

GlowTracka



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The CTG GlowTracka measures bioluminescence for toxic blooms and biomass studies



Applications

- Biomass studies in the marine environment
- Bioluminescence species abundance assessments
- Toxic algae bloom detection
- Autonomous & towed vehicle deployments
- Flow-through systems available



Features

- Small and rugged sensor
- Low power consumption
- High sensitivity
- Interface for flow sensor

What can the GlowTracka do for you?



Introduction

The CTG **GlowTracka**, originally developed by Plymouth Marine Laboratory in the UK, is a robust, sensitive detector primarily used for the assessment of bioluminescent algae within the marine environment.

How does it work?

GlowTracka's precision flow meter stimulates bioluminescent organisms – principally dinoflagellates. The instrument then measures the light flashes as the organisms pass the detector. The complete range of flashes that can occur – from single events to mesoscale – is measured.

The measurements indicate changes in primary productivity in an area, giving the instrument a useful role in pollution monitoring and biomass studies. Since the abundance of individual bioluminescent species can be studied, it is often an indication of toxic algal blooms.

Configurations

GlowTracka is designed to be moored, profiled (with pumped systems) or deployed in autonomous towed vehicles. The **GlowTracka** includes a marinised turbine flowmeter which is primarily used to stimulate the bioluminescent matter, but can also be used to monitor flow to obtain abundance data.



Specification

Type	Flow-through (28mm internal pipe diameter)		
Optical viewing	Transverse to flow		
Detector	Photodiode (100 sq mm)		
Irradiance detectivity	10 picowatt at 560nm over z.f. – 50Hz (-3db)		
Relative responsivity	400nm	600nm	700nm
	x 0.4	x 1.1	x 1.3 (nom)
Power requirement	External supply version: 6.0V to 25V (40mA 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)		
Flowmeter input	Zero-crossing required, from +/-5mV to +/-100V; 500Hz full-scale, other scalings as factory option		
Depth capability	1000 meters standard		
Dimensions	Ø 112.5mm; 152mm overall length		
Weights (approx)	2.4kg in air		
Connector	Impulse LPMIL-4 FS		

Flowmeter

Flow speed range	68 to 680 LPM
Internal diameter	38mm
Size	60 x 12 x 120mm
Output	Sine wave output proportional to flow rate. 30mV peak/peak at 10% flow range. 1000Hz at fall flow

Contact us today to see how we can help you



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