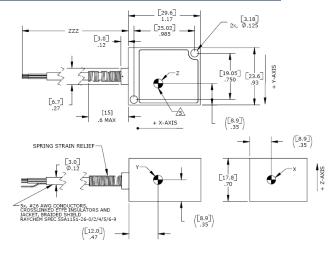
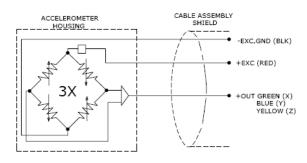




# 

# DIMENSIONS





# **MODEL 203 ACCELEROMETER**

# **SPECIFICATIONS**

- MEMS Triaxial Accelerometer
- Temperature Calibrated
- Signal Conditioned Output
- Low Cost, Low Noise

**The Model 203** is a low noise triaxial accelerometer offering both static and dynamic response. The accelerometer is packaged in an anodized aluminum housing with an integral cable. It is offered in ranges from  $\pm 2g$  to  $\pm 100g$ . Featuring gas damped MEMS sensing elements, **the model 203** provides a flat frequency response to 100Hz over an operating temperature range of -40°C to +125°C.

## FEATURES

- Low Noise, High Signal-to-Noise
- Three Independent Circuits
- Low Current Consumption
- Ranges: ±2g to ±100g
- DC to 100Hz Frequency Response
- High Over-Range Protection
- Temperature Compensation

### **APPLICATIONS**

- Transportation Measurements
- Vibration & Shock Monitoring
- Road Vehicle Testing
- Low Frequency Applications
- Motion Analysis

#### PERFORMANCE SPECIFICATIONS

All values are typical at  $+24^{\circ}$ C, 80Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters DYNAMIC Range (g) Sensitivity (mV/g) -3dB Cutoff Frequency (Hz Rolloff Above Cutoff Freque Natural Frequency (Hz) Non-Linearity (%FSO) Transverse Sensitivity (%) Damping Ratio Shock Limit (g) Residual Noise (µV RMS) Residual Noise (µg/√Hz RM	ency (dB/dec)	±2 1000 100 ±15 -40 700 ±0.5 <3 0.7 5000 80 8	±5 400 100 ±15 -40 800 ±0.5 <3 0.7 5000 50 13	±10 200 100 ±15 -40 1000 ±0.5 <3 0.7 5000 50 25	±20 100 ±15 -40 ±0.5 <3 0.7 5000 60 60	±30 67 100 ±15 -40 1500 ±0.5 <3 0.7 5000 50 75	±50 40 100 ±15 -40 4000 ±0.5 <3 0.7 5000 60 150	±100 20 100 ±15 -40 6000 ±0.5 <3 0.6 5000 60 300	Notes <2 Typical Passband Spectral	
<b>ELECTRICAL</b> Zero Acceleration Output (V) Excitation Voltage (Vdc) Excitation Current (mA) Full Scale Output Voltage Swing (Vdc) Output Resistance ( $\Omega$ ) Insulation Resistance (M $\Omega$ ) Turn On Time (msec) Ground Isolation		2.5 ±0.1 5 to 30 <5 0.5 to 4.5 <100 >100 <100 Isolated from	n Mounting	Surface					@100Vdc	
<b>ENVIRONMENTAL</b> Thermal Zero Shift (%FSO/°C) Thermal Sensitivity Shift (%/°C) Operating Temperature (°C) Compensated Temperature (°C) Storage Temperature (°C) Humidity		±0.012 ±0.020 -40 to 125 0 to 85 -40 to 125 Epoxy Enca	psulated, IF	965						
<b>PHYSICAL</b> Case Material Cable Weight (grams) Mounting Mounting Torque		Anodized Aluminum ETFE Insulated Leads, Braided Shield, Crosslinked ETFE Jacket 30 2x #4 or M3 Screws 6 Ib-in (0.7 N-m)								
Calibration supplied:	CS-FREQ-010	00 NIST T	NIST Traceable Amplitude Calibration from 20Hz to 100Hz							
Supplied accessories:	AC-A03655	2x #4-4	2x #4-40 (7/8" length) Socket Head Cap Screw and Washer							
Optional accessories:	121	Three C	Channel DC	Differential	Amplifier					

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#### **ORDERING INFORMATION**

PART NUMBERING Model Number+Range+Cable Length

203-XX-YY-ZZ-CCC

Cable (060 is 60 inches) \_Range (05-05-20 is ±5g X & Y axes, ±20g Z axis)

Example: 203-05-05-20-060

Model 203, 5g X & Y axes, 20g Z axis, 60" (5ft) Cable

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