MODEL 52 ACCELEROMETER

SPECIFICATIONS

- **DC Response Accelerometer**
- **Low Cost, Miniature Package**
- **Gas Damped MEMS**
- **Reliable Performance**

The **Model 52 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 an operating temperature range from -40 to +90ºC. A slight amount of internal gas damping provides outstanding shock survivability

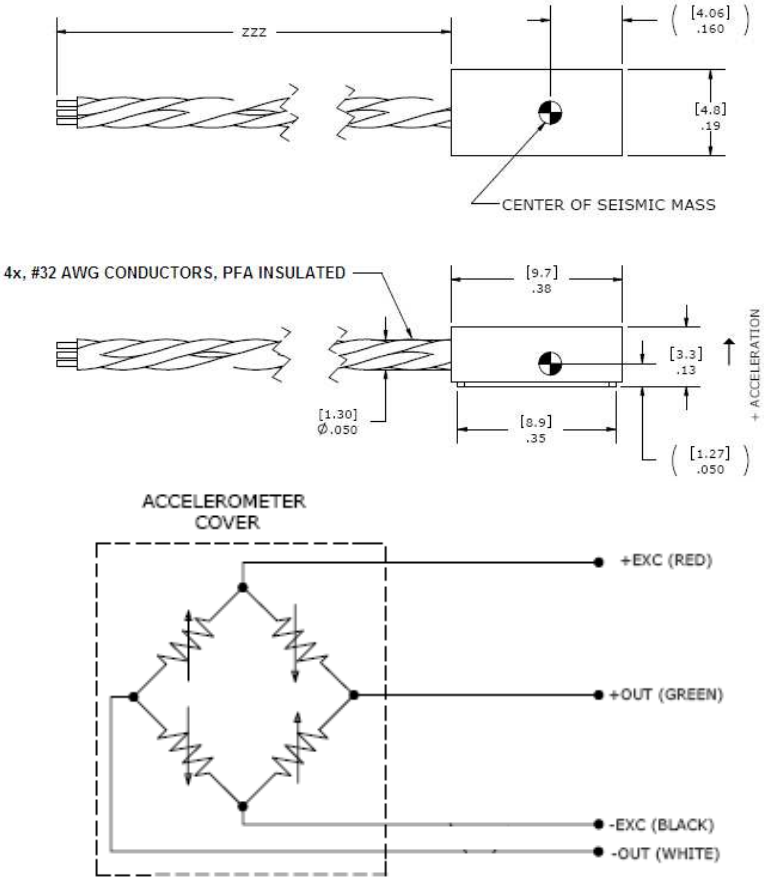
FEATURES

- Piezoresistive MEMS Sensor
- ±50g to ±2,000g Ranges
- 2-10 Vdc Excitation
- <± 50 mV Zero Offset
- -40 to +90 ºC Temperature Range

APPLICATIONS

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

DIMENSIONS



PERFORMANCE SPECIFICATIONS

All values are typical at ±24°C, 80Hz and 10Vdc 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) [1]	2	0.9	0.4	0.15	
Frequency Response (Hz)	0-400	0-600	0-800	0-2000	±2%
	0-1000	0-1400	0-2000	0-5000	±5%
	0-1400	0-1900	0-2800	0-7000	±1dB
Resonant Frequency (Hz)	4000	8000	15000	26000	
Non-Linearity (% FSO)	±1	±1	±1	±1	
Transverse Sensitivity (%)	<3	<3	<3	<3	
Shock Limit (g)	5000	5000	5000	5000	
ELECTRICAL					
Zero Acceleration Output (mV)	<±50				
Excitation (Vdc)	2 to 10				
Input Resistance	2400-6000				
Output Resistance (Ω)	2400-6000				
Insulation Resistance (MΩ)	>100				@100Vdc
Ground Isolation	Isolated from mounting surface				
ENVIRONMENTAL					
Thermal Zero Shift (%FSO/°C(%FSO/°F))*	±0.05 (±0.03)				0°C to +50°C
Thermal Sensitivity Shift (%/°C(%/°F))*	-0.20 ±0.05 (-0.11 ±0.03)				0°C to +50°C
Operating Temperature (°C)	-40 to +90				
Storage Temperature (°C)	-40 to +90				
Humidity	Epoxy Sealed, IP61				
PHYSICAL					
Case Material	Plastic				
Cable (Integral 30 Foot Cable)	4x #32 AWG Conductors PFA Insulated				
Weight (grams)	0.5				Cable not included
Mounting	Adhesive				

[1] Output is ratiometric to excitation voltage

Calibration supplied:	CS-SENS-0100	NIST Traceable Amplitude Calibration at 80Hz
Optional accessories:	121	Three Channel DC Signal Conditioner Amplifier
	140A	Auto-zero Inline Amplifier

ORDERING INFORMATION

PART NUMBERING Model Number+Range+Excitation+Cable Length+Options

52-GGGG-CCC-ZZ
- I I I_____Options
- I I_____ Cable (360 is 360 inches)
- I_____ Range (0100 is 100 g)

Optional Dash Numbers

-01	5Vdc Calibration
-02	2Vdc Calibration
-03	3.3Vdc Calibration

Example: 52-2000-360
Model 52, 2000g, 360” (30ft) Cable), No Options.

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