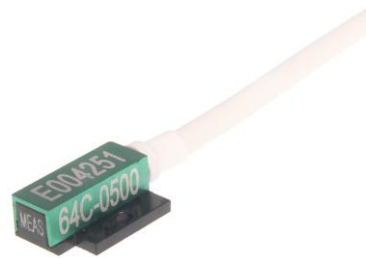


Model 64C Accelerometer



DC Response Accelerometer
Durable Low Noise Cable
Small Package
SAE J2570 Compliant



The Model 64C 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 and phase response up to 7kHz.

The Model 64C is compliant with SAE J211 standards for anthropomorphic dummy instrumentation.

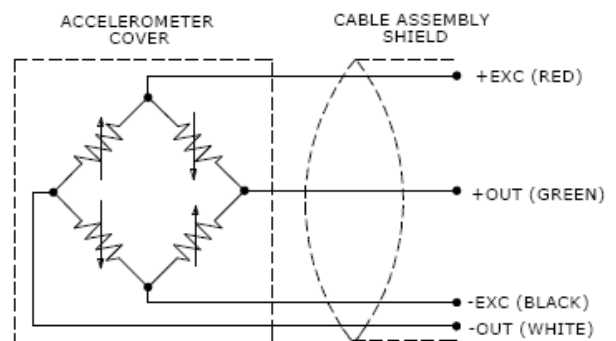
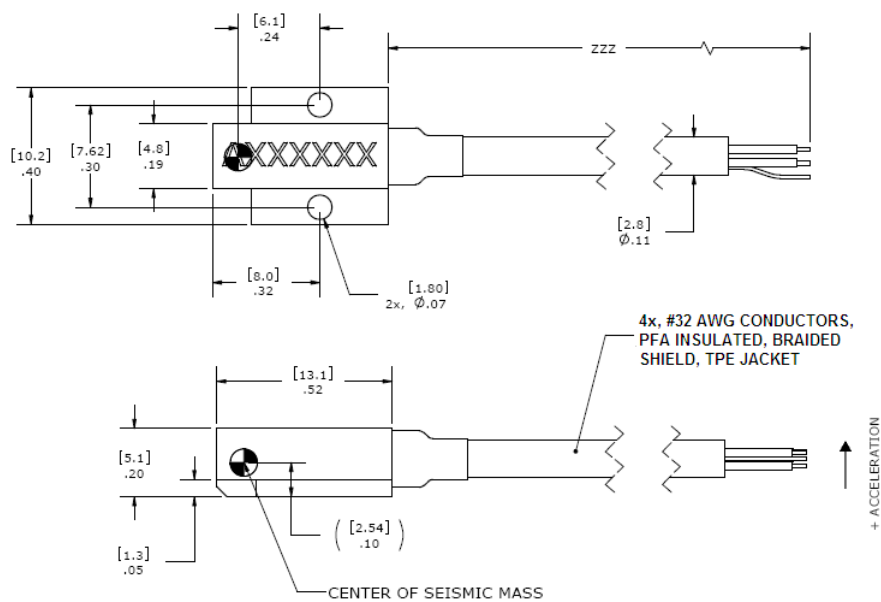
FEATURES

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

APPLICATIONS

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

dimensions



Model 64C Accelerometer

performance specifications

All values are typical at $\pm 24^{\circ}\text{C}$, 100 Hz and 10Vdc 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

| | ± 50 | ± 100 | ± 200 | ± 500 | ± 2000 | ± 6000 | 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 | 0-600 | 0-800 | 0-3000 | 0-3000 | $\pm 2\%$ |
| | 0-1000 | 0-1200 | 0-1400 | 0-2000 | 0-5000 | 0-5000 | $\pm 1/2\text{dB}$ |
| | 0-1400 | 0-1500 | 0-1900 | 0-2800 | 0-7000 | 0-7000 | $\pm 1\text{dB}$ |
| 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 | | | | | | < $\pm 10\text{mV}$ Option |
| Excitation (Vdc) | 2 to 10 | | | | | | |
| Input Resistance (Ω) | 2400-6000 | | | | | | |
| Output Resistance (Ω) | 2400-6000 | | | | | | |
| Insulation Resistance (M Ω) | >100 | | | | | | @100Vdc |
| Residual Noise ($\mu\text{V RMS}$) | <10 | | | | | | |
| Ground Isolation | Isolated from mounting surface | | | | | | |

ENVIRONMENTAL

| | | | | | | | |
|--|--------------------|--|--|--|--|--|---------------------------------|
| Thermal Zero Shift (%FSO/ $^{\circ}\text{C}$) | ± 0.04 | | | | | | From 0 to $+50^{\circ}\text{C}$ |
| Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$) | -0.20 ± 0.05 | | | | | | From 0 to $+50^{\circ}\text{C}$ |
| Operating Temperature ($^{\circ}\text{C}$) | -40 to $+121$ | | | | | | |
| Storage Temperature ($^{\circ}\text{C}$) | -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 $\pm 1\text{dB}$ Frequency Limit

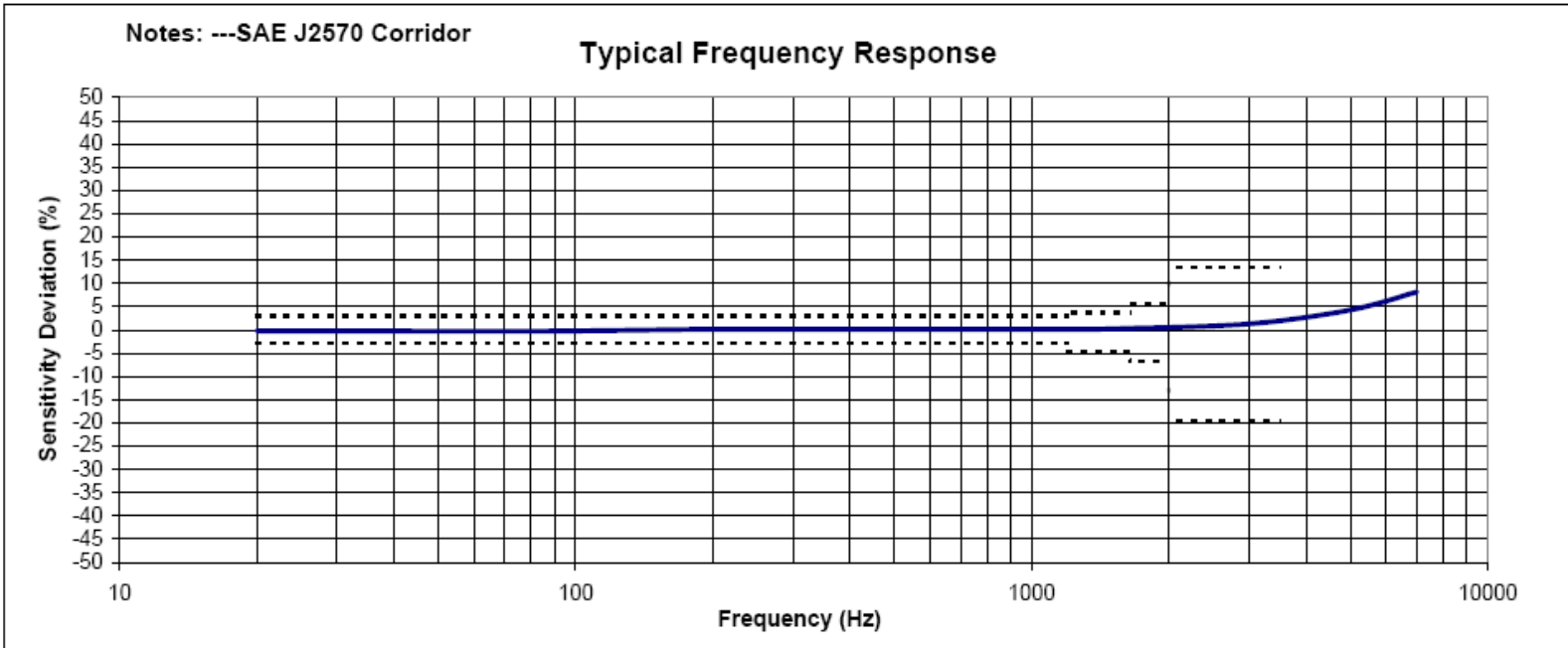
Supplied accessories: AC-A02053 2x #0-80 (3/16 length) Socket Head Cap Screw, 2x #0 Washer, 1x Allen Key

Optional accessories: MTG-E2 Triaxial Mounting Block
121 3-Channel Precision Low Noise DC Amplifier
140 Auto-Zero Inline Amplifier

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Model 64C Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number+Range+Cable Length+Options

64C-GGGG-CCCT-ZZZ

| | | | Options
| | | | 1% Transverse Sensitivity when "T" is present.
| | | | Cable (360 is 360 inches)
| | | | Range (0100 is 100g)

Optional Dash Numbers

-001 5Vdc Calibration
-004 ZMO <10mV
-005 2Vdc Calibration

Example: 64C-2000-360

Model 64C, 2000g, 360" (30ft) Cable), No Options.

联系方式



深圳市亿为测控电子有限公司
Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

广东省深圳市南山区创业路怡海广场东座2407 邮编：518000

电话：+86 755 2641 9890 传真：+86 755 2641 9680

电子邮箱：sales@bill-well.com