

# G200 Dual Axis Gyro

## G200 Dual Axis MEMS Gyro

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



- Non-ITAR Commercial MEMS Dual Axis Gyro
- Ultra Low Noise  $<0.002\%/sec/\sqrt{Hz}$  ( $100\%/s$ )
- Short Term Bias  $4^\circ/hour$   $1\sigma$
- Bias Over Temperature  $\leq 0.1^\circ/sec$   $1\sigma$
- G-Sensitivity  $\leq 0.005^\circ/sec/g$   $2\sigma$
- 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  $200Hz$
- 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

### Willburger System GmbH

Auf der Schuchen 11  
D-82418 Seehausen  
Tel.: +49 8841 3028

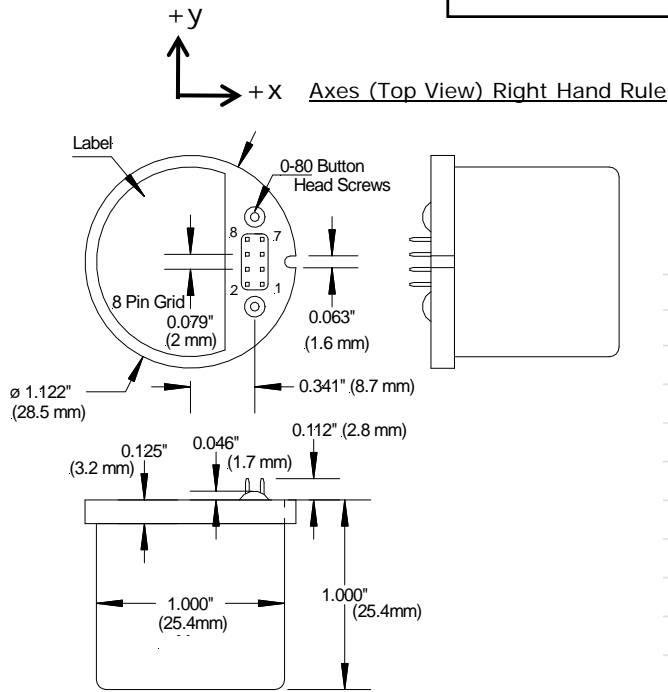
Email: [info@willburger.de](mailto:info@willburger.de)  
Web: [www.willburger.de](http://www.willburger.de)

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# G200 Dual Axis Gyro

**G200 Dual Axis Gyro**  
**G200-100-100**  
**G200-300-100**

## Specification



Pin No.	Pin Assignment
1	X Gyro Rate Output Voltage 0V Nominal
2	Y Gyro Temp +0.75V @ 25°C 10mV/°C
3	Power Ground
4	Y Gyro Rate Output Voltage 0V Nominal
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	
	G200-100-100	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	±100°/sec	±300°/sec
Full Scale Output ( <i>Nominal</i> )	0V ±4.9V DC	
Scale Factor <i>Nominal</i>	40mV/°/sec	12mV/°/sec
Scale Factor Over Temperature	±0.5%	
Temperature Sensor	0.75V ±0.05V DC Nominal at 25°C	
Temperature Sensor Scale Factor	10mV/°C Nominal	
Bias Factory Set 1σ	≤0.05°/sec	≤0.15°/sec
Bias Variation Over Temperature 1σ	≤0.1°/sec	≤0.3°/sec
Self Test °/s ±30% 3.3V Input	9 °/s	28 °/s
Short Term Bias Stability 1σ ( <i>150 sec at constant temp.</i> )	≤0.0011°/sec	≤0.0028°/sec
	°/hr	4°/hr
Long Term Bias Stability ( <i>1 Year</i> )	≤0.1°/sec	≤0.3°/sec
G-Sensitivity 1σ	≤0.005°/sec/g	
Axis Alignment 1σ	4 mrad 1σ	
Start-Up Time	<0.5 sec	<0.3 sec
Bandwidth (-3 dB)	200 Hz	
Non-Linearity ( <i>of Full Range</i> )	≤ 0.25%	≤ 2.5%
Threshold/Resolution	≤0.001°/sec	≤0.002°/sec
Output Noise 1σ	0.002°/sec/√Hz	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



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