

MODEL EGCS-D0/D1S ACCELEROMETER

SPECIFICATIONS

- Rugged Design
- DC Response, Critically Damped
- $\pm 5g$ to $\pm 10,000g$ Range
- Broad Temperature Range

The Model EGCS-D0/D1S accelerometers are critically damped with built-in over-range stops that are set to protect the unit against up to 20,000g shocks. This is ideal for applications which may experience rough handling or in situations where the accelerometer must survive a high initial overload in order to make a low g measurement. These units feature a Wheatstone Bridge output with compensated temperature range of +20 to +80°C.



dimensions

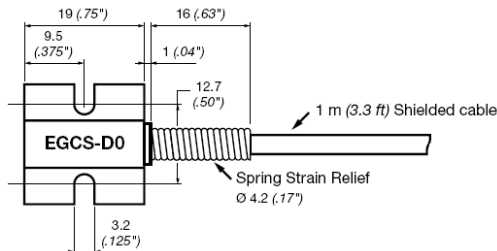
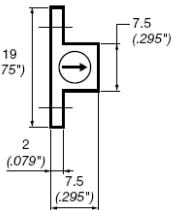
FEATURES

- $\pm 5g$ to $\pm 10,000g$ Dynamic Range
- Heavy Duty, Rugged
- Static and Dynamic Measurement
- DC to 4000Hz Frequency Response
- $\pm 1\%$ Non-Linearity
- -40°C to +100°C Temperature Range

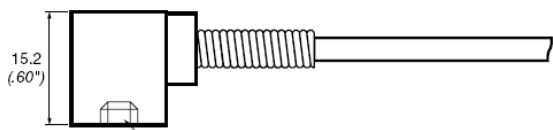
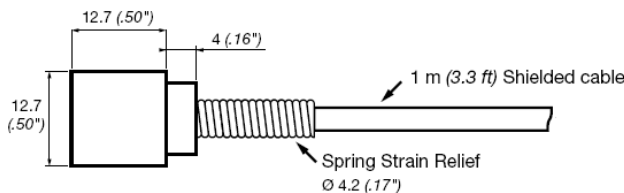
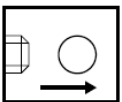
APPLICATIONS

- General Purpose
- Impact & Shock Testing
- Vibration Monitoring
- Engine Testing
- Road Vehicle Testing

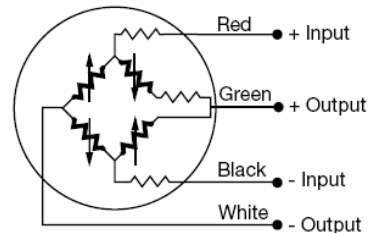
EGCS-D0



EGCS-D1S & -D1SM



EGCS-D1S: 10-32 UNF x .17\" Deep
EGCS-D1SM: M5 x 0.8 x 4mm Deep



MODEL EGCS-D0/D1S ACCELEROMETER

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

Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	±5000	±10000
Sensitivity (mV/g) ¹	40	20	8	4	2	0.8	0.4	0.2	0.08	0.04	0.016
Frequency Response min. (Hz) +3%/-8%	0-90	0-120	0-240	0-360	0-540	0-780	0-	0-	0-	0-	0-
Frequency Response nom. (Hz) +3%/-18%	0-150	0-200	0-400	0-600	0-900	0-1300	1050	1500	2100	2400	3000
Natural Frequency (Hz)	300	400	800	1200	1800	2600	3500	5000	7000	8000	16000
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	±1	±1	±1	±1	±1	±1
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Damping Ratio, Nominal	0.7	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	20000	20000

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 Compensated	-40 to +100°C (-40 to +212°F)
Temperature	+20 to +80°C (+70 to +170°F), contact factory for other temperature compensation options
Storage Temperature	-40 to +100°C (-40 to +212°F)
Humidity	Epoxy Sealed, IP65

PHYSICAL

Case Material	Stainless Steel
Cable	4x #28 AWG Leads, PFA Insulated, Braided Shield, Polyurethane Jacket
Weight	10 grams for EGCS-D0, 12grams for EGCS-D1S
Mounting	Screw Mount for EGCS-D0, Stud Mount for EGCS-D1S

¹ Output is ratiometric to excitation voltage

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

Optional accessories: AC-A04686 Triaxial Mounting Block for EGCS-D0
121 3-Channel Precision Low Noise DC Amplifier
140 Auto-zero Inline Amplifier

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others

MODEL EGCS-D0/D1S ACCELEROMETER

ORDERING INFO

EGCS – D0 – 100 – /Z1/L2M/C

+(70 to +170°F)

| | | Options, otherwise leave blank

contact factory

| | Range (100 is 100g)

| | Housing (D0, D1S or D1SM)

contact factory

length in meter

male or equivalent

Example: EGCS-D0-100-/L2M

Model EGCS, D0 Housing Configuration, 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:

length in feet

L00F = Replace "00" with

L00M = Replace "00" with

Connector Wired to Cable:

C = Microtech type

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
1000 Lucas Way
Hampton, VA 23666
Sales and Customer Service
Tel: +1-800-745-8008 or
+1-757-766-1500
Fax: +1-757-766-4297
t&m@meas-spec.com

EUROPE

MEAS France SAS
a TE Connectivity Company
26 Rue des Dames
F78340 Les Clayes-sous-Bois
France
Sales and Customer Service
Tel: +33 (0) 1 79 33 00
Fax: +33(0)1 34 81 03 59
t&m@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Sales and Customer Service
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
t&m@meas-spec.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.