

UniLux

Low cost miniature fluorometer

Highly sensitive compact fluorometer for Chlorophyll and algae monitoring, and dye tracer detection



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UniLux is a low cost, miniature fluorometer for monitoring Chlorophyll a, other algae pigments, and common tracer dyes.

The highly sensitive sensors indicate small changes in the parameters at very low concentrations. Robust ambient light and turbidity rejection ensure suitability in a wide variety of water environments.

Algal monitoring

- UniLux Chlorophyll a
- UniLux Phycoyanin
- UniLux Phycoerythrin

Dye tracing

- UniLux Rhodamine
- UniLux Fluorescein (Uranine)

UniLux is compact and easy to integrate in wider instrumentation systems and platforms including CTDs, AUVs, gliders and ROVs. Adding the Hawk or Watchkeeper accessories allows real-time data display and logging with portable or wall mounted systems.

Features

- Highly sensitive miniature fluorometer
- Low cost solution for algae monitoring and dye detection at low concentrations
- Real-time data output in $\mu\text{g/l}$
- User configurable sampling frequency from 0.1 Hz to 3 Hz
- Robust ambient light and turbidity rejection
- Data display and logging with Hawk and Watchkeeper accessories



Specifications

Performance

Parameters	Dynamic range*	Limit of detection
Chlorophyll a	0 to 400 $\mu\text{g/L}$	<0.01 $\mu\text{g/L}$
Phycoerythrin (Cyanobacteria)	0 to 400 $\mu\text{g/L}$	<0.02 $\mu\text{g/L}$
Phycocyanin (Cyanobacteria)	0 to 400 $\mu\text{g/L}$	<0.01 $\mu\text{g/L}$
Rhodamine	0 to 100 $\mu\text{g/L}$	<0.02 $\mu\text{g/L}$
Fluorescein	0 to 100 $\mu\text{g/L}$	<0.005 $\mu\text{g/L}$

* Configurable up to 1000 $\mu\text{g/L}$

Mechanical

Size	\varnothing 26.5 mm x 140 mm (including connector)
Weight in air	100 g
Pressure housing	Acetal C
Depth rating	600 metres
Connector	MCBH-6-MP-SS

Electrical

Input voltage	11 to 25 Vdc
Data output	Digital RS232 and analogue 0 to 5 Vdc (RS422, SDI-12 and 4-20 mA options available)
Power requirements	<1 Watt @ 12 V



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