

LISST-SL2

STREAMLINED ISOKINETIC SEDIMENT SENSOR

- **Particle Size Distribution**
- **Sediment Concentration**
 - **Current Velocity**
 - **Sediment Flux**
 - **Depth**
 - **Temperature**

The LISST-SL2 is designed exclusively for river sediment monitoring. The sensor is deployed from a bridge or boat with a small winch. A topside box with rechargeable batteries provides power to the sensor. The LISST-SL2 then returns real-time data of all parameters. Data are transmitted from the topside box to a PC or tablet via Bluetooth for immediate processing and display.



FEATURES

- Small angle forward scattering laser diffraction technology
- Measures particle size distribution, sediment concentration, current velocity, depth, temperature
- Iso-kinetic sampling using feedback-controlled pump operation
- 2-wire communication protocol consistent with USGS B-reel use
- Topside box with rechargeable batteries for LISST-SL2 power and Bluetooth for real-time data transfer to PC / tablet
- Data processed and displayed in real-time on PC / tablet
- Software delivers point-integrated and depth-integrated sediment data
- Change units from ft and $\text{ft}\cdot\text{s}^{-1}$ to m and $\text{m}\cdot\text{s}^{-1}$

SPECIFICATIONS subject to change without notice

Parameters Measured

- Particle size and concentration in 36 size ranges.
- Depth @ 0.02 m resolution.
- Velocity @ $0.03 \text{ m}\cdot\text{s}^{-1}$ resolution.
- Water temperature @ $0.1 \text{ }^{\circ}\text{C}$ resolution.

Measuring Ranges

- Sediment concentration from $\sim 10 \text{ mg}\cdot\text{L}^{-1}$ to $44,000 \text{ mg}\cdot\text{L}^{-1}$ for $120 \text{ }\mu\text{m}$ particles. NOTE: The actual concentration limits are highly grain-size dependent
- Particle size from $1 \text{ }\mu\text{m}$ to $500 \text{ }\mu\text{m}$
- Depth from 0.15 m to 30 m
- Velocity from $0 \text{ m}\cdot\text{s}^{-1}$ to $3.5 \text{ m}\cdot\text{s}^{-1}$
- Iso-kinetic control from $0.5 \text{ m}\cdot\text{s}^{-1}$ to $3.5 \text{ m}\cdot\text{s}^{-1}$
- Water temperature from $0 \text{ }^{\circ}\text{C}$ to $25 \text{ }^{\circ}\text{C}$

Mechanical and Electrical

- Dimensions: LISST-SL2 [$\text{Ø} \times \text{L}$]: $17 \text{ cm} \times 87 \text{ cm}$ ($6.7'' \times 34.2''$)
- Weight: LISST-SL2 [air / submerged]: $19.5 \text{ kg} / 8.2 \text{ kg}$ (43 lbs / 18 lbs)
- Dimensions: topside box [$\text{H} \times \text{L} \times \text{W}$]: $41.7 \text{ cm} \times 33.4 \text{ cm} \times 22.1 \text{ cm}$ ($16.4'' \times 13.2'' \times 8.7''$)
- Weight; topside box: 8.6 kg (19 lbs)
- Rechargeable battery life: 6 hours continuous sampling



LISST-SL2 with Topside Control Box and USGS B-reel
(computer & reel not included)



LISST-SL2 Topside Box