



OCTANS

SUBSEA GYROCOMPASS AND MOTION SENSOR

OCTANS is a subsea survey grade gyrocompass and complete motion sensor for depths to 6,000 m. Based on FOG technology, it outputs true heading, roll, pitch, surge, sway, heave, speed and acceleration.

FEATURES

- Complete gyrocompass and motion sensor
- Fiber Optic Gyroscope (FOG), unique strap-down technology
- From 100 m down to 6,000 m
- Small, portable plug and play system

BENEFITS

- High-performance real-time outputs of true heading, roll, pitch, SAFE HEAVE™, surge, sway as well as acceleration and rate of turn
- No spinning element hence maintenance free
- Full depth range
- Versatile (subsea and surface), saves valuable time



APPLICATIONS • Subsea offshore construction • Dredging • DVL navigation • ROV • AUV • SDV
• Multibeam and sonar compensation

OCTANS SUBSEA

TECHNICAL SPECIFICATIONS

PERFORMANCE

Heading Accuracy	0.1 deg secant latitude ⁽¹⁾ ⁽²⁾
Resolution	0.01 deg
Settling time (static conditions)	< 1 min
Full accuracy settling time (all conditions)	< 5 min
Heave / Surge / Sway Accuracy	5 cm or 5% (whichever is highest) Set-up free (SAFE-HEAVE™)
Roll / Pitch Dynamic accuracy	0.01 deg (for ±90 deg amplitude) ⁽²⁾
Range	No limitation (-180 deg to 180 deg)
Resolution	0.001 deg

OPERATING RANGE / ENVIRONMENT

Vibrations	1 g sine (5 to 50 Hz)
Follow-up speed	Up to 750 deg/s
Shocks Operating / Survival	30 g 6 ms / 50 g 11 ms
MTBF	30,000 hours
Operating / Storage Temperature	-40 °C to +60 °C / +80 °C
No warm-up effects, insensitive to thermal shocks	
No latitude or speed limitation	

PHYSICAL CHARACTERISTICS

Depth rating (m)	Material	Weight in air/water (kg)	Housing dimensions (Ø x H mm)	Base plate dimensions (Ø x H mm)	Mounting	Connector	Inputs	Outputs	Power supply consumption
100	Composite	9 / 2	179 x 318	209 x 10	6 off M6 Holes	16-Pin MCBH 16 M Subconn (Burton in option)	2 serials	2 serials / 4 analogues (3 serials in option)	24 VDC / 11 W
3000	Titanium or Duplex Steel	12 / 5 or 25 / 17	179 x 318	209 x 10	6 off M6 Holes	16-Pin MCBH 16 M Subconn (Burton in option)	2 serials	2 serials / 4 analogues (3 serials in option)	24 VDC / 11 W
6000	Titanium	18 / 9	179 x 318	NA	Cradle	16-Pin MCBH 16 M Subconn (Burton in option)	2 serials	2 serials / 4 analogues (3 serials in option)	24 VDC / 11 W

INTERFACES

Output protocols	Industry standards: NMEA 0183, binary
Serial I/O	RS232 or RS422 (user specific)
Baud rates	600 bauds to 115 kbauds
Output frequency	0.01 Hz to 100 Hz

(1) Secant latitude = 1 / cosine latitude - (2) RMS value

Specifications subject to change without notice