

Model EGCS-A2/B2 Accelerometer



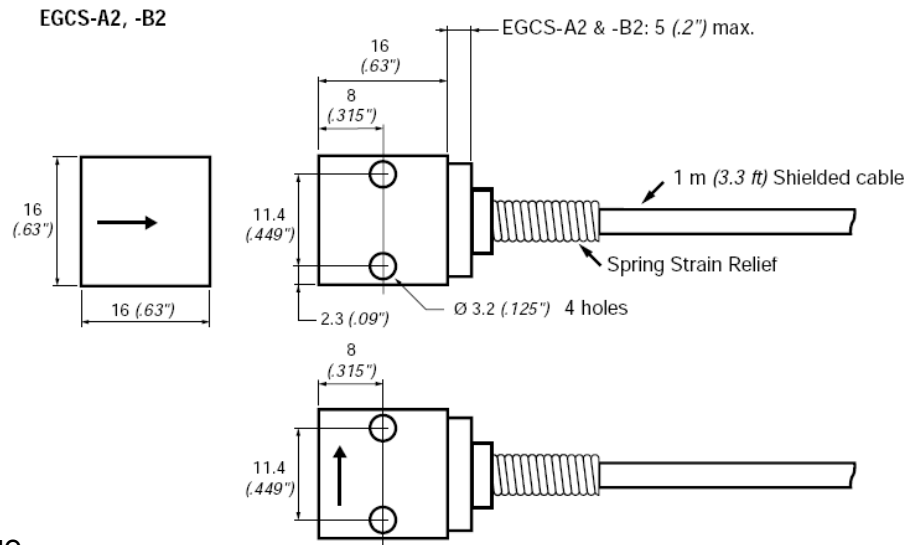
Critically Damped
DC Response
Temperature Compensated
High Sensitivity, Amplified



The Model EGCS-A2 & -B2

accelerometers are critically damped with built-in over-range stops that are set to protect the unit against 10,000g shocks. The accelerometers incorporate signal conditioning with optional $\pm 5V_{dc}$ or $\pm 2.5V_{dc}$ amplified full-scale output and are offered in ranges from $\pm 5g$ to $\pm 5000g$. The accelerometers are ideal for low frequency measurements and feature temperature compensation from $+20$ to $+80$ °C.

dimensions



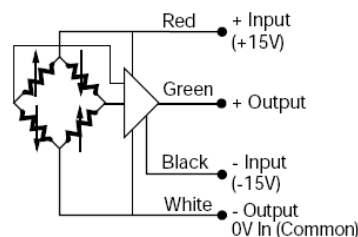
FEATURES

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

APPLICATIONS

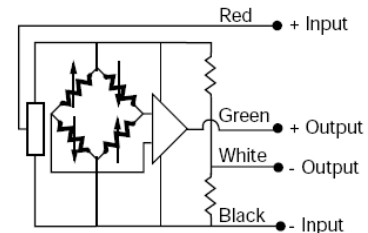
- Road Vehicle Testing
- Machine Control
- Downhole
- Engine Testing
- General Purpose

For specification -A



It is recommended that "0V COMMON" of the power supply be grounded if consistent with proper operation of the instrumentation system.

For specification -B



Common mode output voltage of $+5V$ nom. referred to -Input

Model EGCS-A2/B2 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											Notes
DYNAMIC											
Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	±5000	
Sensitivity, A2 Spec (mV/g)	1000	500	200	100	50	20	10	5	2	1	
Sensitivity, B2 Spec (mV/g)	500	250	100	50	25	10	5	2.5	1	0.5	
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)	±250										Differential
Excitation Voltage (Vdc)	A2: ±15Vdc, B2: 24-32Vdc (28Vdc nominal)										
Excitation Current (mA)	15mA maximum										Nominal
Full Scale Output Voltage (Vdc)	A2: ±5Vdc, B2: ±2.5Vdc										Nominal
Output Impedance (Ω)	A2: 1Ω nominal, B2: 1000Ω nominal										
Insulation Resistance (MΩ)	>100										@50Vdc
Ground Isolation	Isolated from Mounting Surface										
ENVIRONMENTAL											
Thermal Zero Shift	±50mV / 50°C (±50mV / 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	<15 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										

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ordering info

EGCS – A2 – 100 – /Z1/L2M/C

| | | Options, otherwise leave blank
 | | Range (100 is 100g)
 | Specification (A2 or B2)

Compensated Temp Ranges:

Standard = +20 to +80°C (+70 to +170°F)
 Z* = Non standard, contact factory

Excitation Voltage:

Standard = A2: ±15Vdc, B2: 28Vdc
 V* = Non standard, contact factory

Special Cable Length:

L00F = Replace "00" with length in feet
 L00M = Replace "00" with length in meter

Connector Wired to Cable:

C = Microtech type male or equivalent

Example: EGCS-A2-100-/L2M

Model EGCS, A2 Specifications, 100g Range, 2 Meter Cable Length