling (LISST-ABS); integrated wiper (Turbidity Plus™)

SPECIFICATIONS (subject to change without notice)

Technical

- Combined 850 nm optical turbidity sensor and 8 MHz acoustic backscatter sensor
- Sample Volume: [$\varnothing \times L$] 10 mm \times 15 mm, located ~55 mm in front of sensor
- Optics per ISO 7027 turbidity technique
- Mechanical wiper for turbidity sensor
- Outputs:
 - SDI-12
 - RS-232
- Range:
 - Suspended Sediment Concentration (1 $\text{mg}\cdot\text{L}^{-1}$ to 30,000 $\text{mg}\cdot\text{L}^{-1}$) for LISST-ABS
 - Turbidity (V) [0 NTU to 3,000 NTU for Turbidity Plus™ upon calibration]

Mechanical and Electrical

- Dimensions [H \times W \times L]: 5.72 cm \times 10.16 cm \times 33.65 cm (2.25" \times 4" \times 13.25")
- Weight (air): 0.7 kg (1.54 lbs)
- Power supply: 9 VDC to 15 VDC (12 VDC nominal)
- Current drain: 75 mA @ 12V
- Depth rating: 100 m
- Transducer: 10 mm \varnothing ceramic
- Temperature Range: 0 °C to 30 °C – not recommended for use in water bodies that freeze
- Connector: Subconn MCBH8M (LISST-ABS s/n 6233 and lower Impulse MCBH-8-MP)



LISST-AOBS stainless steel frame



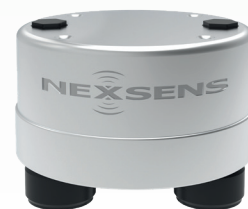
Power & Data Cable



Solar Power Panel



Submersible
X3 battery



Nexsens X3 logger