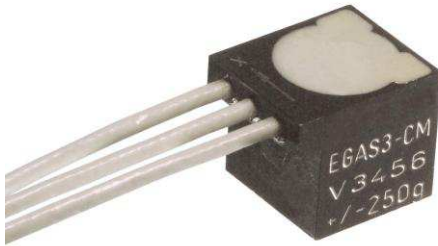


# MODEL EGAS3 TRIAXIAL ACCELEROMETER



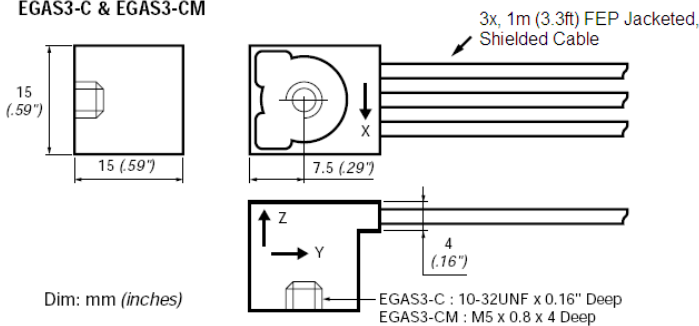
## SPECIFICATIONS

- Miniature Design, Stud Mount
- DC Response, Critically Damped
- 10,000 g Over-range Stops
- Broad Temperature Range

The Model EGAS3 is a miniature, critically damped triaxial accelerometer available in ranges from  $\pm 5g$  through  $\pm 2500g$ . This rugged unit weighs less than 8 grams (without leads) and has an over-range limit of 10,000g's. Operating from nominal 15Vdc excitation, the model EGAS3 features a  $\frac{1}{2}$  active bridge that is suitable for shunt calibration. With an operating temperature range of  $-40^{\circ}C$  to  $+120^{\circ}C$ , the EGAS3 is the unit of choice for measurement professionals in the automotive, military, aerospace and transportation industries.

## dimensions

EGAS3-C & EGAS3-CM

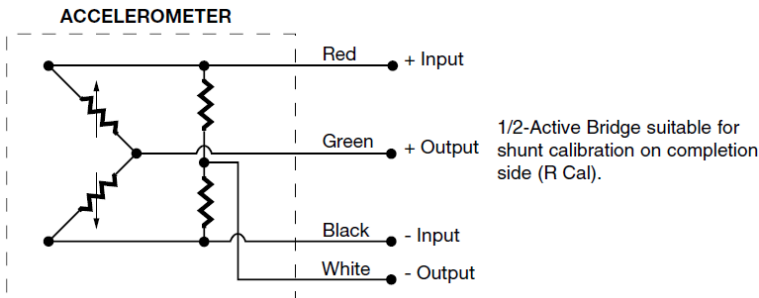


## FEATURES

- Small Size, Stud Mount
- 2-15Vdc Excitation Voltage
- Static and Dynamic Measurement
- Frequency Response through 3500 Hz
- 2% Transverse Sensitivity
- Damping Ratio 0.7
- Internal Temperature Compensation

## APPLICATIONS

- Sports and Recreation
- Modeling and Entertainment
- Biodynamics
- Automotive Testing
- Laboratory Usage



## MODEL EGAS3 TRIAXIAL 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. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

#### Parameters

#### DYNAMIC

	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	Notes
Range (g)										
Sensitivity (mV/g)	20	10	4	2	1	0.4	0.2	0.1	0.04	
Frequency Response min. (Hz)	0-80	0-120	0-240	0-350	0-500	0-750	0-	0-	0-	±1/2dB
Frequency Response nom. (Hz)	0-150	0-200	0-400	0-600	0-900	0-1300	0-	0-	0-	±1/2dB
Natural Frequency (Hz)	300	400	800	1200	1800	2600	3500	5000	7000	
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	Nominal
Shock Limit (g)	500	1000	2000	5000	10000	10000	10000	10000	10000	

#### 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)	1300									Nominal
Output Resistance (Ω)	1500									Nominal
Insulation Resistance (MΩ)	>100									@50Vdc
Ground Isolation	Isolated from Mounting Surface									

#### ENVIRONMENTAL

Thermal Zero Shift	±1.0mV / 50°C (±1.0mV / 100°F)								
Thermal Sensitivity Shift	±2.5% / 50°C (±2.5% / 100°F)								
Operating Temperature Compensated	-40 to +120°C (-40 to +250°F)								
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	Anodized Aluminum								
Cable	#34 AWG Conductors PTFE Insulated, Braided Shield, FEP Jacket								
Weight	8 grams								
Mounting	Stud Mount								

**Wiring color code:** +Excitation = Red; -Excitation = Black; +Output = Green; -Output = White

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

**Optional accessories:** 121 3-Channel Precision Low Noise DC Amplifier  
140 Auto-zero Inline Amplifier

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# MODEL EGAS3 TRIAXIAL ACCELEROMETER

## ORDERING INFO

### EGAS3 – C – 10/50/50 – /Z1/L2M/C

| | | Options, otherwise leave blank  
| | Range (X/Y/Z axes)  
| Housing (-C, -CM)

### Compensated Temp Ranges:

Standard = +20 to +80°C (+70 to +170°F)

Z1 = -20 to +40°C (0 to +100°F)

Z2 = 0 to +60°C (+32 to +140°F)

Z4 = +40 to +90°C (+100 to +200°F)

Z\* = Non standard, contact factory

Standard = 15Vdc

V\* = Non standard, contact factory

L00F = Replace "00" with length in feet

L00M = Replace "00" with length in meter

C = Microtech type male or equivalent

R = RJ Telephone Male, for EGAS & -F

RS = RJ Telephone Male, for -FS & -FT

### Excitation Voltage:

### Special Cable Length:

### Connector Wired to Cable:

Example: EGAS3-C-10-/L2M

Model EGAS3, C Housing Configuration (#10-32 Thread), 10g Range All Axes, 2 Meter Cable Length

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