

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

**Visit our website - *Click HERE***

# GG1320AN Digital Ring Laser Gyroscope

## Overview



Click to enlarge



Gyroscopes are critical rotation sensing elements used in navigation systems (inertial navigation systems (INS), attitude and heading reference systems (AHRS) or inertial measurement units (IMUs) for manned and unmanned aircraft, spacecraft, marine vehicles and surface vehicles.

**In addition, gyroscopes are important elements in platform stabilization systems (i.e. antenna stabilization) and where accurate pointing and/or targeting is required.**

Honeywell gyro technologies include:

- Spinning mass mechanical gyros
- Fiber-optic gyros (FOGS)
- Micro-electro-mechanical (MEMS) gyros
- Ring laser gyros (RLG)

**Today, Honeywell's GG1320 digital ring laser gyro (RLG) is the industry standard for precision rotation measurement. It is an affordable high performance inertial sensor with the electronics, power supply and sense element packaged into an easy-to-use compact unit. The user supplies an input voltage and under rotation, the GG1320 provides a compensated rotation output.**

**The principle of operation of a RLG is two counter-propagating laser beams have different frequencies with the difference dependent on rotation rate. Measurement of this difference provides the rotation angle or rotation rate about the RLG's sensitive axis. Honeywell's GG1320 RLG has demonstrated capability of measuring an arc-second of rotation.**

SAVE PAGE AS PDF | FIND A PARTNER | CONTACT US

Feedback

## Specifications

### Dimensions

| | |
|---|---|
| **Weight** | 1 lb. (454 grams) |
| **Size** | Diameter 3.45 in (8.8 cm) millimetre<br>Height 1.77 in (4.5 cm) millimetre |

### Performance Data

| | |
|---|---|
| **Angular Random Walk (ARW)** | 0.0035 deg/root-hour (typical) |
| **Start-Up Time** | 1 second (typical) |
| **Scale Factor - Corrected** | 1,164,352 ±18 pulses/rev. |
| **Sample Frequency** | 2,000 Hz (typical use) 5,000 Hz (maximum) |
| **Rate Input** | 900 deg/ sec (maximum) |
| **Power** | 15 Vdc, 1.6 Watts nominal Watt<br>5 Vdc, 0.375 Watts nominal Watt |

| | |
|---|---|
| **Operating Temperature** | -65°F to +185°F (Operating) -54°C to 85°C |
| **Operating Magnetic Environment** | 0.002°/hr/gauss |
| **Operating Attitude** | -20,000 ft. to +80,000 ft<br>-610 m to +21,336 m |
| **Operating & Non-Operating Shock** | 22 g, half sine, 11 millisecond |
| **Non-operating Temperature Range** | -65°F to +200°F (Non-Operating) -54°C to 93.3°C |
| **Latency** | 168 micro-seconds |
| **Interface** | RS-422, 25 pin micro D Asynchronous, 1 MHz, 8 Bit |
| **Bias Stability** | 0.0035 deg/hr (typical) |
| **Applications** | Manned and Unmanned Aircraft<br>Marine Vehicles<br>Spacecraft<br>Surface Vehicles |

## Resources

| TITLE | CATEGORY | DATE ADDED | SIZE |
|---|---|---|---|
| Brochure: GG1320AN Digital Ring Laser Gyroscope → | Brochure | 05 Feb 2025 | 0.78 MB |

Feedback

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP