





MODEL EGAXT3 ACCELEROMETER

SPECIFICATIONS

- Miniature Triaxial Design
- DC Response, Critically Damped
- 10,000 g Over-range Stops
- Broad Temperature Range

The Model EGAXT3 miniature triaxial accelerometer combines a damping ratio of 0.7 (Nominal) with built-in over-range stops that are set to protect the unit against 10,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload in order to make a low g measurement.

FEATURES

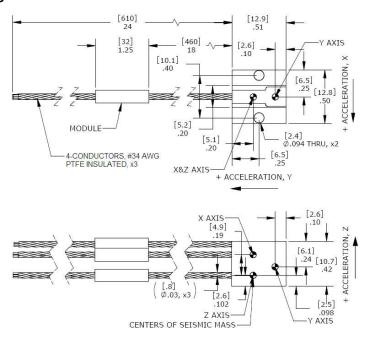
- Miniature Triaxial, Low Weight
- Static and Dynamic Measurement
- Frequency Response through 3000 Hz
- ±1% Non-Linearity
- -40°C to +120°C Operating Range
- 10,000g Over-range Protection

APPLICATIONS

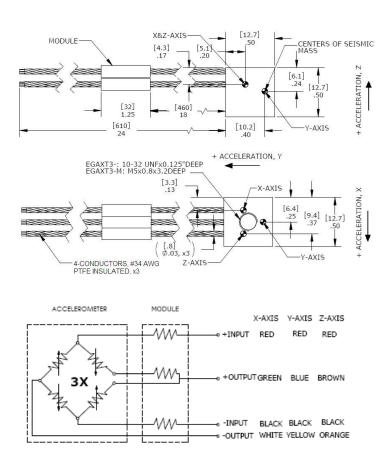
- Flight Test & Control
- Launch Vehicles
- Robotics
- Shock Testing

DIMENSIONS

EGAXT3-F Dimensions



EGAXT Dimesions



PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 100Hz and 15Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters DYNAMIC										Notes
Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	. 10100
Sensitivity (mV/g) ¹	5.2- 11.3	4.2-9.0	2.1-4.5	1.57-3.38	1.05- 2.25	.52-1.13	.3575	.1738	.0715	
Frequency Response min. (Hz)	0-120	0-140	0-300	0-350	0-400	0-500	0-750	0-1000	0-1400	±1/2 dB
Frequency Response nom. (Hz)	0-250	0-300	0-600	0-700	0-900	0-1000	0-1500	0-2000	0-3000	±1/2 dB
Natural Frequency (Hz)	500	600	1200	1400	1700	2000	3000	4000	6000	
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<3	<3	<3	
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	Nominal
Shock Limit (g)	2000	2000	5000	5000	10000	10000	10000	10000	10000	

ELECTRICAL

Zero Acceleration Output ±15

Differential

(mV)

Excitation Voltage (Vdc) 15 (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity

accordingly)

 $\begin{array}{ll} \text{Input Resistance } (\Omega) & 2000 \\ \text{Output Resistance } (\Omega) & 1000 \\ \text{Insulation Resistance } (M\Omega) & >100 \\ \end{array}$

Nominal Nominal @50Vdc

Ground Isolation Isolated from Mounting Surface

ENVIRONMENTAL

 $\begin{array}{ll} \mbox{Thermal Zero Shift} & \pm 2.5 \mbox{mV} \ / \ 50 \mbox{°C} \ (\pm 2.5 \mbox{mV} \ / \ 100 \mbox{°F}) \\ \mbox{Thermal Sensitivity Shift} & + 1\% \ \mbox{to} \ - 4\% \ / \ 50 \mbox{°C} \ (+ 1\% \ \mbox{to} \ - 4\% \ / \ 100 \mbox{°F}) \\ \end{array}$

Operating Temperature -40 to 120°C (-40 to 250°F)

Compensated Temperature 20 to 80°C (70 to 170°F), contact factory for other temperature compensation options

Storage Temperature -40 to 120°C (-40 to 250°F)

Humidity Epoxy Sealed, IP61

PHYSICAL

Case Material Stainless Steel

Cable 4x #34 AWG PTFE Leads, 24 inch, each axis

Weight <6 grams

Mounting Adhesive or Screw Mount Versions Available (-F configuration)

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±1/2dB Frequency Response Limit

Optional accessories: 101 Three Channel DC Signal Conditioner Amplifier

140 Auto-zero Inline Amplifier

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Output is ratiometric to excitation voltage

ORDERING INFO

EGAXT3-F-100-/Z1/L2M/C Compensated Temp Ranges: Standard = +20 to +80°C +(70 to +170°F)

I I Options, otherwise leave blank Z* = Non standard, contact factory

Range (100 is 100g) Excitation Voltage: Standard = 15Vdc

I_____ Housing, F for flange mount V* = Non standard, contact factory

(otherwise leave blank) Special Cable Length: L00F = Replace "00" with length in feet

L00M = Replace "00" with length in meter

C = Microtech type male or equivalent

Example: EGAXT3-F-100-/L2M

Model EGAXT3, Flange Mount Housing, 100g Range, 2 Meter Cable Length

Connector Wired to Cable:

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