

Model 4620 Accelerometer

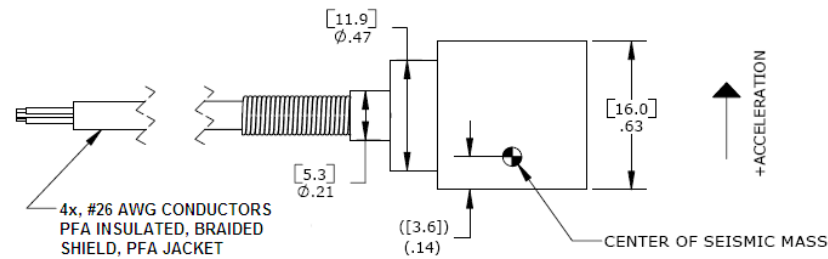
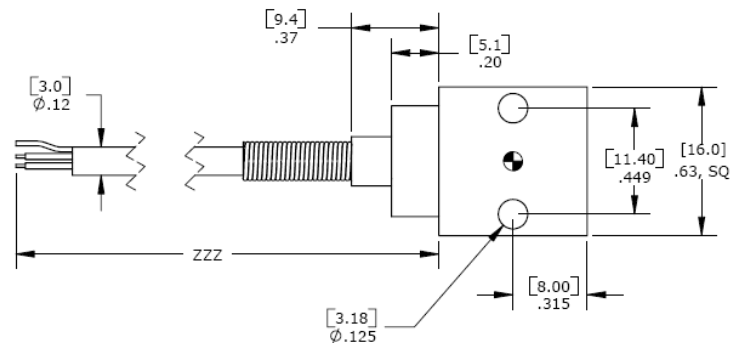


Gas Damped, DC Response
High Sensitivity
Advanced Temp Compensation
High Over Range Protection
MEMS Accelerometer



The **Model 4620** is a low frequency DC response accelerometer offering outstanding performance over a wide operating temperature range. The accelerometer is available in ranges from ± 2 to $\pm 500g$ and incorporates a 3rd generation MEMS sensing element with integral over-range stops. The output is signal conditioned to provide a low noise amplified signal. The model 4620 incorporates a PFA insulated cable with a rugged strain relief designed for demanding applications.

dimensions

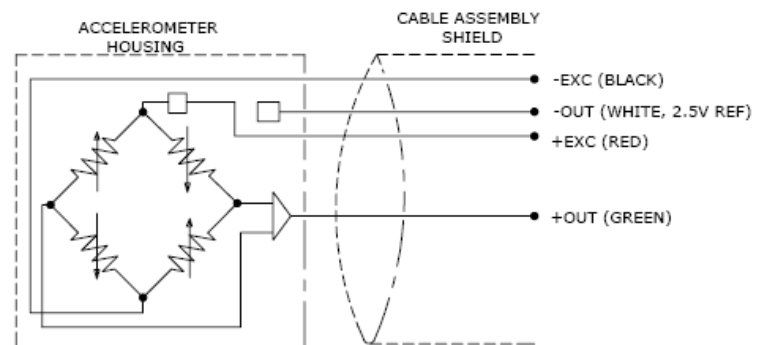


FEATURES

- $\pm 2g$ to $\pm 500g$ Dynamic Range
- Amplified Output
- Lower Power Consumption
- Gas Damping
- Integral Strain Relief
- DC, Low Frequency Response
- 7 to 30Vdc Excitation Voltage

APPLICATIONS

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



Model 4620 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

	±2	±5	±10	±25	±50	±100	±250	±500	Notes
Range (g)									
Sensitivity (mV/g)	1000	400	200	80	40	20	10	4	
Frequency Response (Hz)	0-150	0-150	0-200	0-400	0-600	0-1000	0-1000	0-1000	±5%
Natural Frequency (Hz)	700	800	1000	1500	4000	6000	8000	10000	
Non-Linearity (%FSO)	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<3	<3	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	
Shock Limit (g)	5000	5000	5000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	500	300	300	350	400	400	400	400	Passband

ELECTRICAL

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								

ENVIRONMENTAL

Thermal Zero Shift (%FSO/°C)	±0.008								Typical
Thermal Sensitivity Shift (%/°C)	±0.010								Typical
Operating Temperature (°C)	-55 to 125								
Compensated Temperature (°C)	-40 to 100								
Storage Temperature (°C)	-55 to 125								

PHYSICAL

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)

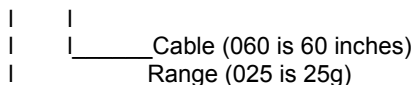
Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit
Supplied accessories:	AC-A02944	2x #4-40 (3/4 length) Socket Head Cap Screw and Washer
Optional accessories:	101	Three Channel DC Signal Conditioner Amplifier

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ordering info

PART NUMBERING Model Number+Range+Cable Length

4620-GGG-CCC



Example: 4620-025-060

Model 4620, 25g, 060" (5ft) Cable