

Model 4610 Accelerometer

High Performance DC Response

Low Noise

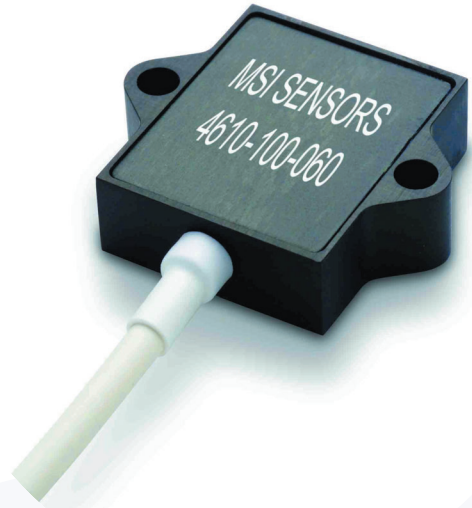
Temperature Calibrated

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.



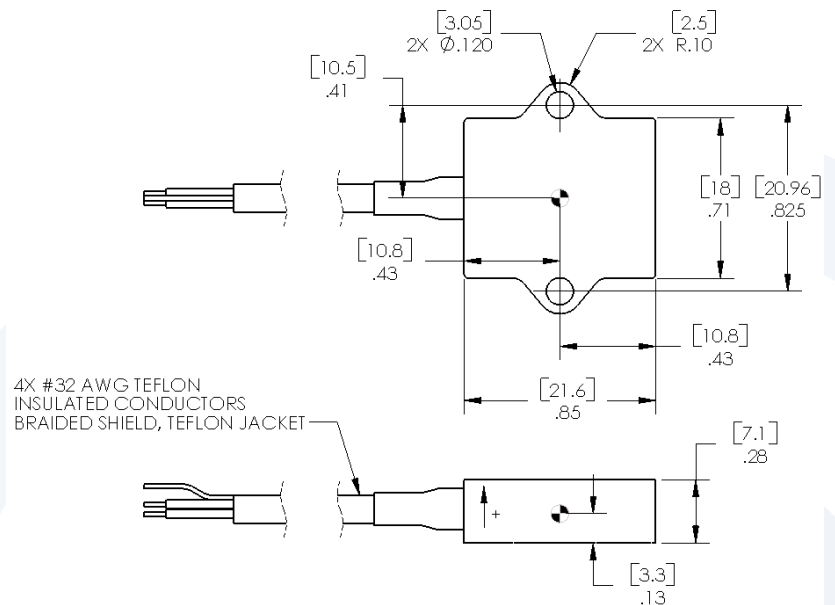
FEATURES

- ◆ $\pm 2g$ 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

dimensions



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performance specifications

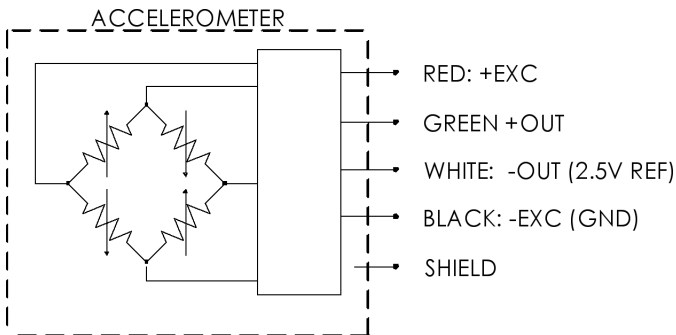
All values are typical at 25°C, 100Hz and 12Vdc excitation unless otherwise stated. MSI Sensors reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC						
Range	±2	±5	±10	±20	Units	Notes
Sensitivity	1000	400	200	100	mV/g	
Frequency Response	0-250	0-400	0-500	0-800	Hz	±5%
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%
Non-Linearity			±1		% FSO	Maximum
Transverse Sensitivity (Max)			±3		%	±1% Typical
Zero Acceleration Output			2.50±.05		V	
Thermal Zero Shift (-20 to +85°C)			±.019		% FSO/°C	Maximum
Thermal Sensitivity Shift (-20 to +85°C)			±.019		%/°C	Maximum
ELECTRICAL						
Excitation Voltage			10 to 24		Vdc	
Excitation Current			5.0		mA	Typical
Reference 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			
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

