

# LASEREF™ MARINE STABILIZED GYROCOMPASS

Increasing Reliability and Reducing Ownership Costs  
for your Global Shipping Operations

---

HG2172 LASEREF™

---



# HONEYWELL HG2172 LASEREF™

## MARINE STABILIZED GYROCOMPASS



Honeywell's LaserEF™ Marine Stabilized Gyrocompass (SG) is a self-contained, solid state gyrocompass that provides high accuracy heading, pitch, and roll data. This system utilizes a Hybrid Kalman filter to seamlessly integrate inertial measurements with GPS to provide increased accuracy performance.

The LaserEF™ Marine SG is based on the highly successful commercial aviation LaserEF product family, with over 300 million hours of operational experience and 60,000 deliveries. This unit utilizes Honeywell's high accuracy Ring Laser Gyros and Quartz Accelerometers, which eliminates the need for expensive maintenance, calibration, and refurbishment. With a mean time between failures of over 60,000 hours, the LaserEF™ Marine SG has an expected lifetime of 3-4 times longer than mechanical gyros available today. Users will benefit from a low lifetime ownership costs of any marine gyrocompass on the market today.

### Key Attributes

- **Solid-State Sensors** – Eliminates need for expensive calibration refurbishment, and routine maintenance
- **Demonstrated Reliability** – 3-4 times longer lifetime than mechanical systems
- **Operator-Free Alignment in Motion Feature** – Minimizes crew workload and operational delays
- **Web Interface** – Allows for simple installation and controls
- **Commercially Exportable Components** – Available for purchase nearly anywhere in the world
- **Small Size and Weight** – Ideal for virtually all marine applications
- **Electronic Mounting Tray Alignment** – Reduces installation costs
- **Ethernet and National Marine Electronics Association (NMEA)** – Common interfaces for simple connectivity

### Applications

- Large Vessel Guidance
- Multibeam Survey
- Dynamic Positioning
- Platform Stabilization
- Autonomous Underwater Vehicles
- Remotely Operated Vehicles

### Performance

True heading (GPS Aided).....	0.05 deg (1σ)
True heading (Velocity&Latitude Aided) ..	0.3 deg (1σ)
Pitch/Roll.....	0.01 deg (1σ)

### Physical Characteristics

Size.....	6.4H x 6.5W x 6.4L
Weight.....	9.1 lbs

### Power

Power (Typical) .....	18 Watts
-----------------------	----------

### Environmental

Temperature Operating (Min) .....	-40° C
Temperature Operating (Max) .....	70° C

### Operation

Alignment Time.....	4 Min
MTBF .....	> 60,000 hrs
Vibration .....	2.2 g sine

### Interfaces

I/O Hardware .....	Ethernet
I/O Protocols .....	NMEA + Others

### Certification

IMO, Wheelmark.....	Certified
---------------------	-----------

### Technology

Gyro Technology .....	Digital RLG
Accel Technology .....	Quartz

### Honeywell Aerospace

1944 East Sky Harbor Circle  
 Phoenix, AZ 85034  
 International: 1.602.365.3099  
 U.S. Toll Free: 1.800.601.3099  
[aerospace.honeywell.com/marine](http://aerospace.honeywell.com/marine)