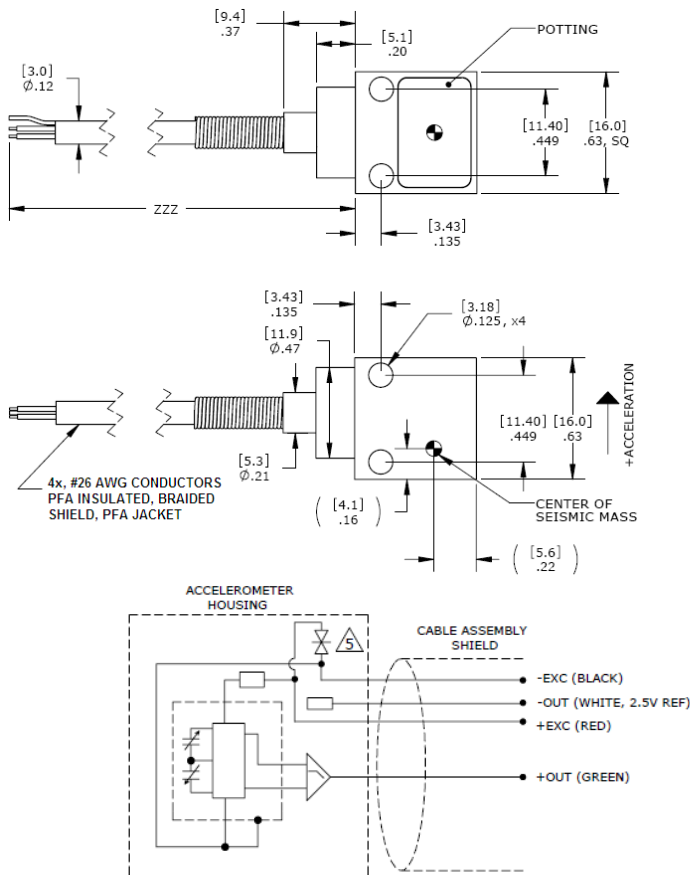


# MODEL 4623 ACCELEROMETER



## DIMENSIONS



## SPECIFICATIONS

- MEMS Accelerometer
- DC Response, Ultra-Stable
- Advanced Temp Compensation
- Signal Conditioned Output
- Integral Strain Relief

The Model 4623 is a low frequency DC response accelerometer offering outstanding performance over a wide operating temperature range. The accelerometer is available in ranges from  $\pm 2$  to  $\pm 100g$  and incorporates an EMI/EMC protection circuitry for harsh installations. The output is signal conditioned to provide a low noise amplified signal. The model 4623 incorporates a PFA insulated cable with a rugged strain relief designed for demanding applications.

## FEATURES

- $\pm 2g$  to  $\pm 100g$  Dynamic Range
- Signal Conditioned Output
- EMI/EMC Protection Circuit
- Gas Damping
- Integral Strain Relief
- DC, Low Frequency Response
- 7 to 30Vdc Excitation Voltage

## APPLICATIONS

- Harsh Applications
- Structural Testing
- Test & Instrumentation
- Performance Testing
- Transportation
- Flight Testing

**PERFORMANCE SPECIFICATIONS**

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

Parameters							Notes
<b>DYNAMIC</b>							
Range (g)	±2	±5	±10	±25	±50	±100	
Sensitivity (mV/g)	1000	400	200	80	40	20	±10%
Frequency Response (Hz)	0-150	0-150	0-200	0-400	0-600	0-1000	±5% <sup>1</sup>
Frequency Response (Hz)	0-400	0-400	0-550	0-800	0-100	0-1400	±1dB
Natural Frequency (Hz)	700	800	1000	1500	4000	6000	
Non-Linearity (%FSO)	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	
Shock Limit (g)	5000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	500	500	450	550	450	450	Passband
Spectral Noise (µg/√Hz)	35	38	75	219	316	516	Passband

<b>ELECTRICAL</b>							
Zero Acceleration Output (mV)	±50						Differential
Excitation Voltage (Vdc)	7 to 30						
Excitation Current (mA)	<5						
Bias Voltage (Vdc)	2.5						
Output Resistance (Ω)	<100						
Insulation Resistance (MΩ)	>100						@100Vdc
Turn On Time (msec)	<100						
Ground Isolation	Isolated from Mounting Surface						

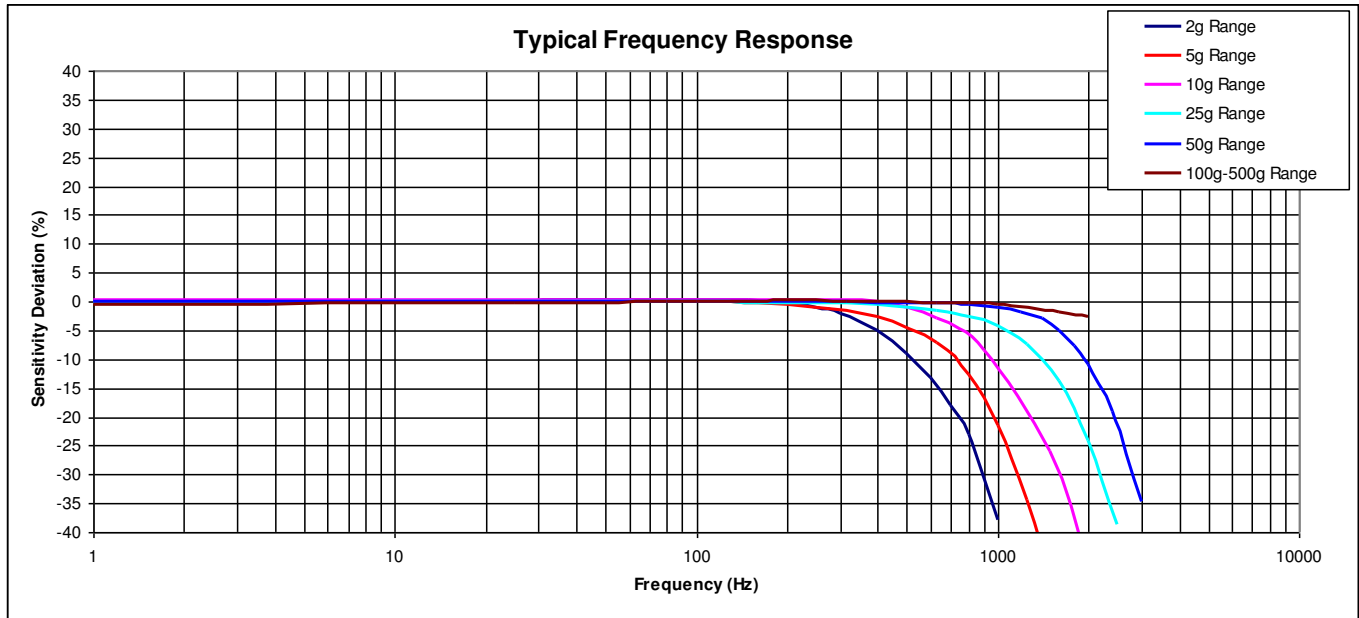
<b>ENVIRONMENTAL</b>							
Thermal Zero Shift (%FSO/°C)	±0.004						Typical
Thermal Sensitivity Shift (%/°C)	±0.010						Typical
Operating Temperature (°C)	-55 to 125						
Storage Temperature (°C)	-55 to 125						
Humidity	Epoxy Encapsulated, IP65						

<b>PHYSICAL</b>							
Case Material	Anodized Aluminum						
Cable	4x #26 AWG Conductors, PFA Insulated, Braided Shield, PFA Jacket						
Weight (grams)	14						
Mounting	2x #4 or M3 Screws						
Mounting Torque	6 lb-in (0.7 N-m)						

- Calibration supplied:** CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit<sup>1</sup>
- Supplied accessories:** AC-A02944 2x #4-40 (3/4 length) Socket Head Cap Screw and Washer
- Optional accessories:** 121 3-Channel Precision Low Noise DC Amplifier

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# MODEL 4623 ACCELEROMETER



## ORDERING INFORMATION

PART NUMBERING Model Number+Range+Cable Length

4623-GGG-ZZZ-C

| |  
 | | Cable (060 is 60 inches)  
 | Range (025 is 25g)

Example: 4623-025-060-C  
 Model 4623, 25g, 060" (5ft) Cable

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