

# Model EGAX/EGAXT Accelerometer

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

## The Model EGAX/EGAXT

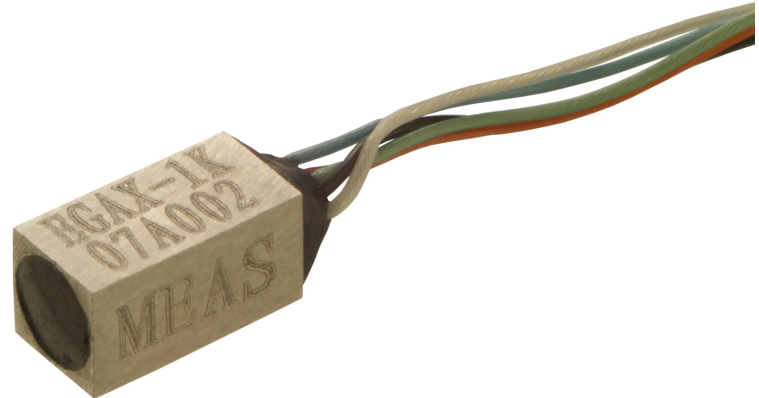
miniature accelerometers combine a damping ratio of 0.7 (nominal) with built-in overrange stops that protect the unit against 10,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload in order to make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

## FEATURES

- Small Size
- Low Weight
- Static and Dynamic Measurement
- Frequency Response from DC to 3000 Hz
- ±1% Non-Linearity
- -40°C to +120°C Operating Range
- 10,000 g Overrange Protection

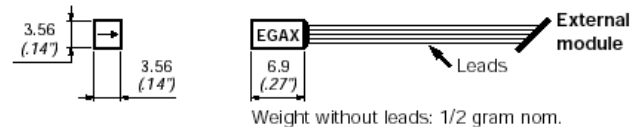
## APPLICATIONS

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

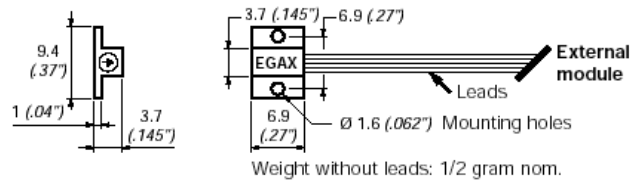


## dimensions

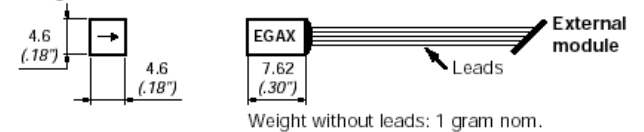
### EGAXT- 500 through -2500 & all EGAX-



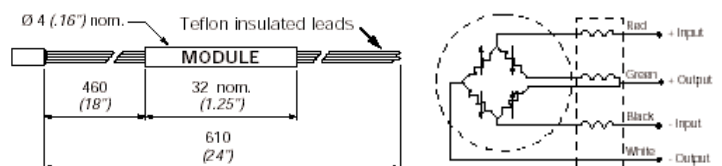
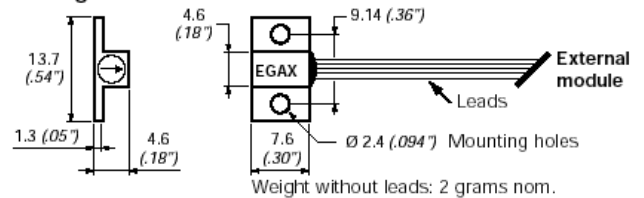
### EGAXT-F-500 through -2500 & all EGAX-F-



### 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								

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

## 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