

ECO BB9

Optical Backscattering

Sea-Bird Scientific's popular Environmental Characterization Optics (ECO) series tools determine bio-optical and physical parameters within natural waters. These instruments are designed as a modular suite of sensors with special features for specific application support. The ECO series incorporates a common set of options with a single basic design to make the sensors ideal for a wide variety of deployments.



Features

- Optical backscattering at nine wavelengths.
- Compliments the ac-s spectral attenuation and absorption meter - can define a, b and c: the inherent optical properties of the water column
- A centroid angle of 117 degrees

Customization

The BB9 is designed as a flexible system. The BB9 can be customized with any of the ECO line of optical configurations. For example, scattering can be measured at seven wavelengths as well as CDOM and chlorophyll fluorescence. See the Triplet specifications sheet for details on the available options.

Further customization of the instrument is possible with pressure and temperature sensors to provide a stand-alone profiling tool.

Optical

Wavelength (nm) and Sensitivity	412: 2.44×10^{-5}	595: 1.02
	440: 2.60×10^{-5}	650: 3.79×10^{-6}
	488: 2.14×10^{-5}	676: 3.60×10^{-6}
	510: 1.81×10^{-5}	715: 3.20×10^{-6}
	532: 7.70×10^{-6}	
Range, Typical	$\sim 0.0024\text{-}5\text{m}^{-1}$	
Linearity	$> 99\% R^2$	

Electrical

Input	7 - 15 VDC
Current Draw	300 mA @ 12 volts
Serial Output	rs-232 or 485
Connector	MCBH6M
Sample Rate	1 Hz

Mechanical

Diameter	14.6 cm
Length	30.5 cm
Weight in air	3.1 kg
Weight in water	1.8 kg

Environmental

Temperature Range	0 - 30 °C
Depth Rating	600 m