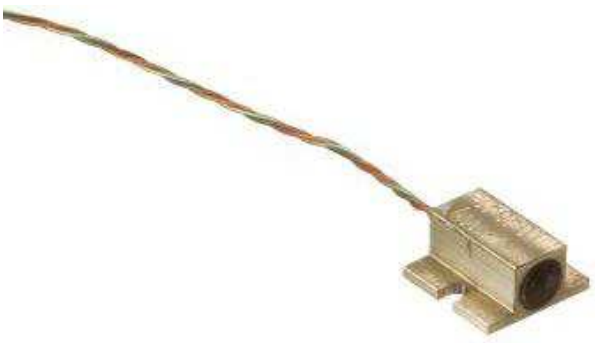
MODEL EGAS ACCELEROMETER



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 ±5g through ±2500g. This rugged unit weighs less than 1 gram (without leads) and has an over-range limit of 10,000g's. The ½ active bridge is suitable for shunt calibration. With an operating temperature range of -40ºC to +120ºC, 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 well-suited for on-site testing as well as laboratory use.

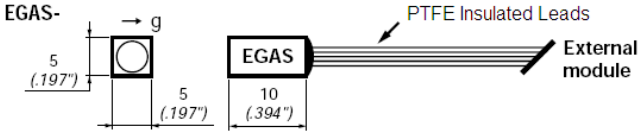
FEATURES

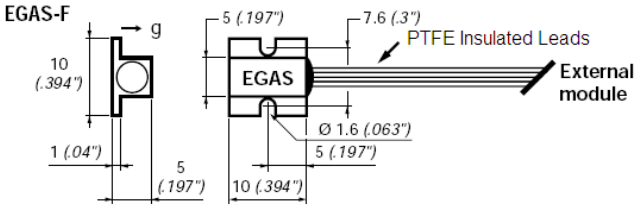
- **2-15Vdc Excitation Voltage**
- **Weighs < 1 gram**
- **Static and Dynamic Measurement**
- **Frequency Response through 3500 Hz**
- **2% Transverse Sensitivity**
- **Damping Ratio 0.7**

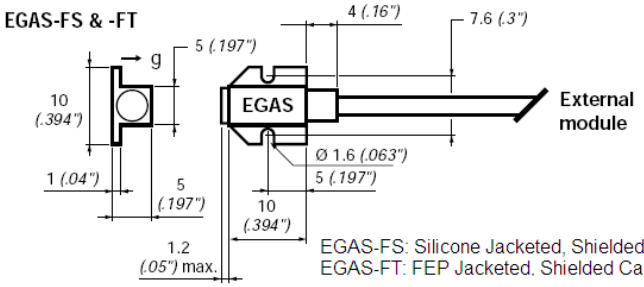
APPLICATIONS

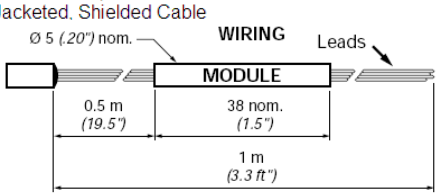
- **Sports and Recreation**
- **Modeling and Entertainment**
- **Biodynamics**
- **Automotive Testing**
- **Laboratory Usage**

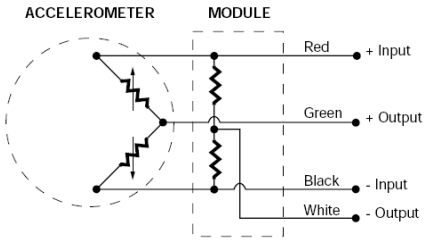
dimensions











DSPM Industria sensori & trasduttori
Via Paolo Uccello 4 - 20148 Milano
Tel +39 02 48 009 757 Fax +39 02 48 002 070 info@dspmindustria.it www.dspmindustria.it

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	
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	0-1000	0-1500	0-2000	±1/2dB
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)	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	-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	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

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ORDERING INFO

EGAS – F – 100 – /Z1/L2M/C
I I I___Options, otherwise leave blank
I I_____ Range (100 is 100g)
I_____ 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

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