



TRANSMITTING HEADING DEVICES / TMC SYSTEM

MD52A/B MAGNETIC COMPASS SENSOR

SKU: F052006

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FEATURES

- **A Magnetic Fluxgate Coil (Compass Pickoff Coil)**
- **Transmitting Heading Device (THD)**
- **Provides Digital NMEA 0183 Heading Data as part of the complete MD71THD System**
- **The magnetic sensing component in a Marine Data Transmitting Magnetic Compass System (TMC)**
- **Senses the movement of a ship's Magnetic Compass Card**
- **Rugged Weatherproof Acetal Case**

OVERVIEW

The MD52A/B Ship's Magnetic Compass Sensor is the sensing element at the heart of a Marine Data Transmitting Magnetic Compass System (TMC). The MD52A/B contains a highly sensitive magnetic fluxgate coil which detects and follows the movement of the ship's compass card.

The weatherproof MD52A/B is mounted concentrically on a gimballed host magnetic compass - usually inside the standard ship's binnacle.

The MD52A/B must be connected with the MD97CSP Compass Sensor Interface which drives the coil and provides NMEA 0183 Heading Data to be forwarded to the ship's Compass Repeaters.

The MD52A/B can be used in a simple TMC to drive a precision Steering Repeater at the ship's steering position, providing a convenient and accurate display of the ship's magnetic compass.

The MD52A/B fits inside most standard compass binnacles without requiring any modifications. Optional mountings are available: the MD54 Mounting Spacer and the MD58 Mounting Bracket.

APPLICATIONS

- Provides a source of NMEA 0183 Digital Heading Data as part of the complete the Marine Data Transmitting Heading Device (THD) System; an alternative, or backup system to a gyrocompass as a source of Heading

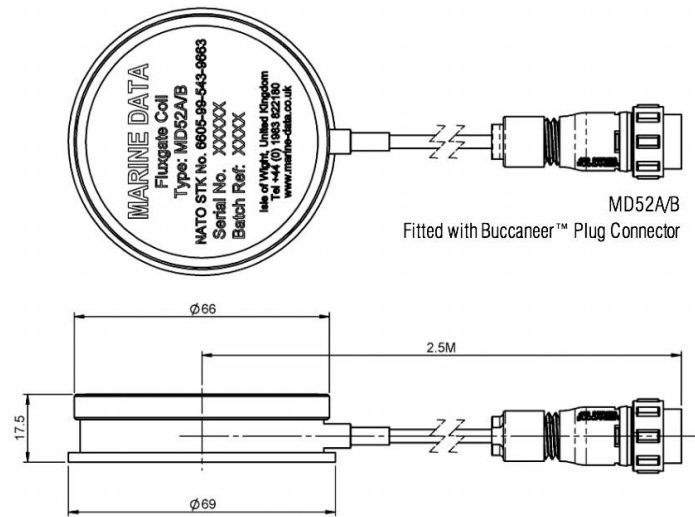
RELATED PRODUCTS & ACCESSORIES

- [MD54](#) - Compass Sensor Mounting Spacer (Self Adhesive)
- [MD58](#) - Compass Sensor Mounting Bracket
- [MD71THD](#) - Control & Display Unit - Required for magnetic corrections and for fluctuation damping
- [MD97CSP](#) - Compass Sensor Processor – Required

PHYSICAL	
Weight:	0.12 kg
Dimensions:	H 18 mm; Ø 69 mm
Mounting:	Fixed to the host magnetic compass
Connections:	5-way screened captive cable; 2.5 m
Construction:	Black Acetal

ELECTRICAL	
Power Supply:	Power is supplied by the Marine Data MD97CSP Compass Sensor Processor; 10 V; 400 - 500 Hz
Data input:	Local magnetic field from host compass card
Data Output:	3 phase positional signal
Cable:	2.5 m multicore data cable tail

OPERATIONAL	
Performance:	± 1° of the host compass card when fitted centrally with respect to the compass and 90 mm axially from a host compass card of 2000 Gauss (CGS); 0.2 Tesla (SI)
Follow-Up Rate:	Near instantaneous (limited by host compass card)



All dimensions in mm



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ENVIRONMENTAL	
IEC 60945 Equipment Category:	Exposed Area
Operating temp:	-15°C to +55°C
RoHS:	Exempt

APPROVALS	
Compass system can be supplied in a Class A1 Binnacle to ISO 25862 and IEC 60945	

ADDITIONAL	
<ul style="list-style-type: none"> Requires the MD97CSP Compass Sensor Processor to drive the coil, dampen heading fluctuations and provide a digital NMEA heading output Requires the MD71THD to integrate the THD system components, calibrate the system for variation and deviation and display the Heading Requires host compass manufacturer's fixing bracket or MD58 Mounting Bracket or MD54 Mounting Spacer Heading may be forwarded to a range of Marine Data Heading Repeaters for display at a convenient location on a vessel 	



• MD54 Compass Sensor Adhesive Mount (can also be screw-mounted)



• MD58 Compass Sensor Bracket Mount (screw fastening)