LISST-Portable XR Particle Size Analyzer



Brand: Sequoia Scientific, Inc.
Product Code: 365-10
Availability: 1
Lead Time: 45
Call for Price: 832-320-7300

Description
The LISST-PORTABLE¦XR is the world's only portable, battery powered laser diffraction based particle size analyzer. Designed for use in the field and the laboratory, it analyzes the sample in a wet state to obtain particle size distribution and particle volume concentration.

Features

- Pumped and recirculating mixing chamber that keeps large and heavy particles suspended.
- 7" touch panel display for measuring and displaying data with no need for a PC
- Shock mounted optics that can withstand the rigors of field use
- A built-in ultrasonic probe for complete sample dispersion
- All data are immediately processed and stored in an ASCII file on the instrument for subsequent offloading and report generating.
- Truly portable - completely self-contained with built-in data logger, processor, rechargeable battery, and 7” touch panel color display.
- Touch panel allows for easy SOP programming, sample analysis and display of data without a PC.
- Shock mounted optics block.
- Multiple Mie models as well as Fraunhofer model available for inversion, selectable from the touch panel.
- All data-processing is performed on board and stored in ASCII-format. No post-processing necessary.

- Outputs: Total volume concentration, mean size, standard deviation, optical transmission, D_5, D_{10}, D_{16}, D_{25}, D_{50} (median grain size), D_{60}, D_{75}, D_{84}, D_{90}, D_{95}, D_{60}/D_{10} (Hazen uniformity coefficient), particle surface area, silt fraction, silt volume, size distribution, battery voltage, sample notes.
- Built-in ultrasonic probe for complete particle dispersion.
- Based on the laser diffraction principle. Compliant with ISO-13320-1 standard.
- Rechargeable 10.8V, 4400mAh Nickel-Metal Hydride (NiMH) battery pack provides up to 6 hours of sample processing. Batteries are classified as non-hazardous for air shipment.
- Communication Interface: USB and Bluetooth Classic for data offload and device configuration.

Specifications

Size and Concentration Range

- 0.34 - 500 µm in 44 log-spaced size classes.
- 30 - 1,900 mg/L range, depending on particle size (see table). Resolution < 1 mg/L. Accuracy ± 20%.

Material	Concentration [mg/L] @ 95% Transmission	Concentration [mg/L] @ 95% Transmission	D10 [µm]	D50 [µm]	D90 [µm]	SMD [µm]
ISO Fine	30	170	1.5	7	41	3
ISO Coarse	95	395	4	38	99	10
20 - 30 µm Glass Beads	195	1,075	19	24	34	24
Sieved Sand 75 - 125 µm	345	1,925	85	122	175	112

Mechanical and Electrical

- Dimensions and weight of instrument: 7" H × 11.5" D × 17.5" W (17.7 × 29 × 44.3 cm); 17 lb (7.5 kg)
- Dimensions and weight in shipping box: 31" × 21" × 11" (78 × 53 × 28 cm); 49 lb. (22 kg)

- Data storage: 128 MB flash card, capable of storing at least 40,000 size distributions and associated sample information.
- Rechargeable Nickel-Metal Hydride (NiMH) battery provides 6 hours of sample processing.
- 25W, 40kHz ultrasonic probe with controller electronics, managed from the touch panel display.

Part Number

- #365-10