

Configurations

The **FastOcean APD** profiling system can be supplied in real-time or battery configurations.

The real-time configuration is generally supplied with a profiling cable of up to 200mm in length. This cable allows for real-time data acquisition and system control through a PC running our **FastPro8** software.

With the battery configuration, data are logged within each **FastOcean** sensor. Data files are then downloaded through a USB port and processed using the **FastPro8** software package.

Both configurations include a 0 – 60 bar pressure sensor and a PAR sensor. Data from both sensors are logged by the ambient **FastOcean** sensor with each FRR acquisition.

Both **FastOcean** sensors within the **APD system** are suitable for combining with our laboratory-based **Act2** system for running fully automated fluorescence light curves (see separate brochure).

Specification

FastOcean Sensor and APD System

	Details
Excitation LED channels	3 x 6 custom-made LEDs, centred at 450, 530 and 624 nm.
LED filtering	630 nm short-pass filter (>OD6 between 655 and 750 nm).
Signal detection	NIR-enhanced PMT with stabilised power supply.
Detection filtering	2 x 3 mm RG665 glass filters plus 682 nm, 30 nm half bandwidth interference filter.
Dynamic range	16-bit ADC provides an effective 15-bit range at each PMT eht setting. The total dynamic range is at least five orders of magnitude.
Pressure and PAR	16-bit ADC for pressure sensor and 2π PAR sensor. FastPro8 converts ADC output to dbar and $\mu\text{mol photons m}^{-2} \text{s}^{-1}$, respectively.
Power requirements	18 to 36 VDC operating range. Protected to 72 VDC. 4.8 W continuous, 5 W peak.
Operating ambient temperature	-10 to 50°C.
External dimensions of FastOcean sensor	Ø 88mm x 284mm (length) excluding connectors.
External dimensions of APD system	316mm (w) x 292mm (d) x 685mm (h).
Mass (weight in air, water) of FastOcean sensor	2.9 kg (28 N, 10 N).
Mass (weight in air, water) of APD system	20.3 kg (200 N, 98 N).

Contact us today to see how we can help you

ctg Chelsea Technologies Group Ltd
 55 Central Avenue West Molesey Surrey, KT8 2QZ, United Kingdom
 Tel: +44 (0)20 8481 9000 Fax: +44 (0)20 8941 9319
 sales@chelsea.co.uk www.chelsea.co.uk



FastOcean APD Profiling System



www.chelsea.co.uk

For real-time monitoring of phytoplankton photosynthesis and estimation of Gross Primary Productivity (GPP)



Benefits

- Smaller, lighter and more flexible in operation than previous generations, while retaining a 600m depth rating and robust construction
- Three excitation wavelengths (centred at 450, 530 and 624 nm) for improved assessments of community structure and estimation of Gross Primary Productivity (GPP)
- Extensive PC-based software for sensor programming, real-time automated sensor control and real-time data acquisition, analysis and archiving

Clarity in Water



