Hyper-bb

Hyper-Spectral Backscatter Instrument

Sequoia presents the world's first commercially available hyperspectral backscatter instrument, Hyper-bb. The Hyper-bb is a submersible single-angle backscattering instrument with configurable spectral channels. The primary measurement delivered by the Hyper-bb is spectral backscattering over the wavelength range 430 nm to 700 nm. Hyper-bb also has high-performance depth and temperature sensors. Data is saved onboard the instrument in non-volatile microSD memory, which can be later downloaded via the Hyper-bb software.

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Tools and Research for Particle Intelligence

FEATURES

- Spectral backscattering over the wavelength range 430 nm to 700 nm
- High-performance depth and temperature sensors
- Internal data storage
- Powered from external battery pack (optional accessory), CTD, or 2-50 m power/communication USB cable

SPECIFICATIONS (subject to change without notice)

Optical

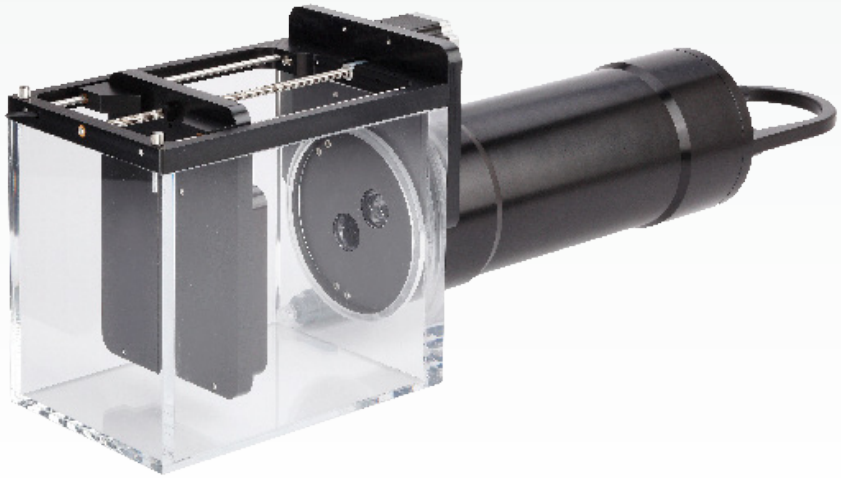
- Centroid angle ~ 135°
- Sample volume ~ 2 mL
- Beam diameter ~ 12 mm
- Spectral coverage ~ 430 nm to 700 nm
- Spectral bandwidth ~ 9 nm (blue) to ~ 17 nm (red)
- Scan speed ~ 15 s for 430 nm to 700 nm with a 10 nm channel spacing, i.e. channels @ 430, 440, 450,…, 690, 700 nm (220 measurements per channel)

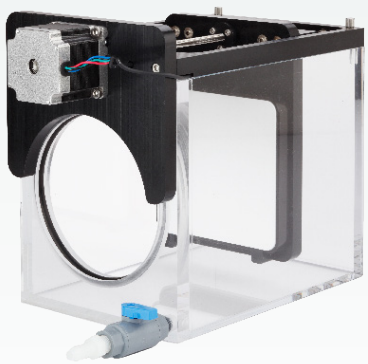
Mechanical and Electrical

- Dimensions [Ø × L]: 13.4 cm × 51.9 cm (5.25” × 20.42”) including handle
- Weight [air / water]: 6.0 kg / 1.2 kg (13.3 lbs / 2.6 lbs)
- Depth rating: 600 m
- External power input: 12 VDC nominal, 8-26 VDC
- Communication: RS-232, 9600 baud, 115k baud for data download
- Storage: Internal datalogger with 1 GB microSD memory

TECHNOLOGY

- Calibration tank with stepper motor
- External battery pack with 16 standard alkaline D-cells
- Cables (up 50 m length) for real-time data





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