



OceanTools

C-FOG

Compact Fibre Optic Gyrocompass

**C-FOG** is an ultra-compact and cost-effective survey grade subsea fibre optic gyrocompass and inertial measurement unit with up to  $0.35^\circ$  heading accuracy.



## Overview

The newly developed OceanTools **C-FOG** is a highly accurate survey grade gyrocompass with a heading accuracy of up to  $0.35^\circ$  (depending on Latitude) and pitch & roll accuracy of  $0.05^\circ$ .

**C-FOG** utilises the latest generation of fibre-optic gyrocompasses and MEMS accelerometers along with advanced processing electronics housed in a very compact subsea housing.

**C-FOG** may be used in a wide variety of predominantly static subsea and surface applications including subsea survey, ROV and AUV orientation.

## Key Features

- Outputs heading, pitch, roll and optional rate information
- Simultaneous twin serial outputs
- Rapid 5 minute run-up time
- RS232 and RS485 outputs
- 500m, 1000m and 3000m standard depth ratings
- Never requires recalibration



## Specifications

|  | C-FOG 500A  | C-FOG 1000A | C-FOG 3000A | C-FOG 3000T |
|--|---|-------------|-------------|-------------|
| <b>Heading accuracy</b>                  | ≤ 0.35° secant Latitude (RMS)                             |             |             |             |
| <b>Pitch &amp; roll accuracy</b>         | ≤ 0.05° (RMS)   |             |             |             |
| <b>Bias instability (Allan variance)</b> | ≤ 0.05°/h   |             |             |             |
| <b>Bias repeatability (1σ)</b>           | ≤ 0.1°  |             |             |             |
| <b>Static alignment time</b>             | 5 minutes   |             |             |             |
| <b>Input voltage range</b>               | 18–32VDC  |             |             |             |
| <b>Operating current</b>                 | 1.2A @ 24VDC  |             |             |             |
| <b>Typical inrush current</b>            | 2A @ 24VDC  |             |             |             |
| <b>Serial interfaces</b>                 | RS232, RS485  |             |             |             |
| <b>Output formats</b>                    | OceanTools OceanFOG, MiniFOG, third party message formats |             |             |             |
| <b>Output rates</b>                      | 1Hz to 50Hz   |             |             |             |
| <b>Housing material</b>                  | Aluminium   | Aluminium   | Aluminium   | Titanium    |
| <b>Diameter</b>                          | 200mm   | 203mm       | 215mm       | 203mm       |
| <b>Height (excl handle)</b>              | 178mm   | 185mm       | 212mm       | 185mm       |
| <b>Weight in air</b>                     | 7.5kg   | 10kg        | 17kg        | 15kg        |
| <b>Weight in water</b>                   | 2kg   | 4kg         | 9.5kg       | 9kg         |
| <b>Depth rating</b>                      | 500m  | 1000m       | 3000m       | 3000m       |

## Related Products

An **OceanFOG** gyrocompass generates real-time heave and linear acceleration measurements in addition to survey grade heading, pitch, roll and angular rotation rates.

**Gyro Survey Packages** offer heading, pitch, roll, azimuth and angle from a gyro packaged in a standard or custom designed deployment frame to suit a wide range of *attitude* or *verticality* measurement applications. A typical package includes an **OceanDISP** subsea display, **C-Switch** master on/off switch and optional **Digiquartz** pressure/depth sensor.

Product datasheets, GA drawings, case studies and other supporting documents are available to download from [data.oceantools.co.uk](http://data.oceantools.co.uk)

All specifications are subject to change without notice. E&OE.

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