

# Model EGPE-1D Accelerometer



Internally Shielded IEPE Accelerometer  
44kHz Resonant Frequency  
+150°C Operating Temperature  
Hermetically Sealed



**The Model EGPE-1D** is a case isolated high temperature IEPE accelerometer with internal shielding. The accelerometer has a flat bandwidth up to greater than 15kHz with a resonant frequency greater than 40kHz. The model EGPE-1D is available in  $\pm 50$  to  $\pm 500g$  ranges and has an operating temperature range up to +150°C. The unit is hermetically sealed and features the popular through hole mount installation for standard mounting screws. A three pin integral connector is featured as the electrical interface.

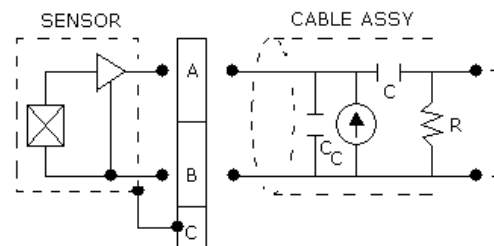
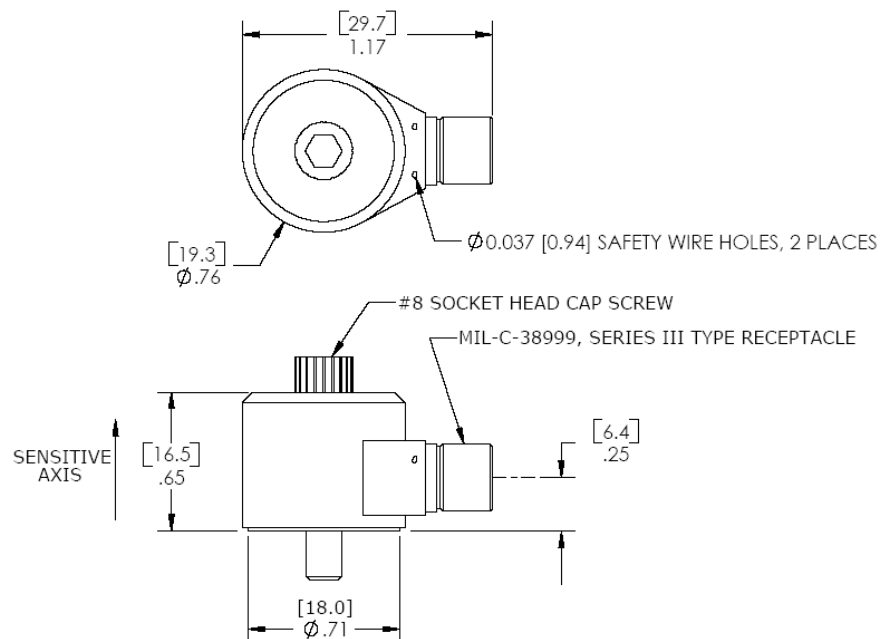
## FEATURES

- $\pm 50g$  to  $\pm 500g$  Dynamic Range
- Wide bandwidth up to 15kHz
- Case Isolated, Internally Shielded
- Hermetically Sealed
- Annular Shear Mode
- Through Hole Mount
- Stable Temperature Response
- 3-Pin Connector

## APPLICATIONS

- Health Usage Monitoring Systems
- Flight Testing
- Gearbox Vibration Monitoring
- High Frequency Applications
- Harsh Environments

## dimensions



# Model EGPE-1D Accelerometer

## performance specifications

All values are typical at +24°C, 100Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

### Parameters

#### DYNAMIC

			Notes
Range (g)	±50	±500	
Sensitivity (mV/g)	100	10	
Frequency Response (Hz)	1-8000	1-10000	±5%
Frequency Response (Hz)	0.5-10000	0.5-15000	±1dB
Natural Frequency (Hz)	33000	44000	
Non-Linearity (%FSO)	±1	±1	
Transverse Sensitivity (%)	<5	<5	
Shock Limit (g)	5000	5000	

#### ELECTRICAL

Compliance Voltage (Vdc)	18 to 30	18 to 30	
Excitation Current (mA)	2 to 20	2 to 20	
Bias Voltage (Vdc)	8 to 12	8 to 12	Room Temperature
Bias Voltage (Vdc)	6 to 14	6 to 14	-55 to +150°C
Output Impedance (Ω)	<100	<100	
Residual Noise (g RMS)	0.0001	0.00025	
Case Grounding	Case Isolated, Internally Shielded		
Ground Isolation	Isolated from Mounting Surface, Internally Shielded		

#### ENVIRONMENTAL

Temperature Response (%)	±10	±10
Operating Temperature (°C)	-55 to +150	
Storage Temperature (°C)	-55 to +150	

#### PHYSICAL

Sensing Element	Ceramic (shear mode)
Case Material	Stainless Steel
Cable	Not Applicable
Weight (grams)	30
Mounting	Through Hole (#8 or M4 cap screw)
Mounting Torque	20 lb-in (2.3 N-m)
AWG	Not Applicable

**Supplied accessories:** 1x #8-32 Mounting Screw (5/8 inch length)

**Optional accessories:** 312-XXX Cable Assembly (XXX designates length in inches, 10ft standard)

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## ordering info

PART NUMBERING Model Number+Range

EGPE-1D-GGGG

|  
| \_\_\_\_\_ Range (0500 is 500g)

Example: EGPE-1D-0500  
Model EGPE-1D, 500g