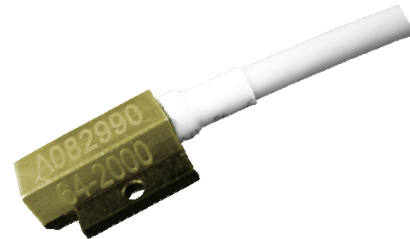


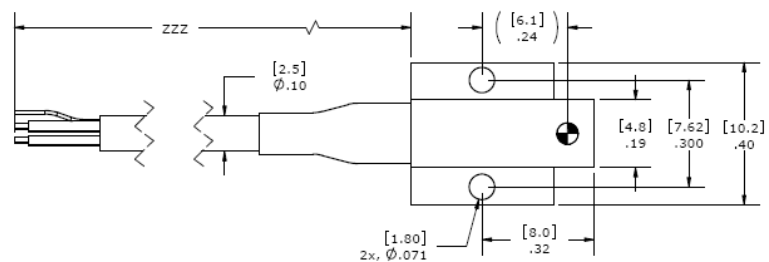
Model 64 Accelerometer

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



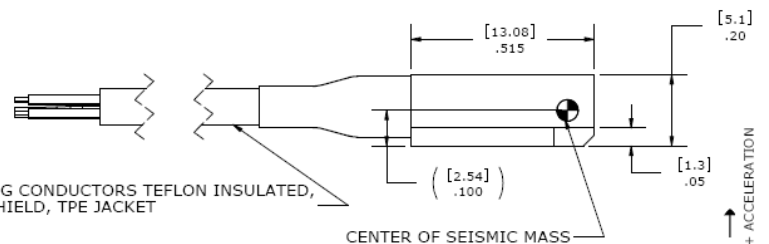
The Model 64 Accelerometer is based on an advanced piezoresistive MEMS sensing element which offers exceptional dynamic range and stability. This unit features a full bridge output configuration with a compensated temperature range from 0 to +50° C. A slight amount of internal gas damping provides outstanding 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.

dimensions



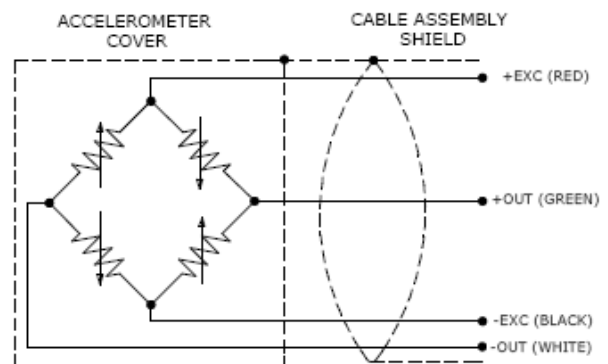
FEATURES

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



APPLICATIONS

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



Model 64 Accelerometer

performance specifications

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

	± 50	± 100	± 200	± 500	± 2000	± 6000	Notes
Range(g)	2	0.9	0.8	0.4	0.15	0.10	
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	$\pm 5\%$
	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)	10000	10000	10000	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)	< ± 25	< ± 25	< ± 25	< ± 25	< ± 25	< ± 25	< $\pm 10\text{mV}$ Option
Excitation (Vdc)	2 to 10	2 to 10	2 to 10	2 to 10	2 to 10	2 to 10	
Input Resistance (Ω)	2400-6000	2400-6000	2400-6000	2400-6000	2400-6000	2400-6000	
Output Resistance (Ω)	2400-6000	2400-6000	2400-6000	2400-6000	2400-6000	2400-6000	
Insulation Resistance (M Ω)	>100	>100	>100	>100	>100	>100	@50Vdc
Residual Noise ($\mu\text{V RMS}$)	<10	<10	<10	<10	<10	<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 (%/ $^{\circ}\text{C}$)	± 0.1						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 Teflon 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: 101 Three Channel DC Signal Conditioner Amplifier

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ordering info

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.