

PAR Irradiance Sensor



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The CTG PAR Sensor provides an impressive range of sensitive Irradiance measurements down to depths of 1000 metres



Applications

- Sea-truthing of satellite data
- Referencing *in situ* fluorometer measurements
- Referencing primary productivity measurements
- Compatible with CTG's range of FastOcean Fast Repetition Rate fluorometers

Features

- High sensitivity
- Long term calibration stability
- Logarithmic 6 Decade range
- Wide angular detection range
- 1000 metre depth rating



What can the PAR Sensor do for you?

Introduction

CTG's **Photosynthetically Active Radiation (PAR) Sensor** provides highly sensitive data on light irradiance through the water column down to depths of 1000 metres.

How does it work?

Light is efficiently collected by a PTFE 2π Scalar Collector, supported by a clear acetal dome, and is directed onto a photodiode via a filter from which a $(1+\cos\theta)/2$ response is obtained. With use of logarithmic amplification, the sensor covers a range of 6 orders of magnitude. The sensor's input (7 to 20 Vdc) and output 0 to 5 V range covering 3000 to $0.002\mu\text{Em}^{-2}\text{s}^{-1}$ lends for ease of integration to standard oceanographic data acquisition systems.

Configurations

The **CTG PAR Sensor** is frequently included as part of the **CTG FastOcean Fast Repetition Rate** fluorometer systems wherein it can be easily integrated. It is also frequently fitted with both profiling and vehicle systems together with CTG fluorometers such as **AquaTracka III**, **TriLux** and **UniLux**, and provides an important reference for these measurements.



Specification

Size	Ø 50 mm x 130 mm
Material	PTFE, Acetal and Stainless Steel
Weight	0.85 kg in air / 0.5 kg in water
Operating depth	1000 metres
Input voltage	7 – 20V
Output	0 to 5 Vdc
Range	3000 to $0.002\mu\text{Em}^{-2}\text{s}^{-1}$ ($E=6.023 \times 10^{23}$ quanta)
Relative spectral sensitivity	Flat to $\pm 3\%$ from 470-700nm, down 8% of 400nm and 36% at 350nm
Angular detection range	$\pm 130^\circ$ from normal incidence
Operating temperature	-2°C to + 32°C
Storage temperature	-40°C to + 70°C
Connector	VSG-4-BCL

Options: Deck units, calibration equipment, software for data acquisition, processing and display

Contact us today to see how we can help you



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