

GDL HGD-100 Digital Gyro Repeater

Solid-State Digital Gyro Repeater | Marine Engineering | English Edition

1. PRODUCT OVERVIEW

GDL HGD-100 is a next-generation digital gyrocompass bearing repeater combining traditional compass presentation with a modern high-resolution display. Its solid-state design contains no gears, motors or wearing moving parts, providing silent, wear-free and maintenance-free operation. The 7-inch round LCD displays heading data received from the master gyrocompass or an NMEA data line clearly and in real time.

2. INTELLIGENT FEATURES

- 360-degree precision dial with full circular segmentation and clear 10-degree markings.
- User-selectable dial colour and small, medium or large 10-degree numeral fonts.
- Automatic NMEA HDT / HDG detection: T for True heading and M for Magnetic heading. Magnetic compasses are read digitally through the NMEA HDG sentence, not by direct analogue connection.
- Ergonomic three-button control with menu access and direct brightness adjustment outside the menu.
- RS-422 / RS-232 hardware support with menu-selectable 4800, 9600 and 38400 baud rates.
- Wide 9-36V DC supply range for variable vessel electrical systems.

3. TECHNICAL SPECIFICATIONS

PARAMETER	TECHNICAL DETAIL / VALUE
Model	GDL HGD-100
Display	7-inch round LCD indicator
Dial	Full 360-degree segmentation with 10-degree markings
Mechanical design	Gearless and motorless; fully digital solid-state design
Input protocol	NMEA 0183: \$HEHDT, \$HEHDG, \$HEROT, \$THS and similar
Display customization	Dial colour and small / medium / large 10-degree numeral font
Automatic mode	T with HDT data; M with HDG data
Magnetic compass integration	Digital NMEA \$HDG input; no direct analogue connection
User interface	Three buttons: Menu plus quick brightness / direction controls
Dimmer	Direct brightness adjustment using forward/back buttons outside the menu
Physical interface	RS-422 / RS-232
Communication speeds	4800 / 9600 / 38400 bps, menu selectable
Operating voltage	9-36V DC marine wide-range input
Mechanical maintenance	No mechanical parts; long-life, wear-free and silent
Compatibility	Standard NMEA 0183 master gyrocompass and NMEA HDG transmitting devices