



OCTANS 3000

HIGH-PERFORMANCE SUBSEA GYROCOMPASS AND MOTION SENSOR

OCTANS 3000 is a subsea survey-grade gyrocompass and complete motion sensor for water depths up to 3 000 m. Based on **iXBlue**'s FOG technology it outputs heading, roll, pitch, heave, rate of turn and acceleration. **OCTANS 3000** can be easily upgraded to full INS mode (i.e. ROVINS).

FEATURES

- Complete gyrocompass and motion sensor
- Smart Heave™
- Fiber-optic gyroscope (FOG), unique strap-down technology
- Ethernet, web-based man-machine interface (MMI)
- Titanium made, small, portable plug and play system
- Optional full featured inertial navigation system

BENEFITS

- High-performance real-time outputs of true heading, roll, pitch, heave, surge, sway, acceleration and rate of turn
- No spinning element hence maintenance free
- Lightweight corrosion free housing for water depth up to 3 000 m, easy to integrate and interface, saves valuable mobilization time
- Obtain INS-class system with simple software upgrade

APPLICATIONS • ROV and offshore survey • MBES and sonar motion reference • Dredging • Marine construction



OCTANS 3000

TECHNICAL SPECIFICATIONS



PERFORMANCE

Heading	
Accuracy ⁽¹⁾⁽²⁾	0.1 deg secant latitude
Resolution	0.01 deg
Full accuracy settling time (all conditions)	< 5 min
Heave accuracy ⁽³⁾	2.5 cm or 2.5% (whichever is greater)
Roll / Pitch	
Dynamic accuracy ⁽²⁾	0.01 deg
Resolution	0.001 deg

OPERATING RANGE / ENVIRONMENT

Operating / storage Temperature	-20 °C to +55 °C / -40 °C to +80 °C
Follow-up speed	Up to 750 deg/s
Acceleration dynamic range	±15 g
Heading / roll / pitch	0 to +360 deg / ±180 deg / ±90 deg
MTBF (computed/observed)	40 000 hours / 80 000 hours
No warm-up effects, insensitive to thermal shocks	
Shock and vibration proof	

PHYSICAL CHARACTERISTICS

Depth rating (m)	Material	Weight (air / water) kg	Housing dimensions (Ø x H mm)	Connector	Mounting
3 000	Titanium	15 / 6.2	213 x 375	5 x SEACON MI-CON	6 Ø 6.6 holes

INTERFACES

Serial RS232 / RS422 port	5 inputs / 5 outputs / 1 configuration port
Ethernet port ⁽⁵⁾	UDP / TCP client / TCP server
Pulse port ⁽⁶⁾	3 inputs / 2 outputs
Sensors supported	GPS, speed log
Input / output formats	Industry standards: NMEA0183, ASCII, BINARY
Baud rates	600 bauds to 115.2 kbaud
Data output rate	0.1 Hz to 200 Hz
Power supply	24 VDC
Power consumption	< 20 W

(1) secant latitude = 1 / cosine latitude

(2) RMS values

(3) Smart Heave™

(4) All input /output serial ports are available and can be duplicated on Ethernet ports

(5) Input of GPS PPS pulse for accurate time synchronization of OCTANS 3000

(6) Maximum error = 3 or RMS error