

# Model EGAX/EGAXT Accelerometer

Miniature Design  
DC Response  
10,000 g Overrange Stops  
Broad Temperature Range

## The Model EGAX/EGAXT

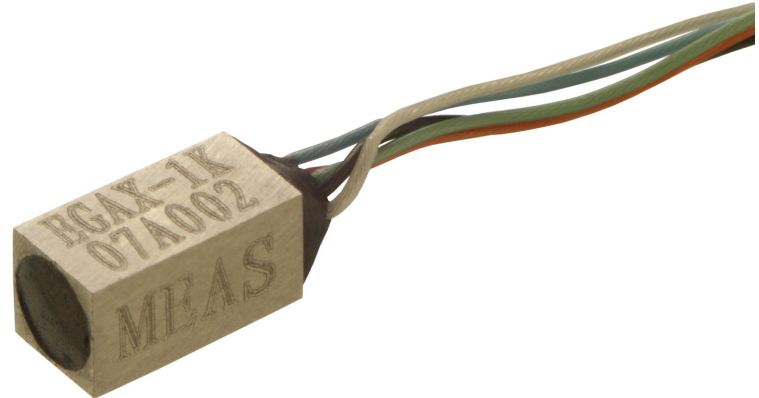
miniature accelerometers combine a damping ratio of 0.7 (nominal) with built-in overrange stops that protect the unit against 10,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload in order to make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

## FEATURES

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

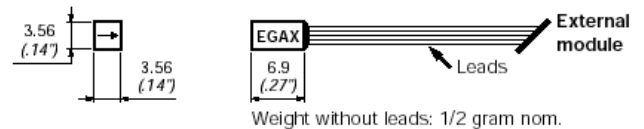
## APPLICATIONS

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

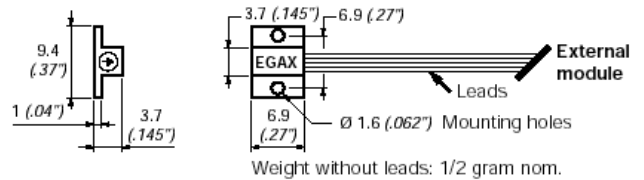


## dimensions

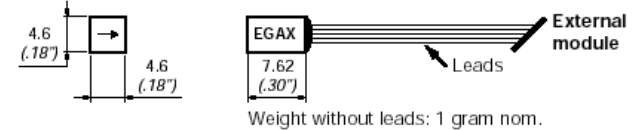
### EGAXT- 500 through -2500 & all EGAX-



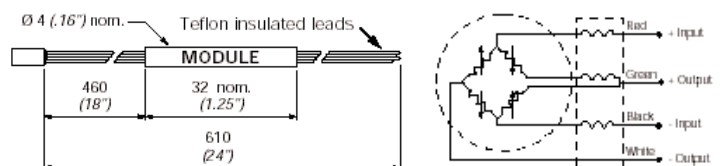
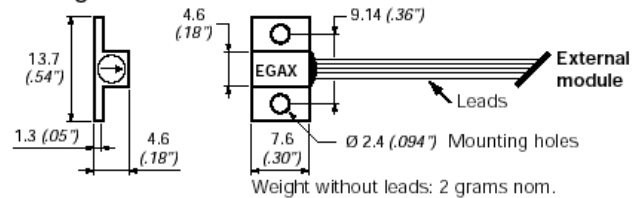
### EGAXT-F-500 through -2500 & all EGAX-F-



### EGAXT- 5 through -250



### EGAXT-F- 5 through -250



# Model EGAX/EGAXT

## 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.

Parameters											Notes
<b>DYNAMIC</b>											
Range (g)	±5	±10	±15	±25	±50	±100	±250	±500	±1000	±2500	
Sensitivity EGAX (mV/g)	7.0-15	5.6-12	4.2-9.0	2.8-6.0	2.1-4.5	1.4-3.0	.70-1.5	.35-.75	.17-.38	.07-.15	
Sensitivity EGAXT (mV/g)	5.2-11.3	4.2-9.0	3.1-6.8	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	0-220	0-300	0-350	0-400	0-500	0-750	0-1000	0-1400	±1/2dB
Frequency Response nom. (Hz)	0-250	0-300	0-450	0-600	0-700	0-900	0-1000	0-1500	0-2000	0-3000	±1/2dB
Natural Frequency (Hz)	500	600	900	1200	1400	1700	2000	3000	4000	6000	
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	<3	<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	0.7	Nominal
Shock Limit (g)	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
Shock limit for <b>EGAX</b> is in the Sensitive Axis only, for <b>EGAXT</b> in all 3 axes											
<b>ELECTRICAL</b>											
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)	1000										Nominal
Output Resistance (Ω)	450										Nominal
Insulation Resistance (MΩ)	>100										@50Vdc
Ground Isolation	Isolated from Mounting Surface										
<b>ENVIRONMENTAL</b>											
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										
<b>PHYSICAL</b>											
Case Material	Aluminum										
Cable	4x Teflon Leads, 24 inch										
Weight	<1 grams										
Mounting	Adhesive or Screw Mount Versions Available (-F configuration)										
AWG	#34										
<b>Wiring color code:</b>	+Excitation = Red; -Excitation = Black; +Output = Green; -Output = White										
<b>Optional accessories:</b>	MTG-A1 & MTG-A1M		Triaxial Mounting Block; All EGAX Ranges or EGAXT-500 to -2500								
	MTG-A2 & MTG-A2M		Triaxial Mounting Block; EGAXT-5 to -250								

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## ordering info

**EGAX - F - 100 - /L2MC**  
 Model      Range      Options  
    C  
    L00F or L00M  
    M00F or M00M  
    S

COMPENSATED TEMPERATURE RANGES: STANDARD = 20°C TO 80°C (70°F TO 170°F)  
 Z\* = Non-Standard, contact factory

5 WIRE BRIDGE WIRING FOR ADJUSTABLE ZERO OFFSET: 5 = 5 wire  
 EXCITATION VOLTAGE: STANDARD = 15 Vdc  
 SPECIAL LEAD LENGTH: L00F = Replace "00" with total length in feet  
 L00M = Replace "00" with total length in meters  
 M00F = Replace "00" with distance between sensor and module in feet  
 M00M = Replace "00" with distance between sensor and module in meters

SPECIAL MODULE LOCATION: C = Microtech, male or equivalent (w/o mate)

CONNECTOR WIRED TO LEADS: MTG-A1 & MTG-A1M FOR ALL EGAX AND EGAXT-500 THROUGH 2500 RANGES. MTG-A2 & MTG-A2M FOR EGAXT-5 THROUGH EGAXT-250 RANGES