MODEL EGCS-A2/B2 ACCELEROMETER



SPECIFICATIONS

- **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 ±5Vdc or ±2.5Vdc amplified full-scale output and are offered in ranges from ±5g to ±5000g. The accelerometers are ideal for low frequency measurements and feature temperature compensation from+20 to +80 ºC.

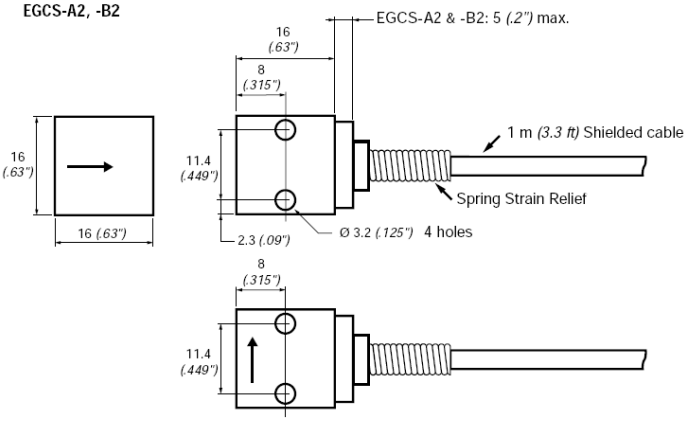
FEATURES

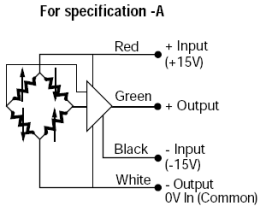
- ±5g to ±5000g Dynamic Range
- Heavy Duty, Rugged
- Static and Dynamic Measurement
- DC to 4000Hz Frequency Response
- ±1% Non-Linearity
- -40 ºC to +120 ºC Temperature Range
- 10,000g Over-range Protection

APPLICATIONS

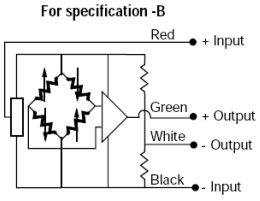
- Road Vehicle Testing
- Machine Control
- Downhole
- Engine Testing
- General Purpose

dimensions





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



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

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											Notes
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

I I I___Options, otherwise leave blank
I I_____ Range (100 is 100g)
I_____ Specification (A2 or B2)

Compensated Temp Ranges: Standard = +20 to +80°C +(70 to +170°F)

Excitation Voltage:
Z* = Non standard, contact factory
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

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