

Model 4623 Accelerometer



Gas Damped, DC Response
High Sensitivity
EMI/EMC Protection
Integral Strain Relief
MEMS Accelerometer



The **Model 4623** 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 an EMI/EMC protection circuitry for harsh installations. The output is signal conditioned to provide a low noise amplified signal. The model 4623 incorporates a teflon insulated cable with a rugged strain relief designed for demanding applications.

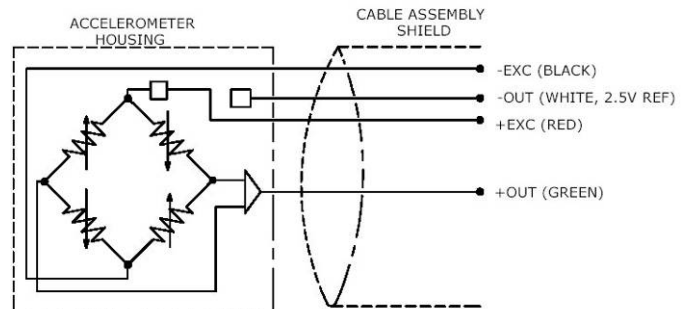
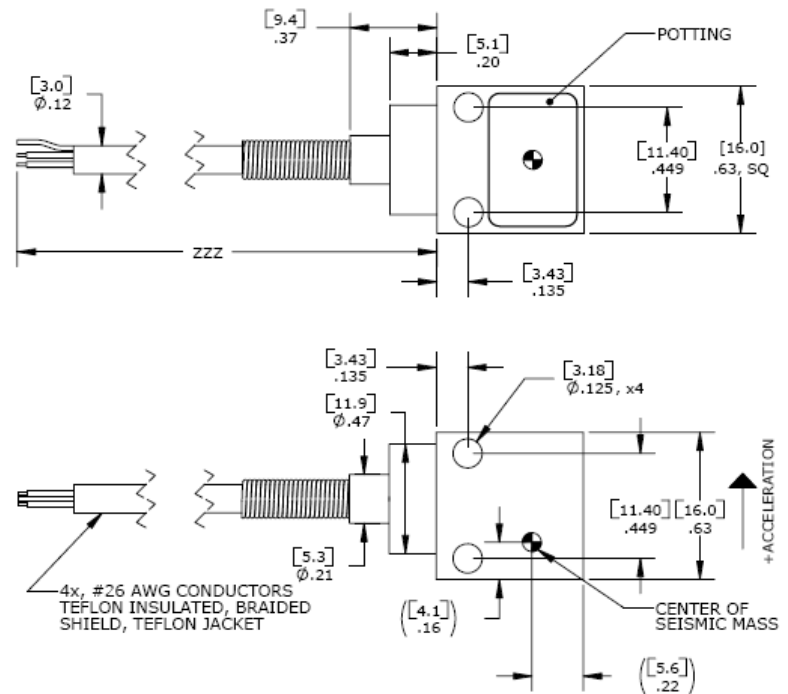
FEATURES

- $\pm 2g$ to $\pm 500g$ Dynamic Range
- Signal Conditioned Output
- EMI/EMC Protection Circuit
- Gas Damping
- Integral Strain Relief
- DC, Low Frequency Response
- 7 to 30Vdc Excitation Voltage

APPLICATIONS

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

dimensions



Model 4623 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)	±2	±5	±10	±25	±50	±100	±250	±500	
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)	10000	10000	10000	10000	10000	10000	10000	10000	

ELECTRICAL

Zero Acceleration Output (mV)	±50	±50	±50	±50	±50	±50	±50	±50	Differential
Excitation Voltage (Vdc)	7 to 30	7 to 30	7 to 30	7 to 30	7 to 30	7 to 30	7 to 30	7 to 30	
Excitation Current (mA)	<5	<5	<5	<5	<5	<5	<5	<5	
Bias Voltage (Vdc)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Output Resistance (Ω)	<100	<100	<100	<100	<100	<100	<100	<100	
Insulation Resistance (MΩ)	>100	>100	>100	>100	>100	>100	>100	>100	@100Vdc
Turn On Time (msec)	<100	<100	<100	<100	<100	<100	<100	<100	
Residual Noise (µV RMS)	500	300	300	350	400	400	400	400	Passband
Ground Isolation	Isolated from Mounting Surface								

ENVIRONMENTAL

Thermal Zero Shift (%FSO/°C)	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	Typical
Thermal Sensitivity Shift (%/°C)	±0.010	±0.010	±0.010	±0.010	±0.010	±0.010	±0.010	±0.010	±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	Teflon Insulated Leads, Braided Shield, Teflon Jacket
Weight (grams)	14
Mounting	2x #4 or M3 Screws
Mounting Torque	6 lb-in (0.7 N-m)
AWG	#26

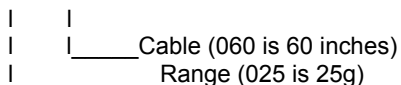
Wiring color code: +Excitation = Red; -Excitation = Black; +Output = Green; -Output = White;

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.

ordering info

PART NUMBERING Model Number+Range+Cable Length

4623-GGG-CCC



Example: 4623-025-060

Model 4623, 25g, 060" (5ft) Cable