





MODEL EGAS ACCELEROMETER

SPECIFICATIONS

- Miniature Design, Light Weight
- **DC Response, Critically Damped** 4
- 4 10.000 g Over-range Stops
- **Broad Temperature Range**

The Model EGAS is a miniature, uniaxial accelerometer featuring ranges from ±5g through ±2500g. This rugged unit weighs less than 1 gram (without leads) and has an overrange limit of 10,000g's. The 1/2 active bridge is suitable for shunt calibration. With an operating temperature range of -40°C to +120°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 ±1% makes the EGAS wellsuited for on-site testing as well as laboratory use.

- 2-15Vdc Excitation Voltage
- Weighs < 1 gram
- Static and Dynamic Measurement
- Frequency Response through 3500 Hz

ACCELEROMETER

MODULE

Red

Black

+ Input

Green + Output

White _ - Output

_ - Input

- 2% Transverse Sensitivity
- **Damping Ratio 0.7**

APPLICATIONS

- Sports and Recreation
- **Modeling and Entertainment**
- **Automotive Testing**
- Laboratory Usage

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										Netes
DYNAMIC Range (g)	±5	±10	±25	±50	±100	±250	±500	±1000	±2500	Notes
Sensitivity (mV/g) Frequency Response	20 0-80	10 0-120	4 0-240	2 0-350	1 0-500	0.4 0-750	0.2 0-	0.1 0-	0.04 0-	±1/2dB
min. (Hz)							1000	1500	2000	
Frequency Response nom. (Hz)	0-150	0-200	0-400	0-600	0-900	0-1300	0- 1750	0- 2500	0- 3500	±1/2dB
Natural Frequency (Hz) Non-Linearity (%FSO)	300 ±1	400 ±1	800 ±1	1200 ±1	1800 ±1	2600 ±1	3500 ±1	5000 ±1	7000 ±1	
Transverse Sensitivity	<u>-</u> 1 <2	<2	<2	<2	±1 <2	±1 <2	±1 <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 Dif									Differentia I
Excitation Voltage (Vdc)	15 (can be used from 2 to 15Vdc but lower excitation voltage will decrease sensitivity accordingly)									
Input Resistance (Ω) Output Resistance (Ω)	1300 Nominal 1500 Nominal									
Insulation Resistance (MΩ)	>100 @50Vdc									
Ground Isolation	Isolated from Mounting Surface									
ENVIRONMENTAL										
Thermal Zero Shift Thermal Sensitivity Shift	±1.0mV / 50°C (±1.0mV / 100°F) ±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	Stainles	e Stool								
Cable	Stainless Steel 4x #34 AWG Conductors PTFE Insulated, Shielded & Jacketed on –FS & -FT Options									
Weight Mounting	1 grams 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				e Amplifier		•			

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