

G200 Dual Axis Gyro

G200 Dual Axis MEMS Gyro

Ultra Low Noise $0.002^\circ/\text{sec}/\sqrt{\text{Hz}}$



Small, Light Weight & Low Power

- Non-ITAR Commercial MEMS Dual Axis Gyro
- Ultra Low Noise $<0.002^\circ/\text{sec}/\sqrt{\text{Hz}}$ ($100^\circ/\text{s}$)
- Short Term Bias $4^\circ/\text{hour}$ 1σ
- Bias Over Temperature $\leq 0.1^\circ/\text{sec}$ 1σ
- G-Sensitivity $\leq 0.005^\circ/\text{sec}/g$ 2σ
- Axis Alignment 4 mrad 1σ
- Ultra Low Power $< 10\text{ mA}$ Typical
- Bipolar Output Signal
- Light Weight 18 grams
- Low Voltage $+5V$ (single sided power)
- Bandwidth 200Hz
- All Internal Electronics
- Environmentally Sealed
- Voltage Output
- Internal Temperature Sensor
- Self Test
- Shock Resistant $500g$
- Vibration 6 gRMS
- High MTBF

Export Classification:
Commerce ECCN7A994



Applications

- Platform Stabilization
- EO/IR Stabilization
- Antenna Stabilization & Pointing
- Flight Control
- Navigation
- Automotive Testing
- Laboratory Use

**Small Ultra Low Noise
Dual Axis MEMS Gyro**



Gladiator Technologies

Division of LKD Aerospace



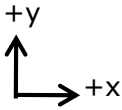
High Performance Inertial MEMS

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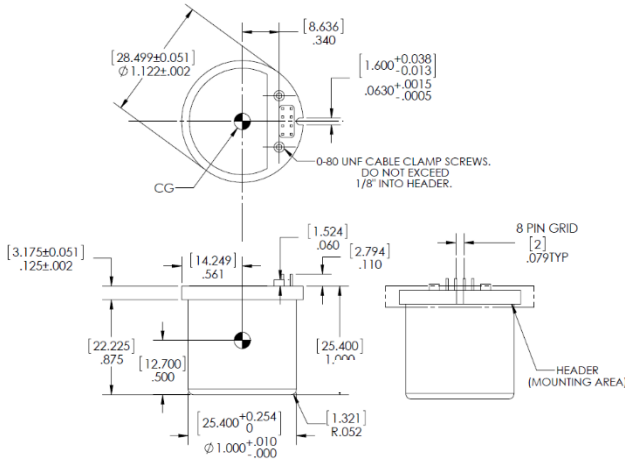
G200 Dual Axis Gyro

G200-300-100

Specification



Axes (Top View)
Right Hand Rule



Pin No.	Pin Assignment
1	X Gyro Rate Output Voltage 0V <i>Nominal</i>
2	Y Gyro Temp +0.75V @ 25°C 10mV/°C
3	Power Ground
4	Y Gyro Rate Output Voltage 0V <i>Nominal</i>
5	+4.75V to +5.25V DC Input
6	Signal Ground
7	Self Test Input 3.3V nominal
8	Case

Rate output X Axis is Pin 1 with respect to Pin 6. Rate output Y Axis is Pin 4 with respect to Pin 6. Temperature is Pin 2 with respect to Pin 6. Self Test On is 3.3V on Pin 7. Self Test Off is open or < 1V. Loads <100pf & >5k on pins 1 & 4 and >40k on pin 2

PARAMETER	G200 Dual Axis Gyro G200-300-100
Power Requirements	
Input Voltage	+5V DC (±0.25V)
Input Current <i>Typical (Max)</i>	10mA (14mA)
Performance	
Standard Full Scale Ranges	±300°/sec
Full Scale Output (<i>Nominal</i>)	0V ±4.9V DC
Scale Factor <i>Nominal</i>	12mV/°/sec
Scale Factor Over Temperature	±0.5%
Temperature Sensor	0.75V ±0.05V DC Nominal at 25°C
Temperature Sensor Scale Factor	11 mV/°C (±1.0 mV/°C)
Bias Factory Set 1σ	≤0.15°/sec
Bias Variation Over Temperature 1σ	≤0.3°/sec
Self Test \pm 30% 3.3V Input	28 °/s
Short Term Bias Stability 1σ (150 sec at constant temp.)	≤0.0028°/sec
Long Term Bias Stability (1 Year)	10°/hr
G-Sensitivity 2σ	≤0.3°/sec
Axis Alignment 1σ	≤0.005°/sec/g
Start-Up Time	4 mrad 1σ
Bandwidth (-3 dB)	<0.3 sec
Non-Linearity (of Full Range)	200 Hz
Threshold/Resolution	≤ 2.5%
Output Noise 1σ	≤0.002°/sec
	0.003°/sec/√Hz
Environments	
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Vibration Operating	6 gRMS (20Hz to 2KHz)
Shock	500g, any axis 2msec 1/2 sine
Weight	18 grams

Specification subject to change without notice



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