

Octans

Fifth generation survey-grade surface gyrocompass and motion sensor

The fifth generation Octans is an all-in-one product for diverse challenging applications. Octans raises the industry standard in measurement accuracy for roll, pitch, heave. IMO-HSC and certified, Octans is built on Exail's trusted and unique ultimate-performance Fiber-Optic Gyroscope (FOG) technology with thousands of units manufactured.



BENEFITS

- Highly accurate real-time output even in no GPS/GNSS environment
- Industry's best performance-value backed by 5 years warranty
- Ease-of-use and integration
- Robust heading performance for high-speed vessel with high rate-of-turn

APPLICATIONS

- Vessel navigation
- Dredging
- Dynamic positioning

FEATURES

- Improved heading, Smart Heave™ and real-time heave (30 sec period)
- State-of-the-art Exail FOG (no spinning elements)
- Ethernet, web-based GUI compatible with survey software suites
- IMO and IMO-HSC certification
- ITAR free (CJ) and O&G license eligibility

TECHNICAL SPECIFICATIONS

Performance

| | |
|-------------------------------------|--|
| Heading accuracy ^{(1) (2)} | 0.1° seclat (autonomous) / 0.05° seclat (with GPS input) |
| Roll/Pitch accuracy | 0.01 deg RMS |
| Settling time (typical) | 5 min |
| Heave/Surge/Sway accuracy | 5 cm or 5% (whichever is greater) |
| Delayed heave | 2.5 cm or 2.5% (whichever is greater) |

Operating range/Environment

| | |
|-------------------------------|---|
| Rotation rate dynamic range | Up to 750 deg/s |
| Acceleration dynamic range | ±15 g |
| MTBF | 150,000 hours (system observed) 500,000 hours (FOG + accelerometers) |
| Operating/Storage temperature | -20 °C to +55 °C / -40 °C to +80 °C |
| Heading/Roll/Pitch | 0 to +360 deg / ±180 deg / ±90 deg |
| Special conditions | No warm-up effects, shock and vibration proof |

Physical Characteristics

| | |
|------------------------|--------------------|
| Dimensions (L x W x H) | 275 x 136 x 150 mm |
| Weight in air | 4.5 Kg |
| Water proof | IP66 & IPx7 |
| Material | Aluminum |

Interfaces

| | |
|----------------------------------|---|
| User Interface | Web based Graphical User Interface |
| Serial RS232 / RS422 port | 3 outputs / 2 inputs / 1 configuration port |
| Ethernet port ⁽³⁾ | UDP / TCP client / TCP server |
| Pulse port | PPS input for < 100µs time synchronization |
| Input/Output | Industry standards: NMEA0183, ASCII, BINARY |
| Data output rate | 0.1 Hz to 200 Hz real measurements |
| Power supply | 24 VDC |
| Power consumption ⁽⁴⁾ | 18 W |

(1) Secant latitude = 1 / cosine latitude

(2) RMS values

(3) All input /output serial ports can be duplicated on Ethernet ports

(4) Typical value @24 V and ambient temperature