

Model EGAXT3 Accelerometer

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

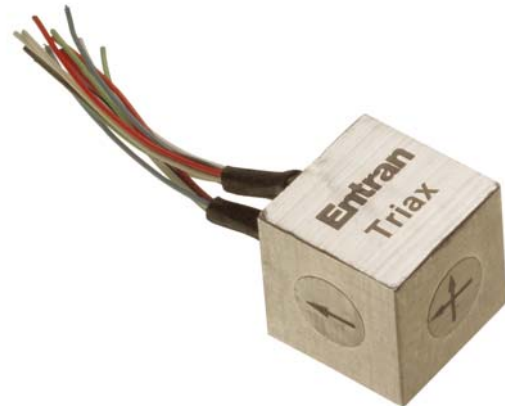
The **Model EGAXT3** miniature triaxial accelerometer combines a damping ratio of 0.7 (Nominal) with built-in overrange stops that are set to protect the unit against 10,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload in order to make a low g measurement. These units feature a Wheatstone Bridge output with compensated temperature range of 20 to 80 °C.

FEATURES

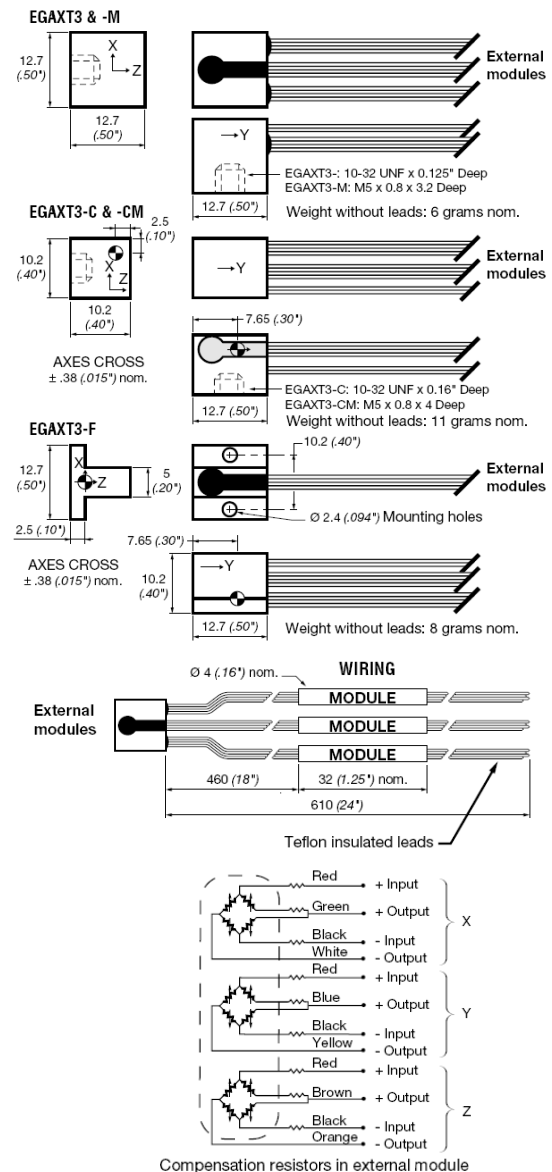
- Miniature Triaxial
- Low Weight
- Static and Dynamic Measurement
- Frequency Response through 3000 Hz
- $\pm 1\%$ Non-Linearity
- -40°C to $+120^{\circ}\text{C}$ Operating Range
- 10,000 g Overrange Protection

APPLICATIONS

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



dimensions



Model EGAXT3 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.

Parameters

DYNAMIC

	±5	±10	±15	±25	±50	±100	±250	±500	±1000	±2500	Notes
Range (g)	±5	±10	±15	±25	±50	±100	±250	±500	±1000	±2500	
Sensitivity EGAXT (mV/g)	7.5	6	4.5	3	2.25	1.5	0.75	0.5	0.25	0.1	
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	All 3 Axes

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)	1000	Nominal
Output Resistance (Ω)	450	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

PHYSICAL

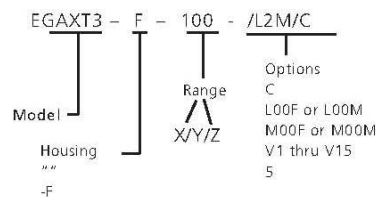
Case Material	Aluminum
Cable	12x Teflon Leads, 24 inch
Weight	6 grams
Mounting	Adhesive or Screw Mount Versions Available (-F configuration)
AWG	#34

Wiring color code:	X-axis: +Excitation = Red; -Excitation = Black; +Output = Green; -Output = White
	Y-axis: +Excitation = Red; -Excitation = Black; +Output = Blue; -Output = Yellow
	Z-axis: +Excitation = Red; -Excitation = Black; +Output = Brown; -Output = Orange

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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	= white
EXCITATION VOLTAGE:	STANDARD	= 15VDC
	V00	= Replace "00" with Excitation between 1 and 15. If less than 15, Sensitivity (FSO) will decrease accordingly.
SPECIAL LEAD LENGTH:	L00F	= Replace "00" with total length in feet.
	L00M	= Replace "00" with total length in meters.
SPECIAL MODULE LOCATION:	M00F	= Replace "00" with distance between sensor and module in feet.
	M00F	= Replace "00" with distance between sensor and module in meters.
CONNECTOR WIRED TO CABLE:	C	= Microtech type male or equivalent (w/o mate)