

MODEL EGAS ACCELEROMETER

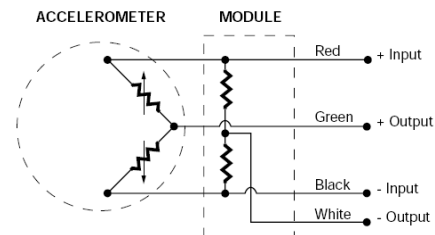
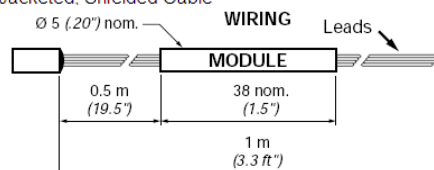
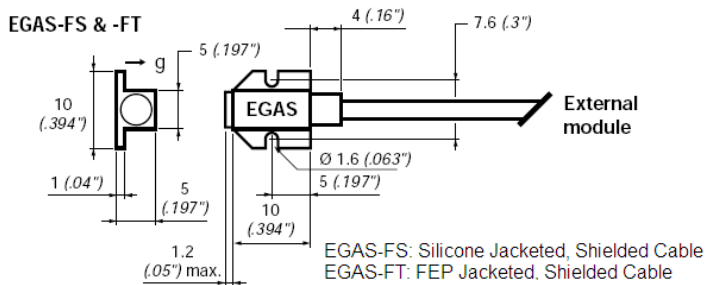
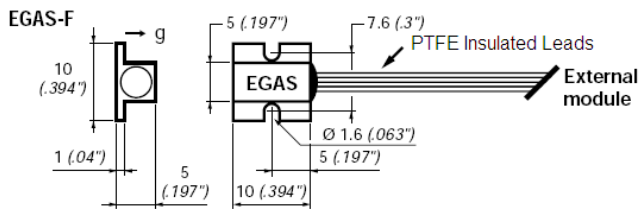
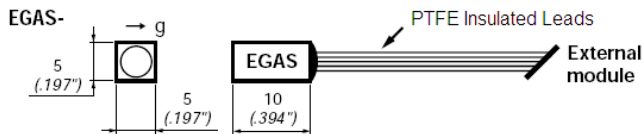
SPECIFICATIONS

- ◆ Miniature Design, Light Weight
- ◆ DC Response, Critically Damped
- ◆ 10,000 g Over-range Stops
- ◆ Broad Temperature Range

The Model EGAS is a miniature, uniaxial accelerometer featuring ranges from $\pm 5g$ through $\pm 2500g$. This rugged unit weighs less than 1 gram (without leads) and has an over-range limit of 10,000g's. The $\frac{1}{2}$ active bridge is suitable for shunt calibration. With an operating temperature range of $-40^{\circ}C$ to $+120^{\circ}C$, the EGAS is the unit of choice for measurement professionals in the automotive, military, aerospace and transportation industries. Its combined nonlinearity and hysteresis of $\pm 1\%$ makes the EGAS well-suited for on-site testing as well as laboratory use.



dimensions



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

	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	Notes
Range (g)										
Sensitivity (mV/g)	20	10	4	2	1	0.4	0.2	0.1	0.04	
Frequency Response min. (Hz)	0-80	0-120	0-240	0-350	0-500	0-750	0-	0-	0-	±1/2dB
Frequency Response nom. (Hz)	0-150	0-200	0-400	0-600	0-900	0-1300	1000	1500	2000	±1/2dB
Natural Frequency (Hz)	300	400	800	1200	1800	2600	3500	5000	7000	
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Damping Ratio	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	

ELECTRICAL

Zero Acceleration Output (mV)	±15									Differential
Excitation Voltage (Vdc)	15 (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity accordingly)									
Input Resistance (Ω)	1300									Nominal
Output Resistance (Ω)	1500									Nominal
Insulation Resistance (MΩ)	>100									@50Vdc
Ground Isolation	Isolated from Mounting Surface									

ENVIRONMENTAL

Thermal Zero Shift	±1.0mV / 50°C (±1.0mV / 100°F)									
Thermal Sensitivity Shift	±2.5% / 50°C (±2.5% / 100°F)									
Operating Temperature Compensated	-40 to +120°C (-40 to +250°F)									
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	Stainless Steel									
Cable	4x #34 AWG Conductors PTFE Insulated, Shielded & Jacketed on -FS & -FT Options									
Weight	1 grams									
Mounting	Screw Mount for EGAS-F, Adhesive Mount for EGAS									

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:

MTG-F2	Triaxial Mounting Block for EGAS-FS & -FT
MTG-F3	Triaxial Mounting Block for EGAS-F
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.

ORDERING INFO

EGAS – F – 100 – /Z1/L2M/C

| | | Options, otherwise leave blank
| | Range (100 is 100g)
| Housing (-F, -FS, -FT or leave blank)

Compensated Temp Ranges:

Standard = +20 to +80°C (+70 to +170°F)
Z1 = -20 to +40°C (0 to +100°F)
Z2 = 0 to +60°C (+32 to +140°F)
Z4 = +40 to +90°C (+100 to +200°F)
Z* = Non standard, contact factory

Excitation Voltage:

Standard = 15Vdc

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

R = RJ Telephone Male, for EGAS & -F

RS = RJ Telephone Male, for -FS & -FT

Example: EGAS-F-100-L2M

Model EGAS, F Housing Configuration, 100g Range, 2 Meter Cable Length

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: 800-522-6752
Email: customercare.hmpt@te.com

EUROPE

MEAS France SAS
a TE Connectivity Company
Tel: 800-440-5100
Email: customercare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Tel: 0400-820-6015
Email: customercare.shzn@te.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.