

# G200 Dual Axis Gyro

## G200 Dual Axis MEMS Gyro

**Ultra Low Noise**  $0.002\%/sec/\sqrt{Hz}$



**Small, Light Weight & Low Power**

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

**Gladiator Technologies Division**  
**LKD Aerospace, Inc**  
8020 Bracken Place SE  
Snoqualmie, WA 98065 USA  
Tel: 425.396.0829 Fax: 425.396.1129  
Email: [sales@gladiatortechologies.com](mailto:sales@gladiatortechologies.com)  
Web: [www.gladiatortechologies.com](http://www.gladiatortechologies.com)

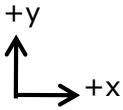
Rev. 20July30  
SN: 1000

# G200 Dual Axis Gyro

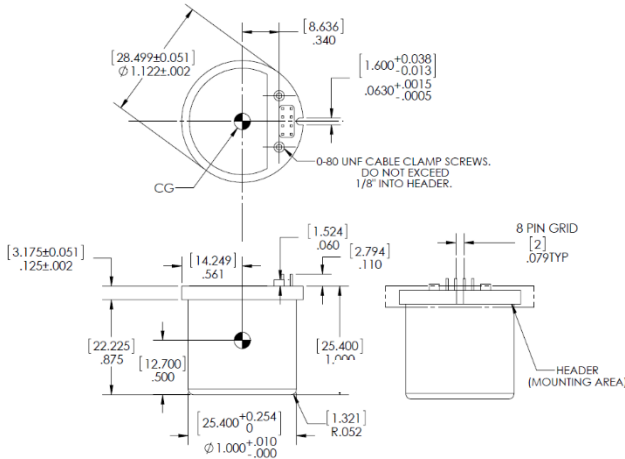
## G200 Dual Axis Gyro

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	<b>+4.75V to +5.25V DC Input</b>
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
<b>Power Requirements</b>	
Input Voltage	<b>+5V DC (±0.25V)</b>
Input Current <i>Typical (Max)</i>	10mA (14mA)
<b>Performance</b>	
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 %/s ±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
<b>Environments</b>	
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



**Gladiator Technologies**  
Division of LKD Aerospace  
High Performance Inertial MEMS

**Gladiator Technologies Division**  
LKD Aerospace, Inc  
8020 Bracken Place SE  
Snoqualmie, WA 98065 USA  
Tel: 425.396.0829 Fax: 425.396.1129  
Email: [sales@gladiatortechologies.com](mailto:sales@gladiatortechologies.com)  
Web: [www.gladiatortechologies.com](http://www.gladiatortechologies.com)

Rev. 20July30  
SN: 1000