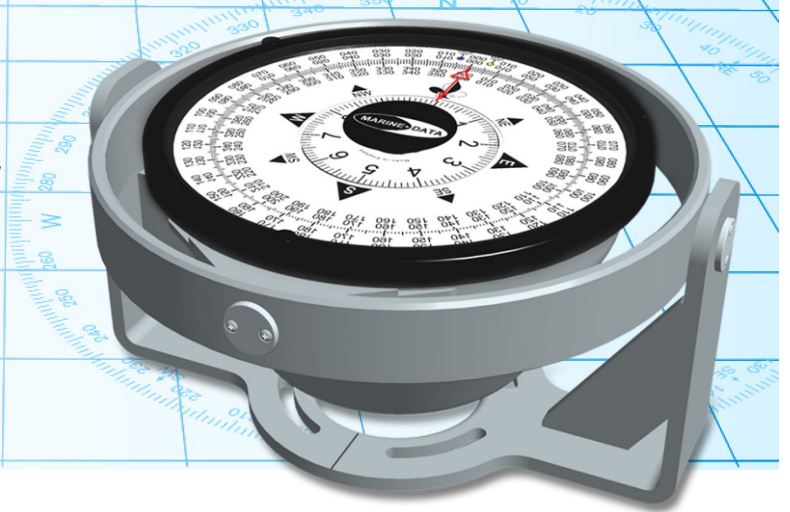


## MD69BR SHIP'S BEARING REPEATER

- IP67 Weatherproof Marinised Bearing Repeater
- Dual scale 36:1 Precision Compass Card Display
- NMEA 0183 Digital Input
- True / Magnetic Source Indication
- Local and Remote Dimming Control
- Available to Military Specifications
- Finished in RAL7040 Window Grey



## OVERVIEW

The MD69BR from MARINE DATA is a dual scale NMEA-based heading repeater designed for taking celestial and terrestrial bearings. Equipped with a 36:1 precision dual scale compass card display, digital heading data (ship's heading) may be conveniently displayed at any location on a vessel.

With a range of mounting options and accessories, the MD69BR offers a bearing repeater solution for most locations and may be bulkhead, surface or stand mounted. Finished in grey to complement other external marine navigation equipment.

The MD69BR Bearing Repeater from MARINE DATA: flexible in application, easy to install and simple to maintain.

## SPECIAL FEATURES

- Dual scale 36:1 precision concentric dial display
- Gimballed and balanced for optimal taking of bearings using the optional MD69AZI Azimuth Sight
- Automatic selection and prioritisation of NMEA heading data type
- Automatic warning of loss of valid heading data
- Automatic detection of a previously lost heading data type without requiring a reset
- True / Magnetic Source Indication
- Local and Remote dimming control

## APPLICATIONS

- Repeats the heading display of a ship's magnetic or gyro compass at a convenient location on a vessel
- Allows celestial and terrestrial bearings to be taken when used in conjunction with the MD69AZI Azimuth Sight or the MD69BC Bearing Circle. The MD60A2K Telescopic Alidade is recommended for making detailed azimuth measurements.

## RELATED PRODUCTS & SYSTEMS

- MD69AZI Azimuth Sight with sun filters, Thomson Pattern
- MD69BC Bearing Circle with sighting vanes and shadow pin
- MD60A2K Precision Telescopic Alidade with 7x 38 mm optics
- MD69/21 Pelorus Stand Assembly, complete
- MD69/22 Bearing Compass Repeater on Bulkhead Mount, complete



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## PHYSICAL

- Weight: 7.0 kg (optimally balanced for Azimuth Sight)
- Dimensions: H 164 mm W 325 mm; Body Ø 246 mm  
Outer dial Ø 185 mm; Inner dial Ø 95 mm  
Verge ring 20 mm (visible)
- Mounting: Gimbal & Trunnion (standard); Pelorus Stand and Bulkhead Bracket options available
- Connections: Multicore cable through watertight gland
- Construction: Aluminium alloy enclosure
- Finish: RAL7040 Window Grey, semi-gloss

## ELECTRICAL

- Power Supply: 24 V dc 8 W nominal (22-31 V dc)
- Data input: RS422 NMEA 0183; 4800 Baud; others available
- Data sentences: HDT, HDG and HDM; selected in descending order of priority
- Cable: 2.5 m multicore data cable tail

## OPERATIONAL

- Performance:  $\pm 0.01^\circ$  resolution
- Follow-Up Rate:  $20^\circ$  per second
- Gimbal Action:  $\pm 45^\circ$  pitch and roll
- Display: Dual scale 36:1 rotating dial display
- Heading LEDs: Blue = True Heading; Yellow = Magnetic Heading
- Resolution: Outer scale marked at  $1^\circ$ ,  $5^\circ$ ,  $10^\circ$  &  $45^\circ$ ; Inner scale marked at  $0.1^\circ$  &  $1^\circ$
- Illumination: LED array with local & remote dimming control; red tint
- Error Indication: Loss of valid data: Dial oscillates  $\pm 35^\circ$  about the last known good heading; dial illumination flashes

## ENVIRONMENTAL

- IP rating: IP67
- Operating temp:  $-25^\circ\text{C}$  to  $+55^\circ\text{C}$
- Shock: STANAG 4549 - NS (0.03; 3.0; 300)
- Vibration: MIL-Std-167-1A / IEC 60945
- EMC: MIL-Std-461E / IEC 60945
- Thermal: MIL-Std-810F / IEC 60945
- Noise: MIL-Std-1474D  $\leq 53$  dB
- Compass: Safe Distance 100 cm

## APPROVALS

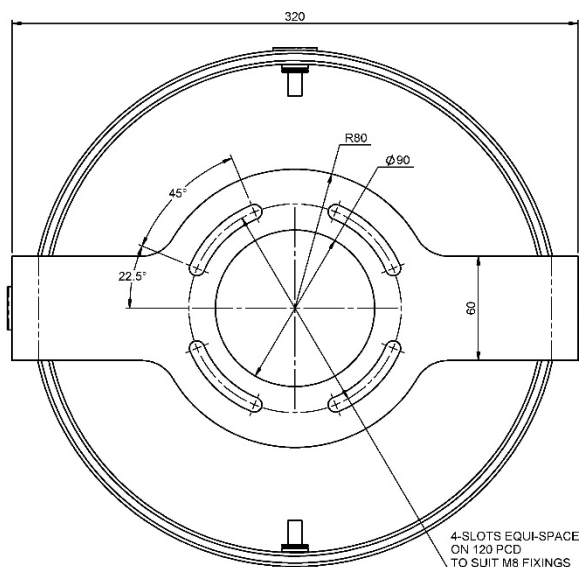
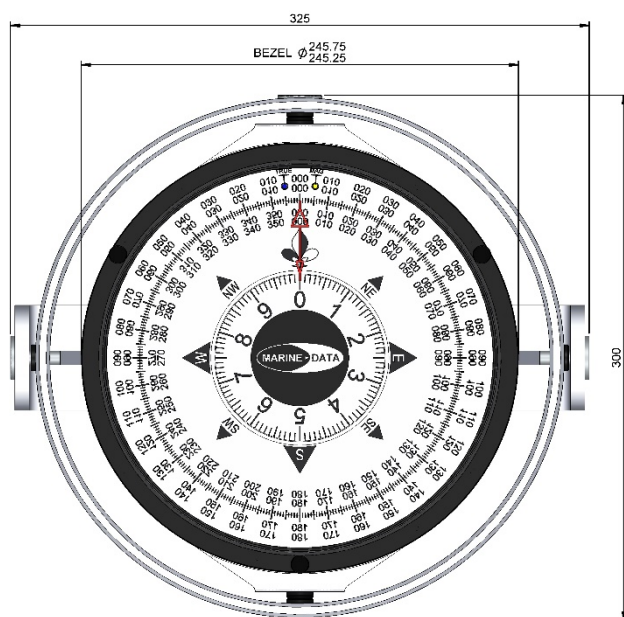
- Type Approval: Germanischer Lloyd (GL)

## ADDITIONAL INFORMATION

- Supplied: MD69CB/W IP65 rated waterproof terminal box

## ACCESSORIES

- MD69AZI Azimuth Sight with sun filters, Thomson Pattern  
*Product F069051*
- MD69BC Bearing Circle with sighting vanes and shadow pin  
*Product F069052*
- MD60A2K Precision Telescopic Alidade, *Product F060001*
- MD69CPC Canvas Protective Cover, *Product CM88526*



ALL DIMENSIONS MM  
SURFACE MOUNTING OPTION SHOWN



Canvas Protective Cover (below)  
available as an accessory

