

ABOUT MARINE DATA

History

MARINE DATA SYSTEMS is an award-winning British company established in 1978 and based on the Isle of Wight, England. For over 38 years MARINE DATA™ has led the world in the development and manufacture of marine navigation and control systems.

MARINE DATA has earned a worldwide reputation for excellence in the manufacture and supply of reliable and adaptable marine navigation and control systems for commercial ships, military vessels and workboats. Our expert design and engineering team can always provide innovative solutions to complex marine navigation and control system requirements.

Markets

Our equipment is fitted in the military naval ships of NATO, the Gulf States and the Far East. We work together with defence agencies and prime contractors for seamless product integration in new builds and retrofit projects.

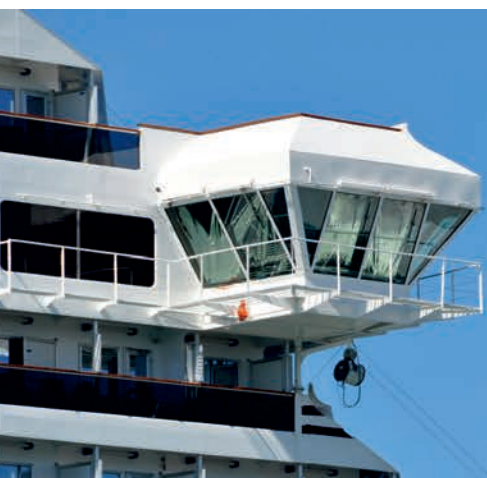
In the leisure industry, MARINE DATA is the choice again. You will find our equipment on the liners of the world's leading leisure shipping lines - including P&O™ and Disney®.

In the workboat and ferry industries, MARINE DATA equipment is installed on tugs, ferries and inshore vessels working from ports all around the world.

And MARINE DATA equipment is the reliable choice for the world's commercial shipping lines.

Success

Our success is based on tried and tested products and in designing tailored solutions for our customers. Alongside our proven talent for providing innovative solutions, we place a great deal of emphasis on quality - and on quality procedures. We provide complete support and expert service to all our customers for all our navigation, control and steering technology to protect your investment. Our manufacturing system is approved to ISO 9001 which ensures that we meet our customers' extremely high standards - every time.



FROM FERRIES, FRIGATES
AND FREIGHTERS TO TUGS
AND TANKERS, MARINE DATA™
SHOWS THE WAY



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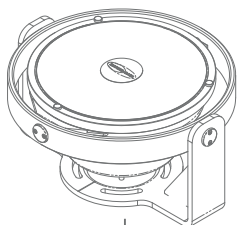
Nav Displays

5

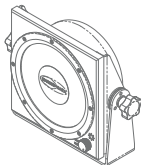
Power & Data

COMPASS HEADING SYSTEM

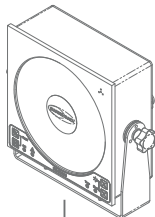
MD69BR
Bearing Repeater



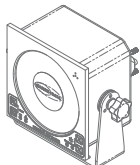
MD67HR Waterproof
Dial Heading Repeater



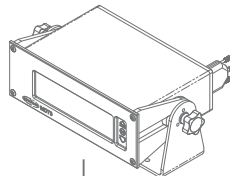
MD68HR Dial
Steering Repeater



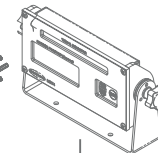
MD77HR Dial
Heading Repeater



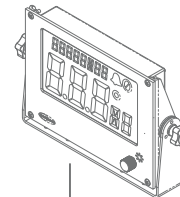
MD73HR Tape
Heading Repeater



MD74HR Digital
Heading Repeater



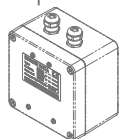
MD75HR Large
Digital Repeater



MD71HR Digital
Heading Repeater

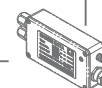


MD69CB/W
Waterproof Junction Box

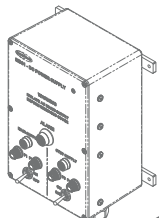


Option

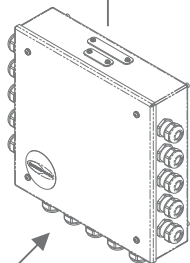
MD96/JB8
Standard Junction Box



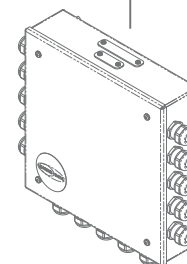
MD81/24
24 V dc
Power Supply



MD94HDU Heading
Distribution Unit supplied
with the MD86HCU



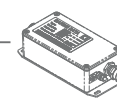
MD94DDU Data
Distribution Unit



MD71THD
Display Unit



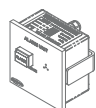
MD97CSP
Processor



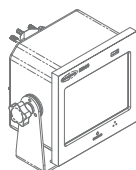
MD01/PMD
Remote Dimmer



MD86ALM
Remote Alarm

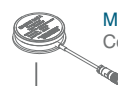


MD86HCU
Heading Comparator Unit

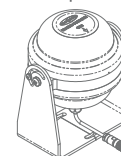


Either / or

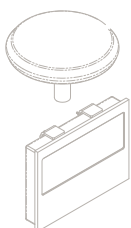
MD52A/B
Compass Sensor



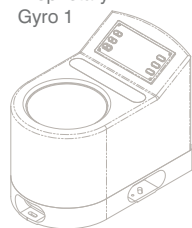
MD53A/B
Electromagnetic
Compass



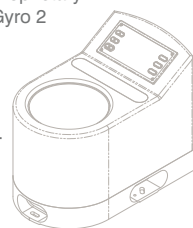
Proprietary
GPS Compass



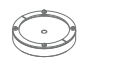
Proprietary
Gyro 1



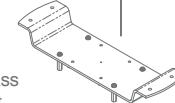
Proprietary
Gyro 2



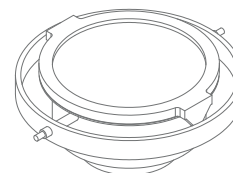
MD54 Compass
Sensor Mount



MD58 Compass
Sensor Bracket



Proprietary Ship's
Magnetic Compass



Heading

THD

Rudder

Nav Displays

Power & Data



MD69BR
TRUNNION MOUNTED BEARING REPEATER, DUAL SCALE
PRODUCT F069018

The MD69BR Bearing Repeater is gimballed and optimally balanced for taking highly accurate bearings (see our range of Azimuth Sights).

This rugged and weatherproof repeater can be surface or bracket mounted or it can be installed in our Pelorus Stand as a complete deck mounted Bearing Repeater solution (see MD69/21)

Key Features:

- Weatherproof precision marinised Bearing Repeater
- Dual Scale 36:1 precision Compass Card Display
- NMEA 0183 Digital Input
- Indicates True or Magnetic Heading source
- Local and Remote Dimming control
- Available to Military Specification
- Input power supply: 24 V dc
- Environmentally Protected to IP67
- H 164 mm; W 325 mm; Body Ø 246 mm; Weight 7.0 kg
- Outer dial Ø 185 mm; Inner dial Ø 95 mm; Verge ring 20 mm (visible)
- Type Approval: Germanischer Lloyd (GL)

Accessories:
 Canvas Protective Cover - Part CM88526;
 Azimuth Sight MD69AZI; Bearing Circle MD69BC;
 Telescopic Alidade MD60A2K

Bowl-only version for console mount or for retrofit: Part F069032



MD69/21
PELORUS MOUNTED BEARING REPEATER, COMPLETE ASSEMBLY
PRODUCT F021008

A complete Pelorus-mounted Bearing Compass Repeater Solution, comprising:

- MD21 Pelorus Stand in GRP with integral gimballed and dimmer
- MD69BR Dual Scale Bearing Repeater Bowl - Part F069032
- MD69CB/W Watertight Junction Box - Part F069103
- Environmentally Protected to IP67
- H 1200 mm (1380 mm with optional Weather Dome); max Ø 450 mm at base

Accessories: Hand Rails - Part F021007;
 Weather Dome - Part F021006;
 Canvas Protective Cover - Part CM88526



MD69/22
BULKHEAD MOUNTED BEARING REPEATER, COMPLETE ASSEMBLY
PRODUCT F069033

A complete bulkhead-mounted Bearing Compass Repeater Solution, comprising:

- MD69BR Dual Scale Compass Repeater - Part F069018
- MD22 Bulkhead Mounting Bracket - Part F022001
- MD69CB/W Watertight Junction Box - Part F069103
- High flex Data Cable
- Environmentally Protected to IP67
- H 465 mm; W 326 mm; D 350 mm

Accessory: Canvas Protective Cover - Part CM88526

COMPASS HEADING & INSTRUMENTATION

BEARING REPEATERS & SIGHTS

MD69AZI

AZIMUTH SIGHT

PRODUCT F069051



A precision Azimuth Sight based upon the William Thomson (Lord Kelvin) pattern for taking accurate bearings of the sun and other celestial bodies and landmarks. Designed for use with the MD69BR Bearing Compass Repeater

- Equipped with a UV sun filter and a neutral density filter
- Milled adjustment thumb wheels
- Non-magnetic naval brass construction
- ID 246.3 mm (9.7"); OD 257 mm; H 134 mm; Weight 1.9 kg
- Supplied in a wooden instrument case

MD69BC

BEARING CIRCLE

PRODUCT F069052



Traditional vane-type Bearing Circle for taking celestial and terrestrial bearings. Designed for use with the MD69BR Bearing Compass Repeater

- Complete with removable shadow pin, folding vanes & reflecting mirror
- Non-magnetic naval brass construction
- ID 246.3 mm (9.7"); OD 250 mm; H 191 mm; Weight 1.0 kg
- Supplied in a wooden instrument case

MD60A2K

TELESCOPIC ALIDADE

PRODUCT F060001



A high precision 7 x 38 mm Telescopic Alidade Sight for use with the MD69BR Bearing Compass Repeater. For taking terrestrial bearings of distant objects

- Equipped with anti-glare polarising filters
- Adjustable eyepiece displays Compass Card, Spirit Level and Reticule Wire
- Complies with military specifications
- Environmentally Protected to IP67
- ID 246.3 mm (9.7"); OD 254 mm; H 150 mm; Weight 2.75 kg
- Supplied in a durable plastic instrument case



Heading

THD

Rudder

Nav Displays

Power & Data

DIAL REPEATERS



MD67HR

WEATHERPROOF DIAL COMPASS REPEATER

PRODUCT F067001

Weatherproof Marine Dial Compass Repeater with a traditional marine compass card display

Key Features:

- User-Replaceable Polycarbonate Window
- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Red Tint Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP67
- H 174 mm; W 222 mm; D 109 mm; Fascia 160 x 160 x 16 mm
- Dial Ø 118 mm
- Type Approval: Germanischer Lloyd (GL)

Accessories: Sunshield - Part CM87752;
Bulkhead Mounting Kit - Part F067100



DIAL REPEATERS



MD77HR

DIAL COMPASS REPEATER

PRODUCT F077052

Dial Compass Repeater with traditional marine compass card display

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Red Tint Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 166 mm; W 200 mm; D 81mm; Fascia 144 x 144 mm
- Dial Ø 118 mm
- Type Approval: Germanischer Lloyd (GL)

Accessories: Bulkhead Mounting Kit - Part F077100



MD77HRB

DIAL COMPASS REPEATER

PRODUCT F077058



This version equipped with simple push rotary encoder instead of keypad



MD68HR
DUAL SCALE STEERING REPEATER
PRODUCT F068052

A Dual Scale 36:1 Steering Compass Repeater with a large precision marine compass card display

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Red Tint Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 220 mm; W 246 mm; D 127 mm; Fascia 192 x 192 x 6 mm
- Outer Dial Ø 164 mm; Inner Dial Ø 103 mm
- Type Approval: Germanischer Lloyd (GL)

Accessories: Bulkhead Mounting Kit - Part F068100

MD68HRB
DUAL SCALE STEERING REPEATER
PRODUCT F068058

This version equipped with simple push rotary encoder instead of keypad



MD71HR
DIGITAL COMPASS REPEATER
PRODUCT F071010

A compact, low power Digital Compass Repeater with a high contrast OLED Graphic Display; ideal for space-critical environments, where clearly visible data is important. With integral Heading Monitor and Remote Alarm facility

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Yellow Illumination
- Input power supply: 12 - 24 V dc
- Environmentally Protected to IP54
- H 96 mm; W 96 mm; D 77mm; Fascia 96 x 96 x 6 mm (1-DIN)
- Display 128 x 64 pixels; Window 33 x 65 mm
- Panel Flush Mounting Kit included

Accessories:
Trunnion Mounting Bracket - Part F071200



DIGITAL REPEATERS



MD74HR

DIGITAL COMPASS REPEATER

PRODUCT F074021



A rugged design of Repeater with LCD Heading Display and High Visibility LED Turn Indicator. The repeater graphically displays the Rate of Turn or the Course to Steer

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Red Tint Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 137 mm; W 241 mm; D 78 mm; Fascia 97 x 192 x 6 mm
- 24 Segment LED Visual Turn Indicator
- Type Approval: Germanischer Lloyd (GL)

Accessories: Bulkhead Mounting Kit - Part F074100 (black)

DIGITAL REPEATERS



MD75HR

DIGITAL COMPASS REPEATER

PRODUCT F075001

A Digital Repeater designed to be easily visible at a glance. Fitted with a large format, bright LCD Digital Display with giant 60mm characters

Key Features:

- Low Power Consumption
- Displays Heading to 0.01° Resolution
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Green Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 183 mm; W 296 mm; D 27 mm; Fascia 170 x 235 x 6 mm
- 60 mm characters; Window 98 x 175 mm

Accessories: Bulkhead Mounting Kit - Part F075100

TAPE REPEATERS



MD73HR

TAPE COMPASS REPEATER

PRODUCT F073043



A Tape Repeater with a large format, high contrast true Moving Tape Display and an intuitive LED Course To Steer Display

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Local / Remote Dimming Control; Red Tint Illumination
- Rugged construction
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 123 mm; W 290 mm; D 202 mm; Fascia 85 x 235 x 4 mm; Weight 2.5 kg
- Continuous moving tape; H 44 mm marked at 1°, 5° and 10°. LED Resolution: 1 element = 1°
- Type Approval: Germanischer Lloyd (GL)

Accessories: Bulkhead Mounting Kit - Part F073100

TAPE REPEATERS



MD73SR

TAPE COMPASS REPEATER

PRODUCT F073050

An ultra compact Tape Repeater with true Moving Tape display and LCD display with Direction of Turn Indication

Key Features:

- Automatically Detects NMEA Heading Types
- Indicates True or Magnetic Heading Source
- Panel mounted only
- Local / Remote Dimming Control; Green Tint Illumination
- Fully EMC Screened
- Input power supply: 24 V dc
- Environmentally Protected to IP55
- H 60 mm; W 200 mm; D 134 mm
- Continuous moving tape; H 25 mm marked at 1°, 5° and 10°

RATE OF TURN INDICATORS

MD67ROT

WEATHERPROOF DIAL RATE OF TURN INDICATOR

PRODUCT F067201

Weatherproof Marinised Dial Rate of Turn Indicator with a clear and easy to read Dial Display



Key Features:

- Indicates Rate of Turn up to 35° per minute
- User-Replaceable Polycarbonate Window
- Automatic warning of lost valid rate of turn data
- Automatic detection of previously lost rate of turn data
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP67
- H 174 mm; W 222 mm; D 109 mm; Fascia 160 x 160 x 16 mm
- Dial Ø 118 mm

Accessories: Sun shield - Part CM87752;
Bulkhead Mounting Kit - Part F067100



RATE OF TURN INDICATORS

MD68ROT

DIAL RATE OF TURN INDICATOR

PRODUCT F068201

A large Rate of Turn Indicator with a large format dial display and moving pointer



Key Features:

- Indicates Rate of Turn up to 35° per minute
- Automatic warning of lost valid rate of turn data
- Automatic detection of previously lost rate of turn data
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 220 mm; W 246 mm; D 127 mm; Fascia 192 x 192 x 6 mm
- Dial Ø 164 mm
- Type Approval: Pending

Accessories: Bulkhead Mounting kit, Part F068100

MD77ROT

DIAL RATE OF TURN INDICATOR

PRODUCT F077201

An easy to read Rate of Turn Indicator with a dial display and moving pointer



Key Features:

- Indicates Rate of Turn up to 35° per minute
- Automatic warning of lost valid rate of turn data
- Automatic detection of previously lost rate of turn data
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 166 mm; W 200 mm; D 81mm; Fascia 144 x 144 mm
- Dial Ø 118 mm
- Type Approval: Germanischer Lloyd (GL)

Accessories: Bulkhead Mounting Kit - Part F077100



MD86HCU

HEADING COMPARATOR and MONITOR, COMPLETE WITH MD94HDU HEADING DISTRIBUTION UNIT

PRODUCT F086003

The MD86HCU monitors and compares and displays the headings of up to four sources, for example, Gyro, Magnetic and GPS compasses. The MD86HCU also has an integrated Heading Monitor (Off Course Alarm) with easy to set user preferences. With a colour LCD touchscreen and intuitive graphical user interface, the MD86HCU offers a powerful and compact heading monitor

Key Features:

- Monitors and Compares up to Four Compass Headings
- Compass Divergence Alarm
- Integrated Heading Monitor with Off-Course Alarm
- Selectable Heading Output for sending to Compass Repeaters
- Meets IMO Requirements for Comparing Dual Gyros
- Supplied complete with the MD94HDU Heading Distribution Unit (right)
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 166 mm; W 200 mm; D 81 mm; Fascia 144 x 144 x 6 mm
- Display 640 x 480 pixels; 148 mm (5.8") diagonal
- Type Approval: Pending

Accessories: Bulkhead mount kit MD86TB;
Remote Alarm Unit MD86ALM



The MD94HDU Heading Distribution Unit (supplied) connects up to four independent sources of Heading to the MD86HCU Heading Comparator Unit (left) and provides 24 V dc power distribution for all connected equipment

Key Features:

- Up to 4x NMEA 0183 Independent Heading Inputs
- Up to 5x NMEA 0183 Outputs
- Inputs mappable to Outputs
- Outputs each provide Power and Remote Dimmer Connection
- Single / Dual 24 V dc Supply (Main / Backup)
- Supplied with interconnecting cable to MD86HCU
- Environmentally Protected to IP54
- H 254 mm; W 254 mm; D 70 mm
- Type Approval: Pending

Accessories: Rotary Remote Dimmer MD01/PM0

Rotary Remote Dimmer
MD01/PM0





MD86ALM

REMOTE ALARM ACCESSORY

PRODUCT F086050

A separate dedicated Alarm Unit for extending the alarm range of the MARINE DATA MD86HCU Heading Comparator Unit

Key Features:

- Audible and Visual Alarm Indications
- Acknowledge Button to cancel Audible Alarm
- Robust aluminium construction with 2x cable glands
- Panel Flush Mounting Kit included
- Compact and simple to fit; small footprint
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- Fascia 96 x 96 x 6 mm; D 71 mm



MD76HM

HEADING MONITOR

PRODUCT F076003

A Heading Monitor with Off-Course Alarm. An alarm sounds if the vessel heading deviates by more than an allowed amount. Fulfils the IMO requirements for using an autopilot. The on/off activation can be linked with activation of an autopilot

Key Features:

- Audible and Visual Alarm Indications
- Accepts NMEA 0183 Heading Data from any heading source
- Remote trigger for an external alarm sounder
- Automatically switches to backup 24 V dc supply if the primary 24 V dc supply fails
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 145 mm; W 234 mm; D 180 mm; Fascia 97 x 192 x 3 mm
- Accessories: Bulkhead Mounting Kit, Part F076100

COMPASS HEADING & INSTRUMENTATION

HEADING MANAGEMENT



MD76HM/1

INDEPENDENT HEADING MONITOR SYSTEM

PRODUCT F076004

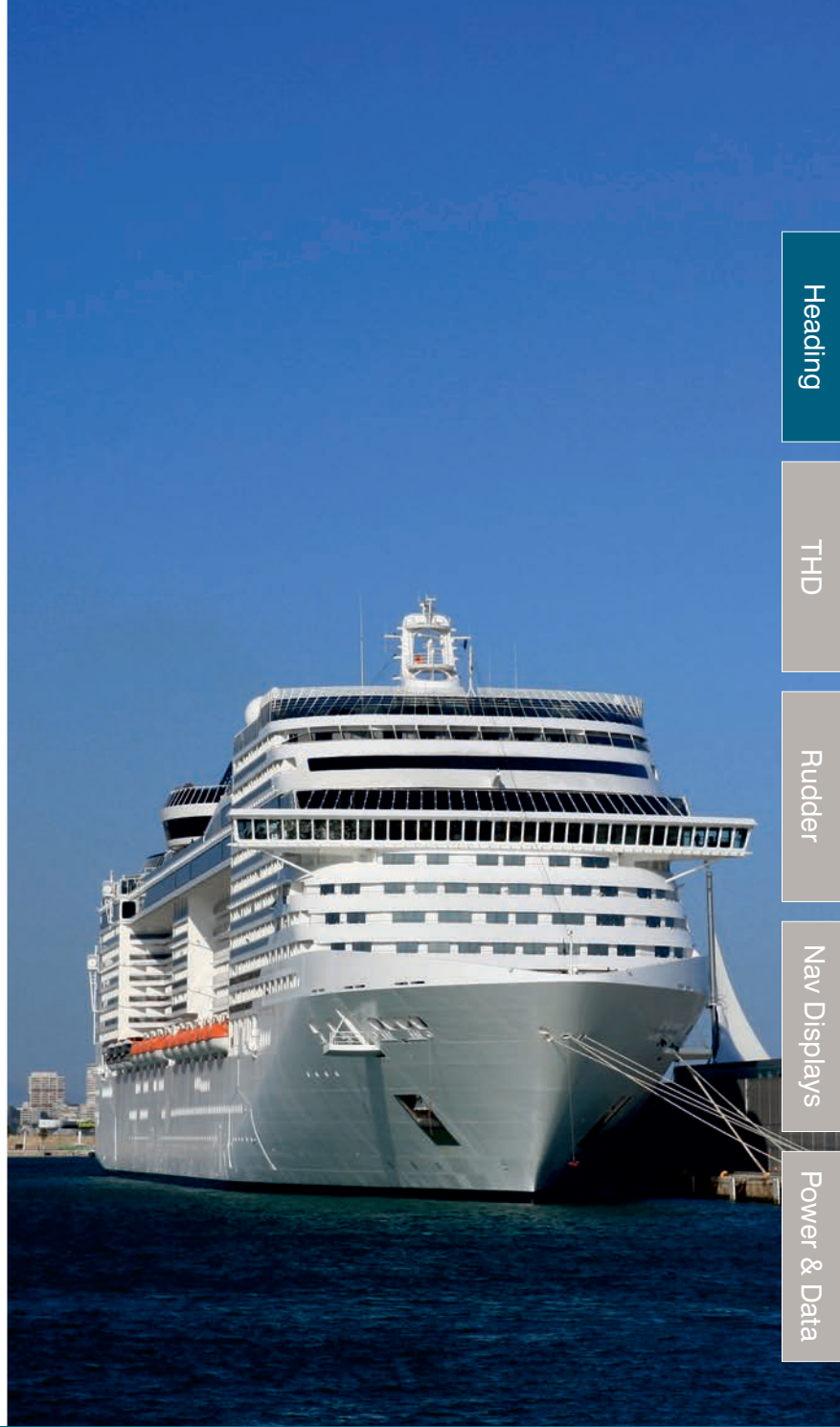
A Fully Independent Heading Monitor with Off-Course Alarm. The unit connects directly with the MD52A/X Compass Sensor (supplied) which is mounted on the ship's host magnetic compass (mounting supplied is dependant on type of ship's compass). In this way the MD76HM/1 can detect the ship's heading directly from the ship's magnetic compass

Key Features:

- Audible and Visual Alarm Indications
- Remains completely independent of other heading sources
- Supplied with MD52A/X Compass Sensor and MD97JB Junction Box
- Functionality, enclosure and mounting options are otherwise identical to the MD76HM Heading Monitor
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 145 mm; W 234 mm; D 180 mm; Fascia 97 x 192 x 3 mm

Accessories:

Bulkhead Mounting Kit	Part F076004
MD54 Compass Sensor Adhesive Mount	Part F054001
MD58 Compass Sensor Bracket Mount	Part F058001



Heading

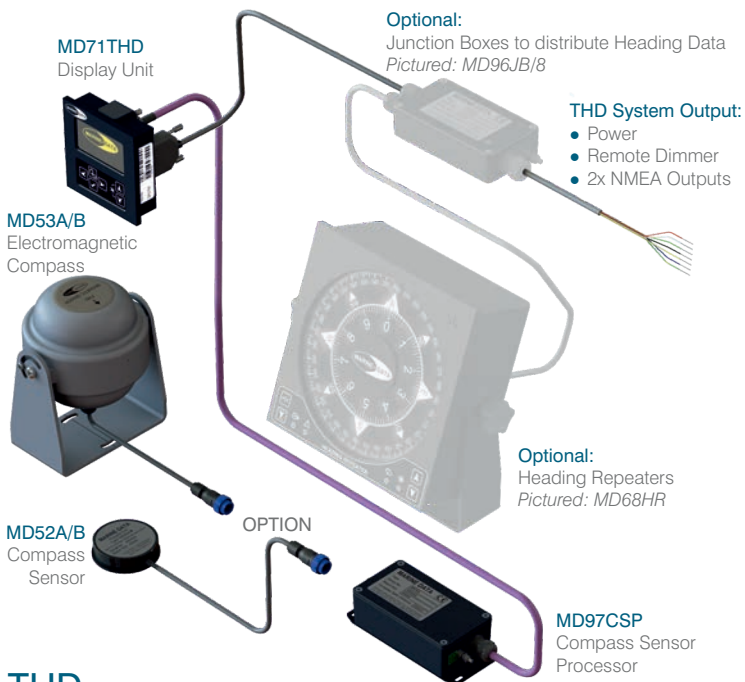
THD

Rudder

Nav Displays

Power & Data

TRANSMITTING HEADING SYSTEM



THD

A SIMPLE TRANSMITTING HEADING DEVICE SYSTEM

Transmitting Heading Device (THD) Systems are becoming increasingly popular as a backup or an alternative to a gyro compass. MARINE DATA offers a Transmitting Magnetic Compass (TMC) or an Electromagnetic Compass (EMC) solution. The TMC echoes the ship's magnetic compass in its binnacle; the EMC directly detects the Earth's magnetic field as a fully independent electromagnetic compass.

Key Features:

- Converts Magnetic Sensor Signals to Digital Heading Data
- Unparalleled Accuracy; Intuitive Operator Controls
- Magnetic Heading Reference; Correction of Magnetic Deviation and Variation
- Simple Setup and Automatic Sensor-to-Compass Calibration
- Choice of System using either Magnetic Compass Sensor or Earth's Field Electromagnetic Sensor
- Input power supply: 24 V dc
- Rugged, IP65 rated Magnetic Sensors

TMC version: *PRODUCT F071100*

EMC version: *PRODUCT F071101*

TRANSMITTING HEADING SYSTEM

MD71THD

CONTROL & DISPLAY UNIT
FOR TMC AND EMC SYSTEMS

PRODUCT F071007



The menu-driven MD71THD Control and Display Unit provides easy calibration of the magnetic heading sensor and allows the manual input of variation and deviation corrections. Provides a crystal clear digital display of heading in a compact design

Key Features:

- Optimises signal strength and calibrates the magnetic compass sensor
- Provides manual Variation correction
- Provides automatic Deviation correction for the MD53 Electro-Magnetic Compass
- High Resolution, high contrast Digital Heading Repeater
- 2x NMEA 0183 outputs (IEC 61162)
- Panel Flush Mounting Kit included
- Input power supply: 24 V dc (supplies all components in the THD system)
- Environmentally Protected to IP54
- H 96 mm; W 96 mm; D 77mm; Fascia 96 x 96 x 6 mm (1-DIN)

Accessories: The full range of MARINE DATA Heading Repeaters; Trunnion Mounting Bracket - Part F071200

MD97CSP

COMPASS SENSOR
PROCESSOR

PRODUCT F097007



Processor unit and connection box for magnetic compass sensors and configured with the MD71THD Control and Display Unit

Key Features:

- Connects and configures the MD52A/B or MD53A/B Magnetic Sensors with the MD71THD Control and Display Unit
- Environmentally Protected to IP65

TRANSMITTING HEADING SYSTEM



MD52A/B

SHIP'S MAGNETIC COMPASS SENSOR

PRODUCT F052006

A Transmitting Heading Device (THD). The MD52A/B is a magnetic fluxgate coil which senses the Heading of a Ship's Magnetic Compass in a Transmitting Magnetic Compass System (TMC). The MD52A/B mounts under (or over) a Ship's Magnetic Compass using MD54 or MD58 Mountings. The correct offset distance from the compass is detected automatically using the MD71THD Display Unit

Key Features:

- Provides a source of Digital NMEA 0183 Heading Data
- To be installed as part of the MARINE DATA Transmitting Heading Device System
- Environmentally Protected to IP65
- H 18 mm; Ø 69 mm

Required Accessories: MD54 Compass Sensor Adhesive Mount F054001 or MD58 Compass Sensor Bracket Mount F058001, depending on host compass

MOUNTING OPTIONS:



MD54 - Part F054001



MD58 - Part F058001

TRANSMITTING HEADING SYSTEM



MD53A/B

EARTH'S FIELD SENSING ELECTRO-MAGNETIC COMPASS

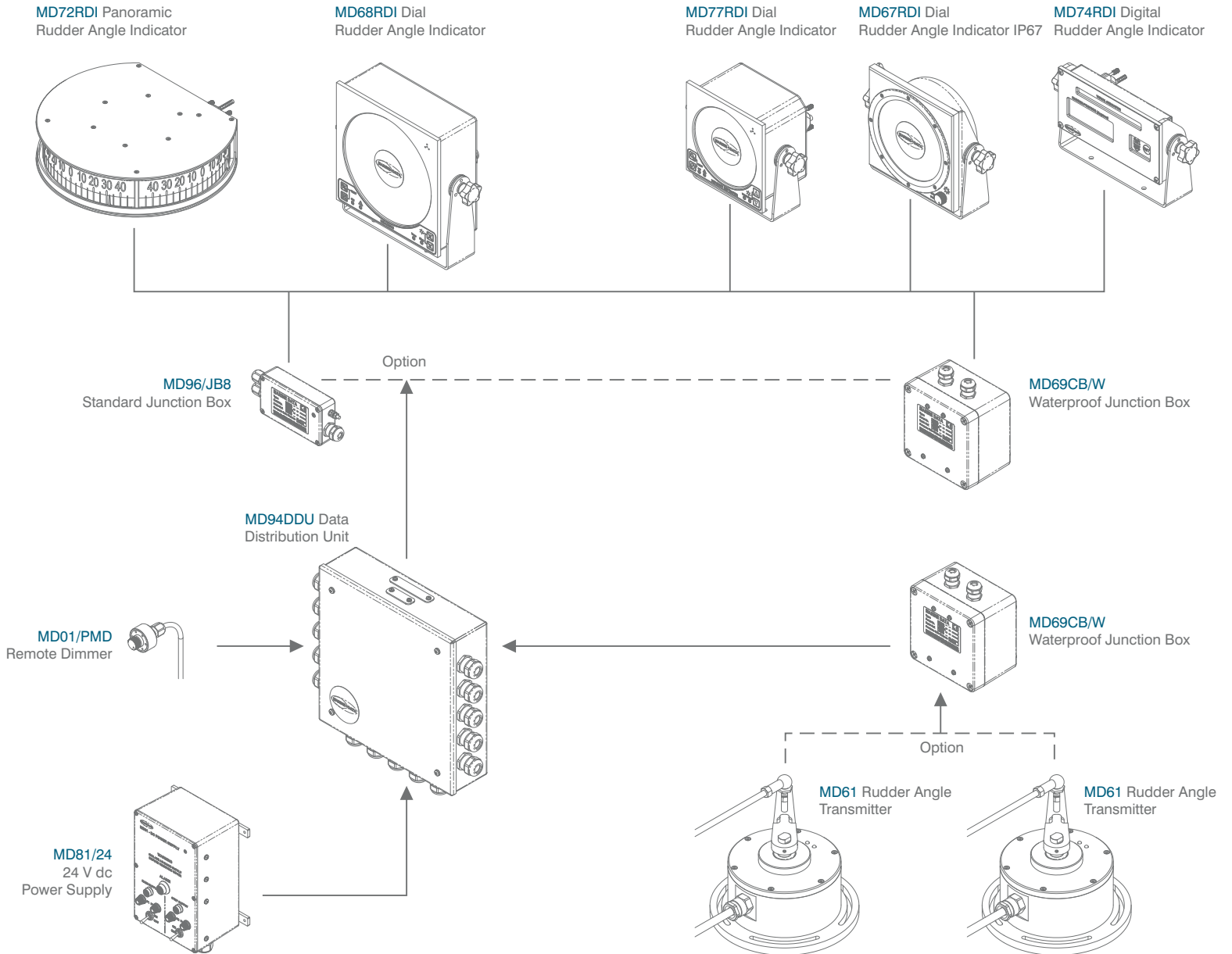
PRODUCT F053006

A Transmitting Heading Device (THD). The MD53A/B is an Earth's Field Electromagnetic Compass which directly senses the Earth's magnetic field. The MD53A/B has no moving parts and does not require a host magnetic compass. In this way, the MD53A/B forms the sensing element of a solid-state Electromagnetic Compass (EMC) System; an alternative or a backup to a Gyro Compass

Key Features:

- Provides a source of Digital NMEA 0183 Heading Data
- To be installed as part of the MARINE DATA Transmitting Heading Device System
- Environmentally Protected to IP65
- H 166 mm; W 142 mm; Ø 123 mm; Weight 1.0 kg

RUDDER ANGLE INDICATION SYSTEM



RUDDER ANGLE REPEATERS



MD74RDI

DIGITAL RUDDER ANGLE INDICATOR

PRODUCT F074021

A rugged design of Rudder Angle Indicator with digital LCD Display and High Visibility LED indicator which graphically displays the Rate of Change of rudder angle

Key Features:

- Accepts NMEA 0183 (RSA) data from a Rudder Angle Sensor
- Local / Remote Dimming Control; Red Tint Illumination
- Water resistant version available MD74RDI/W (IP65), Part F074019
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 137 mm; W 241 mm; D 78 mm; Fascia 192 x 97 x 6 mm
- 24 Segment LED Visual Turn Indicator
- Type Approval: Germanischer Lloyd (GL)
- CE Wheelmarked

Accessories: Bulkhead Mounting Kit - Part F074100 (black)



RUDDER ANGLE REPEATERS



MD77RDI

DIAL RUDDER ANGLE INDICATOR

PRODUCT F077202

A clear and easily read Rudder Angle Indicator with analogue dial display and moving pointer

Key Features:

- Accepts NMEA 0183 (RSA) data from a Rudder Angle Sensor
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 166 mm; W 200 mm; D 81mm; Fascia 144 x 144 mm
- Dial Ø 118 mm
- Type Approval: Germanischer Lloyd (GL)
- CE Wheelmarked

Accessories: Bulkhead Mounting Kit - Part F077100



RUDDER ANGLE REPEATERS



MD67RDI

WEATHERPROOF DIAL RUDDER ANGLE INDICATOR

PRODUCT F067202

Weatherproof marinised dial Rudder Angle Indicator with a clear and easily read dial display

Key Features:

- User-Replaceable Polycarbonate Window
- Displays rudder angles up to 45°
- Accepts NMEA 0183 (RSA) data from a Rudder Angle Sensor
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP67
- H 174 mm; W 222 mm; D 109 mm; Fascia 160 x 160 x 16 mm
- Dial Ø 118 mm

Accessories: Sunshield - Part CM87752;
Bulkhead Mounting Kit - Part F067100

RUDDER ANGLE REPEATERS



MD68RDI

DIAL RUDDER ANGLE INDICATOR

PRODUCT F068202

A Rudder Angle Indicator with a large format analogue dial display and moving pointer

Key Features:

- Indicates Rudder Angle of to 45°
- Automatic warning of lost valid rudder sensor data
- Automatic detection of previously lost rudder sensor data
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 220 mm; W 246 mm; D 127 mm; Fascia 192 x 192 x 6 mm
- Dial Ø 164 mm

Accessories: Bulkhead Mounting kit - Part F068100

RUDDER ANGLE REPEATERS



MD72RDI

PANORAMIC RUDDER ANGLE INDICATOR

PRODUCT F072001

A 3-faced Panoramic Rudder Angle indicator designed for deck-head or bulkhead mounting. Clear and easy to read display with orange illuminated moving pointers

Key Features:

- Indicates Rudder Angle of to 45°
- Automatic warning of lost valid rudder sensor data
- Automatic detection of previously lost rudder sensor data
- Supplied with VESA 100 deck-head Mounting Bracket
- Local / Remote Dimming Control; White Illumination
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 64 mm (excl. VESA bracket); W 270 mm; D 235 mm (excl. cable)
- Display 60 mm high
- Type Approval: Pending



Supplied:
VESA 100 Mounting Bracket
Model MD72VB, Product F072100

RUDDER ANGLE TRANSMITTERS



MD61

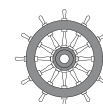
RUDDER ANGLE TRANSMITTER

PRODUCT F061001

Rugged sensor for ship's rudder angle with built-in Rudder Direction Indication LED for easy set-up and installation. Fully adjustable Rudder Linkage Rod supplied. Dual Digital and Variable Voltage outputs

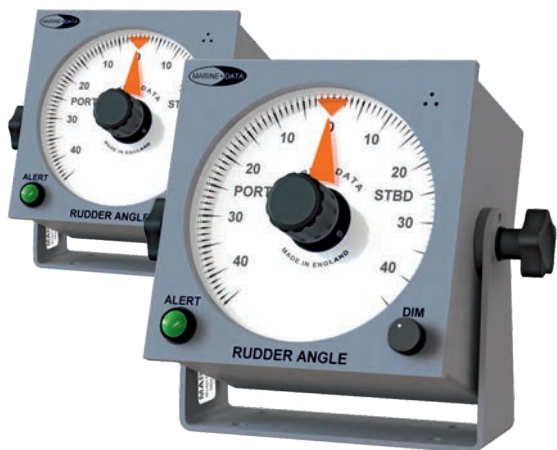
Key Features:

- Transmits rudder angle movements of up to 45°
- Digital NMEA 0183 Output
- Variable Voltage Output - 5 KΩ Potentiometer
- Fully Sealed; simple to install
- Input power supply: 24 V dc
- Environmentally Protected to IP65
- H 125 mm; Ø 200 mm; Linkage rod adjustment 270 mm to 580 mm; Weight 4.0 kg
- Red and Green LEDs for assisting installation and set-up
- Proven rugged design used on board ships worldwide
- Type Approval: Germanischer Lloyd (GL)
- CE Wheel marked



0098-15

RUDDER ANGLE TELEGRAPH SYSTEM



MD310S

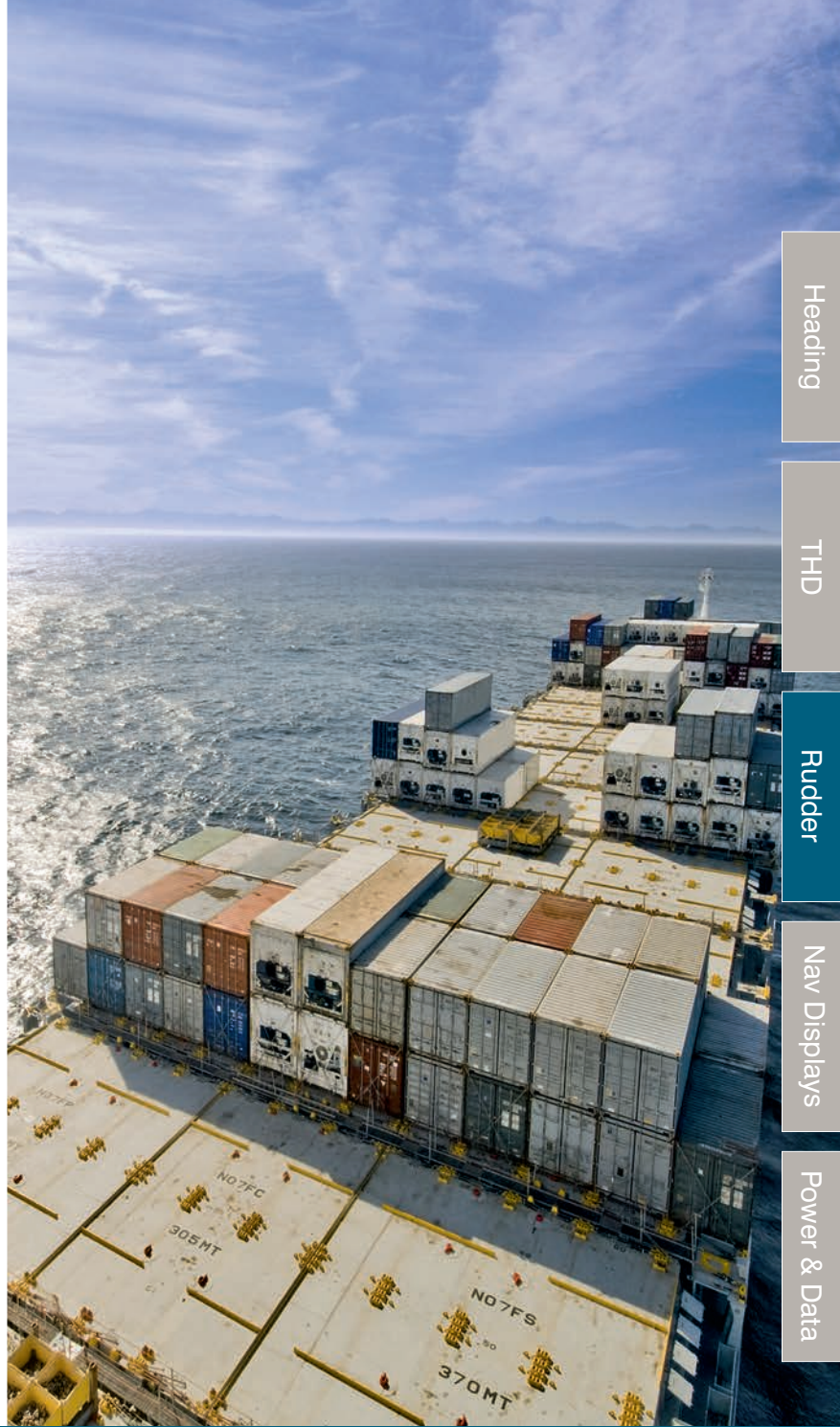
EMERGENCY RUDDER ANGLE TELEGRAPH SYSTEM

PRODUCT F310S01

An Emergency Steering Telegraph System for manually steering a vessel if the main power supply has failed. The system transmits and receives angular rudder position data over a simple and reliable dc servo signal connection between the ship's wheelhouse and steering compartment. Power is derived from a safeguarded backup 24 V dc power supply

Key Features:

- A simple Demand and Response Telegraph System
- Movable pointer indicates the Rudder Angle Demanded; a driven 'bug' indicates the Response given
- Audible Alert and Confirmation
- Includes 2x Display Units, 2x Bracket Mounting Kits and 2x Junction Boxes
- Red tint illumination; local dimming
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 166 mm; W 200 mm; D 81 mm; Fascia 144 x 144 x 6 mm
- Dial Ø 118 mm





MD71 MFD

MULTI-FUNCTION DISPLAY, CUSTOM CONFIGURED

PRODUCT F071001

A high contrast, easily read multifunction display in a compact housing. Factory configured to display a wide variety of navigational data and may be customised to user requirements. Easy to read and easy to use menu-driven display

Key Features:

- Example Displays: Heading, Rate of Turn, Pitch, Roll, Rudder Angle, Water Speed, Position (lat/lon), etc. Contact us for your exact requirements
- NMEA 0183 based
- Panel Flush Mounting Kit included
- Compact, rugged and highly visible
- Touch controls
- Input power supply: 12 - 24 V dc
- Environmentally Protected to IP54
- H 96 mm; W 96 mm; D 77 mm; Fascia 96 x 96 x 6 mm (1-DIN)
- Display 128 x 64 pixels; Window 33 x 65 mm

Accessories:

Trunnion Mounting Bracket - Part F071200



MD75 MFD

SUNLIGHT READABLE MULTI-FUNCTION DISPLAY

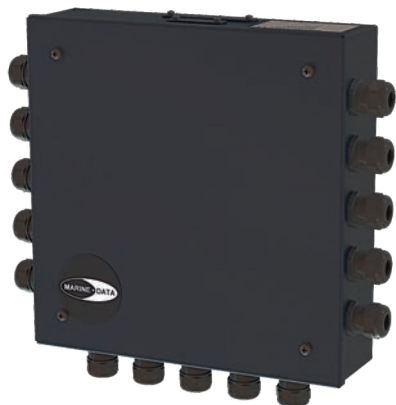
PRODUCT F075003

A multi-function sunlight readable display capable of simultaneously displaying a wide range of digital NMEA inputs from a variety of sensor types. Large, high contrast screen. May be factory configured and customised to user requirements. Easy to use push / rotary encoder

Key Features:

- Sunlight readable display with night and day modes
- Multiple display styles - for example, tape, numeric and dial styles
- Four NMEA 0183 input channels giving the possibility of up to four display parameters simultaneously on one screen
- Large format screen
- Push / rotary encoder control for easy menu navigation and setup
- Input power supply: 12 - 24 V dc
- Environmentally Protected to IP54
- H 183 mm; W 296 mm; D 27 mm; Fascia 170 x 235 x 6 mm
- Display 7" (178 mm) TFT, 800 x 480 pixels; Window: 154 x 92 mm

Accessories: Bulkhead Mounting Kit - Part F075100



MD94DDU

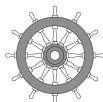
DATA DISTRIBUTION UNIT

PRODUCT F094053

A NMEA 0183 Data Distribution Junction Box, designed for Rudder Angle and Heading Repeater Data Distribution. With 2x NMEA inputs and 9x NMEA outputs. Each output carries a 24 V dc supply and a Remote Dimmer connection to multiple devices

Key Features:

- Buffered NMEA Outputs
- Each NMEA Output is mappable to either of 2 NMEA Inputs
- Rugged, marinised aluminium alloy enclosure with M20 watertight glands
- Bulkhead mounting kit included
- Dual input power supplies: 24 V dc (Primary and separate Backup)
- Environmentally Protected to IP54
- H 254 mm; W 254 mm; D 70 mm; Weight 1.5 kg
- Type Approval: Germanischer Lloyd (GL)
- CE Wheelmarked



0098-15

MD04UPS

UNINTERRUPTIBLE POWER SUPPLY

PRODUCT F004013

A 24 V dc Uninterruptible Power Supply (UPS) designed to provide a backup supply for vital ship's equipment such as Heading Repeaters and Heading Monitors in the event of a main power supply failure



Key Features:

- 45 minute Hold-up Time (min) at 1 A
- Automatic uninterrupted changeover when main supply fails
- Automatic re-charging and maintenance of integral battery when the main supply is active
- Indicator / Alarm Outputs for Device Status
- Service-free sealed lead-acid batteries for reliability
- Input power supply: 24 V dc (6 W + output load)
- Finish: RAL9005 Jet Black, fine texture
- Environmentally Protected to IP32
- H 256 mm; W 284 mm; D 186 mm; Weight 8.25 kg

MD81/24

POWER SUPPLY

PRODUCT F081001

Provides a 24 V dc power supply from a vessel's main ac supply. The unit automatically switches to 24 V dc backup supply if the main ac supply fails



Key Features:

- Alarm Indication and Remote Trigger for an External Alarm if main ac power fails
- Factory option for legacy 'S' Type Support
- Low EMC emissions and high immunity
- Rugged aluminium enclosure
- Includes bulkhead mounting kit
- Primary input power supply: 220 / 110 V ac; 50 / 60 Hz
- Backup input power supply: 24 V dc
- Environmentally Protected to IP42
- H 222 mm; W 180 mm; D 132 mm; Weight 2.8 kg
- Meets IMO Recommendations

POWER & DATA DISTRIBUTION INTERFACES

MD34/8 SERIES

NMEA TO SYNCHRO INTERFACES

A series of solid state interfaces which convert ships heading information from NMEA 0183 protocol to one of a range of Synchro formats

- 115/90 V ac 400 Hz Synchro Output (others available)
- 115 V ac; 400 Hz; 50 VA (variants available)
- Environmentally Protected to IP42
- H 256 mm; W 284 mm; D 186 mm; Weight up to 5.0 kg



MD36/5

SYNCHRO TO NMEA INTERFACE

PRODUCT F036027

Converts Analogue Synchro to Digital NMEA 0183

- 115 V - 400 Hz ref. voltage, 90 V per phase Synchro
- Low Power Consumption; compact and robust
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 222 mm; W 146 mm; D 55 mm

Dual Channel version: **MD36/5D** PRODUCT F036028

- With 2 separate inputs and 2 separate outputs



MD36/6

STEP (S-TYPE) TO NMEA INTERFACE

PRODUCT F036026

Converts Legacy STEP to Digital NMEA 0183

- 3 Line STEP Input
- 24 - 70 V dc STEP supply
- Alignment facility
- Low power consumption; Compact and Robust
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 222 mm; W 146 mm; D 55 mm



MD36/8

NMEA TO STEP (S-TYPE) INTERFACE

PRODUCT F036021

Converts Digital NMEA 0183 to Legacy Step (S-Type)

- 3 Line STEP Output, 24 - 70 V dc, common negative
- High Accuracy
- Compact and Robust
- Input power supply: 24 V dc
- Environmentally Protected to IP54
- H 222 mm; W 146 mm; D 55 mm



Heading

THD

Rudder

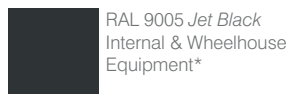
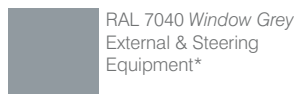
Nav Displays

Power & Data

SPECIFICATIONS

PAINT COLOURS AND CODES

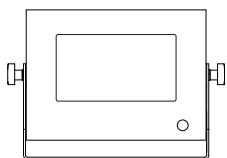
All paint finishes are RAL9005 Jet Black powder coat paint with fine texture finish or RAL7040 Window Grey with semi-gloss finish



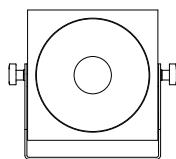
ACCESSORIES

All accessories listed with each product are optional extras and are not included as standard

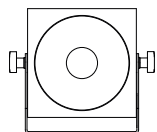
FORM FACTORS



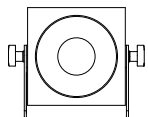
MD75 Form Factor
Fascia 170 x 235 x 6 mm



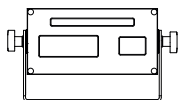
MD68 Form Factor
Fascia 192 x 192 x 6 mm



MD67 Form Factor
Fascia 160 x 160 x 16 mm



MD77 Form Factor
Fascia 144 x 144 x 6 mm



MD74 Form Factor
Fascia 192 x 97 x 6 mm



MD71 Form Factor
Fascia 92 x 92 x 6 mm

*The colours reproduced here are approximations

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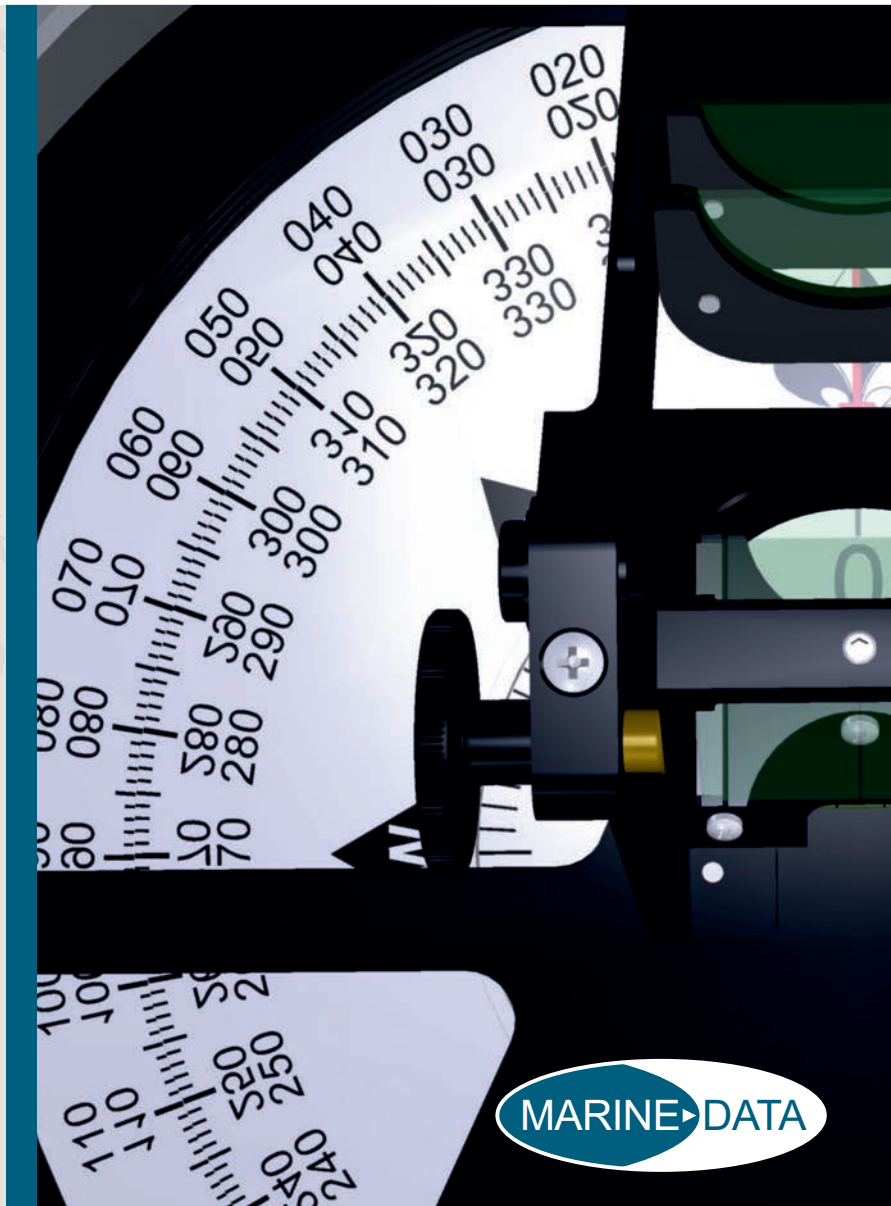


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