

# Model 64 Accelerometer

- DC Response**
- Durable Cable**
- Small Package**
- Reliable Performance**

## DESCRIPTION

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/phase response up to 7kHz. The Model 64-2000 is compliant with SAE J211 standards for anthropomorphic dummy instrumentation.



## FEATURES

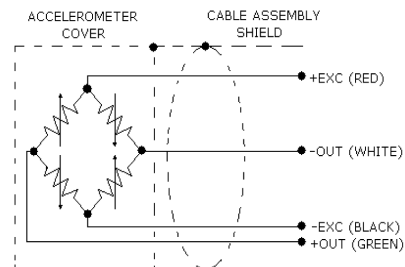
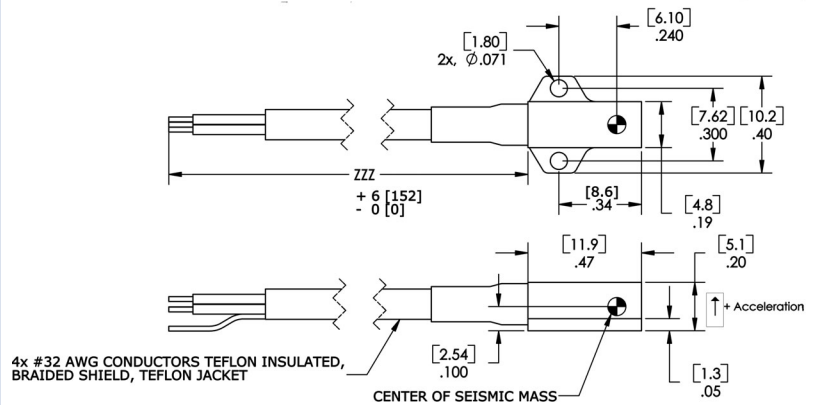
- ◆ 2<sup>nd</sup> GEN MEMS Sensing Element
- ◆ 50, 200, 500 and 2,000 g Ranges
- ◆ 2-10 Vdc Excitation for Maximum Flexibility
- ◆ 0-50°C Temperature Compensated Range
- ◆ High Impact Teflon®-jacketed Cable
- ◆ 1% Transverse Sensitivity Available
- ◆ <± 25 mV Zero Offset

## APPLICATIONS

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

## dimensions

(Dimensions in inches)



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 Rev A 2/6/06

**measurement**  
 SPECIALTIES

# Model 64 Accelerometer

## performance specifications

All values are typical at +24°C, 100 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

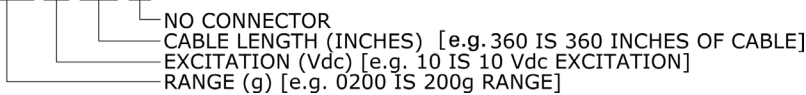
### Parameters

DYNAMIC					Notes
Range(g)	±50	±200	±500	±2000	
Sensitivity (mV/g)	2	0.9	0.4	0.15	
Frequency Response (Hz)	0-400	0-800	0-1200	0-2000	±2%
	0-1000	0-2000	0-3000	0-5000	±5%
	0-1400	0-2800	0-4200	0-7000	±1dB
Resonance (Hz)	4000	8000	15000	26000	
Shock Limit	5000	5000	5000	5000	g
Non-Linearity		±1		% FSO	
Transverse Sensitivity		<3		%	1% available
Zero Acceleration Output		<±25		mV	
Thermal Zero Shift		±0.04 (±0.02)		%/°C(%/°F)	0°C to +50°C (32 to -122°F)
Thermal Sensitivity Shift		±0.1 (±0.06)		%/°C(%/°F)	0°C to +50°C (32 to -122°F)
ELECTRICAL					
Voltage Excitation		2 to 10		Vdc	Output ratiometric to excitation. Do not reverse polarity.
Input Resistance		3500-4800		Ω	Measured between +EXC and - EXC
Output Resistance		2700-4800		Ω	Measured between +OUT and - OUT
Insulation Resistance		>100		MΩ	At 50 Vdc, leads to case and shield
Ground Isolation					Shield is connected to cover but isolated from mounting surface
ELECTRICAL					
Cable Output Connections		+EXC		RED	32 AWG Teflon® Insulated
		-EXC		BLACK	32 AWG Teflon® Insulated
		+OUT		GREEN	32 AWG Teflon® Insulated
		-OUT		WHITE	32 AWG Teflon® Insulated
		CABLE SHIELD		N/A	Braided Wires
	CABLE JACKET		WHITE	Teflon®	
					<i>Teflon® is a registered trademark of E.I. DuPont de Nemours and Company.</i>
PHYSICAL					
Case Material					Anodized aluminum
Cover Material					Brass
Cable Connections					Integral 30 foot cable
Weight		1		gram	
Mounting					2x 0-80 x 3/16 socket head cap screws (Flat Washers and Allen Wrench included)
Mounting Torque		<3.0 (<0.34)		lbf-in (Nm)	
ENVIRONMENTAL					
Operating Temperature		-40 to +121		°C	
Humidity					Epoxy Sealed
PART NUMBERING					
Model Number + Range (g's) + Excitation Vdc + Cable Length + Options					(see sample below)

## ordering information

### MODEL NUMBER:

64-ZZZZ-ZZ-ZZZ-XY



### Supplied Materials:

1. Calibration Certificate
2. Mounting Screws (P/N AC-D02009) x 2
3. Washers (P/N AC-D02008) x 2
4. Allen Wrench

Custom connector options are available.

Contact Measurement Specialties, Inc. for applicable model number.