

TAG-200

**TWO-AXIS
GYROSCOPE**

TAG-300

**THREE-AXIS
GYROSCOPE**

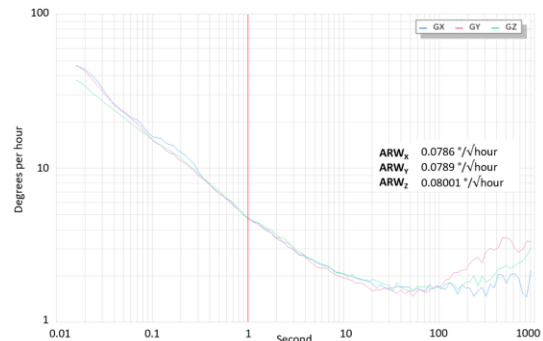


The **Inertial Labs TAG-200** and **TAG-300** are Two-axis and Three-axis Gyroscopes, developed for Electro-Optical Systems, Gimbals, Line-Of-Site and Pan & Tilt Platforms for stabilization and pointing applications. **TAG-200** and **TAG-300** utilize advanced performance, tactical-grade MEMS sensitive 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.

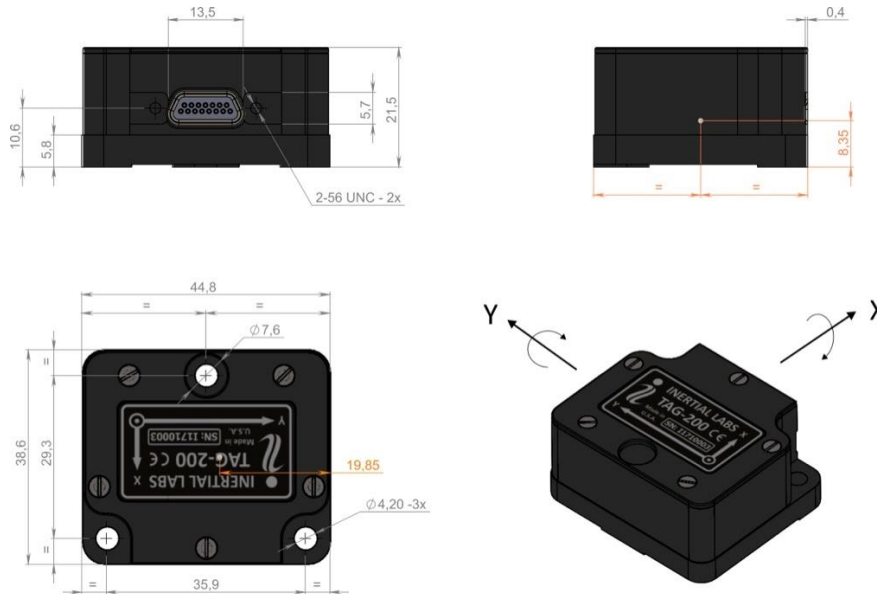
Performance Specifications

Parameter	Units	Value
Output signals		Angular rates, Temperature, Synchronization output
Available colors of enclosure		Black, Desert Tan or Green
Data update rate	Hz	4000 Hz
Start-up time	milli sec	< 1
Full Accuracy Data (Warm-up Time)	sec	<0.5
Latency	milli sec	<1.1
Performance		
Number of Axis		Two (TAG-200); Three (TAG-300)
Measurement range	deg/sec	±450; ±950; ±2000
Bandwidth (-3dB)	Hz	500
Data update rate	Hz	4000
Bias in-run stability (Allan Variance, RMS)	deg/hr, 1σ	0.65
Bias repeatability (turn-on to turn-on, RMS)	deg/hr, 1σ	40
Bias instability (over temperature range, RMS)	deg/hr, 1σ	30
SF accuracy (over temperature range)	ppm, 1σ	200
Noise. Angular Random Walk (ARW)	deg/√hr	0.06
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 (GM @+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
EMC/EMI/ESD		MIL-STD-461G
Mechanical		
Size	mm	39 x 45 x 22
Weight	grams	70

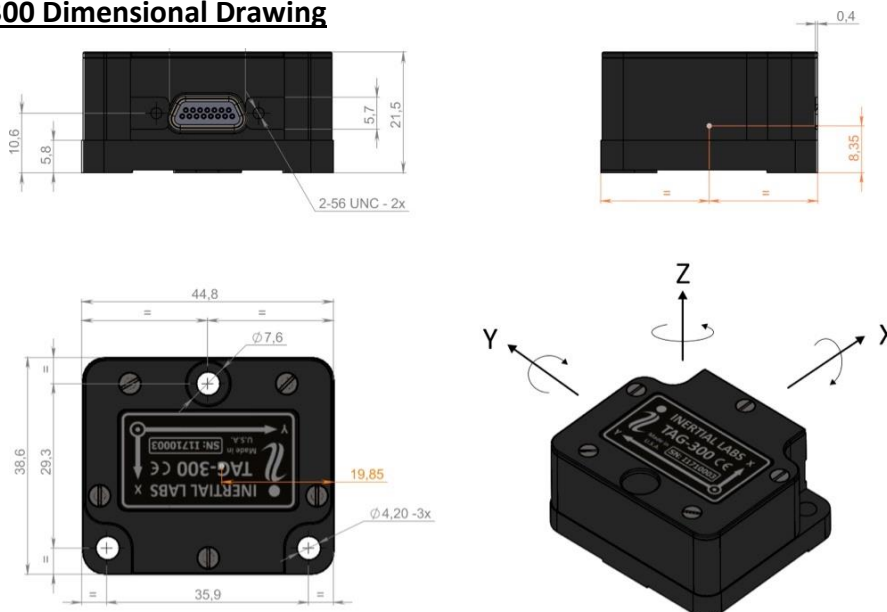
Part Number: TAG-200 - G450 - TG - C1 - B - V1S. - 1
 TAG-300 - G950 - G - 2
 G2000 - D - 12

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
Temperature calibration	TG	All gyroscopes axes are calibrated over operational temperature 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.