



OCTANS NANO

COMPACT SUBSEA GYROCOMPASS AND ATTITUDE SENSOR

OCTANS NANO is the smallest and most adept state-of-the-art 4,000 m depth rated attitude and heading reference system (AHRS). It is built on **ixBlue**'s renowned fiber-optic gyroscope (FOG) technology and offshore instrumentation expertise. **OCTANS NANO** offers an outstanding price/performance solution, with rugged titanium housing, meeting the most challenging requirements of subsea applications.

FEATURES

- Smallest all-in-one subsea gyrocompass and attitude sensor
- Leading FOG strap-down technology
- Ethernet and serial interfaces with sensor input rebroadcast capability
- Free of ITAR components

BENEFITS

- High-performance sensors with real-time computation of true heading, roll, pitch and rates of turn, in a compact six-liter housing
- High reliability and low maintenance
- Reduced cabling for advanced architectures and maintaining flexibility for older designs
- Fast global export and mobilization

APPLICATIONS • ROV navigation • Fish, Plow, Trencher navigation • Attitude monitoring of subsea structures



OCTANS NANO

TECHNICAL SPECIFICATIONS



PERFORMANCE

Heading dynamic accuracy ^{(1) (2)}	0.5 deg secant latitude
Roll / pitch dynamic accuracy ⁽¹⁾	0.1 deg
Settling time (ready to nav)	< 5 mn
Full accuracy settling time (all conditions)	< 30 min
Resolution	0.01 deg

OPERATING RANGE / ENVIRONMENT

Operating / storage temperature	-20°C to +55°C / -40°C to +80 °C
Rotation rate dynamic range	Up to 250 deg/s
Acceleration dynamic range	± 5 g
Heading / roll / pitch	0 to +360 deg / ±180 deg / ±90 deg
MTBF	100 000 hours
Robust to harsh environment, shock and vibration proof	

PHYSICAL CHARACTERISTICS

Depth rating	4,000 m
Dimensions (Ø x H)	178 x 237 mm (7.01 x 9.33 in)
Weight in air / water	9.5 / 5 Kg (20.94 / 11.02 lb)
Material	Titanium
Connector	SEACON MINM-26#22, option for Seanet or CS-MS

INTERFACES

Ethernet port	100 Mbits, UDP / TCP Client / TCP server / web sever (GUI)
Serial RS232 / RS422 port	2 inputs / 2 outputs independent ports / 1 config. port
Pulse port	1 input for PPS time synchronization
Input / output formats	Industry standards: NMEA0183, ASCII, BINARY
Data output rate	Up to 200 Hz
Power supply / consumption	24 VDC (20 - 32V) / < 12 W ⁽³⁾

(1) RMS values

(2) Secant latitude = 1 / cosine latitude

(3) Typical value @24V and ambient temperature