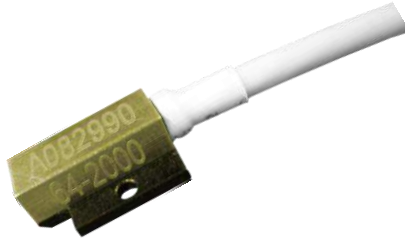
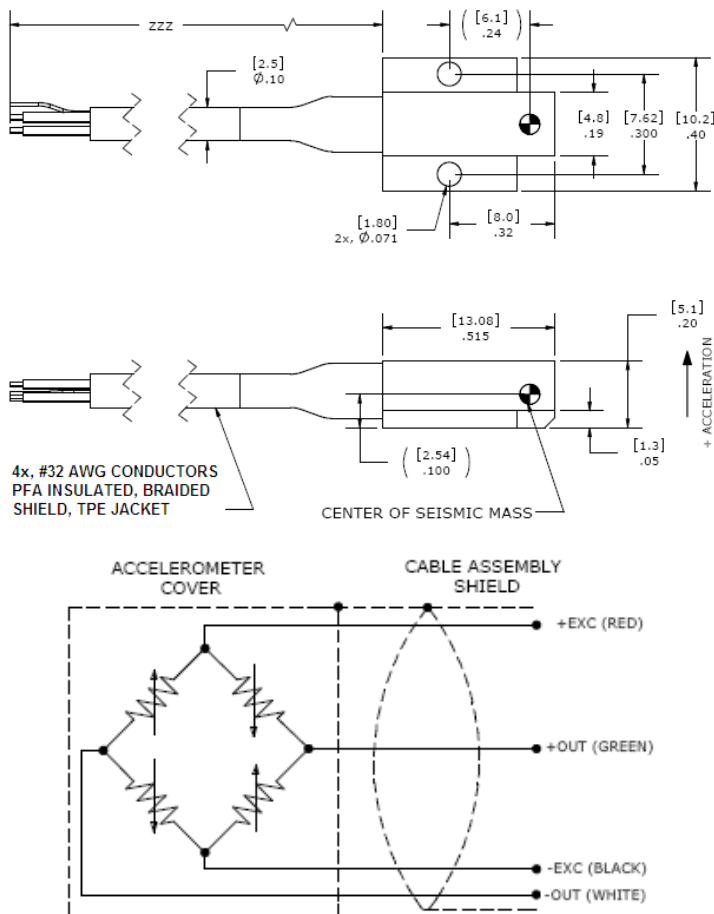


MODEL 64 ACCELEROMETER



DIMENSIONS



SPECIFICATIONS

- DC Response Accelerometer
- Durable Low Noise Cable
- Small Package
- SAE J2570 Compliant

The Model 64 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 compensated temperature range from 0 to +50° C. A slight amount of internal gas damping provides outstanding shock survivability and a flat amplitude and phase response up to 7kHz.

The Model 64 is compliant with SAE J211 standards for anthropomorphic dummy instrumentation.

FEATURES

- Piezoresistive MEMS Sensor
- $\pm 50g$ to $\pm 6,000g$ Ranges
- 2-10 Vdc Excitation
- -40 to +121°C Temp Range
- Low Noise Jacketed Cable
- 1% Transverse Sensitivity Option
- $< \pm 25$ mV Zero Offset

APPLICATIONS

- Safety Crash Testing
 - Auto
 - Truck
 - Recreational Vehicles
- Shock Testing

PERFORMANCE SPECIFICATIONS

All values are typical at $\pm 24^{\circ}\text{C}$, 80Hz and 10Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

	± 50	± 100	± 200	± 500	± 2000	± 6000	Notes
Range(g)	± 50	± 100	± 200	± 500	± 2000	± 6000	
Sensitivity (mV/g) ¹	2	0.9	0.8	0.4	0.15	0.10	
Frequency Response (Hz)	0-400	0-500	0-600	0-800	0-3000	0-3000	$\pm 2\%$ ($\pm 3\%$ for 2000g/6000g)
	0-1000	0-1200	0-1400	0-2000	0-5000	0-5000	$\pm 1/2\text{dB}$ ($\pm 7\%$ for 2000g/6000g)
	0-1400	0-1500	0-1900	0-2800	0-7000	0-7000	$\pm 1\text{dB}$ ($\pm 13\%$ for 2000g/6000g)
Resonant Frequency (Hz)	4000	6000	8000	15000	26000	26000	
Damping Ratio	0.5	0.5	0.5	0.3	0.05	0.05	Typical
Shock Limit (g)	5000	5000	5000	10000	10000	10000	
Non-Linearity (% of reading)	± 1	± 1	± 1	± 1	± 1	± 1	
Repeatability (Equiv. g)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	After full scale shock
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	$<1\%$ Option

ELECTRICAL

Zero Acceleration Output (mV)	$<\pm 25$	$<\pm 10\text{mV}$ Option
Excitation (Vdc)	2 to 10	
Input Resistance (Ω)	2400-6000	
Output Resistance (Ω)	2400-6000	
Insulation Resistance ($M\Omega$)	>100	@100Vdc
Residual Noise ($\mu\text{V RMS}$)	<10	
Ground Isolation	Isolated from mounting surface	

ENVIRONMENTAL

Thermal Zero Shift (%FSO/ $^{\circ}\text{C}$)	± 0.04	From 0 to $+50^{\circ}\text{C}$
Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$)	-0.20 ± 0.05	From 0 to $+50^{\circ}\text{C}$
Operating Temperature ($^{\circ}\text{C}$)	-40 to $+121$	
Storage Temperature ($^{\circ}\text{C}$)	-40 to $+121$	
Humidity	Epoxy Sealed, IP61	

PHYSICAL

Case & Cover Material	Anodized Aluminum Case, Brass Cover	
Cable (Integral 30 Foot Cable)	4x #32 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket	
Weight (grams)	1.0	Cable Not Included
Mounting	2x #0-80 x 3/16" Socket Head Cap Screws	Torque 3 lb-in

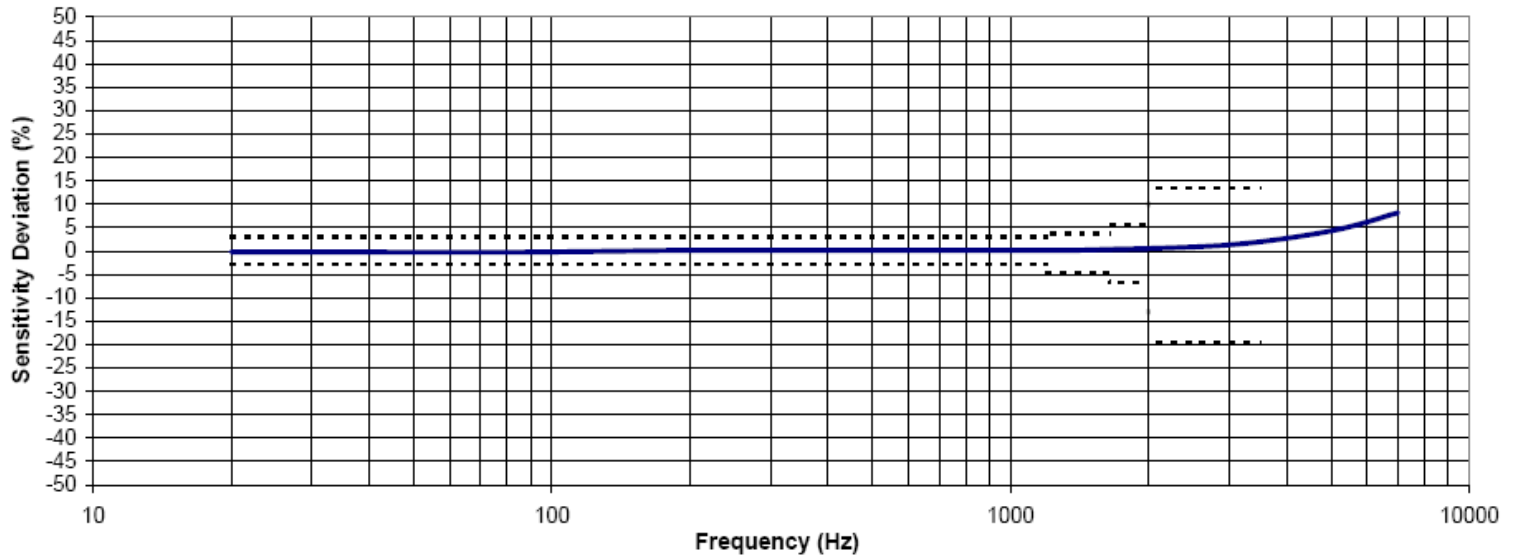
¹ Output is ratiometric to excitation voltage

Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to $\pm 1\text{dB}$ Frequency Limit
Supplied accessories:	AC-A02053	2x #0-80 (3/16 length) Socket Head Cap Screw, 2x #0 Washer, 1x Allen Key
Optional accessories:	MTG-E4	Triaxial Mounting Block
	121	3-Channel Precision Low Noise DC Amplifier
	140A	Auto-Zero Inline Amplifier

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Notes: ---SAE J2570 Corridor

Typical Frequency Response



ORDERING INFORMATION

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

64-GGGG-YY-CCCT-XY

| | | | | Connector Options (otherwise leave as 'XY')
 | | | | | 1% Transverse Sensitivity when "T" is present.
 | | | | | Cable (360 is 360 inches)
 | | | | | Excitation Voltage (10 is 10Vdc)
 | | | | | Range (0100 is 100g)

Example: 64-2000-10-360-XY

Model 64, Standard Configuration: 2000g, 10V Excitation, 360" (30ft) Cable), No Options.

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