



MODEL EGAXT3 TRIAXIAL ACCELEROMETER

SPECIFICATIONS

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

The Model EGAXT3 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 EGAXT3 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

- Miniature Triaxial, Low Weight
- Static and Dynamic Measurement
- Frequency Response from DC to 3000 Hz
- ±1% Non-Linearity
- -40°C to +120°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										
DYNAMIC										Notes
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	.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	±⅓ dB
Frequency Response nom. (Hz)	0-250	0-300	0-600	0-700	0-900	0-1000	0-1500	0-2000	0-3000	±⅓ 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 (mV) ±20 Differential

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

Ground Isolation Isolated from Mounting Surface

ENVIRONMENTAL

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)

¹ Output is ratiometric to excitation voltage

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

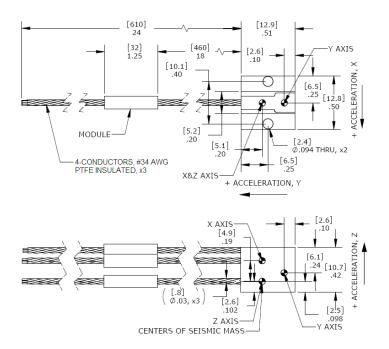
Optional accessories: 121 Three Channel DC Signal Conditioner Amplifier

140A Auto-zero Inline Amplifier

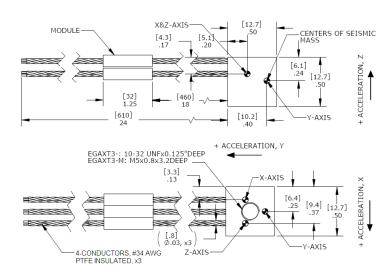
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DIMENSIONS

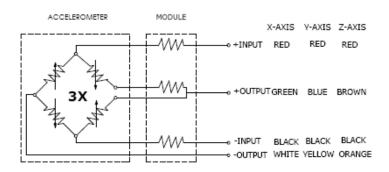
EGAXT3-F Dimensions



EGAXT3 Dimensions



SCHEMATIC



ORDERING INFORMATION

EGAXT3	F	GGG	-/LXX
Series Type			
Housing Configuration F = Flange Monut Version Blank = Epoxy Mount Version			
Range 5 = 5g 10 = 10g 25 = 25g 50 = 50g 100 = 100g 250 = 250g 500 = 500g 1000 = 1000g 2500 = 5000g 1000 = 10000g 2500 = 25000g			

Cable length (standard is 2 feet)

L2M = 2 meter L3M = 3 meterL5M = 5 meterL5F = 5 feetL10F =10 feet

Example; EGAXT3-F-100

Model EGAXT3, flange mount version, 100g range, standard 2 feet cable length

EGAXT3-100-/L5M

Model EGAXT3, epoxy mount version, 100g range, 5 meter cable length

NORTH AMERICA

Measurement Specialties, Inc., a TE Connectivity Company Phone: 800-522-6752

Email: <u>customercare.hmpt@te.com</u>

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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