

WITH DUAL SCALE PRECISION DIALS - SKU MNE-0003

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# **OVERVIEW**

The MD69BR/BO from MARINE DATA is our standard dual scale NMEA-based heading repeater available as a bowl-only option, ideal for retrofit, replacement or panel mounting. 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/BO offers a bearing repeater solution for most locations and may be bulkhead, surface, panel or stand mounted. Finished in grey to complement other external marine navigation equipment.

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

# SPECIAL FEATURES

- Fits into the standard MARINE DATA gimbal ring system as used with the MARINE DATA MD69/BR Repeater (SKU MNE-0004)
- May be flush-mounted in a panel
- Dual scale 36:1 precision concentric dial display
- 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. If gimbal-mounted, the MD60A2K Telescopic Alidade is recommended for making detailed azimuth measurements with this unit.

# **RELATED PRODUCTS & SYSTEMS**

- MD69BR Dual Scale Bearing Repeater, complete with gimbal ring and trunnion
- 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) H 127 mm W 271 mm; Body Ø 246 mm Dimensions: Outer dial Ø 185 mm; Inner dial Ø 95 mm Verge ring 20 mm (visible) Gimbal & Trunnion: Pelorus Stand and Bulkhead Bracket Mounting options:

ontions available

Multicore cable through watertight gland Connections:

Aluminium alloy enclosure Construction: Finish: RAL7040 Window Grey, semi-gloss

### **ELECTRICAL**

Power Supply: 24 V dc 8 W nominal (22-31 V dc)

RS422 NMEA 0183; 4800 Baud; others available Data input:

Data sentences: HDT, HDG and HDM; selected in descending order of priority

Cable: 2.5 m multicore data cable tail

## **OPERATIONAL**

 $\pm~0.01^{\circ}$  resolution Performance: Follow-Up Rate: 20° per second  $\pm 45^{\circ}$  pitch and roll Gimbal Action:

Dual scale 36:1 rotating dial display Display:

Heading LEDs: Blue = True Heading; Yellow = Magnetic Heading

Outer scale marked at 1°, 5°, 10° & 45°; Inner scale marked at Resolution:

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:

Operating temp: -25°C to +55°C

STANAG 4549 - NS (0.03; 3.0; 300) Shock: Vibration: MIL-Std-167-1A / IEC 60945 MIL-Std-461E / IEC 60945 FMC: MIL-Std-810F / IEC 60945 Thermal: MIL-Std-1474D <= 53 dBNoise: Safe Distance 100 cm Compass:

#### **APPROVALS**

Germanischer Lloyd (GL) Type Approval:

### ADDITIONAL INFORMATION

Bowl only, with 2.5 m captive cable. Mountings and junction Supplied:

boxes are optional extras

#### **ACCESSORIES**

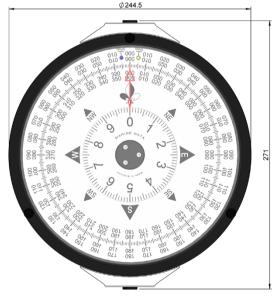
MD69AZI Azimuth Sight with sun filters, Thomson Pattern

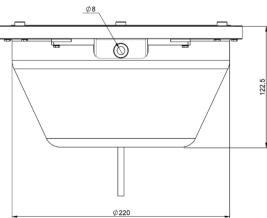
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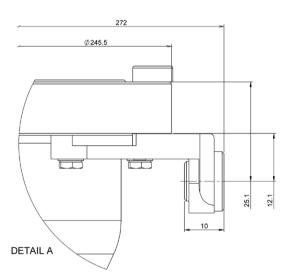
Bearing Circle with sighting vanes and shadow pin SKUF069052MD69BC

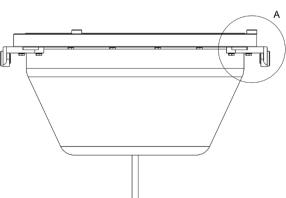
Precision Telescopic Alidade, SKU F060001 MD60A2K

Canvas Protective Cover, SKU CM88526 MD69CPC









ALL DIMENSIONS MM

