

Model EGAXT Accelerometer



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

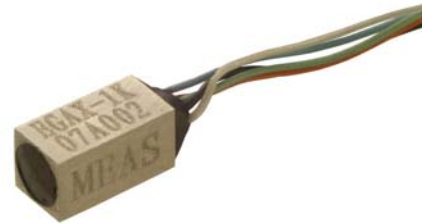
The **Model EGAXT** miniature accelerometers combine a damping ratio of 0.7 (nominal) with built-in over-range stops that protect the unit against 10,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload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

FEATURES

- Small Size, Low Weight
- Static and Dynamic Measurement
- Frequency Response from DC to 3000 Hz
- $\pm 1\%$ Non-Linearity
- -40°C to $+120^{\circ}\text{C}$ Operating Range
- 10,000g Over-range Protection

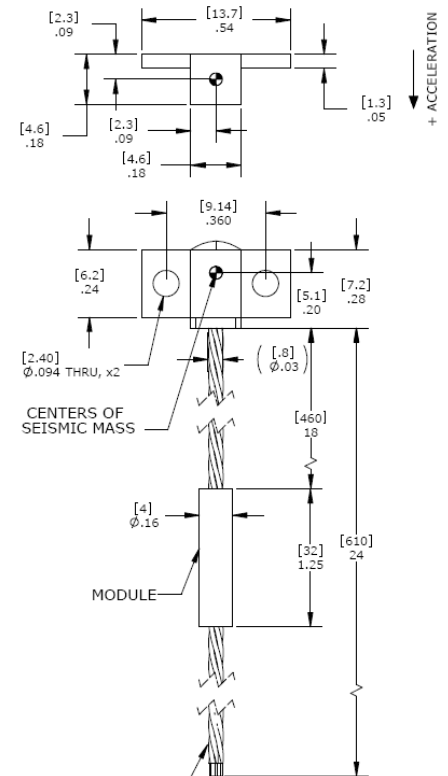
APPLICATIONS

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

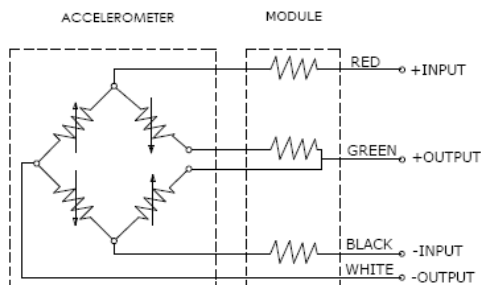
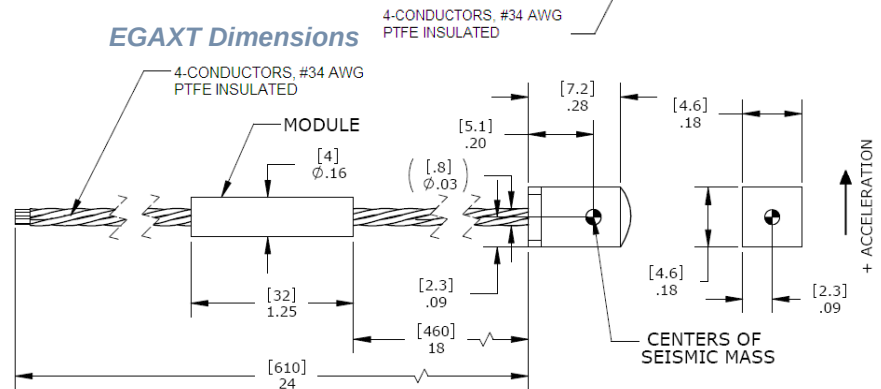


dimensions

EGAXT-F Dimensions



EGAXT Dimensions



Model EGAXT Accelerometer

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										Notes
DYNAMIC										
Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	
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	.35-.75	.17-.38	.07-.15	
Frequency Response min. (Hz)	0-120	0-140	0-300	0-350	0-400	0-500	0-750	0-1000	0-1400	±1/2dB
Frequency Response nom. (Hz)	0-250	0-300	0-600	0-700	0-900	0-1000	0-1500	0-2000	0-3000	±1/2dB
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 (mV)	±15									Differential
Excitation Voltage (Vdc)	15 (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity accordingly)									
Input Resistance (Ω)	2000									Nominal
Output Resistance (Ω)	1000									Nominal
Insulation Resistance (MΩ)	>100									@50Vdc
Ground Isolation	Isolated from Mounting Surface									
ENVIRONMENTAL										
Thermal Zero Shift	±2.5mV / 50°C (±2.5mV / 100°F)									
Thermal Sensitivity Shift	+1% to -4% / 50°C (+1% to -4% / 100°F)									
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									
Weight	<1 grams									
Mounting	Adhesive or Screw Mount Versions Available (-F configuration)									
¹ Output is ratiometric to excitation voltage										
Calibration supplied:	CS-FREQ-0100		NIST Traceable Amplitude Calibration from 20Hz to ±1/2dB Frequency Response Limit							
Optional accessories:	MTG-A2 & MTG-A2M		Triaxial Mounting Block							
	101		Three Channel DC Signal Conditioner Amplifier							
	140		Auto-zero Inline Amplifier							

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ordering info

EGAXT-F-100-/Z1/L2M/C

| | | Options, otherwise leave blank
 | | | Range (100 is 100g)
 | | | Housing, F for flange mount
 (otherwise leave blank)

Compensated Temp Ranges:

Excitation Voltage:

Special Cable Length:

Connector Wired to Cable:

Standard = +20 to +80°C (+70 to +170°F)
 Z* = Non standard, contact factory
 Standard = 15Vdc
 V* = Non standard, contact factory
 L00F = Replace "00" with length in feet
 L00M = Replace "00" with length in meter
 C = Microtech type male or equivalent

Example: EGAXT-F-100-/L2M

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