NAVIGAT 3500
CompassNet
Fiber Optic Gyro Compass Solution
Today’s vessel operational requirements vary vastly from ship to ship: Merchant and Passenger vessels, sailing on tight schedules have limited time to perform routine maintenance, OSVs supporting the offshore industry conduct precise operations in highly turbulent sea conditions. Specialized vessels service wind farms, dredge, lay cables or pipes in environments where highly accurate heading information is paramount, Coast Guards patrol borders and fulfil SAR operations where positional accuracy could save a persons life. Today more than ever, there is a need for the most accurate and reliable heading system at an affordable price point.

With NAVIGAT 3500 Fiber Optic Gyro (FOG) compass, we support your challenging day to day business with a reliable system solution that is scalable to your operation needs. Manage your risks for highest crew and operational safety and always stay on course with NAVIGAT 3500.

**Features:**

- High precision heading, rate of turn and heave output
- Fast start up for flexible operation patterns
- Very high reliability for improved operational safety
- Fully integrated in Heading Management System CompassNet
- Scalable system with open platform to integrate existing sensors

**Benefits:**

- Maintenance-free FOG sensor
- Very low total cost of ownership
- Turn on and go
- Supports sailing in high Latitudes
- Upgrade path to digitalization

**5 Year Warranty**

**50% Higher MTBF than competitor products**

**Maintenance free**

**Low total cost of ownership**
**Specifications**

### Technical data

| Heading | 0.15 deg sec. lat |
| Rate of turn | 0.06 deg/ min |
| Roll and pitch | 0.1 deg |
| Heave | 0.1 m |
| Settling time | 5 minutes (initial) + 25 minutes (fine) |

### Range

- **Heading**: 0 to 360°
- **Roll**: -180° to +180°
- **Pitch**: -90° to +90°

### Operating/storage temperature

- **-20°C to 55°C**
- **-40°C to 80°C**

### Export

- Dual Use

### Power supply

- **Voltage**: 24 V DC (15 to 32 V DC)
- **Consumption**: 10 W

### Reliability

- **MTBF (computed)**: 150,000 h
- **Preventive maintenance/calibration interval**: No

### Physical characteristics

- **Dimension (LxWxH)**: 160mm x 160mm x 113.5mm
- **Weight**: 2.5 kg
- **Protection grade**: IP66
- **Standard compass safe distance**: 0.3m
- **Steering compass safe distance**: <0.2m

### Inputs and Outputs

#### Serial interfaces

- 11x Sensor data output, IEC 61-162
- 8x Repeater output
- 1x Printer output
- 8x Serial data input (e.g. GPS, Speed Log)
- 1x Bi-directional INS compliant comm. IEC 61834-2

#### Analogue interfaces

- 1x ± 10 V Rate-of-turn output
- 1x Fluxgate input, incl. Fluxgate power supply

#### Alert and status interfaces

- 1x Bi-directional serial alert communication
- 11x Alarm output

### Standards Applied


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**NAVIGAT 3500 CompassNet**

The NAVIGAT 3500 FOG is a fully integrated part of CompassNet, our advanced heading management system. CompassNet offers maximum flexibility and scalable convenience:

- Fully redundant RINGBUS technology ensuring maximum system uptime
- Reduced installation time compared to competitors or legacy systems (up to 80%)
- Open platform integrates with existing legacy or third party sensors
- ‘Plug and play’ network technology inside
- Upgrade path to get connected for future reliability and cost-effective control
- An innovative smart system architecture driving multifunction and efficiency

**System Configuration Examples:**

**Single NAVIGAT 3500 CompassNet**

**Dual NAVIGAT 3500 CompassNet**

CompassNet integrates up to **four** compass sensors and allows for integration of legacy equipment or MED type approved third party heading sensors. The CompassNet system architecture ensures **highest** redundancy with a low number of total equipment needed.

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(1) Secant latitude = 1 / cosine latitude
(2) RMS values; 68% of the data is within this value of confidence
(3) Initial alignment must be performed in static conditions or at drift
(4) Maximum error = 3*RMS error
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