

# **NAVIGAT 2500 CompassNet**

Fiber Optic Gyro Compass Solution



# NAVIGAT 2500 CompassNet

## Long term reliable operation for lower cost.

Today's vessel operational requirements vary vastly from ship to ship. Common to all is the need for a heading sensor that allows continuous safe vessel operation at an affordable price point. Choosing the appropriate heading sensor technology helps to minimise the risk of operational disruption, lower the cost and allow for the most flexible operation pattern.

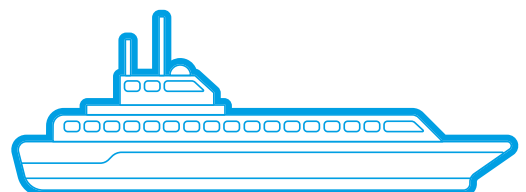
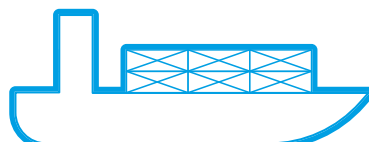
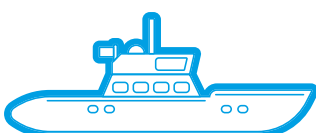
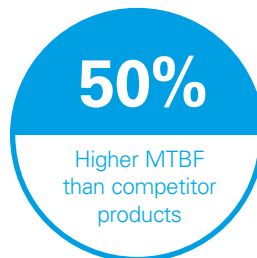
Our unique low drift, fast settling networked fiber optic gyro compass NAVIGAT 2500 provide operators with a highly reliable heading sensor in a highly competitive priced compass system package. Maintenance free strap-down FOG technology forgoes the need for moving parts or expensive configuration. Delivering our longest running system endurance to date at a MTBF of 150,000 hrs, wherever you are heading, you can be confident Sperry Marine will get you there safely, reliably and cost effectively.

### Features:

- DNV-GL and BV MED type approved heading (standard and high speed craft) and rate of turn sensor
- No moving parts
- Fast start up for flexible operation patterns
- Very high reliability for improved operational safety
- Small size and low weight provide easy and flexible installation options
- Fully integrated in Heading Management System CompassNet
- Scalable system with open platform to integrate existing sensors

### Benefits:

- Maintenance-free FOG sensor
- 5 year warranty included
- Highly competitive price point and fast return on investment
- Low total cost of ownership
- Turn on and go
- No export restrictions, immediate availability



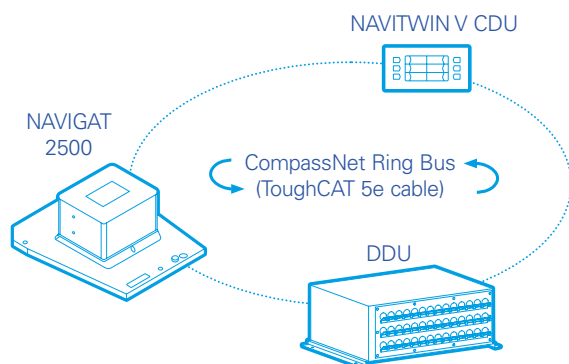
## NAVIGAT 2500 CompassNet

The NAVIGAT 2500 FOG is a fully integrated part of CompassNet, our advanced heading management system. CompassNet offers maximum flexibility and scalable convenience:

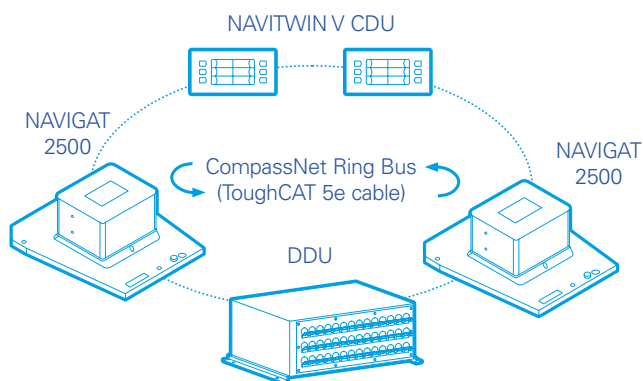
- Fully redundant RINGBUS technology ensuring maximum system uptime
- Reduced installation time compared to competitors or legacy systems (up to 80%)
- Open platform integrates with existing legacy or third party sensors
- 'Plug and play' network technology inside
- Upgrade path to get connected for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

## System Configuration Examples:

Single NAVIGAT 2500 CompassNet



Dual NAVIGAT 2500 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 <sup>1,2,4</sup>	0.23 deg sec.lat
Rate of turn <sup>2,4</sup>	0.06 deg/ min
Roll and pitch <sup>4</sup>	0.5 deg
Settling time <sup>3</sup>	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

### 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 (dry contact) 4x Status input/ 7x Status output (dry contact)

### Standards Applied

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

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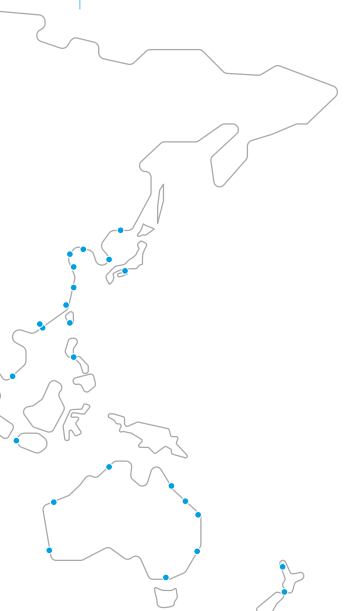
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A division of the Northrop Grumman Corporation, Sperry Marine provides a range of sophisticated navigation solutions for mariners around the world: autopilot and steering control systems, compass systems, integrated navigation and bridge systems, integrated platform management systems, speedlogs, navigation radar and ECDIS. Working with mariners around the globe for over 100 years.

BR-24/EXP-LD-2020-4908

Specifications and features subject to change without notice.

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