



## COMPASS &amp; HEADING / DIAL REPEATERS

# MD77HRB DIAL COMPASS HEADING REPEATER DISPLAY

SKU: F077058

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## FEATURES

- **Traditional Marine Compass Card Display**
- **NMEA Digital Input**
- **Automatic Baud Rate Detection**
- **Automatic indication of loss of valid heading data**
- **Automatic detection of a previously lost heading data type without requiring a reset**
- **Prioritisation of heading type**
- **Local and Remote Dimming Control**
- **Rugged, Marinated Aluminium Construction**

## OVERVIEW

The MD77HRB is a NMEA-based Compact Heading Repeater with a clear, easy to read analogue dial display of heading data. The 118mm diameter dial is graduated in 1 degree increments. The MD77HRB is housed in a robust, compact aluminium enclosure fitted with a rotary encoder for controlling the level of background illumination.

When multiple heading sources are available in the heading data (e.g. True and Magnetic) the MD77HRB automatically prioritises and indicates which heading source is in current use. The encoder has a pushbutton facility for an internal self-test.

Compact and rugged, the MD77HRB offers a heading repeater solution for digital heading data (ship's heading) to be displayed and monitored at any convenient location on a vessel. Suitable for locations where the available space is limited and may be either bulkhead or panel mounted and finished in Jet Black (RAL9005) Fine-texture Powder Coat to complement other marine navigation equipment.

The MD77HRB from Marine Data: Flexible in application, easy to install and simple to maintain.

## APPLICATIONS

- The MD77HRB displays True or Magnetic Heading Data transmitted from marine equipment compatible with NMEA 0183 (IEC 61162-1) (Gyro compass, TMC, EMC, GPS Compass etc.)

## ACCESSORIES

- Panel Mounting Kit (Supplied)
- Bulkhead Bracket Mounting Kit
- Remote Dimmer Control (0-24 V dc)

## RELATED PRODUCTS

- The complete range of Marine Data [Heading Repeaters](#)
- Transmitting Heading Device (THD) Systems ([TMC](#) and [EMC](#))



## PHYSICAL

|                      |  |
|----------------------|--|
| <b>Weight:</b>       | 1.25 kg (with bulkhead mounting bracket)                           |
| <b>Dimensions:</b>   | H 166 mm; W 200 mm; D 101 mm<br>Fascia 144 x 144 mm; Dial Ø 118 mm |
| <b>Mounting:</b>     | Panel or optional Bulkhead mounted                                 |
| <b>Connections:</b>  | 1x data cable to 15-pin D-sub plug                                 |
| <b>Construction:</b> | Aluminium alloy enclosure  |
| <b>Finish:</b>       | Jet Black (RAL9005) Fine-texture Powder Coat                       |

## ELECTRICAL

|                        |   |
|------------------------|---|
| <b>Power Supply:</b>   | 24 V dc 4 W nominal (18-32 V dc)  |
| <b>Data Input:</b>     | Digital RS422   |
| <b>Data Protocol:</b>  | NMEA 0183; 4800 / 9600 / 19200 / 38400 Baud, auto-selecting                 |
| <b>Data Sentences:</b> | THS, HDT, HDG and HDM; detected on start-up in descending order of priority |
| <b>Cable:</b>          | 2.5 m multicore data cable  |

## OPERATIONAL

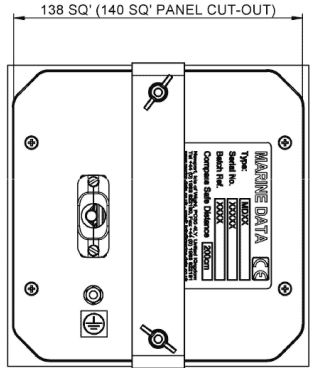
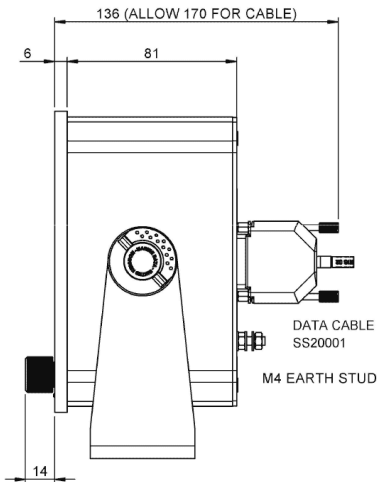
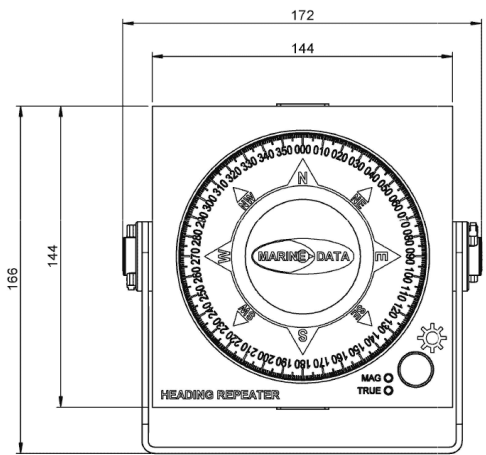
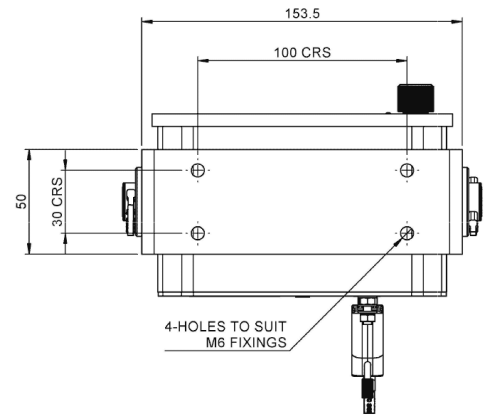
|                           |  |
|---------------------------|--|
| <b>Performance:</b>       | ± 0.5° accuracy  |
| <b>Follow Up Rate:</b>    | >20° per second  |
| <b>Dial Resolution:</b>   | Scale marked at 1°, 5°, 10° & 45°                                      |
| <b>Dial Illumination:</b> | LED array with local and remote dimming control. Red tint              |
| <b>Display:</b>           | Rotating compass card dial display                                     |
| <b>Error Indication:</b>  | Dial oscillates ±35°   |
| <b>Heading Type:</b>      | LED indicator for heading source type: Gyro Compass / Magnetic Compass |
| <b>MTBF:</b>              | 30,000 hours   |

## ENVIRONMENTAL

|                                      |                                |
|--------------------------------------|--------------------------------|
| <b>IEC 60945 Equipment Category:</b> | Protected Area                 |
| <b>Operating temp:</b>               | -15°C to +55°C                 |
| <b>RoHS:</b>                         | Compliant                      |
| <b>Compass Safe Distance:</b>        | Standard: 85cm; Steering: 45cm |

## APPROVALS

|                       |  |
|-----------------------|--|
| <b>Conforms with:</b> | BS EN 60945:2002 (BSI, 2008)<br>BS EN 61162-1:2016 (BSI, 2016)<br>BS EN 62288:2014 (BSI, 2016)<br>BS ISO 8728:2014 (BSI, 2014)<br>BS ISO 16328:2014 (BSI, 2014)<br>IMO Res. A.424(XI) (IMO, 1979)<br>IMO Res. A.821(19) (IMO, 1995)<br>IMO Res. MSC.36(63) (IMO, 1994)<br>IMO Res. MSC.97(73) (IMO, 2000)<br>IMO Res. MSC191(79) (IMO, 2004) |
| <b>Type Approval:</b> | DNV  |



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All dimensions in mm