

TAG-200

**TWO-AXIS
GYROSCOPE**

TAG-300

**THREE-AXIS
GYROSCOPE**

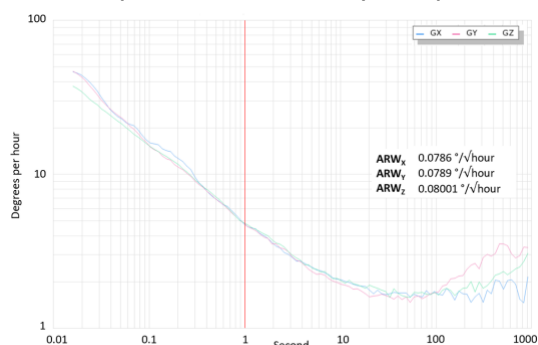


The **Inertial Labs TAG-200** and **TAG-300** are Two-axis and Three-axis Gyroscopes, developed for Electro-Optical Systems, Gimbals, Line-Of-Site and Pan & Tilt Platforms for stabilization and pointing applications. **TAG-200** and **TAG-300** utilize advanced performance, tactical-grade MEMS sensitive elements, of which size, power consumption, reliability and performance are ideal for accomplishing complex tasks requiring accurate stabilization of assorted platforms. Robust technology with proven reliability in the field, Inertial Labs Gyroscope solutions consistently deliver performance in all environments.

Developed for use in particularly harsh environments, the **TAG-200** and **TAG-300** gyroscopes can withstand extreme shock and vibration in accordance with MIL-STD-810 ground mobile use. Additionally, they are fully digitized (RS-232 or RS-422 interfaces), include Built-In-Test (BIT) functionalities and have no moving parts. Key advantages of the Inertial Labs Dual **TAG-200** & Triple **TAG-300** axis Gyroscopes:



- Low Noise
- Low Latency
- Wide Bandwidth
- High Data Rate
- Low Bias Drift
- Low VRE
- High MTBF
- Affordable Price
- ITAR-free



Both **TAG-200** and **TAG-300** are factory calibrated over operational temperature range with very low non-orthogonality and misalignment between sensitive elements, QA/QC tested and supplied with individual Calibration and Acceptance Test Certificates.

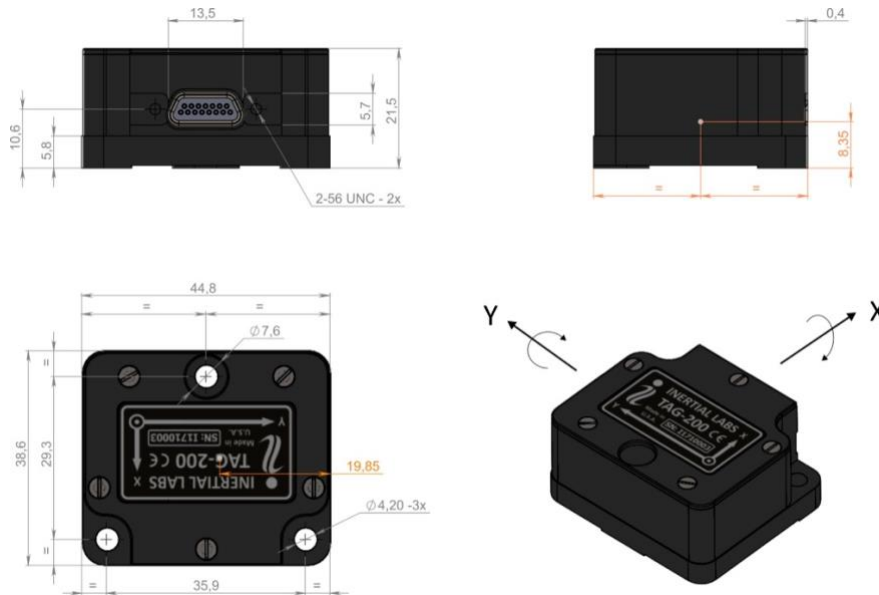
Performance Specifications

| Parameter | Units | Value |
|--|---------|--|
| Output signals | | Angular rates, Temperature, Synchronization output |
| Available colors of enclosure | | Black, Desert Tan or Green |
| Data update rate | Hz | 2000 Hz |
| Start-up time | sec | < 1 |
| Performance | | |
| Number of Axis | | Two (TAG-200); Three (TAG-300) |
| Measurement range | deg/sec | ±450; ±950; ±2000 |
| Bandwidth (-3dB) | Hz | 260 |
| Data update rate | Hz | 2000 |
| Bias in-run stability (Allan Variance, RMS) | deg/hr | 2 |
| Bias repeatability (turn-on to turn-on, RMS) | deg/hr | 20 |
| Bias instability (over temperature range, RMS) | deg/hr | 35 |
| SF accuracy (over temperature range) | ppm | 3000 |
| Noise. Angular Random Walk (ARW) | deg/√hr | 0.08 |
| Non-linearity | ppm | 200 |
| Axis misalignment | mrad | 0.15 |
| Environment | | |
| Mechanical shock (MIL-STD-810G) | g | 1500 |
| Vibration (MIL-STD-810G) | g, Hz | 7, 5 – 2000 |
| Operating temperature | deg C | -40 to +85 |
| Storage temperature | deg C | -50 to +90 |
| MTBF (G _M @ +65degC, operational) | hours | 100,000 |
| Sealing | | IP-67 |
| Electrical | | |
| Supply voltage | V DC | 5 to 30 |
| Power consumption | Watts | 0.8 @ 5V |
| Output Interface | - | RS-422/RS-232 |
| Output data format | - | Binary, ASCII characters, STIM output format |
| EMC/EMI/ESD | | MIL-STD-461G |
| Mechanical | | |
| Size | mm | 39 x 45 x 22 |
| Weight | grams | 70 |

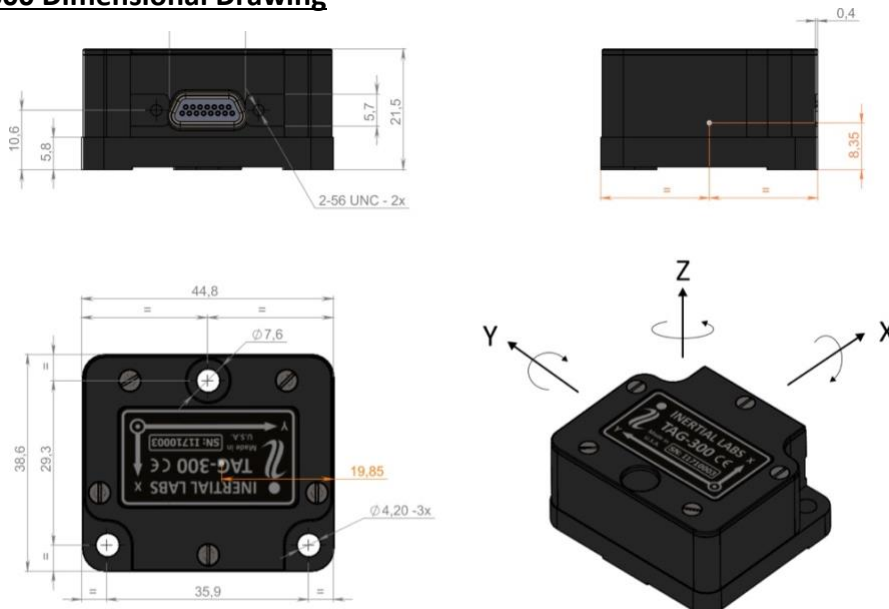
Part Number: TAG-200 - G450 - C1 - B - V1S. - 1
TAG-300 - G950 - G - 2
G2000 - D - 12

| | | |
|------------------------------|---------|---|
| Model | TAG-200 | Two Axis Gyroscopes (IP-67 sealed version) |
| | TAG-300 | Three Axis Gyroscopes (IP-67 sealed version) |
| Gyroscopes measurement range | G450 | ±450 deg/sec measurement range |
| | G950 | ±950 deg/sec measurement range |
| | G2000 | ±2000 deg/sec measurement range |
| Enclosure | C1 | Aluminum Enclosure (IP-67) |
| Color of enclosure | B | Black (default) |
| | G | Green |
| | D | Desert tan |
| Grade | V1S. | Tactical grade. Stabilization S: stabilization & pointing |
| Interface | 1 | RS-232 |
| | 2 | RS-422 |
| | 12 | RS-232 and RS-422 |

TAG-200 Dimensional Drawing



TAG-300 Dimensional Drawing



All Dimensions for all drawings are in millimeters.