

# TriLux

## Miniature fluorometer

A compact, multi-wavelength chlorophyll fluorometer suitable for continuous real-time monitoring. →



The **TriLux** is a multi-parameter fluorometer that provides a cost-effective solution for the widespread monitoring of algae, cyanobacteria and turbidity.

Its compact size and wide variety of possible data outputs makes it ideal for integrating into real-time monitoring systems for a range of submersible and in-line applications.

### Key features

- Monitor 3 parameters in a single, compact probe
- Extendable dynamic range
- Choose from 1 of 3 configurations
- Choice of data outputs for easy integration
- 2-year calibration interval
- Solid standard available for regular calibration checks
- Low power requirement <1 W

### Applications

- Simple to integrate and deploy
- Environmental monitoring & ocean observations
- Tracking changes in phytoplankton community composition
- Monitoring within water treatment plants
- Algal bloom monitoring
- Aquaculture site monitoring
- Ground truthing of satellite remote sensing

The **TriLux** operates using three excitation wavelengths to target different algal pigment groups and measures the fluorescence generated through the energy transfer from light harvesting pigments to chlorophyll-*a* at 685 nm. The standard configuration monitors Chlorophylls, Phycoerythrin and Phycocyanin. These are excited at 470 nm, 530 nm and 620 nm, respectively. In addition, either the phycoerythrin or phycocyanin channels can be replaced with a turbidity measurement.

This multi-wavelength approach makes TriLux an ideal tool for tracking changes in community composition, whilst reducing the required size of the instrument and simplifying operations.

A ruggedised Windows tablet pre-loaded with our Sensor Monitor software is available, offering a reliable solution for attended monitoring and spot sampling in the field. The software allows you to read, log and visualise data in real-time with its intuitive user interface.

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TriLux Performance	
Dynamic range	Calibrated for 0-100 µg/l chlorophyll-a in acetone equivalent as standard. Configurable up to 750 µg/l
Limit of detection	Typically 0.1% of full range
Combinations	Chlorophyll-a plus two from phycocyanin, phycoerythrin or turbidity
Size	Ø 26.5 mm x 140 mm (including connector)
Weight in air	190 g
Pressure housing	Titanium
Depth rating	2000 metres
Connector	MCBH-6-MP
Input voltage	11 to 25 Vdc
Data output	Digital RS232 (or RS422 and SDI-12 options)
Power requirements	<1 Watt @ 12 V



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