

# 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

### 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
- Free of ITAR components

### APPLICATIONS

- ROV navigation
- Fish, Plow, Trencher navigation
- Attitude monitoring of subsea structures

## TECHNICAL SPECIFICATIONS

### Performance

Heading dynamic accuracy <sup>(1)(2)</sup>	0.5 deg secant latitude
Roll / pitch dynamic accuracy <sup>(1)</sup>	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 500 deg/s
Acceleration dynamic range	±5 g
Heading / roll / pitch	0 to +360 deg / ±180 deg / ±90 deg
MTBF	100,000 hours (System observed) 500,000 hours (FOG + Accelerometers)
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 (air / water)	9.5 / 5 kg (20.94 / 11.02 lb)
Material	Titanium
Connector	SEACON MINM - 26#22, option Seagnet 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 <sup>(3)</sup>

(1) RMS values - (2) Secant latitude = 1 / cosine latitude - (3) Typical value @24V and ambient temperature