

# 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 to ±6,000 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

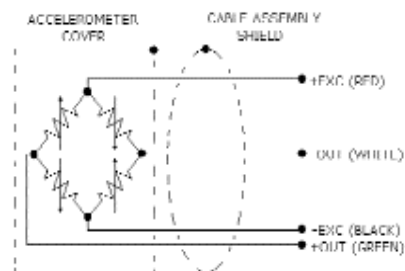
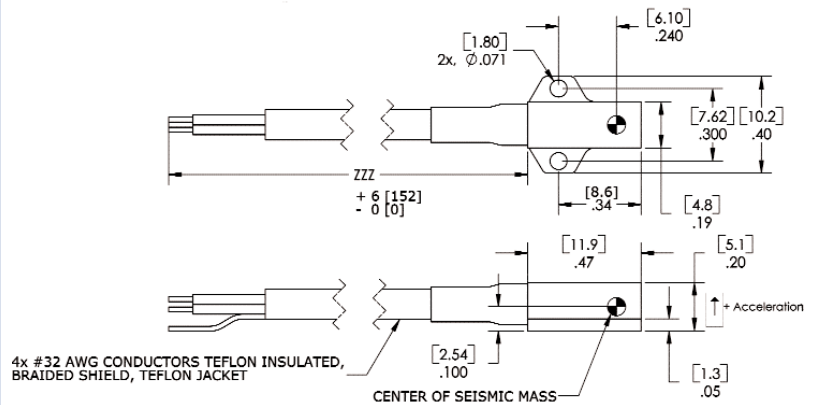
## APPLICATIONS

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

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## dimensions

(Dimensions in inches)



# Model 64 Accelerometer

## performance specifications

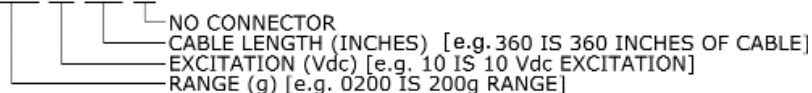
All values are typical at +24°C, 100 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters							Notes
<b>DYNAMIC</b>							
Range(g)	±50	±100	±200	±500	±2000	±6000	
Sensitivity (mV/g)	2	0.9	0.9	0.4	0.15	0.05	
Frequency Response (Hz)	0-400	0-500	0-600	0-800	0-2000	0-2000	±2%
	0-1000	0-1200	0-1500	0-2000	0-5000	0-5000	±5%
	0-1400	0-1500	0-2100	0-2800	0-7000	0-7000	±1dB
Resonance (Hz)	4000	6000	8000	15000	26000	26000	
Shock Limit	5000	5000	5000	5000	5000	10000	g
Non-Linearity	±1			% of Reading		±2% of Reading for ±6,000 g	
Transverse Sensitivity	<3			%		1% available	
Zero Acceleration Output	<±25			mV			
Thermal Zero Shift	±0.04 (±0.02)			%FSO/°C(%FSO/°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)	
<b>ELECTRICAL</b>							
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 (Varies with current)	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	
<b>ELECTRICAL</b>							
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		Santoprene		
<b>PHYSICAL</b>							
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(<0.3)			lb-in (Nm)			
<b>ENVIRONMENTAL</b>							
Operating Temperature	-40 to +121			°C			
Humidity						Epoxy Sealed	
<b>PART NUMBERING</b>							
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.

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