A40 ACCELEROMETER

Single Axis Accelerometer

The Gladiator Technologies' A40 MEMS Accelerometer is a small, ultra-low noise, single axis accelerometer. This robust accel is designed to handle 500g shock and 5.74gRMS vibration in an EMI resistant housing.

- Low Noise: 0.065 mg/√Hz
- Excellent Bias Repeatability: 1.5 mg
- Analog Output
- Factory Calibrated: -40°C to 85°C
- NON-ITAR

Low Noise. High Performance.

GLADIATOR TECHNOLOGIES

A40 ACCELEROMETER

Performance

Parameter	Accelerometer		
Range	±6 g	±10 g	±15 g
VRW	0.065 mg/√Hz	0.002 mg/√Hz	0.035 mg/√Hz
Bias In-Run	0.045 mg	0.05 mg	0.1 mg
Temperature Sensitivity	< 275 ppm	< 275 ppm	< 275 ppm
Resolution/Threshold 1Hz	0.05 mg	0.06 mg	0.07 mg
Vibration Rectification	1 mg/g^2 rms	0.15 mg/g^2 rms	0.2 mg/g^2 rms
Self Test	0.15g ± 0.08		
Scale Factor Stability	< 1,000 ppm		
Alignment	< 5 mrad		

Environment

Shock	500 g ½ sine 1 msec powered on
Vibration	5.74g_{RMS} (20 Hz to 3 kHz)
Operating Temp	-40°C to +85°C
Non-Operating Temp	-55°C to +100°C

Interface

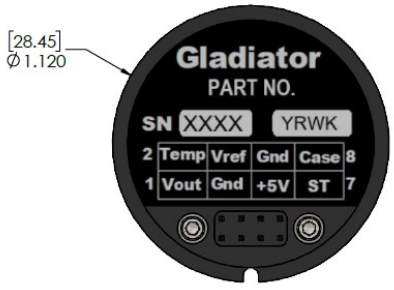
Data Interface	Analog 2.5 Vdc
Start Up Time	< 0.25 s
Bandwidth	140 Hz
Temperature Sensor	Internal +2.5 Vdc

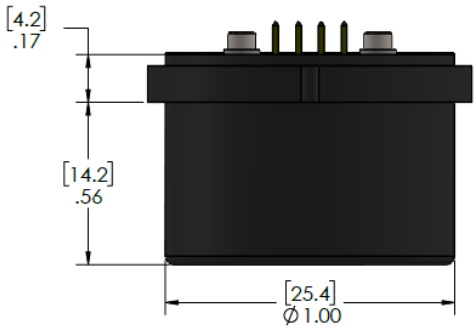
Electrical

Input Voltage	+4.75 V to +5.25 V Max. Input (single sided)
Current Consumption	12 mA Maximum

Mechanical

Mass	≤ 15 grams
Size	Metric: 2.54 dia x 1.84= 9.32 cm^3 US: 1.0 dia x 0.7 = 0.8 in^3





www.gladiatortechnologies.com/a40

All performance parameters 1σ
Specification subject to change without notice
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MMV
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