

Model 4610 Accelerometer



High Performance DC Response

Low Noise

Advanced Temperature Compensation

10,000g Over-Range Protection

DESCRIPTION

The Model 4610 is a low noise signal conditioned accelerometer with exceptional long-term stability. The accelerometer offers integral temperature compensation and a hermetically sealed sensor assembly. The model 4610 is offered in ranges from 2 to 500g and incorporates mechanical overload stops that provide shock protection to 10,000g.

The 2nd generation MEMS element incorporates gas damping that offers a wide dynamic range and stable frequency response.



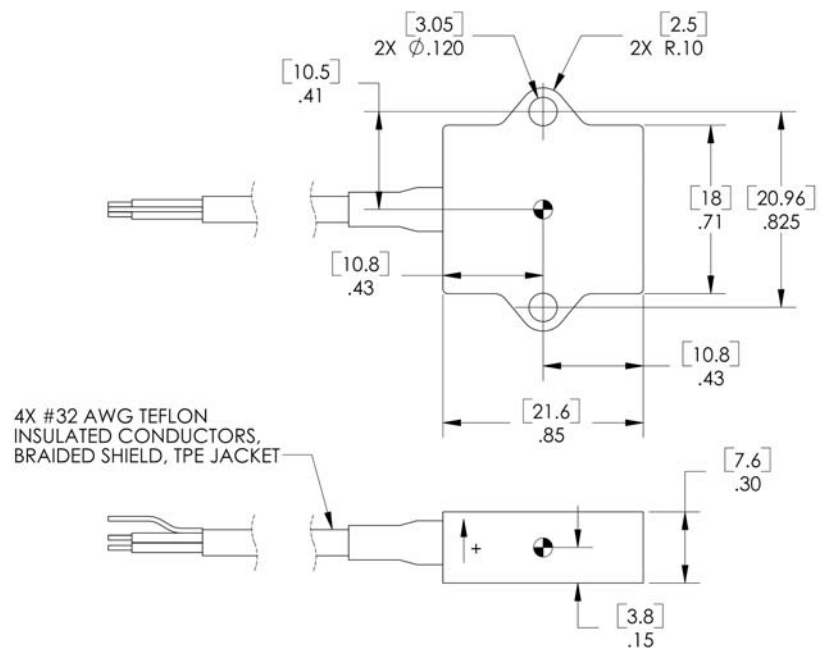
FEATURES

- ◆ $\pm 2g$ to $\pm 500g$ Dynamic Range
- ◆ 10,000g Shock Protection
- ◆ Signal Conditioned Output
- ◆ Low Power Consumption
- ◆ Hermetically Sealed Sensor
- ◆ Gas Damping
- ◆ Integral Cable – Connector Option
- ◆ Temperature Compensated

APPLICATIONS

- ◆ Low Frequency Monitoring
- ◆ Transportation
- ◆ Flight Testing
- ◆ Test & Instrumentation
- ◆ Modal Analysis
- ◆ Machine Control
- ◆ Road Vehicle Testing
- ◆ Motion Analysis
- ◆ Tilt
- ◆ Trains

dimensions



Vibration Sensors Technical Support:

Tel: 949-716-5377

Fax: 949-916-5677

Email: vibration@meas-spec.com



Model 4610 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	±2	±5	±10	±20	Units	Notes
Sensitivity	1000	400	200	100	mV/g	
Frequency Response	0-250	0-300	0-400	0-700	Hz	±5%
Residual Noise	650	400	300	400	µV RMS	

Range	±50	±100	±200	±500	Units	Notes
Sensitivity	40	20	10	4	mV/g	
Frequency Response	0-1000	0-1500	0-1500	0-1500	Hz	±5%
Residual Noise	500	500	500	500	µV RMS	

Non-Linearity			±0.5		% FSO	
Transverse Sensitivity			±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 to 32		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

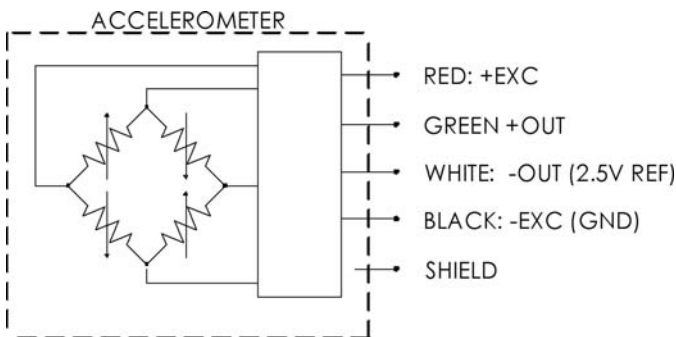
Housing			Aluminum			Hard Anodized
Weight (cable not included)			8		grams	Maximum
Mounting			2x #4 or 2x M3 Screws			6 lb-in mounting torque

ENVIRONMENTAL

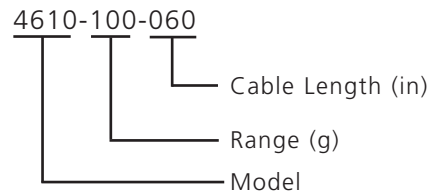
Shock Limit			10,000		g's	
Operating Temperature			-40 to +115		°C	
Humidity			Sensor assembly hermetically sealed			

Contact factory for custom temperature compensation options.

electrical schematic



ordering information



Vibration Sensors Technical

Support:

Tel: 949-716-5377

Fax: 949-916-5677

Email: vibration@meas-spec.com

CONTATO

Endereço

Rua Sete de Setembro, 2671 - Centro
13560-181 - São Carlos - SP - Brasil

Telefone

+ 55 (16) 3371-0112

Fax

+ 55 (16) 3372-7800

Internet

www.metrolog.net
metrolog@metrolog.net



Metrolog Controles de Medição