TRANSMITTING HEADING DEVICES / TMC SYSTEM

MD97CSP COMPASS SENSOR PROCESSOR

SKU: F097007

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FEATURES

- **The Signal Processor in a Marine Data Transmitting Heading Device (THD) System (EMC & TMC)**
- **Performs the calculations necessary for the basic calibration of the connected magnetic sensor**
- **Proprietary algorithms are used to calibrate the MD52A/B with the ship's Magnetic Compass and provide deviation correction for the MD53A/B.**
- **Adds Magnetic Variation to the Magnetic Heading to calculate True Heading**
- **Deviation and Variation parameters are stored in non-volatile memory**
- **Data and control signals are transmitted between the MD97CSP and the MD71THD through a dedicated, industry-standard CAN Bus using proprietary protocols**
- **Rugged Marinised Construction**

OVERVIEW

The MD97CSP sensor processor is an electronic processing unit mounted in a waterproof enclosure with a socket connection for the sensor and internal screw terminals for connection of the cable to the MD71THD Control & Display Unit in a Transmitting Heading Device (THD) System. The MD97CSP has no standalone functionality.

The MD97CSP sensor processor unit accepts the signals provided by either the MD52A/B (TMC) Sensor or the MD53A/B (EMC) Sensor and performs the calculations necessary for the basic calibration of the fluxgate sensor and provide a measurement of Magnetic Heading.

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.

APPLICATIONS

- Connects with the MD71THD Control and Display Unit (required) In a Marine Data Transmitting Heading Device (THD) System

RELATED PRODUCTS

- MD71THD - Control and Display Unit – Required
- MD52A/B - Ship's Magnetic Compass Sensor**
- MD53A/B - Earth's Field Sensing Electro-Magnetic Compass**
- The complete range of Marine Data Heading Repeaters
- MD94DDU - Data Distribution Unit for additional Repeaters

** One of either of these items is required

SPECIFICATIONS

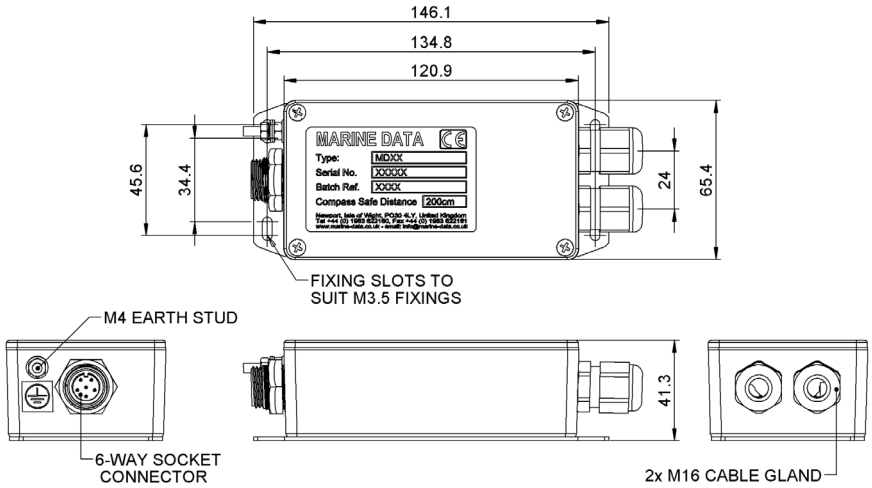
PHYSICAL	
Weight:	0.35 kg
Dimensions:	H 91 mm; W 91 mm; D 64mm (excl. glands)
Mounting:	Surface-mounted, 4x external mounting slots 9x 3.7 mm; fixing centres: 40 x 135 mm
Connections:	1x 6-way Buccaneer™ connector to Sensor 1x M16 Cable Gland to Internal Screw Terminals (Interconnection cable) M4 Earth stud
Construction:	Aluminium alloy enclosure
Finish:	Jet Black (RAL9005) Fine-texture Powder Coat

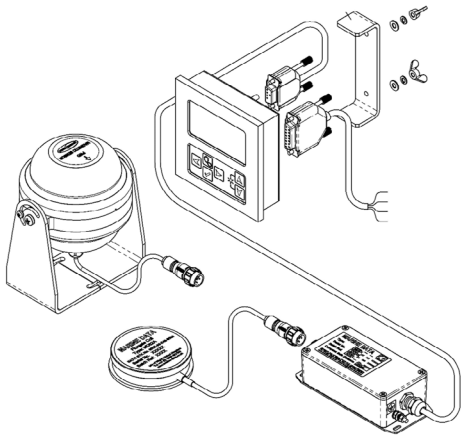
ELECTRICAL	
Power Supply:	Provided by MD71THD (Required)
Data Input:	3 phase positional signal from magnetic sensor Control signals from MD71THD
Data Protocol:	Proprietary over CAN Bus
Data Output:	Heading

OPERATIONAL	
Performance:	Heading Accuracy: TMC: <±1.0º; EMC: <±1.0º
MTBF:	>30,000 hours

ENVIRONMENTAL	
IEC 60945 Equipment Category:	Exposed Area
Operating Temp:	-15°C to +55°C
Compass:	Safe Distance 50 cm

ADDITIONAL	
Normally supplied as part of a complete Marine Data THD System	
Required:	MD71THD for any functionality
Required:	Magnetic Sensor MD52A/B or MD53A/B
Option:	Additional Compass Repeater(s)
Option:	MD94DDU Data Distribution Unit for multiple Repeaters





All dimensions in mm