

LISST-pH

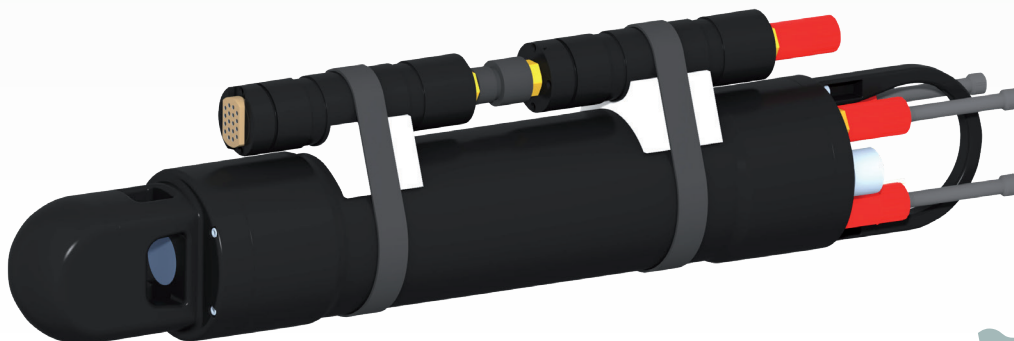
SUBMERSIBLE PARTICLE SIZE AND pH INSTRUMENT

Particle Size Distribution • pH Beam Attenuation • VSF

The LISST-pH integrates Sequoia's LISST-200X submersible particle size analyzer with a high-precision pH sensor. This combination of particle size, particle concentration, and pH measurement is uniquely suited for environmental monitoring, ocean alkalinity enhancement, aquaculture, acidification/alkalinization research, and more.

In this package, the LISST-200X powers and logs data directly from an external pH sensor, eliminating the need for additional data loggers. The pH data is fully integrated into the LISST-200X data files and real-time output. This enables simultaneous measurement of particle size, concentration, and pH, with all parameters organized in a single data file or data stream.

In addition to pH, up to two additional analog sensors can be powered and logged by the LISST-200X. This enables modular expansion of the LISST-pH to support specific applications or research needs. The LISST-pH is also compatible with many LISST-200X accessories, including battery packs, deployment frames, path length reduction modules, BioBlock and custom cabling.



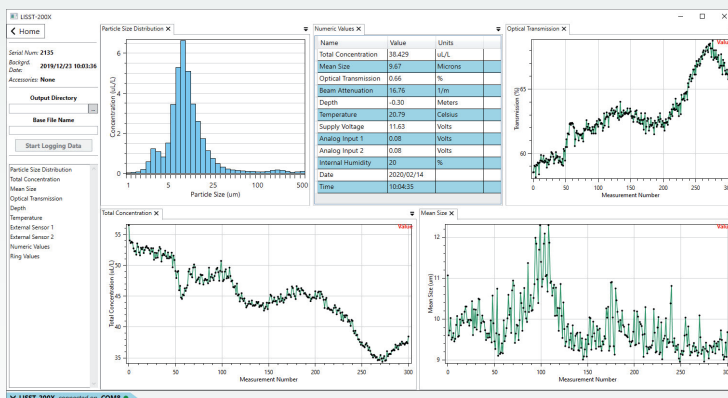
FEATURES

- Small angle forward scattering laser diffraction technology
- Measures particle size, concentration, beam attenuation, small-angle VSF, depth, temperature
- Self-contained with internal programmable datalogger for autonomous data collection
- Externally powered; short- and long-term deployment battery packs included
- USB connection to PC for programming, offloading and real-time size distribution displays
- Integrated depth and fast response temperature sensors
- Integrated pH sensor (ANB Sensors) logs measurements as analog voltages to the 200X data stream
- Integrate and power up to two additional analog sensors
- Analog output of mean particle size and total volume concentration for CTD integration
- Real-time output of complete Particle Size Distribution
- Wide range of accessories available

SPECIFICATIONS subject to change without notice

pH Sensor Specifications (ANB Sensors)

- Calibration-free pH sensor
- pH range: 2 – 10
- Resolution: 0.01 pH
- Accuracy: +/- 0.1 pH (high salinity)
- +/- 0.2 pH (low salinity)
- Operational Salinity for pH: 0.05 – 40 ppt



LISST-200X software screenshot



LISST-200X pH sensor accessory option



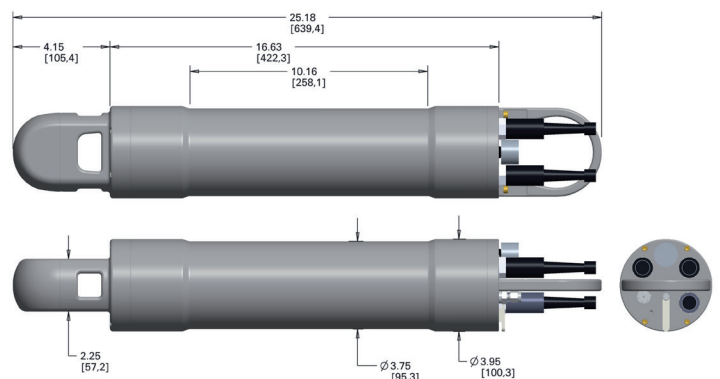
LISST-200X with BioBlock antifouling accessory installed

Technology

- Small-angle forward laser scattering
- 32-ring custom photodiode Ring Detector + 4 large angle detectors
- 25 mm optical path
- 670 nm laser diode

Mechanical and Electrical

- Dimensions [Ø × L]: 10.03 cm × 63.9 cm (3.95" × 25.2")
- Weight [air / water]: 5.4 kg / 1.7 kg (11.8 lbs / 3.8 lbs)
- Depth rating: 600 m
- External power input: 12 VDC nominal, 9 VDC to 24 VDC
- Current drain at 12 V: 75 mA Sampling
- Sampling rate: Up to 1 Hz
- Data storage: 1 GB (~12,000,000 measurements; ~140 days @ 1 Hz)
- SubConn MCBH3M, MCBH5M and MCBH6M connectors



LISST-200X dimensions