

Model 61 Accelerometer



DC Response Accelerometer
Durable Cable, Small Package
 ± 750 & ± 2000 g Ranges
Reliable Performance



The Model 61 Accelerometer is based on an advanced piezoresistive MEMS sensing element which offers exceptional dynamic range and stability. This unit features a full bridge output configuration with a temperature range from -20°C to 85°C . This unit exhibits superior shock survivability and a flat amplitude/phase response up to 5kHz.

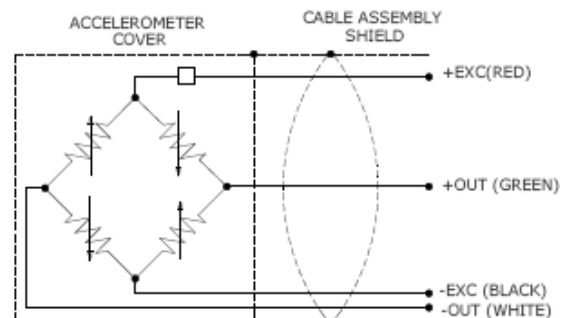
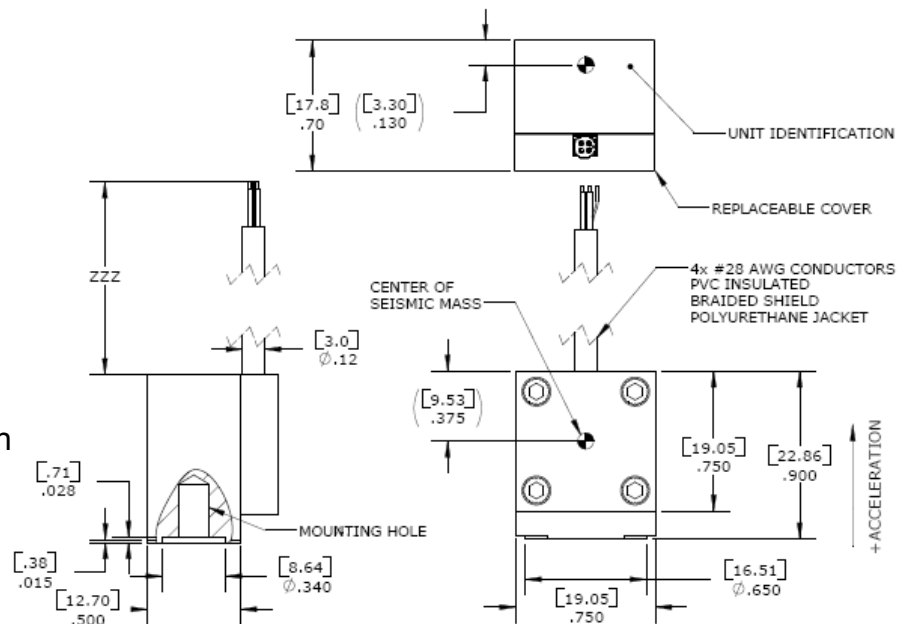
FEATURES

- 2nd GEN MEMS Sensing Element
- 2000 g Full Scale Range
- 2-10 Vdc Excitation
- $< \pm 25$ mV Zero Offset
- 1% Transverse Sensitivity Option

APPLICATIONS

- In-Dummy
 - Head
 - Thorax
 - Pelvic

dimensions



Model 61 Accelerometer

performance specifications

All values are typical at $\pm 24^{\circ}\text{C}$, 100 Hz and 10 Vdc 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

	± 750	± 2000	Notes
Range(g)	± 750	± 2000	
Sensitivity (mV/g)	.35	.15	
Frequency Response (Hz)	0-2000	0-3000	$\pm 5\%$
	0-3000	0-5000	$\pm 1 \text{ dB}$
Natural Frequency (Hz)	$>20,000$	$>26,000$	
Non-Linearity (% FSO)	± 1	± 1	Of Reading
Transverse Sensitivity (%)	<3	<3	
Thermal Zero Shift (%FSO/ $^{\circ}\text{C}$)	± 0.04	± 0.04	From 0 to $+50^{\circ}\text{C}$
Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$)	± 0.10	± 0.10	From 0 to $+50^{\circ}\text{C}$

ELECTRICAL

Zero Acceleration Output (mV)	$<\pm 25$	
Excitation (Vdc)	2 to 10	
Input Resistance	5700-7800	
Output Resistance (Ω)	2400-5000	
Insulation Resistance ($M\Omega$)	>100	@50Vdc
Ground Isolation	Shield attached to cover	

ENVIRONMENTAL

Shock Limit (g)	5000
Operating Temperature ($^{\circ}\text{C}$)	-23 to $+85$
Humidity	Epoxy Sealed, IP61

PHYSICAL

Case Material	Aluminum	
Cable (Integral 30 Foot Cable)	4x #28 AWG, Braided Shield, PU Jacket	
Weight (grams)	18	Cable Not Included
Mounting	10-32 UNF or M5 x 0.8	Torque 18 lb-in

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to $\pm 1\text{dB}$ Frequency Limit

Optional accessories: 101 Three Channel DC Signal Conditioner Amplifier
140 Auto-zero Inline Amplifier

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ordering info

PART NUMBERING Model Number+Range+Excitation+Cable Length+Options

61Z GGGG- CCCT - ZZZ

| | | | Options
 | | | | 1% Transverse Sensitivity when "T" is present.
 | | | | Cable (360 is 360 inches)
 | | | | Range (0750 is 750 g)
 | | | | A is 10-32 UNF and B is M5x0.8 Metric

Example: 61A-750-10-360-XY

Model 61A, 10-32 UNF Mounting Hole, 750g, 10V Excitation, 360" (30ft) cable, No Options

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