



## 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

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

### OPERATING RANGE / ENVIRONMENT

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

### 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

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

[1] Secant latitude = 1 / cosine latitude - [2] RMS value

Specifications subject to change without notice

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