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DATASHEET

Super-Turbidity Sensor

AQUA*scat* ® AOBS | Instrument formerly known as LISST-AOBS. Technology licenced by Sequoia Scientific, Ltd.

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

KEY FEATURES

- Suspended Sediment Concentration
- Total Suspended Solids
- Turbidity
- 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 AQUA*scat* ® 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 (AQUA*scat* ® ABS); integrated wiper (Turbidity Plus™)

TECHNICAL SPECIFICATIONS

Sensors	Combined 850 nm optical turbidity sensor and 8 MHz acoustic backscatter sensor
Sample volume	[Ø x L] 10 mm x 15 mm, located ~55 mm in front of sensor
Wiper	Mechanical wiper for turbidity sensor
Optical measurement	Optics per ISO 7027 turbidity technique
Outputs	SDI-12
	RS-232
Range	Suspended Sediment Concentration (1 mg·L^{-1} to 30,000 mg·L) for AQUA*scat* ® ABS
	Turbidity (V) [0 NTU to 3,000 NTU for Turbidity Plus™ upon calibration]

MECHANICAL AND ELECTRICAL SPECIFICATIONS

Dimensions	[H x W x L]: 5.72 cm x 10.16 cm x 33.65 cm (2.25” x 4” x 13.25”)
Weight in 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 Ø ceramic
Temperature range	0 °C to 30 °C – not recommended for use in water bodies that freeze
Connector	Subconn MCBH8M (AQUA*scat* ® ABS s/n 6233 and lower Impulse MCBH-8-MP)

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