

# **MODEL 68C ACCELEROMETER**

### **SPECIFICATIONS**

- Triaxial Accel, DC Response
- Durable Low Noise Cable
- Reliable Performance
- SAE J2570 Compliant

The Model 68C Accelerometer is a small, compact triaxial device designed for vehicle impact and road testing. The unit incorporates three replaceable sensing modules with mechanical overload stops that provide high shock protection in rugged applications. The model 68C accelerometer is compliant with SAE-J211 specifications for anthropomorphic dummy instrumentation. The model 68CM1 has a cover installed for additional protection.

#### **FEATURES**

- ±100g to ±2000 g Ranges
- 2-10 Vdc Excitation
- Temperature Compensation
- Mechanical Overload Stops
- Replaceable Sensors
- Optional Cover
- WorldSID Approved

## **APPLICATIONS**

- Crash Testing
- Impact Testing
- Off-Road Testing
- Road Testing
- Dummy Instrumentation

WHT/BLU WHT/YEL WHT

-OUT

#### PERFORMANCE SPECIFICATIONS

All values are typical at  $\pm 24^{\circ}$ 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)	±100	±500	±2000	
Sensitivity (mV/g) 1	2.0	0.45	0.15	
Frequency Response, 3 Axis (Hz)	0-1000	0-2000	0-4000	±5%
Frequency Response, 1 & 2 Axis (Hz)	0-700	0-1400	0-3000	±5%
Resonant Frequency (Hz)	4000	11,000	26,000	
Damping Ratio	0.5	0.3	0.05	Typical
Shock Limit (g)	5000	5000	5000	
Non-Linearity (% FSO)	±1	±1	±1	Of Reading
Transverse Sensitivity (%)	<3	<3	<3	_
ELECTRICAL Zero Acceleration Output (mV) Excitation Voltage (Vdc) Input Resistance Output Resistance ( $\Omega$ ) Insulation Resistance ( $M\Omega$ ) Residual Noise ( $\mu$ V RMS) Ground Isolation	<±50 2 to 10 2400-6000 2400-6000 >100 <10 Isolated from	Mounting Surfac	ce	@100Vdc
ENVIRONMENTAL Thermal Zero Shift (%FSO/°C) Thermal Sensitivity Shift (%/°C) Operating Temperature (°C) Storage Temperature (°C)	±0.05 -0.20 ±0.05 -20 to +85 -40 to +90			From 0 to +50°C From 0 to +50°C

**PHYSICAL** 

Humidity

Case Material Stainless Steel

Cable 12x #30 AWG Conductors PFA Insulated, Braided Shield, PU Jacket Weight (grams) 20 Cable not included Mounting (Screw) M2 x 0.4, 16mm Length, Supplied Torque 3 lb-in

Epoxy Sealed, IP61 (M1 option)

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to 3500Hz

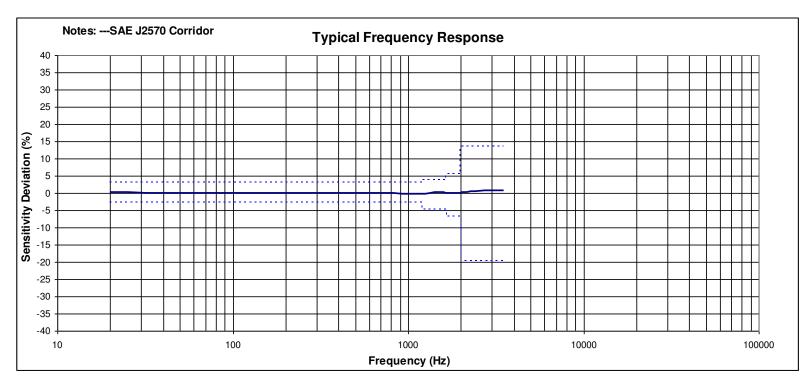
Supplied accessories: AC-A02591 1x M2 x 0.4 (16mm length) Phillips Pan Head Screw & Washer

Optional accessories: 121 3-Channel Precision Low Noise DC Amplifier

140A Auto-Zero Inline Amplifier

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Output is ratiometric to excitation voltage



### ORDERING INFORMATION

PART NUMBERING Model Number+Range+Cable Length+Options

Example: 68C-2000-360 (68CM1 includes cover at no extra cost)
Model 68C, Standard Configuration: 2000g, 360" (30ft) cable

Optional Dash Numbers
-01 5Vdc Calibration
-03 3.3Vdc Calibration

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