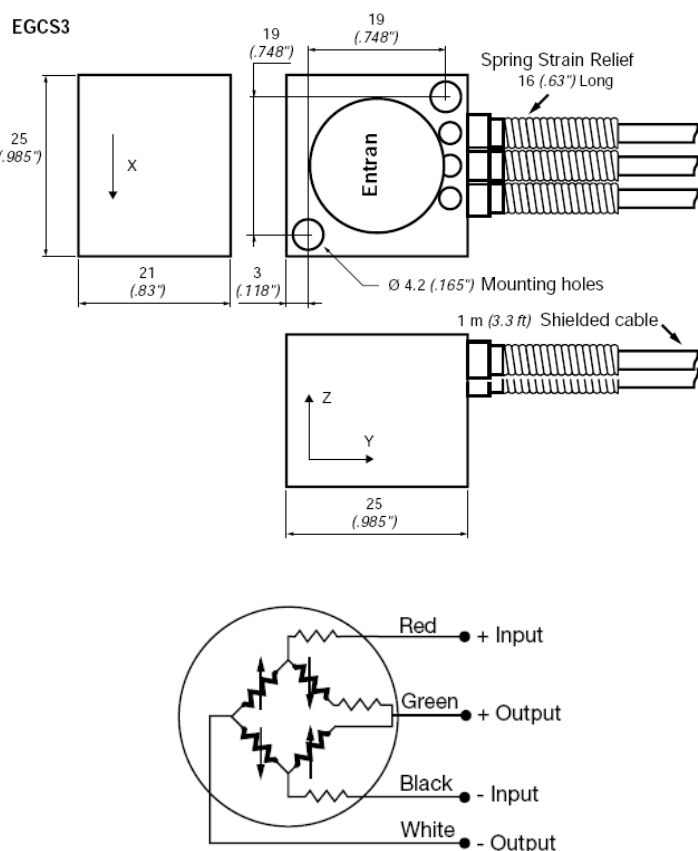




DIMENSIONS



MODEL EGCS3-D TRIAXIAL ACCELEROMETER

SPECIFICATIONS

- ♦ Triaxial, DC Response
- ♦ 10,000 g Overrange Stops
- ♦ $\pm 5g$ to $\pm 5000g$ Dynamic Range
- ♦ Critically Damped

The Model EGCS3-D triaxial accelerometer is available in ranges from $\pm 5g$ through $\pm 5000g$. With over-range limit to $\pm 10,000g$ and spring strain relief, this rugged device is ideal for offshore, downhole and shock testing applications. Its small size and screw mounting ensure ease of installation while its low power requirements and DC output facilitate integration into data acquisition and monitoring systems. The EGCS3 also features CE Conformance to EN 61010-1, EN 50081-1 and EN 50082-1.

FEATURES

- ♦ $\pm 5g$ to $\pm 5000g$ Dynamic Range
- ♦ Heavy Duty, Rugged
- ♦ Static and Dynamic Measurement
- ♦ DC to 4000Hz Frequency Response
- ♦ $\pm 1\%$ Non-Linearity
- ♦ -40°C to $+120^\circ\text{C}$ Temperature Range
- ♦ 10,000g Over-range Protection

APPLICATIONS

- ♦ Blast Testing
- ♦ Machine Control
- ♦ Performance Testing
- ♦ Engine Testing
- ♦ Road Vehicle Testing

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

Parameters

DYNAMIC

	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	±5000	Notes
Range (g)	40	20	8	4	2	0.8	0.4	0.2	0.08	0.04	
Sensitivity (mV/g)	40	20	8	4	2	0.8	0.4	0.2	0.08	0.04	
Frequency Response min. (Hz)	0-80	0-120	0-240	0-350	0-500	0-750	0-1000	0-1500	0-2000	0-2400	±1/2dB
Frequency Response nom. (Hz)	0-150	0-200	0-400	0-600	0-900	0-1300	0-1750	0-2500	0-3500	0-4000	±1/2dB
Natural Frequency (Hz)	300	400	800	1200	1800	2600	3500	5000	7000	8000	
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)	500	1000	2000	5000	10000	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)										
Input Resistance (Ω)	2000										Nominal
Output Resistance (Ω)	1000										Nominal
Insulation Resistance (MΩ)	>100										@50Vdc
Ground Isolation	Isolated from Mounting Surface										

ENVIRONMENTAL

Thermal Zero Shift	±2.0mV / 50°C (±2.0mV / 100°F)										
Thermal Sensitivity Shift	±2.5% / 50°C (±2.5% / 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	Anodized Aluminum
Cable	PFA Insulated Leads, Braided Shield, Silicone Jacket
Weight	<50 grams
Mounting	Screw Mount
AWG	#28

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 EGCS3-D TRIAXIAL ACCELEROMETER

ORDERING INFORMATION

EGCS3 – D – 100 – /Z1/L2M/C

+(70 to +170°F)

I Options, otherwise leave blank

contact factory

I Range (100 is 100g)

contact factory

with length in meter

male or equivalent

Example: EGCS3-D-100-/L2M

Model EGCS3, 100g Range, 2 Meter Cable Length

Compensated Temp Ranges:

Standard = +20 to +80°C

Z* = Non standard,

Excitation Voltage:

Standard = 15Vdc

V* = Non standard,

Special Cable Length:

with length in feet

L00F = Replace "00"

L00M = Replace "00"

Connector Wired to Cable:

C = Microtech type