NAVIGAT 3500
CompassNet

Fiber Optic Gyro Compass Solution

NAVIGAT 3500 CompassNet

When precision matters, be in position.

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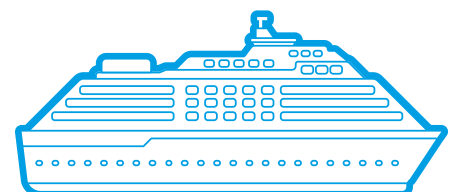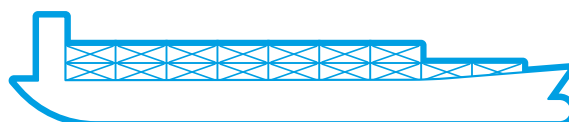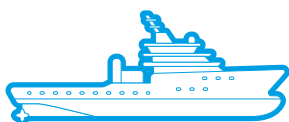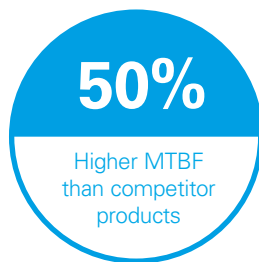
With NAVIGAT 3500 Fiber Optic Gyro (FOG) compass, we support your challenging day to day business with a reliable system solution that is scalable to your operation needs. Manage your risks for highest crew and operational safety and always stay on course with NAVIGAT 3500.

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

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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 multi-function and efficiency

System Configuration Examples:

Single NAVIGAT 3500 CompassNet
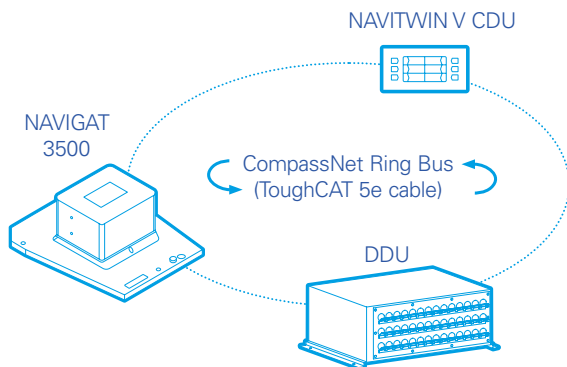
Dual NAVIGAT 3500 CompassNet
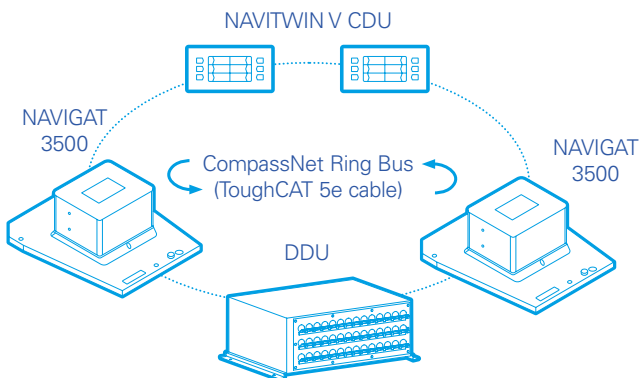
CompassNet integrates up to **four** compass sensors and allows for integration of legacy equipment or MED type approved third party heading sensors. The CompassNet system architecture ensures **highest** redundancy with a low number of total equipment needed.

Specifications

Technical data

Heading [1,2,4]	0.15 deg sec. lat
Rate of turn [2,4]	0.06 deg/ min
Roll and pitch [4]	0.1 deg
Heave	0.1m
Settling time [3]	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

(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

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 61924-2
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

A.424(XI), A.694(17),
MSC.36(63), MSC.97(73), MSC.191(79),
ISO 8728 (2014), ISO 16328 (2014), ISO 20672 (2007)

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