

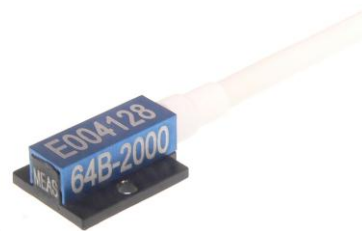
Model 64B Accelerometer



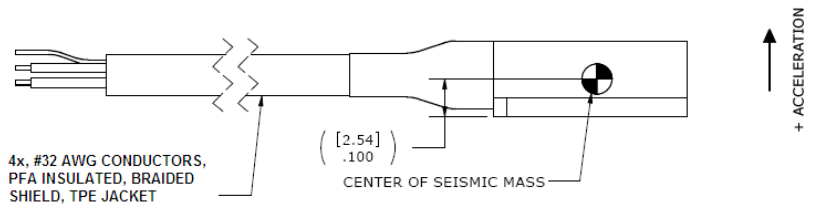
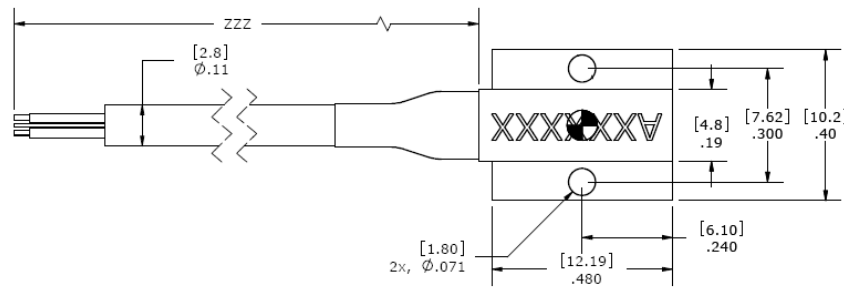
DC Response Accelerometer
Durable Low Noise Cable
Small Package
SAE J2570 Compliant

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



dimensions

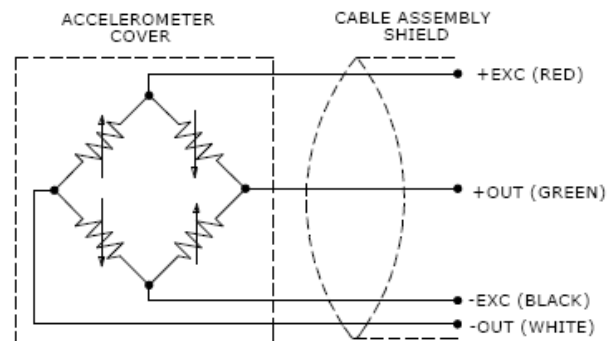


FEATURES

- Piezoresistive MEMS Sensor
- ±50g to ±6,000g Ranges
- 2-10 Vdc Excitation
- 0-50 °C Temperature Range
- Low Noise Jacketed Cable
- 1% Transverse Sensitivity Option
- <±25 mV Zero Offset

APPLICATIONS

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



Model 64B Accelerometer

performance specifications

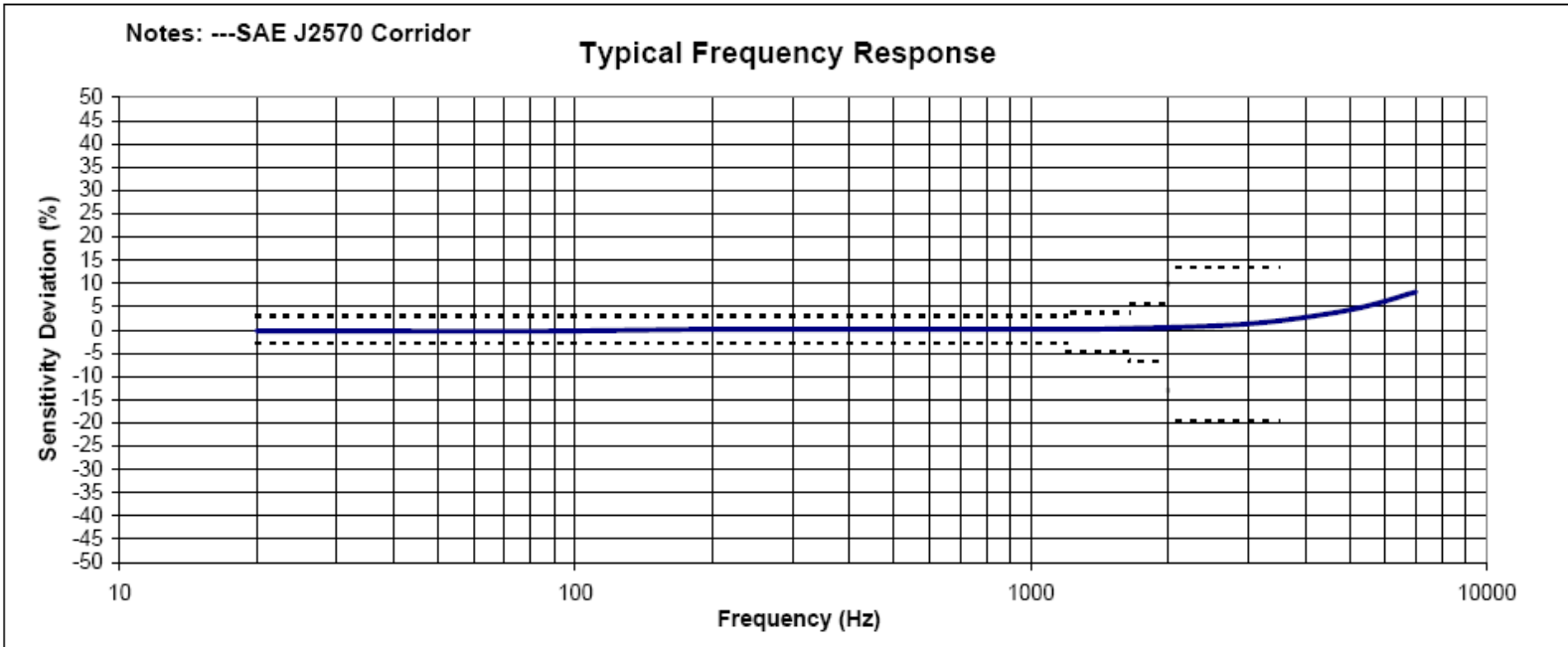
All values are typical at $\pm 24^{\circ}\text{C}$, 100 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters							Notes
DYNAMIC							
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	$\pm 2\%$
	0-1000	0-1200	0-1400	0-2000	0-5000	0-5000	$\pm 1/2\text{dB}$
	0-1400	0-1500	0-1900	0-2800	0-7000	0-7000	$\pm 1\text{dB}$
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	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<1% Option
ELECTRICAL							
Zero Acceleration Output (mV)	< ± 25						< $\pm 10\text{mV}$ Option
Excitation (Vdc)	2 to 10						
Input Resistance (Ω)	2400-6000						
Output Resistance (Ω)	2400-6000						
Insulation Resistance (M Ω)	>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						
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					
	140	Auto-Zero Inline Amplifier					

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

Model 64B Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number+Range+Cable Length+Options

64B-GGGG-CCCT-ZZZ

| | | | Options
 | | | 1% Transverse Sensitivity when "T" is present
 | | Cable (360 is 360 inches)
 | Range (0100 is 100 g)

Optional Dash Numbers

-001 5Vdc Calibration
 -004 ZMO <10mV
 -005 2Vdc Calibration

Example: 64B-2000-360

Model 64B, 2000g, 360" (30ft) Cable, No Options.