



G150Z GYROSCOPE

Low Noise Analog MEMS Gyro



The G150Z Single Axis Gyro is a compact, low noise, analog MEMS gyroscope. This small, environmentally sealed gyro is rated for 500g shock and 6g RMS vibration. It is available in three rate ranges, 100°/s, 175°/s and 300°/s. It is ideal for stabilization, flight control, high-speed train monitoring, and automotive testing.



Low Noise: 0.001°/s/√Hz



Excellent Bias Stability: 1.2°/h



Analog Output



Factory Calibrated: -40°C to 85°C



NON-ITAR

Low Noise. High Performance.



GLADIATOR
TECHNOLOGIES

G150Z GYROSCOPE

Performance (Available in any of the following rate ranges)

| Parameter | Gyro | | |
|--------------------|---|--|--|
| Range | $\pm 100^\circ/\text{s}$ | $\pm 175^\circ/\text{s}$ | $\pm 300^\circ/\text{s}$ |
| ARW / VRW | $0.001^\circ/\text{s}/\sqrt{\text{Hz}}$ | $0.0018^\circ/\text{s}/\sqrt{\text{Hz}}$ | $0.0022^\circ/\text{s}/\sqrt{\text{Hz}}$ |
| Bias In-Run | $< 0.05^\circ/\text{s}$ | $< 0.1^\circ/\text{s}$ | $< 0.15^\circ/\text{s}$ |
| Bias Over Temp. | $< 0.1^\circ/\text{s}$ | $0.2^\circ/\text{s}$ | $0.3^\circ/\text{s}$ |
| Resolution | $0.0005^\circ/\text{s}$ | $0.0009^\circ/\text{s}$ | $0.001^\circ/\text{s}$ |
| G Sensitivity | $0.01^\circ/\text{s}/\text{g}$ | $0.015^\circ/\text{s}/\text{g}$ | $0.02^\circ/\text{s}/\text{g}$ |
| Scale Factor Error | $\leq 0.5\%$ (over temperature) | | |
| Alignment | $< 4 \text{ mrad}$ | | |

Environment

| | |
|--------------------|--|
| Shock | 500 g $\frac{1}{2}$ sine 1 ms powered on |
| Vibration | 6 g _{RMS} (20 Hz to 2 kHz) |
| Operating Temp | -40°C to +85°C |
| Non-Operating Temp | -55°C to +100°C |

Interface

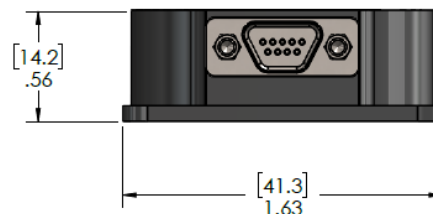
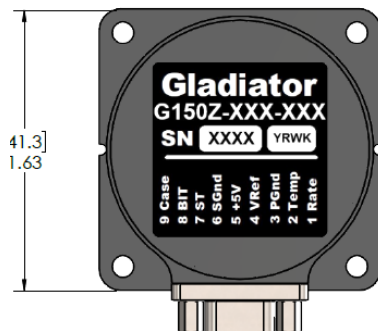
| | |
|-----------------------|--|
| Data Format/Interface | Analog |
| Temperature Sensor | 2.5V $\pm 0.05\text{V}$ DC Nom at 20°C |
| Start Up Time | $< 0.25 \text{ s}$ |
| Self Test | Built In |
| Bandwidth | 200 Hz |

Electrical

| | |
|---------------|------------------|
| Input Voltage | +5 VDC $\pm 5\%$ |
| Input Current | 20-25 mA |

Mechanical

| | |
|------|--|
| Mass | 28 grams |
| Size | Metric: 4.13 dia x 1.42 = 19.01 cm ³ US: 1.63 dia x 0.56 = 1.16 in ³ |



www.gladiatortechnologies.com/g150z

All performance parameters 1 σ
Specification subject to change without notice

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