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 ±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.

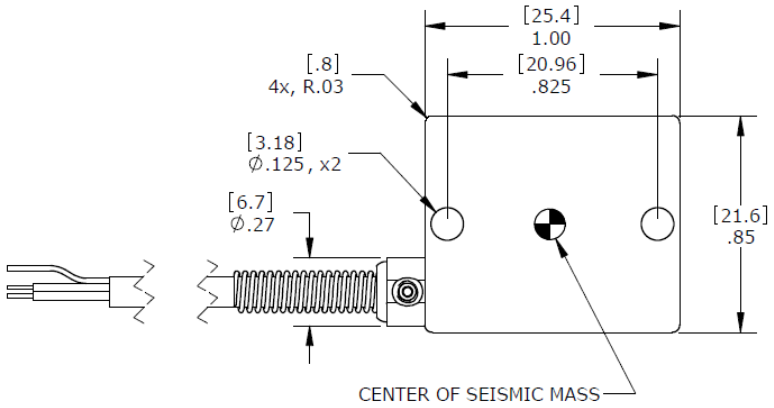
FEATURES

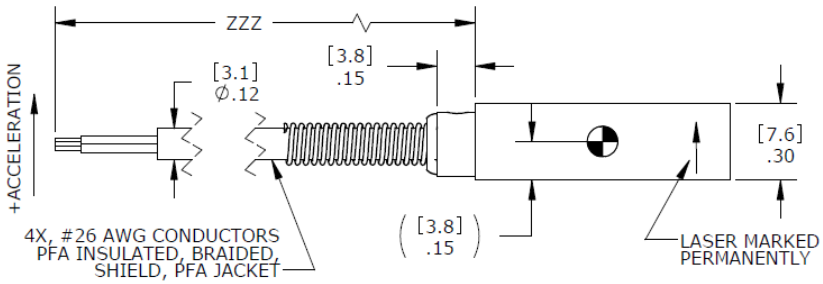
- ±2g to ±500g Dynamic Range
- Amplified Output
- Low Power Consumption
- Gas Damping
- #26 AWG PFA Cable
- DC, Low Frequency Response
- 8 to 36Vdc Excitation Voltage

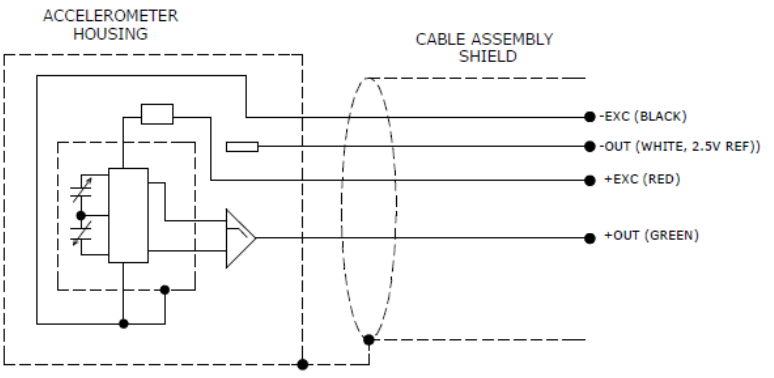
APPLICATIONS

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

dimensions







32 Journey Ste. 150 Aliso Viejo, CA 92656 949-716-5377 t&m@meas-spec.com

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								
DYNAMIC								**Notes**
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%[1]
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

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	Triaxial Mounting Block
	121	3-Channel Precision Low Noise DC Amplifier

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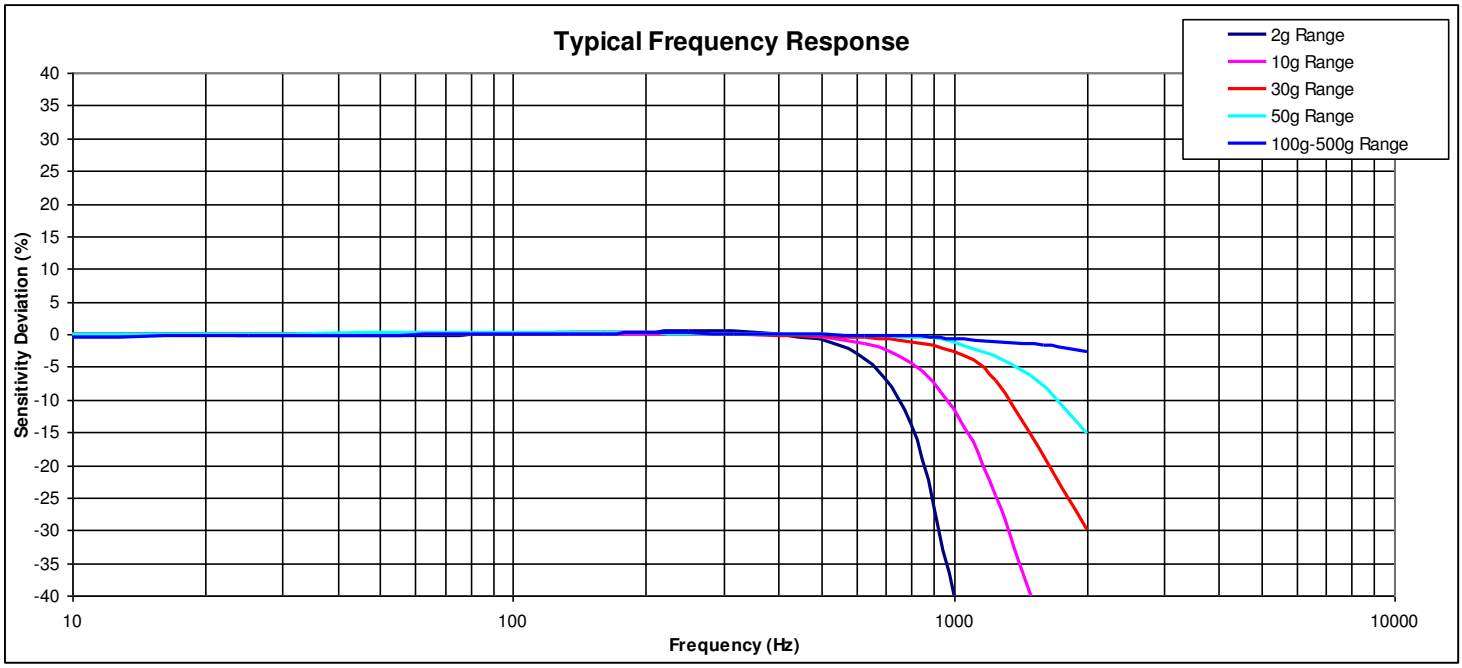

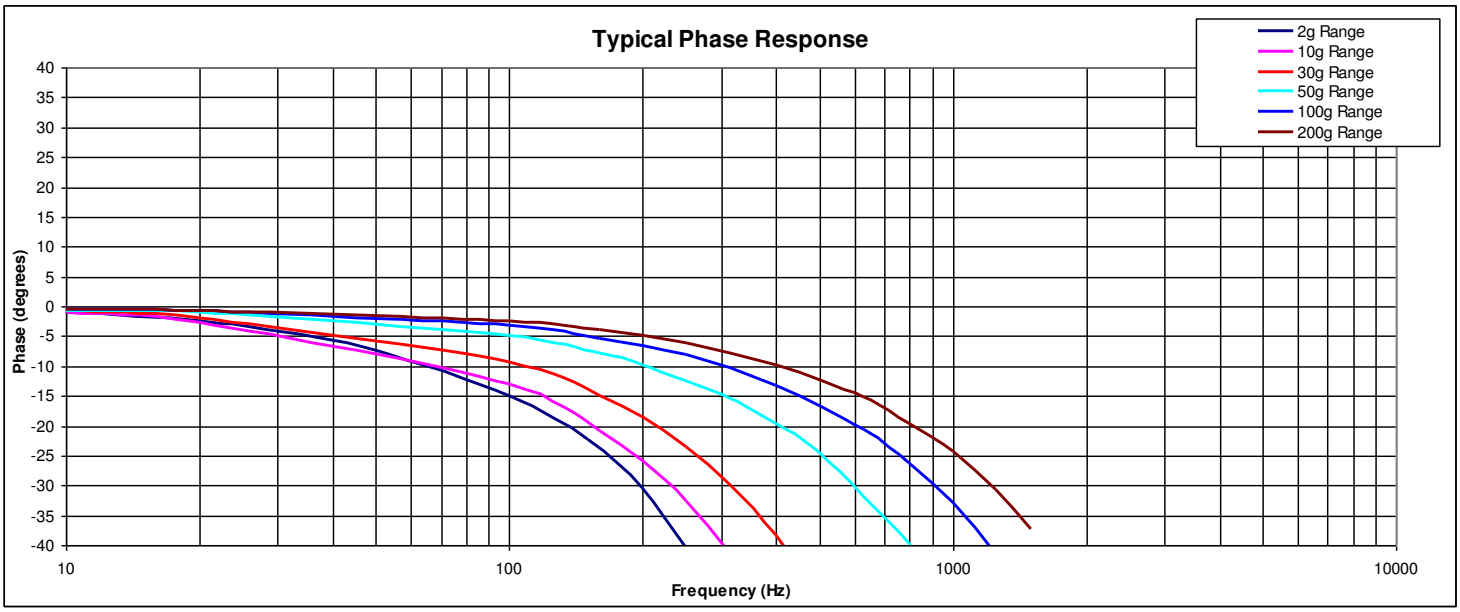

ordering info

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

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