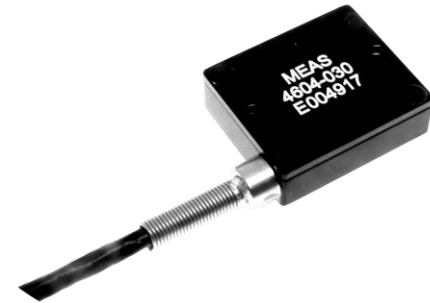


Model 4604 Accelerometer

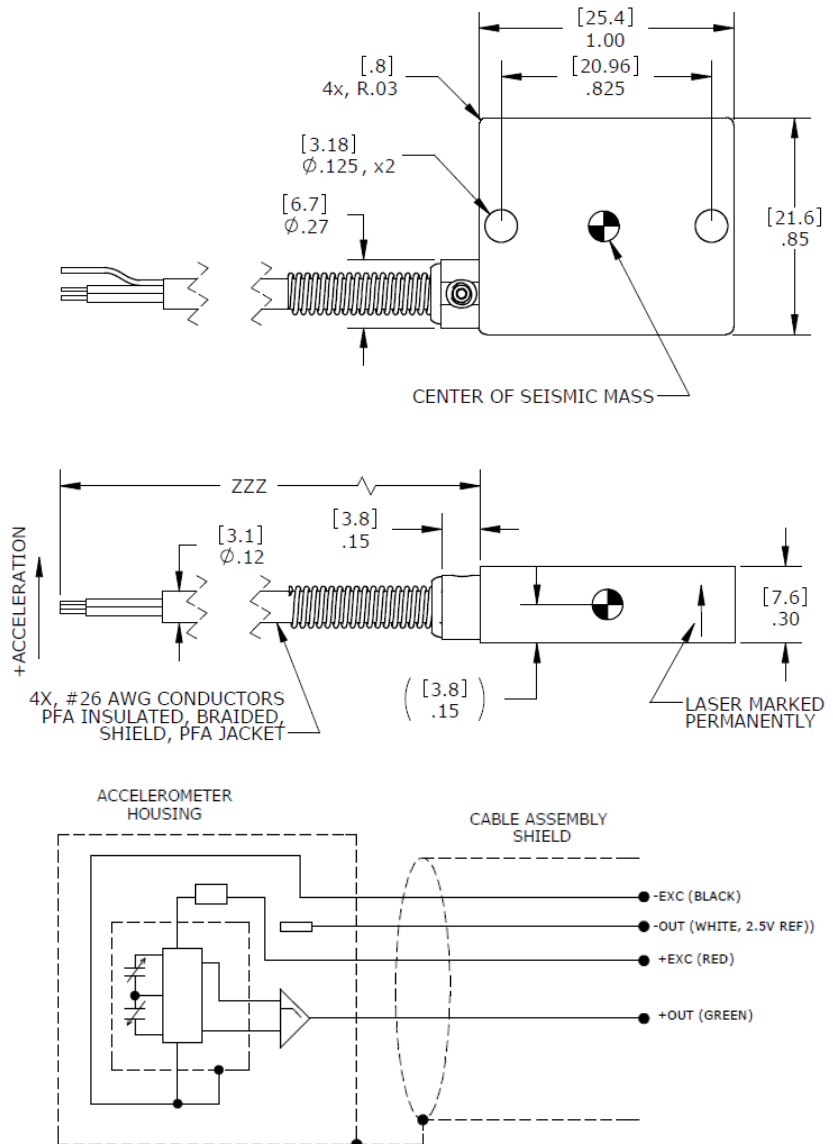


Advanced Temp Compensation
Robust Strain Relief
Amplified, Signal Conditioned
DC Response, Ultra-Stable

The **Model 4604** is a rugged, low-profile MEMS accelerometer designed for both static and dynamic applications. The accelerometer is available in ranges from ± 2 to $\pm 200g$ 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 $\pm 200g$ 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

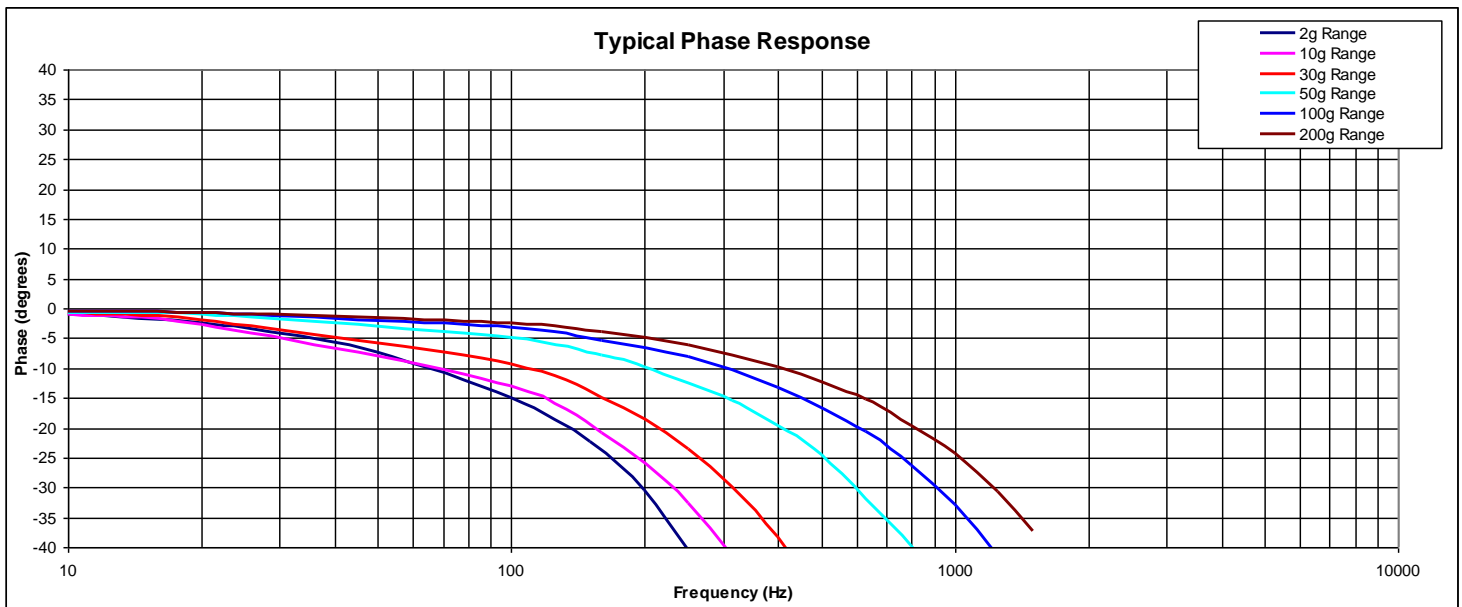
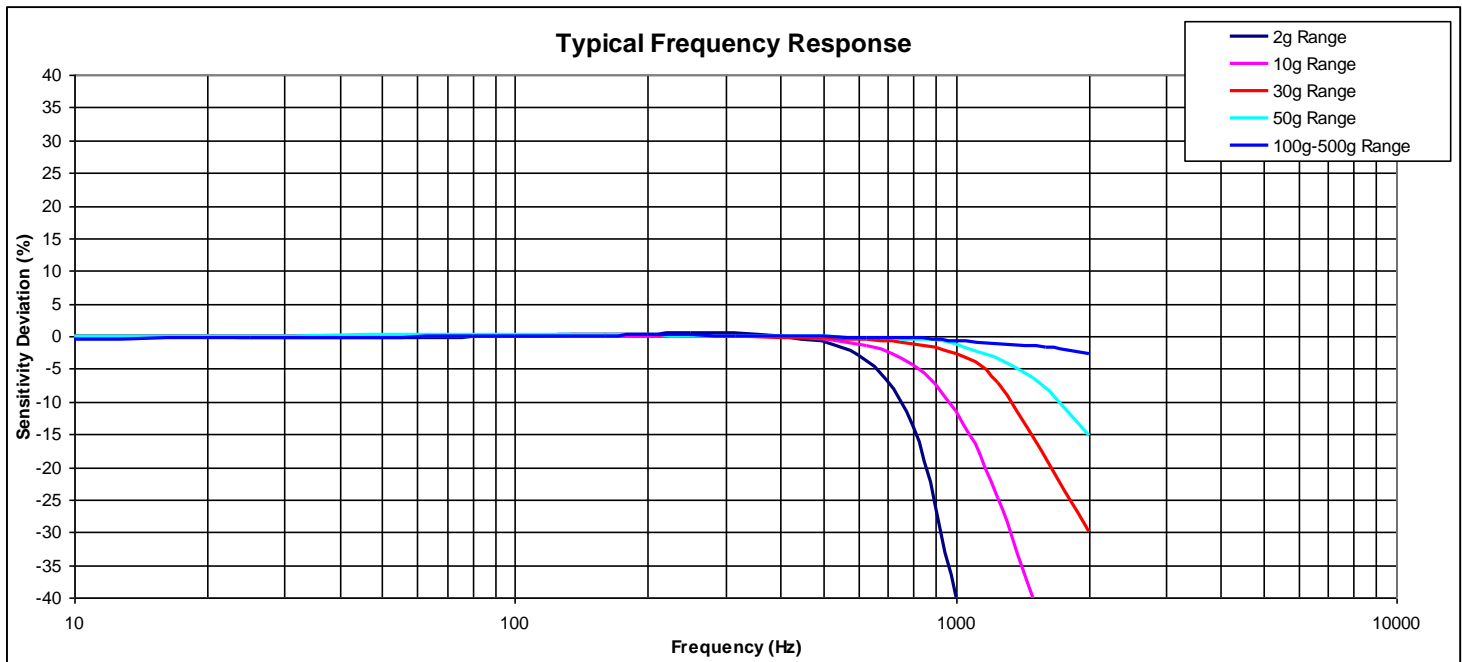
All values are typical at +24°C, 80Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters								Notes
DYNAMIC								
Range (g)	±2	±5	±10	±30	±50	±100	±200	
Sensitivity (mV/g)	1000	400	200	67	40	20	10	±10%
Frequency Response (Hz)	0-250	0-700	0-1000	0-1000	0-1000	0-1000	0-1000	±5% ¹
Natural Frequency (Hz)	700	800	1000	1500	4000	6000	8000	
Non-Linearity (%FSO)	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<2	<2	<2	<2	<2	<2	<2	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
Shock Limit (g)	5000	5000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	600	750	800	800	800	800	800	Passband
Spectral Noise (µg/√Hz)	38	71	126	378	632	1265	2530	Passband
ELECTRICAL								
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							
ENVIRONMENTAL								
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							
PHYSICAL								
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)							
Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit ¹						
Supplied accessories:	AC-A02285	2x #4-40 (7/16 length) Socket Head Cap Screw and Washer						
Optional accessories:	AC-D02669 121	Triaxial Mounting Block 3-Channel Precision Low Noise DC Amplifier						

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

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