

# GlowTracka

Measure bioluminescence for harmful algal bloom tracking and biomass studies



# GlowTracka Bioluminescent Sensor

Detect bioluminescence from dinoflagellates and similar organisms with the GlowTracka bioluminometer.

Originally developed by Plymouth Marine Laboratory in the UK, Glowtracka is a robust and sensitive detector primarily used for the assessment of bioluminescent algae within the marine environment.

GlowTracka's precision flow meter stimulates bioluminescent organisms – principally dinoflagellates. The instrument measures the light flashes as the organisms pass the detector, giving photon level sensitivity.

GlowTracka is highly flexible in its deployment options, including moorings, profiling (with pumped system) or deployment in towed vehicles.

## Features

- Highly sensitive bioluminometer
- Small and rugged for ease of integration
- Low power consumption
- Interface for flow sensor

## Applications

- Biomass studies
- Bioluminescent species abundance
- Harmful algal bloom detection
- Toxic algae bloom tracking



## Specifications

Type	Flow-through (28 mm internal pipe diameter)
Optical viewing	Transverse to flow
Detector	Photodiode (100 sq mm)
Irradiance detectivity	10 picowatt at 560 nm over z.f. -50Hz (-3dB)
Relative responsivity	400 nm: x0.4; 600 nm: x1.1; 700 nm: x 1.3 (n)
Power requirement	6 to 25V (40 mA at 12V nominal); fully insulated from all outputs via DC-DC converter
Grounding	All circuitry DC isolated from chassis
Signal outputs	All 1 volt full-scale, 0.5-ohm source resistance, > 10 kilohm load, (z.f. - 50Hz)
Flow meter input	Zero-crossing required, from +/-5mV to +/- 100 V; 500 Hz full-scale, other scalings as factory option
Depth capability	1000 m
Dimensions	Ø 112.5 mm; 152 mm length
Weight (approx.)	2.4 kg in air
Connector	Impulse LPNIL - 4 FS

### Flow meter

Flow speed range	68 to 680 LPM
Internal diameter	38 mm
Size	60 x 12 x 12 mm
Output	Sine wave output proportional to flow rate. 30 mV peak/peak at 10% flow range. 1000Hz at full flow

\*In view of our continual improvements, the designs and specifications of our products may vary from those described.



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