EGCS3-D

Miniature Triaxial Acceleration Sensor

- **Ranges ±5 g up to ±5000 g**
- **Non-linearity ±1 % FSO**
- **Output 200 mV**
- **Supply voltage 15 VDC**

The Model EGCS3-D triaxial accelerometer is available in ranges from ±5 g through ±5000 g. With over-range limit to ±10000 g 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

- ±5 g to ±5000 g Dynamic Range
- Heavy Duty, Rugged
- Static and Dynamic Measurement
- DC to 4000 Hz Frequency Response
- ±1 % Non-Linearity
- -40 ºC to +120 ºC Temperature Range
- 10000 g Over-range Protection

Applications

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

Specification

All values are typical at +24°C, 100 Hz and 15 VDC excitation unless otherwise stated.

Dynamic	**Unit**										
Range:	G	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	±5000
Sensitivity (1):	mV/g	40	20	8	4	2	0.8	0.4	0.2	0.08	0.04
Frequency Response, min ±½ dB:	Hz	0-80	0-120	0-240	0-350	0-500	0-750	0-1000	0-1500	0-2000	0-2400
Frequency Response, nom ±½ dB:	Hz	0-150	0-200	0-400	0-600	0-900	0-1300	0-1750	0-2500	0-3500	0-4000
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, nom.:		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Shock Limit:	g	500	1000	2000	5000	10000	10000	10000	10000	10000	10000

Electrical	
Zero Acceleration Output:	±15 mV differential
Supply voltage:	15 VDC (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity accordingly)
Input Resistance, nom.:	2000 Ω
Output Resistance, nom.:	1000 Ω
Insulation Resistance	>100 MΩ @50 VDC
Ground Isolation	Isolated from Mounting Surface

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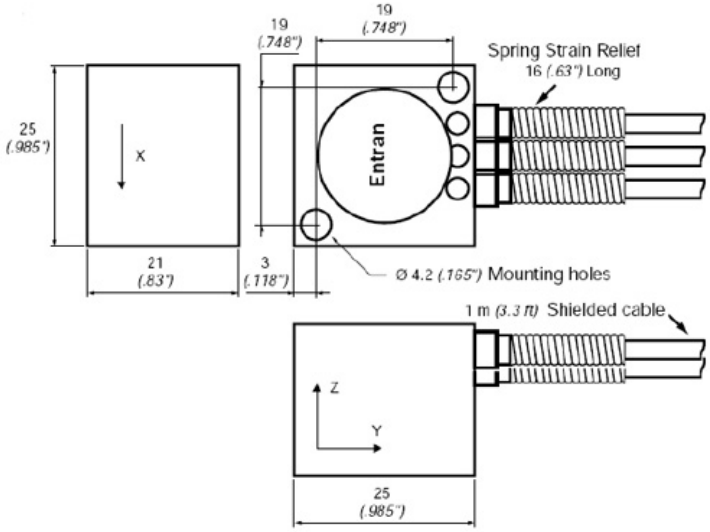
Environmental	
Thermal Zero Shift:	±2.0 mV/50°C (±2.0 mV/100°F)
Thermal Sensitivity Shift:	±2.5 %/50°C (±2.5 %/100°F)
Operating Temperature:	-40 … +120 °C (-40 … +250 °F)
Compensated Temperature:	+20 …+80 °C (+70 … +170°F), call for other temperature compensation options
Storage Temperature:	-40 … +120 °C (-40 … +250 °F)
Humidity:	Epoxy sealed

Physical	
Case Material	Anodized Aluminium
Cable	PFA insulated leads, braided shield, silicone jacket
Weight	<50 grams
Mounting	Screw mount
AWG	#28

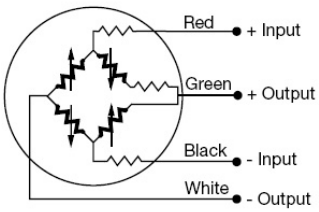
Calibration supplied:	CS-FREQ-0100 NIST traceable amplitude calibration from 20 Hz to ±1/2 dB frequency response limit

Dimensions



All dimensions in mm (inches), approx. values. These drawings are for information only and not intended for construction purpose.

Wiring



Ordering Information

EGCS3 - D - 100 - /Z1/L2M/C

Range

Options or blank

Comp. temperature ranges:	**Standard**	=	**+20 … +80 °C (70 … +170 °F)**
	Z*	=	Non-Standard, contact factory
Supply voltage:	**Standard**	=	**15 VDC**
	V*	=	Non-standard, contact factory
Special cable length:	L00F	=	Replace “00” with total length in ft
	L00M	=	Replace “00” with total length in m
Connector wired to cable:	C	=	Microtech type male or equivalent

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.

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