

MODEL EGAXT ACCELEROMETER

SPECIFICATIONS

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

The Model EGAXT miniature accelerometer 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.

The model EGAXT features a common piezo-resistive Wheatstone Bridge design with a mV output. The accelerometer incorporates an inline temperature compensation module which ensures accurate output over full operating temperature range.

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
- Drop Testing
- Impact & Shock Testing
- Munitions Testing
- Pile Driving
- Harsh Environments

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 15Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

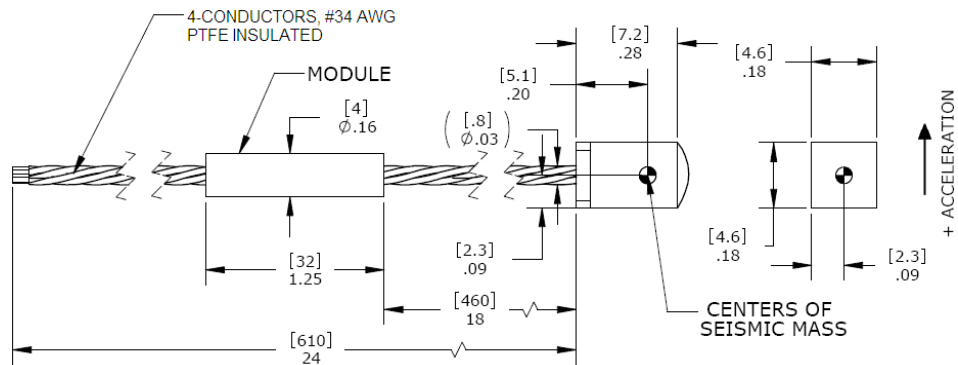
Parameters										Notes
DYNAMIC										
Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	
Sensitivity (mV/g) ¹	5.2-11.3	4.2-9.0	2.1-4.5	1.57-3.38	1.05-2.25	.52-1.13	.35-.75	.17-.38	.07-.15	
Frequency Response min. (Hz)	0-120	0-140	0-300	0-350	0-400	0-500	0-750	0-1000	0-1400	±1/2dB
Frequency Response 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)	±20 Differential									
Excitation Voltage (Vdc) ¹	15 (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity)									
Input Resistance (Ω)	2000									
Output Resistance (Ω)	1000									
Insulation Resistance (MΩ)	>100									
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 Limit							
Optional accessories:	MTG-A2 & MTG-A2M		Triaxial Mounting Block							
	121		Three Channel DC Signal Conditioner Amplifier							
	140A		Auto-zero Inline Amplifier							

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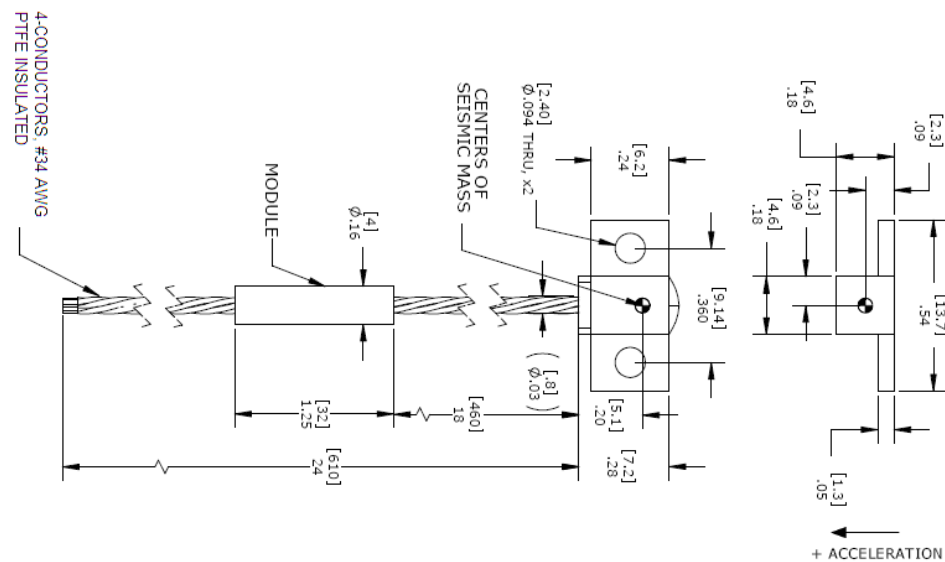
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DIMENSIONS

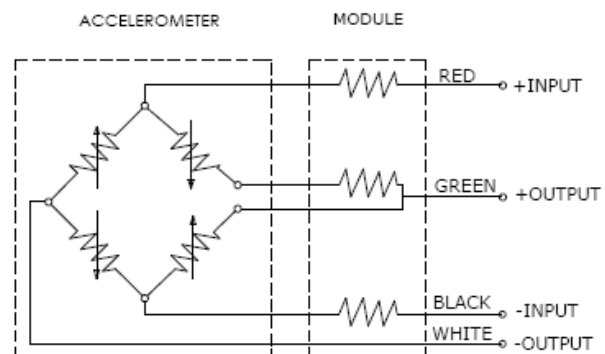
EGAXT Dimensions



EGAXT-F Dimensions



SCHEMATIC



ORDERING INFORMATION

EGAXT	F	GGG	-/LXX
Series Type			
Housing Configuration			
F = Flange Mount Version			
Blank = Epoxy Mount Version			
Range			
5 = 5g			
10 = 10g			
25 = 25g			
50 = 50g			
100 = 100g			
250 = 250g			
500 = 500g			
1000 = 1000g			
2500 = 2500g			

Cable length (standard is 2 feet)

L2M = 2 meter
 L3M = 3 meter
 L5M = 5 meter
 L5F = 5 feet
 L10F = 10 feet

Example; EGAXT-F-100

Model EGAXT, flange mount version, 100g range, standard 2 feet cable length

EGAXT-100-/L5M

Model EGAXT, epoxy mount version, 100g range, 5 meter cable length

NORTH AMERICA

Measurement Specialties, Inc.,
 a TE Connectivity Company
 Phone: 800-522-6752
 Email: customercare.hmpt@te.com

EUROPE

MEAS France SAS
 a TE Connectivity Company
 Phone: 800-440-5100
 Email: customercare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
 a TE Connectivity Company
 Phone: 0400-820-6015
 Email: customercare.shzn@te.com

TE.com/sensorsolutions

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