

Model 4650 Accelerometer

Hermetic
SMT
Accel

SMT Mount Accelerometer

Piezoresistive MEMS

Temperature Calibrated

Hermetically Sealed



DESCRIPTION

The Model 4650 is a signal conditioned board mountable MEMS accelerometer. The accelerometer incorporates integral temperature compensation and a frequency response from DC to 1500Hz. The gas damped accelerometer incorporates integral over-range stops making it ideal for measurements of static and dynamic vibrations after shock impacts in applications such as weapons development, impact testing, and guidance systems. The model 4650 is packaged in a true hermetically sealed envelope with a ceramic board and a metal shielding for SMT or adhesive mounting.



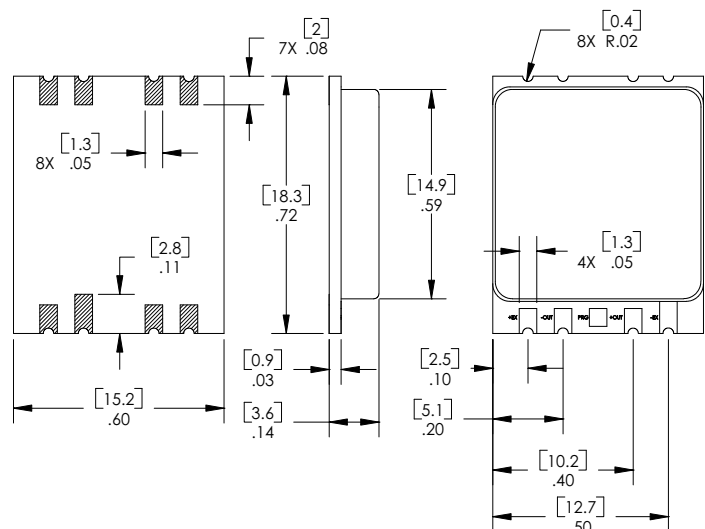
FEATURES

- ◆ Board Mountable Accelerometer
- ◆ Gas Damping
- ◆ Hermetically Sealed
- ◆ Ranges $\pm 20g$ to $\pm 500g$ (model 4655 available in $\pm 2g$ to $\pm 500g$ ranges)
- ◆ DC Response
- ◆ High Over-Range Protection
- ◆ Temperature Compensated
- ◆ Signal Conditioned

APPLICATIONS

- ◆ Impact Testing
- ◆ Vibration/Shock Monitoring
- ◆ Mil-aero Applications
- ◆ Inertial Navigation
- ◆ Low Frequency Applications
- ◆ Weapons Development

dimensions



Vibration Sensors Technical Support:

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Fax: 949-916-5677

Email: vibration@meas-spec.com

measurement
SPECIALTIES

Model 4650 Accelerometer

performance specifications

All values are typical at 25°C, 100Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

Range	±20	±50	Units	Notes
Sensitivity	100	40	mV/g	
Frequency Response	0-400	0-1000	Hz	±5%

Range	±100	±200	±500	Units	Notes
Sensitivity	20	10	4	mV/g	
Frequency Response	0-1500	0-1500	0-1500	Hz	±5%

Non-Linearity		±0.5	% FSO	
Transverse Sensitivity (Max)		±1	%	±2% Maximum
Zero Acceleration Output		2.50±.05	V	
Thermal Zero Shift (-40 to +100°C)		±.010	% FSO/°C	
Thermal Sensitivity Shift (-40 to +100°C)		±.010	%/°C	

ELECTRICAL

Excitation Voltage		8-36	Vdc	
Excitation Current		5.0	mA	Typical
Bias Voltage		2.5	Vdc	
Output Impedance		100	Ω	Maximum
Insulation Resistance (@ 50Vdc)		100	MΩ	Minimum
Ground Isolation		Isolated		

PHYSICAL

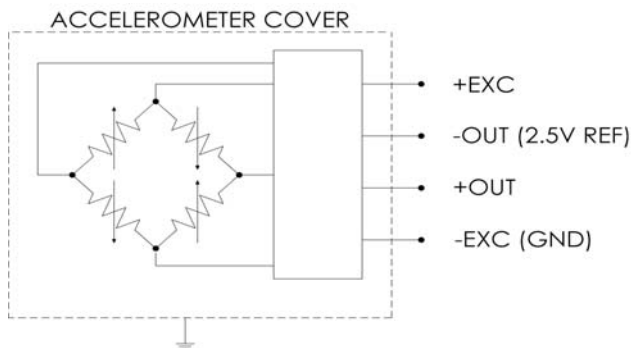
Housing		Ceramic		
Weight		2	grams	
Mounting		SMT or Epoxy		

ENVIRONMENTAL

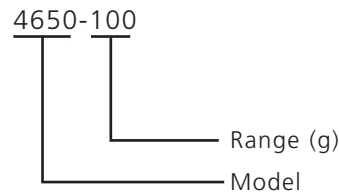
Shock Limit		10,000	g's	
Operating Temperature		-54 to +121	°C	
Humidity		Hermetically sealed		

Contact factory for custom temperature compensation options.

electrical schematic



ordering information



Vibration Sensors Technical

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CONTATO

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