CompassNet

Networked Heading Management System

CompassNet is the most cost-efficient solution for controlling multiple heading sensor systems. It's easier to deploy with significantly less cabling, less equipment with full redundancy, fewer connections and the use of standard Ethernet technology.

It provides full system redundancy for improved reliability and efficiency. And creates a scalable, digital-ready platform for future remote access from shore. It supports any mix of up to four spinning mass and fiber optic gyros, plus one magnetic compass for Transmitting Magnetic Compass (TMC) compliance,

which can be flexibly upgraded as required. CompassNet is an open platform that supports third-party systems. It incorporates the NAVITWIN V control and display unit (CDU) as the single access point for set up, commissioning and operation, and a data distribution unit (DDU).

Sperrymarine

the navigation experts

Connect all your compasses onboard to improve resilience and efficiency

Stay compliant
- CompassNet, NAVITWIN V and associated gyro compasses are type approved to all applicable MED, IMO and IEC standards
- Single, dual, triple, quadruple-gyro and transmitting magnetic compass (TMC) compliance

Increase reliability
- Full system redundancy for maximum uptime
- Multiple CDUs supported for redundancy and control at a different onboard location
- Continual monitoring of all heading sensors, with alarms if there are any differences
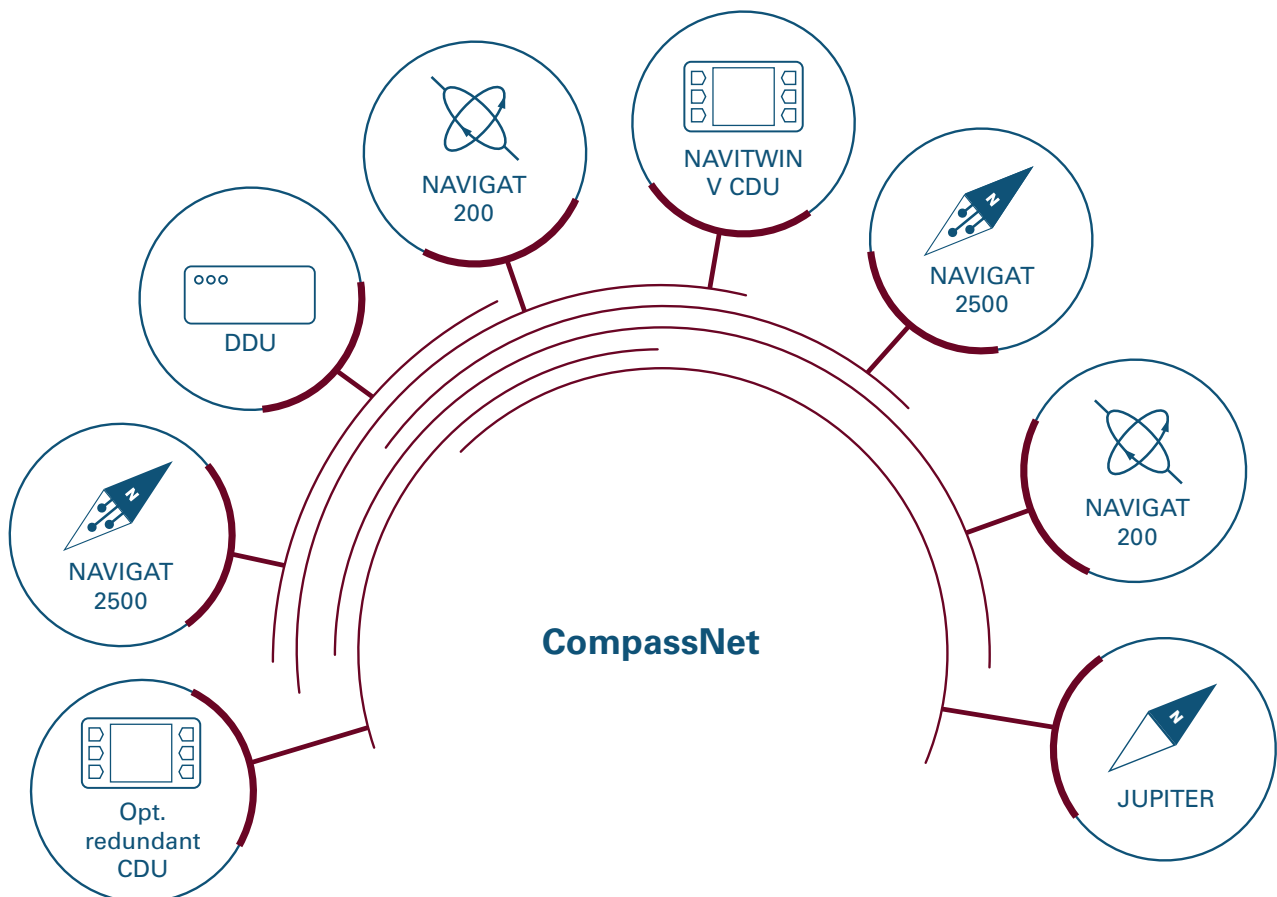
Improve ease of use
- Simpler, safer management of all CompassNet components through one common CDU
- Control and monitor up to 5 heading sources in one display
- Simplified alarm management to reduce operator workload

Reduce through-life costs
- Uses standard Ethernet technology for faster, easier installation with up to 80% less cabling and fewer connections than legacy systems
- Reduces the number of CDUs required
- Heading sensors for Differential Positioning can also be used for navigation purposes

Improve flexibility
- Scalable, open platform that supports any mix of up to four gyro compasses, plus one magnetic compass
- Wide variety of interfaces supported for integration of third-party systems
- Wide range of outputs to connect repeaters, course printer, serial interfaces and outputs all mandatory alarms
- Flexibly upgrade individual compasses as required
- Creates a connected, digital-ready platform for future remote access from shore
- Global 24/365 service and support at every major seaport, at anchor, offshore and even in passage

NAVIGAT 200

NAVITWIN V CDU

NAVIGAT 2500

DDU

NAVIGAT 200

NAVIGAT 2500

JUPITER

Opt. redundant CDU

CompassNet

NAVITWIN V

NAVITWIN V enables monitoring and control of all components within CompassNet. System information, heading and sensor data are displayed via an intuitive interface on a 4.3″ colour screen. Automatic switching can be activated if there is loss of heading or a sensor malfunction. CompassNet also supports multiple NAVITWIN V, for redundancy or operation from another part of the vessel.

Function	Details
Heading source selector	• Displays heading data from up to four true heading sources and one magnetic compass (TMC compliance) • Operator selects active heading source for distribution to other equipment, e.g. compass repeaters, heading control systems, radar, ECDIS
Heading difference monitor	• Monitors difference between any two of the connected heading sources • Heading Difference Alarm triggered if this exceeds a user-defined threshold
Off-heading monitor	• Monitors difference in automatic steering modes between actual heading of the active source and commanded set heading • Off Heading Alarm triggered if this exceeds a user-defined threshold • Set heading may be received automatically from a heading control system or entered manually
Magnetic heading	• Transmitting Magnetic Compass (TMC) compliance • In conjunction with Sperry Marine fluxgate sensor fitted to a compatible magnetic compass • Senses magnetic heading and converts to NMEA 0183 (IEC 61162) format, including automatic correction for magnetic variation and sensor calibration values
Central control	• NAVITWIN V CDU is the single access point for all set up, commissioning and operation in single, dual, triple and quad-gyro compass systems
Alarm management	• Alarm threshold setting • Displays system-wide alarm messages from all gyro compasses • Record of alarm history

Data Distribution Unit

The DDU interfaces with all navigation equipment that requires heading information.
It's purposely designed for easy installation and operation.

Feature	Details
Processor board	• Integral within DDU, with redundant boards included • Provides heading management; alert management; sensor interface management; sensor data management; integrated RingBus module • One processor board required for a single gyro compass system • Second processor board required for redundancy in a multi-gyro compass systems
Compass Amplifier Units	• Available as an integral board within DDU (supports two plug-ins), or as a Converter and Amplifier Unit to extend cable length or support configurations with more than two compasses • Integrates NAVIGAT 2500 and 3500 fiber optic sensors • Upgrades NAVIGAT 100 to CompassNet • Integrates other manufacturers' compasses (gyro and magnetic) with Course Bus or NMEA-0183 interface
Fluxgate connection	• Integrates magnetic compass
Emergency controls	• Automatic switching function • Manual emergency controls
Ethernet module option	• Future enhancement installed within DDU • Provides interface to external navigation network
Additional retrofit options	• 6 Step/1° board to supply existing 6 step/1° repeaters with heading information • Coursebus format available

You may also be interested in:

NAVIGAT 200
Building redundancy for highest system availability.

NAVIGAT 2500
Reducing the need for onboard maintenance.

NAVIGAT 3500
Adding highest heading accuracy and motion reference data to your bridge.

JUPITER & NAVIPOL
Adding primary compass back-up required for every vessel.

Global Service and Support

Sperry Marine provides service and support on a 24/365 basis at every major port worldwide, at anchor, offshore and at sea. All Marine Service Engineers are all certified to ensure they install, maintain and repair our products to the industry's highest standards on a consistent global basis. Please see **www.sperrymarine.com/services** for full details of all our service locations.

Find out more

Please visit **www.sperrymarine.com/compassnet** for more information.
If you would like a quotation, please email **sales@sperrymarine.com**

BR-61/EXP-SD-2022-339

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