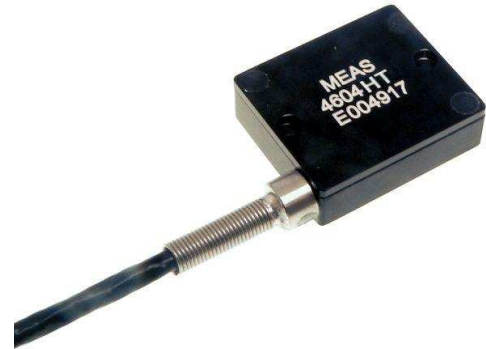


# Model 4604HT Accelerometer

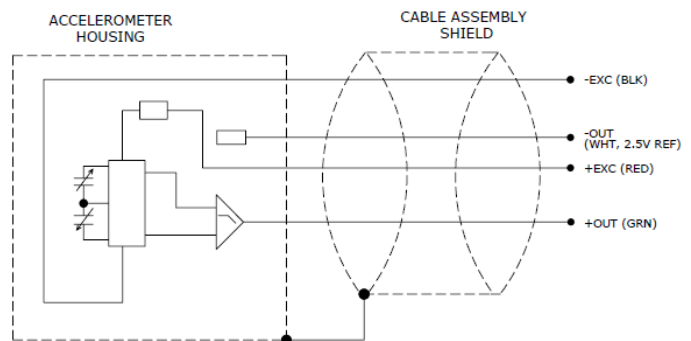
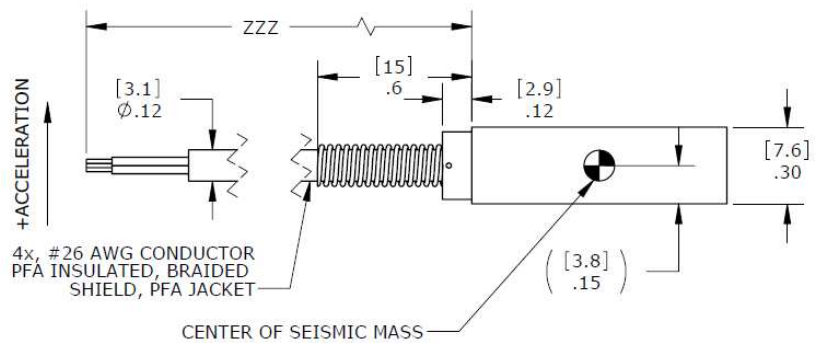
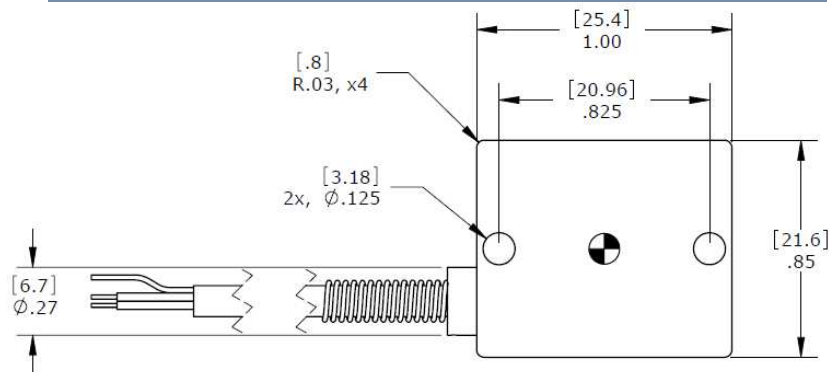


+170°C DC Response Accelerometer  
Critically Damped, Robust  
Amplified, Signal Conditioned  
Silicon MEMS Accelerometer

The **Model 4604HT** is a unique high temperature DC response accelerometer designed for severe environment installations. The accelerometer is available in ranges from  $\pm 2$  to  $\pm 200g$  and offers outstanding thermal performance up to +170°C. The model 4604HT features a gas damped MEMS sensing element with integral over-range stops for high-g shock protection. The unit is critically damped with a -80dB/decade frequency attenuation.



## dimensions



## FEATURES

- $\pm 2g$  to  $\pm 200g$  Dynamic Range
- Amplified Output
- -55°C to +170°C Operating Range
- Integral Strain Relief
- DC, Low Frequency Response
- 8 to 18Vdc Excitation Voltage

## APPLICATIONS

- Flight Testing
- Flutter and Nacelle Vibrations
- Road Vehicle Testing
- Down Hole Monitoring
- Performance Testing

# Model 4604HT Accelerometer

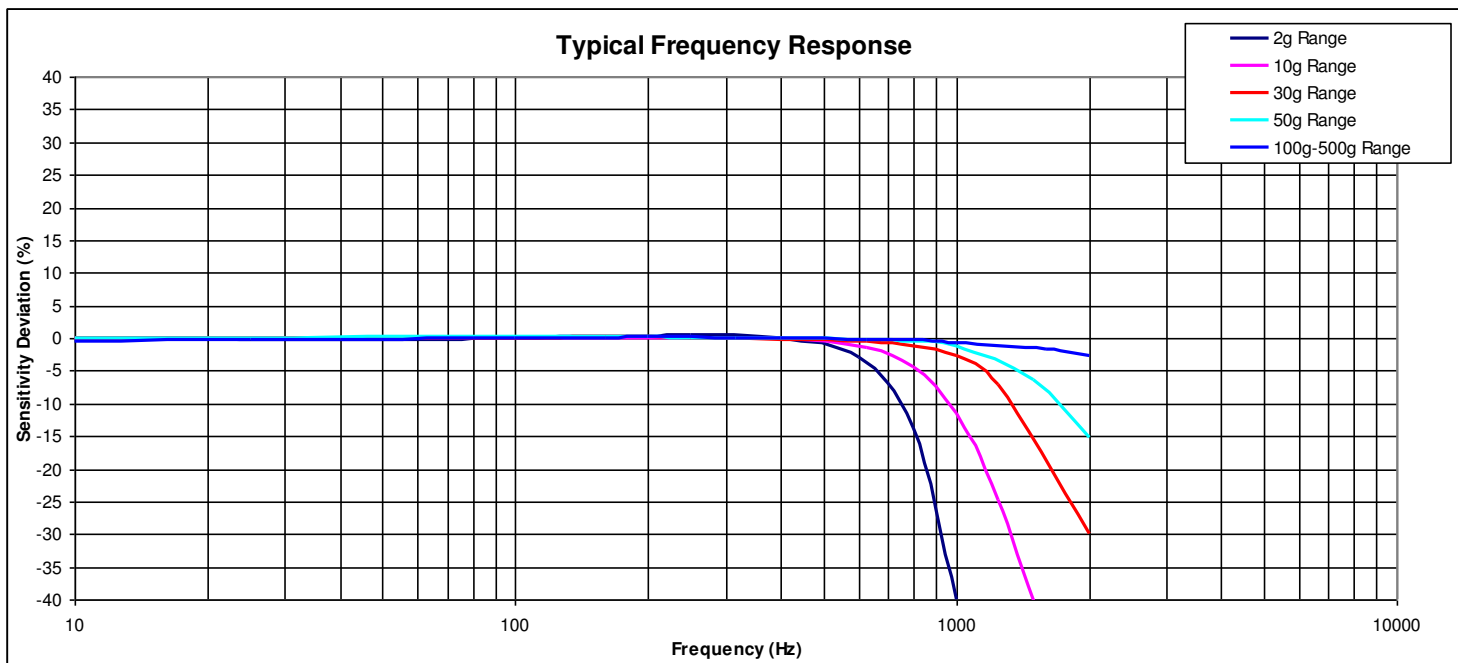
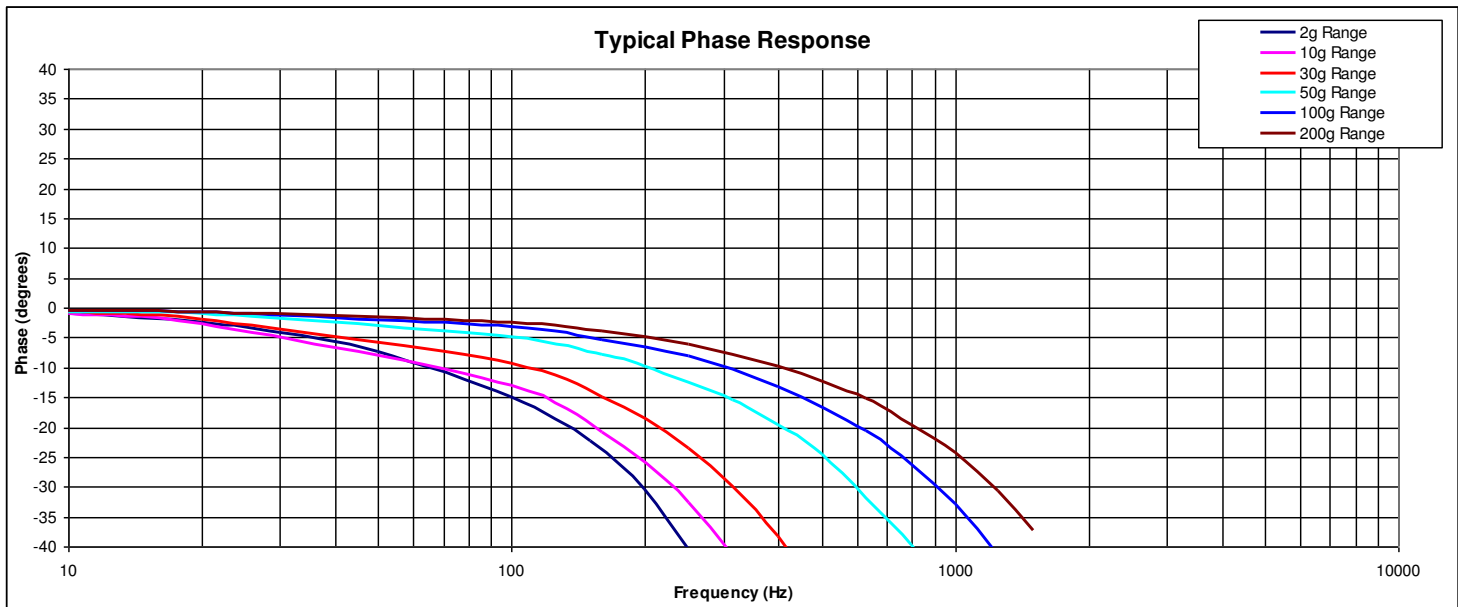
## performance specifications

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	
Sensitivity (mV/g)	1000	200	67	40	20	10	
Frequency Response (Hz)	0-200	0-800	0-1000	0-1000	0-1000	0-1000	±5%
Non-Linearity (%FSO)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	
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)	2000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	600	700	800	800	800	800	Passband
Spectral Noise (µg/√Hz)	38	124	378	632	1265	2530	Passband
<b>ELECTRICAL</b>							
Zero Acceleration Output (mV)	±50						Differential
Excitation Voltage (Vdc)	8 to 18						
Excitation Current (mA)	<5						
Bias Voltage (Vdc)	2.5						
Output Resistance (Ω)	<100						
Full Scale Output Voltage (V)	±2						
Insulation Resistance (MΩ)	>100						@100Vdc
Ground Isolation	Isolated from Mounting Surface						
<b>ENVIRONMENTAL</b>							
Thermal Zero Shift (%FSO)	±4.0, -54 to +150°C						
Thermal Zero Shift (%FSO)	±10.0, +150 to +170°C						
Thermal Sensitivity Shift (%)	±4.0, -54 to +150°C						
Thermal Sensitivity Shift (%)	±4.0, +150 to +170°C						
Operating Temperature (°C)	-54 to +150 Continuous						
Operating Temperature (°C)	+150 to +170 Intermittent						
Housing (Active Element & Electronics)	Hermetic Solder Seal						
Humidity (Housing)	Epoxy Seal, IP65						
<b>PHYSICAL</b>							
Case Material	Anodized Aluminum						
Cable	4x, #26 AWG Conductors, PFA Insulated, Braided Shield, PFA Jacket						
Weight (grams)	8						
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 500Hz					
<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					

# Model 4604HT Accelerometer

## performance specifications



## ordering info

PART NUMBERING Model Number+Range+Cable Length

4604HT-GGG-CCC

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

Example: 4604HT-010-060

Model 4604HT, 10g, 060" (5ft) Cable

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