

## TRANSMITTING HEADING DEVICES / TMC SYSTEM

# MD97TMC TRANSMITTING MAGNETIC COMPASS SYSTEM – STANDARD

SKU: F097100

[View Online >](#)

## FEATURES

- **Provides Digital Heading Data from a Ship's Magnetic Compass**
- **Simplified system design with just two main components**
- **Unparalleled Accuracy; Intuitive Operator Controls**
- **Automatic Sensor-to-Compass Calibration**
- **Magnetic Sensors Fully sealed to IEC 60945 Exposed Area Classification**
- **2x NMEA 0183 outputs**

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 MD97TMC is a Transmitting Magnetic Compass (TMC) System which detects and transmits the ship's Compass Heading over a NMEA 0183 digital connection to one or more Heading Repeaters (Compass Repeaters) at any convenient location on a vessel.

The Calibration Control and Sensor Processor is used to calibrate the Compass Sensor by turning the ship through 390°. The latest technology accurately processes and converts compass card position to NMEA 0183 Heading Data.

The Marine Data MD97TMC Transmitting Magnetic Compass System is intuitive to use with quick and easy installation.

## APPLICATIONS

- Provides 2 digital NMEA heading outputs to drive Heading Repeaters (or other devices) at a convenient location
- An elegant alternative to using an optical reflector in a ship's magnetic compass installation

## ACCESSORIES

- [MD71THD](#) - Control & Display unit provides additional functionality
- MD54 - Compass Sensor Adhesive Mount
- MD58 - Compass Sensor Bracket Mount

## 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

<b>Weight &amp; Dimensions:</b>	MD97CSP: L 146; W 64; D 41 (mm); 0.35 kg MD52A/B: H 18; Ø 69 (mm); 0.12 kg <i>Excludes cables &amp; connectors</i>
<b>Mounting:</b>	MD97CSP: Surface Mount MD52A/B: MD54 or MD58 Mountings direct to compass
<b>Connections:</b>	MD97CSP: Buccaneer™ type female MD52A/B: Buccaneer™ type male
<b>Finish:</b>	Jet Black (RAL9005) Fine-texture Powder Coat

## ELECTRICAL

<b>Power Supply:</b>	24 V dc; 1.5 W
<b>Data Output:</b>	2x NMEA 0183 Data Channels (Heading)

## OPERATIONAL

<b>Performance:</b>	± 1.0° resolution
<b>Accuracy:</b>	≤ 0.5° after ADC (depending on sensor)
<b>Alarms:</b>	Relay contact

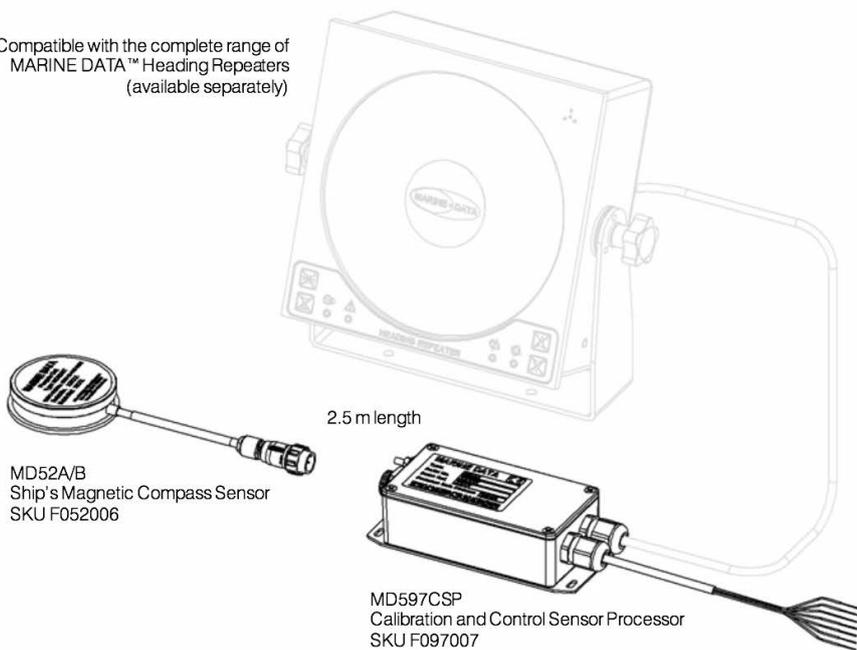
## ENVIRONMENTAL

<b>IEC 60945 Equipment Category:</b>	MD97CSP: Exposed Area MD52A/B: Exposed Area
<b>Operating temp:</b>	-15°C to +55°C
<b>Storage temp:</b>	-25° C to +70° C
<b>RoHS:</b>	Compliant
<b>Compass:</b>	Safe Distance: (MD97CSP): 50cm

## APPROVALS

<b>Conforms with:</b>	IEC 60945; IEC 61162-1
-----------------------	------------------------

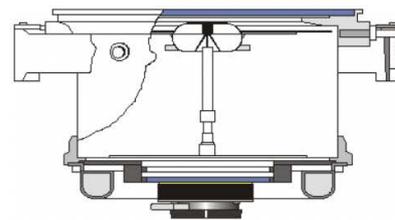
Compatible with the complete range of MARINE DATA™ Heading Repeaters (available separately)



MD52A/B  
Ship's Magnetic Compass Sensor  
SKU F052006

MD597CSP  
Calibration and Control Sensor Processor  
SKU F097007

POWER (MAIN AND BACKUP)  
EXTERNAL DIMMER  
2x NMEA DIGITAL OUTPUTS  
(to Junction Boxes and onward  
to Heading Repeaters)



MD52A/B sensor mounts underneath the ship's compass bowl using mounting MD54 or MD58 (available separately, depending on the host compass type)



MD54 Compass Sensor Adhesive Mount  
(available separately) SKU F054001\*



MD58 Compass Sensor Bracket Mount  
(available separately) SKU F058001\*

\*One sensor mount is a required option (available separately) - depending on the type of host magnetic compass; please contact Marine Data to obtain the correct mount.



Copyright © 2021 Marine Data Systems Ltd. - MD97TMC Datasheet v06r04

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.