

TRANSMITTING HEADING DEVICES / EMC SYSTEM

MD71EMC ELECTROMAGNETIC COMPASS SYSTEM

SKU F071101

[View Online >](#)

FEATURES

- **Provides Digital Heading Data from the Electro-Magnetic Compass**
- **No Moving Parts**
- **Unparalleled Accuracy**
- **Intuitive Operator Controls with Bright OLED display with high contrast and wide viewing angles**
- **2x power supply inputs; 2x NMEA 0183 data channels output**
- **Correction of Magnetic Deviation and Variation**
- **Automatic Calibration**
- **A Backup or an Alternative to a Gyro**

Increasingly, Maritime Authorities are accepting the use of Transmitting Heading Device (THD) Systems on board vessels.

Marine Data offers two types of THD system:

- A system which senses the angular position of a ship's magnetic compass card; known as a Transmitting Magnetic Compass System (TMC)
- A system which directly senses the Earth's magnetic field; known as an Electro-Magnetic Compass System (EMC)

OVERVIEW

The Marine Data MD71EMC is an Electro-Magnetic Compass (EMC) System which detects the Earth's magnetic field directly. It then transmits the ship's Heading over a NMEA 0183 digital connection to one or more Heading Repeaters installed at any convenient location on a vessel. The EMC has no moving parts – unlike a TMC (Transmitting Compass) which detects the moving compass card of a ship's compass in its binnacle.

The MD71EMC uses the latest technology to accurately process and convert the ship's magnetic compass heading to NMEA 0183 heading data with unparalleled accuracy at speeds of up to 70 knots and rates of turn up to 20° per second. The system has been developed with improved magnetic correction facilities to reduce deviation effects caused by the magnetic influence of the craft.

APPLICATIONS

- Provides a digital NMEA heading output to drive a Heading Repeater (or other devices) at a convenient location
- A solution for when size of the craft makes it physically impossible or financially imprudent to install a gyro

ACCESSORIES

- Trunnion Bracket Kit for MD71THD Control Head

RELATED PRODUCTS

- [MD96JB/8](#) - Junction Box – to supply power and act as breakout box for 2x NMEA 0813 data channels
- [MD94DDU](#) - Data Distribution Unit – to supply power and for feeding several Heading Repeaters
- The complete range of Marine Data [Heading Repeaters](#)

PHYSICAL	
Weight & Dimensions:	MD71THD: H 96; W 96; D 35 (mm); 0.50 kg MD97CSP: L 146; W 64; D 41 (mm); 0.35 kg MD53A/B: H 166; W 142; Ø 123 (mm); 1.00 kg <i>Excludes cables & connectors</i>
Mounting:	MD71THD: Panel mount; Trunnion (optional) MD53A/B: Integral Trunnion Bracket
Connections:	MD71THD: 15-way D-type plug; 9-way D-type socket; MD53A/B: Buccaneer™ type male MD97CSP: Buccaneer™ type female; 1x Gland
Finish:	RAL7040 Window Grey, semi-gloss

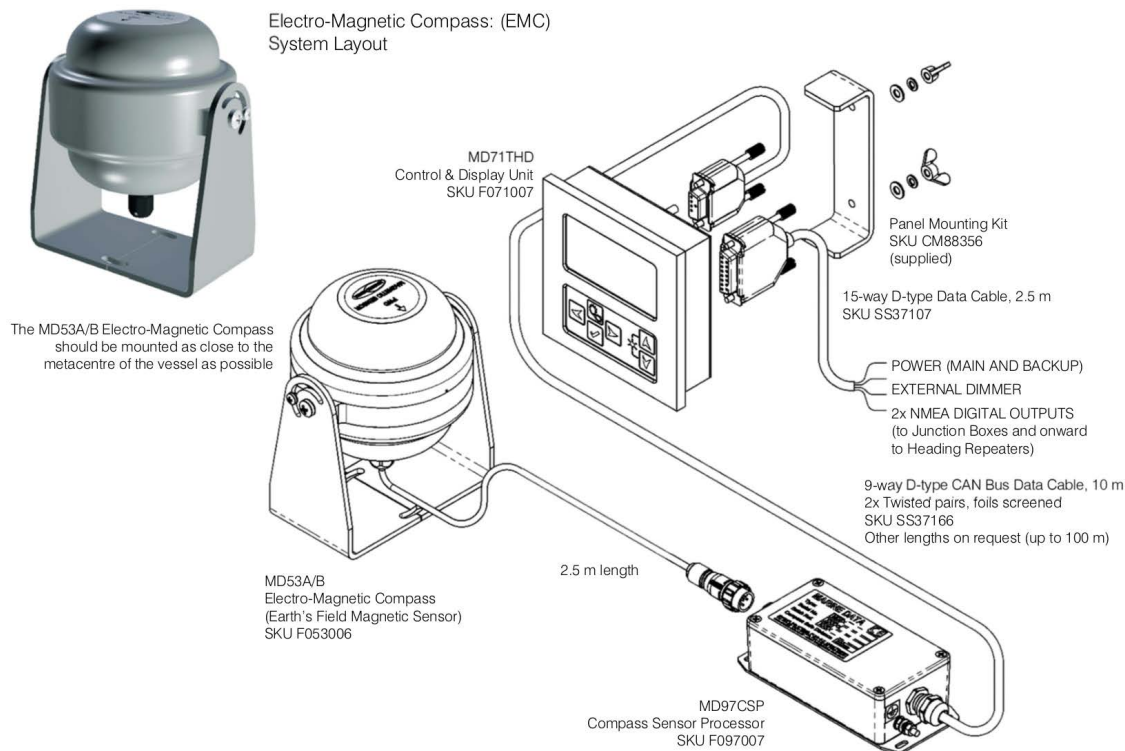
ELECTRICAL	
Power Supply:	24 V dc; 6 W
Data Output:	2x NMEA 0183 Data Channels
Data Sentences:	HDT, HDG and HDM

APPROVALS	
Conforms with:	IEC 60945; IEC 61162-1

OPERATIONAL	
Performance:	± 1° (static) accuracy
Display:	2.7" (128 x 64 pixels); OLED - Yellow
Accuracy:	<= 0.5° after ADC (depending on sensor)
Alarms:	Audible sounder

ENVIRONMENTAL	
IP rating:	MD71THD: IP54 MD97CSP: IP65 MD53A/B: IP65
Operating temp:	-15°C to +55°C
Storage temp:	-25° C to +70° C
RoHS:	Compliant
Compass:	Safe Distance: (MD71THD & MD97CSP): 50cm

ADDITIONAL	
Supplied:	Panel Mounting Kit
Supplied:	15-way D-type data cable, 2.5 m
Supplied:	9-way D-type CAN Bus data cable; 10 m



**The MD71THD Control and Display Unit can display the heading in numeric form as a basic heading repeater (compass repeater). However, we always recommend using a dedicated Marine Data Heading Repeater suitable for the precise purpose to which it will be put (e.g. a repeater for steering the vessel; a repeater for taking bearings; a repeater to be mounted on the bridge wing, etc.)



Copyright © 2018 Marine Data Systems Ltd. - MD71EMC Datasheet v06r01

Vittlefields Technology Centre, Forest Road, Newport, Isle of Wight, United Kingdom. PO304LY
Marine Data Systems Ltd. reserves the right to make changes to its products and specifications without prior notice.