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PAR Sensor

Photosynthetically Active Radiation Sensor



Applications

- Oceanographic and Freshwater Productivity Studies
- Vertical Profiling
- Laboratory Photosynthetic Physiology Studies
- Agronomic and Terrestrial Productivity Studies
- Meteorological Stations

Options

- Integrated temperature and tilt sensors for serial option
- Optics: In Air | In Water
- Housing: 1000m Plastic | 7000m Titanium
- Data output: Serial ASCII | Linear Analog | Logarithmic Analog
- Easy integration with Sea-Bird Electronics CTD platforms

From limnologists and oceanographers to plant and crop physiologists, scientists trust Satlanic PAR sensors to provide superior data quality and rugged construction to withstand harsh field conditions.

Features

The ideal spectral response for a PAR sensor gives equal emphasis to all photons between 400 and 700 nm. Satlantic PAR sensors use a high quality filtered silicon photo diode to provide a near equal spectral response across the entire wavelength range of the measurement.



Tilt

- Tilt sensor reports two axis pitch and roll, to 0.1 degree resolution.
- Accuracy is approximately 1 degree

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Optical

Spectrum:	400 – 700 nm
PAR Range:	0 - 5000 µmol photons m ⁻² s ⁻¹
Spatial:	cosine response
Cosine error:	0° - 60 <3%° 60° - 85° <10%
Collector area:	86 mm ²
Detector:	17 mm ² silicon photodiode

Electrical

Input Voltage:	6 – 28 VDC
Current Draw:	17 mA @ 12 VDC
Connector:	Subconn MCBH4M or MCBH8M (serial)
Auxillary Sensors	Integrated temperature and tilt sensors for serial option

TelemetrySample Rate:100 Hz maximumDigital Output:RS-232 ASCII, up to 100 HzAnalog Signal Output:0.125 - 4.0 VAnalog Signal Scaling:linear or logarithmic

Physical

Weight (in air):	88g (plastic) or 182g (titanium)
Weight (in water):	39 g (plastic) or 133 g (titanium)
Depth Rating:	1000 m (plastic) or 7000 m (titanium)
Length:	139 mm (with connector) 89 mm (housing)
Diameter:	25 mm



PAR sensor integrated on SBE 19plus



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