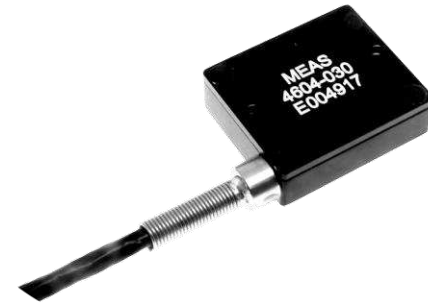


# Model 4604 Accelerometer

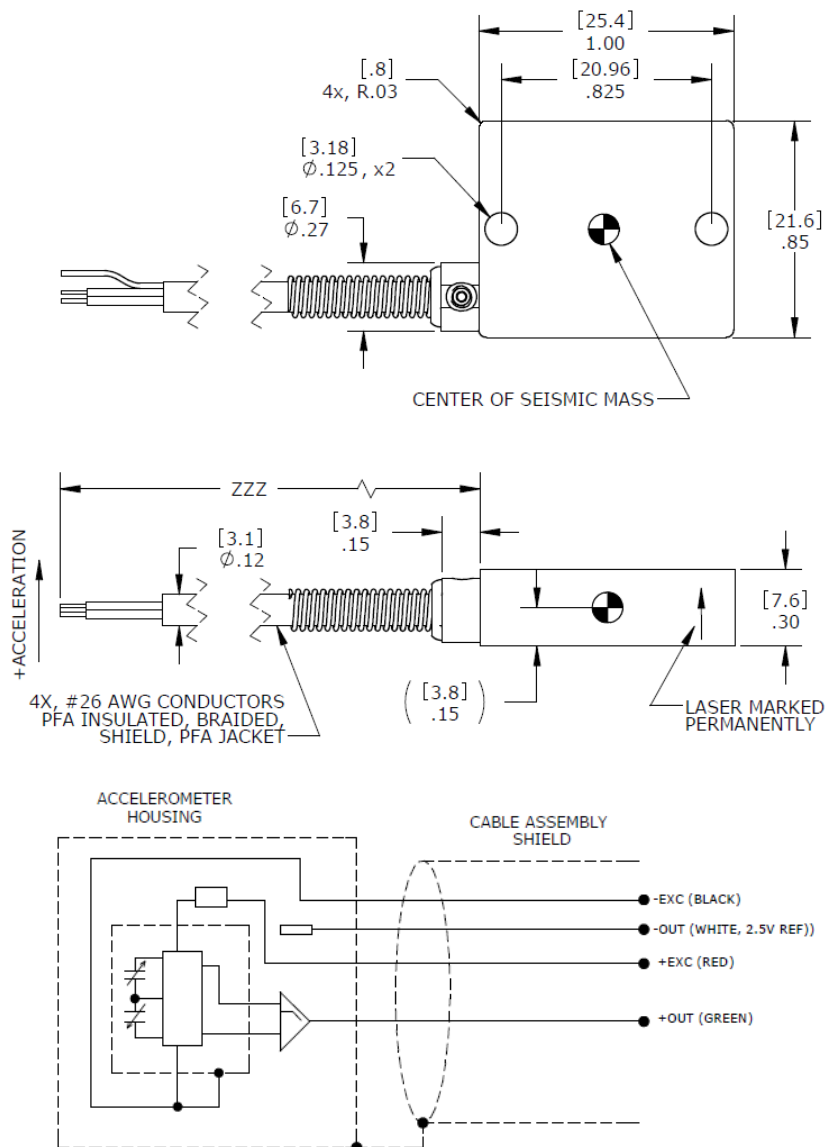


Advanced Temp Compensation  
Robust Strain Relief  
Amplified, Signal Conditioned  
DC Response, Ultra-Stable

The **Model 4604** is a rugged, low-profile MEMS accelerometer designed for both static and dynamic applications. The accelerometer is available in ranges from  $\pm 2$  to  $\pm 500g$  and offers outstanding thermal performance. The output is signal conditioned with exceptional long term stability. The model 4604 incorporates a PFA insulated cable with a rugged strain relief designed for demanding applications.



## dimensions



## FEATURES

- $\pm 2g$  to  $\pm 500g$  Dynamic Range
- Amplified Output
- Low Power Consumption
- Gas Damping
- #26 AWG PFA Cable
- DC, Low Frequency Response
- 8 to 36Vdc Excitation Voltage

## APPLICATIONS

- Flight Testing
- Flutter and Nacelle Vibrations
- Road Vehicle Testing
- Structural Testing
- Test and Instrumentation
- Transportation

# Model 4604 Accelerometer

## performance specifications

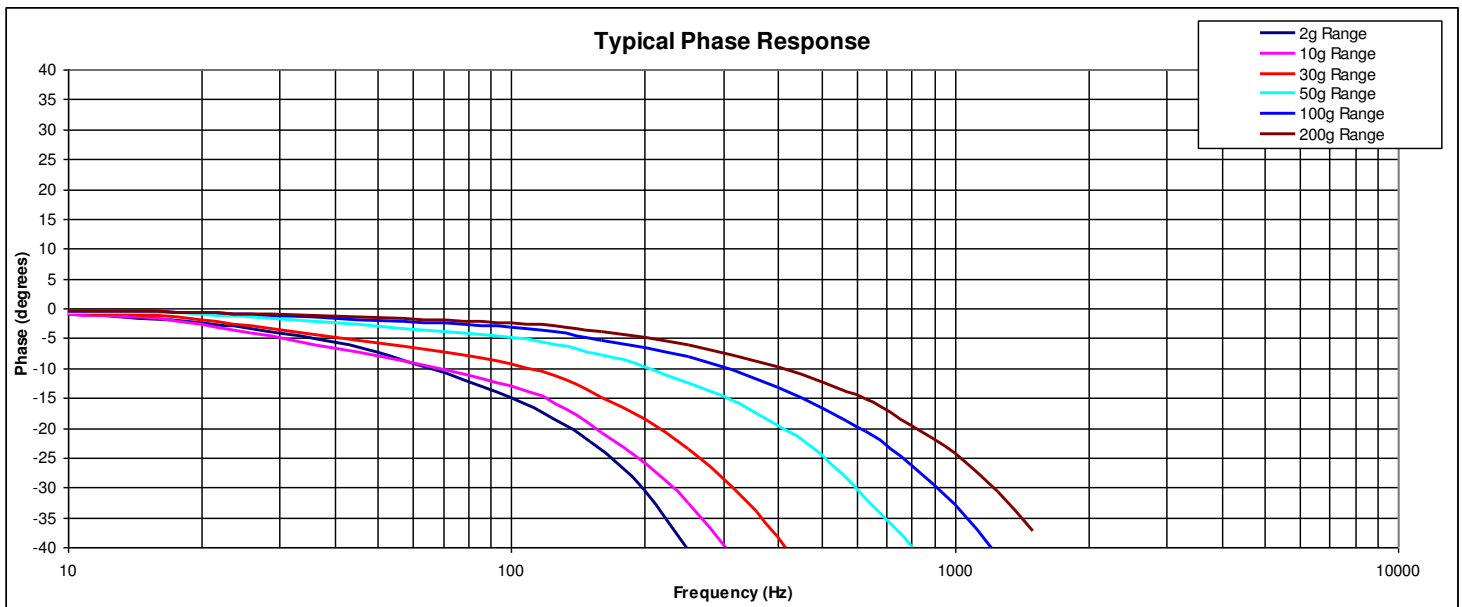
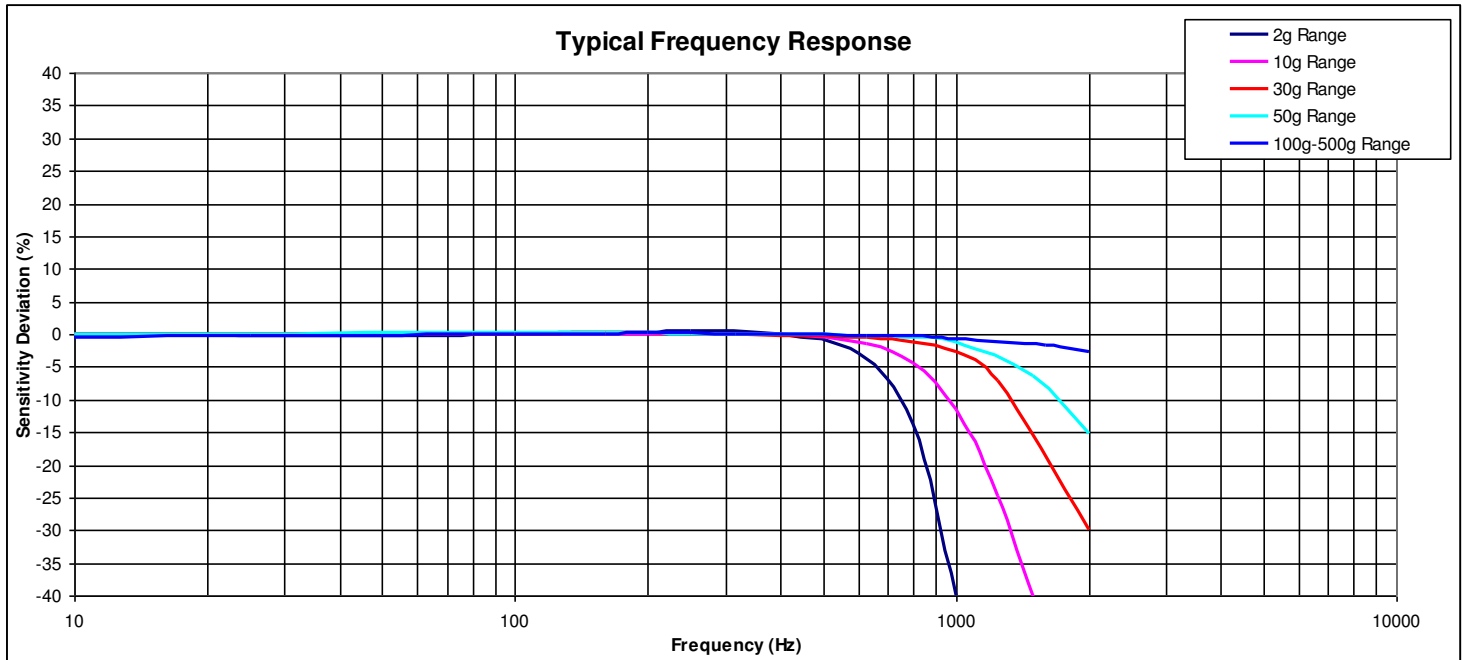
All values are typical at +24 °C, 100Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters								Notes
<b>DYNAMIC</b>								
Range (g)	±2	±10	±30	±50	±100	±200	±500	
Sensitivity (mV/g)	1000	200	67	40	20	10	4	±10%
Frequency Response (Hz)	0-250	0-1000	0-1000	0-1000	0-1500	0-1500	0-1500	±5% <sup>1</sup>
Natural Frequency (Hz)	700	1000	1500	4000	6000	8000	10000	
Non-Linearity (%FSO)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	
Transverse Sensitivity (%)	<2	<2	<2	<2	<2	<2	<2	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.6	0.5	
Shock Limit (g)	5000	5000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	500	300	350	400	400	400	400	Passband
Spectral Noise (µg/√Hz)	35	75	197	316	516	1033	2582	Passband
<b>ELECTRICAL</b>								
Zero Acceleration Output (mV)	±50							Differential
Excitation Voltage (Vdc)	8 to 36							
Excitation Current (mA)	<5							
Bias Voltage (Vdc)	2.5							
Full Scale Output Voltage (V)	±2							
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 (Active Element & Electronics)	Hermetically Sealed							
Humidity (Housing)	Epoxy Sealed, IP65							
<b>PHYSICAL</b>								
Case Material	Anodized Aluminum							
Cable	4x, #26 AWG Conductors, PFA Insulated, Braided Shield, PFA Jacket							
Weight (grams)	10							
Mounting	2x #4 or M3 Screws							
Mounting Torque	6 lb-in (0.7 N-m)							
<b>Calibration supplied:</b>	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit <sup>1</sup>						
<b>Supplied accessories:</b>	AC-A02285	2x #4-40 (7/16 length) Socket Head Cap Screw and Washer						
<b>Optional accessories:</b>	AC-D02669 121	Triaxial Mounting Block 3-Channel Precision Low Noise DC Amplifier						

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# Model 4604 Accelerometer

## performance specifications



## ordering info

PART NUMBERING Model Number+Range+Cable Length

4604-GGG-ZZZ-C

|           |  
 |        |\_\_\_\_| Cable (060 is 60 inches)  
 |\_\_\_\_\_| Range (010 is 10g)

Example: 4604-010-060-C  
Model 4604, 10g, 060" (5ft) Cable