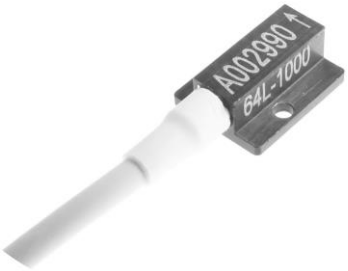
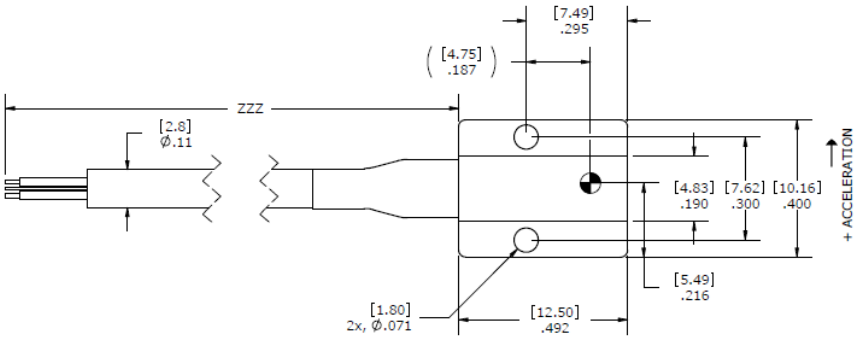
Model 64L Accelerometer

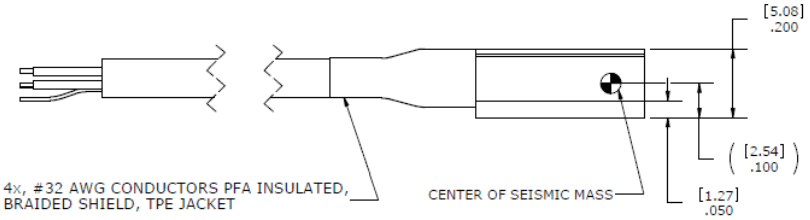
DC Response Accelerometer
Durable Cable, Small Package
Transverse Sensitive Axis
SAE J2570 Compliant



The Model 64L 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 +50º C. A slight amount of internal gas damping provides outstanding shock survivability and a flat amplitude/phase response up to >4kHz. The Model 64L is compliant with SAE J211 standards for anthropomorphic dummy instrumentation.

dimensions



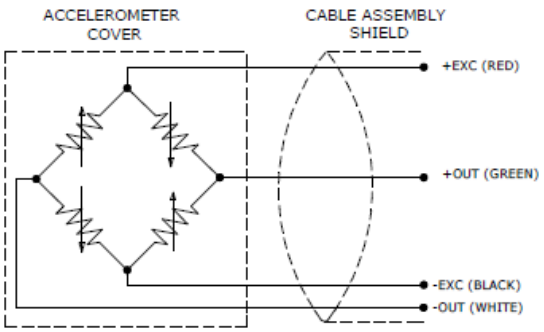


FEATURES

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

APPLICATIONS

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



32 Journey Ste. 150 Aliso Viejo, CA 92656 949-716-5377 t&m@meas-spec.com

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performance specifications

All values are typical at ±24°C, 80 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							**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	0-500	0-600	0-2000	0-2000	± 2%
	0-1000	0-1200	0-1200	0-1400	0-3500	0-3500	± ½dB
	0-1400	0-1500	0-1500	0-2000	0-4500	0-4500	± 1dB
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	<±10mV Option
Excitation (Vdc)	2 to 10	
Input Resistance (Ω)	2400-6000	
Output Resistance (Ω)	2400-6000	
Insulation Resistance (MΩ)	>100	@100Vdc
Residual Noise (µV RMS)	<10	
Ground Isolation	Isolated from mounting surface	
ENVIRONMENTAL		
Thermal Zero Shift (%FSO/°C)	±0.04	From 0 to +50°C
Thermal Sensitivity Shift (%/°C)	-0.20 ±0.05	From 0 to +50°C
Operating Temperature (°C)	-40 to +121	
Storage Temperature (°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 ±1dB 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-E2	Triaxial Mounting Block
	121	3-Channel Precision Low Noise DC Amplifier
	140	Auto-Zero Inline Amplifier

ordering info

PART NUMBERING Model Number+Range+Cable Length+Options

64L-GGGG-CCCT-ZZZ
- I I I I_____Options
- I I I_____1% Transverse Sensitivity when "T" is present
- I I_____Cable (360 is 360 inches)
- I_____Range (0100 is 100 g)

Optional Dash Numbers
- -001 5Vdc Calibration
- -002 2Vdc Calibration

Example: 64L-2000-360
Model 64L, 2000g, 360" (30ft) Cable), No Options.

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