

Model 4610 Accelerometer

High Performance DC Response

Low Noise

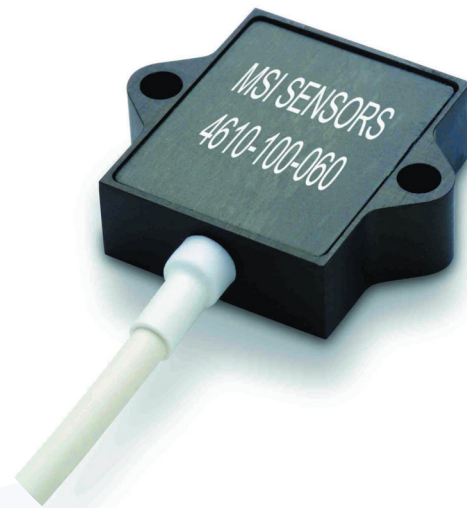
Temperature Calibrated

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.



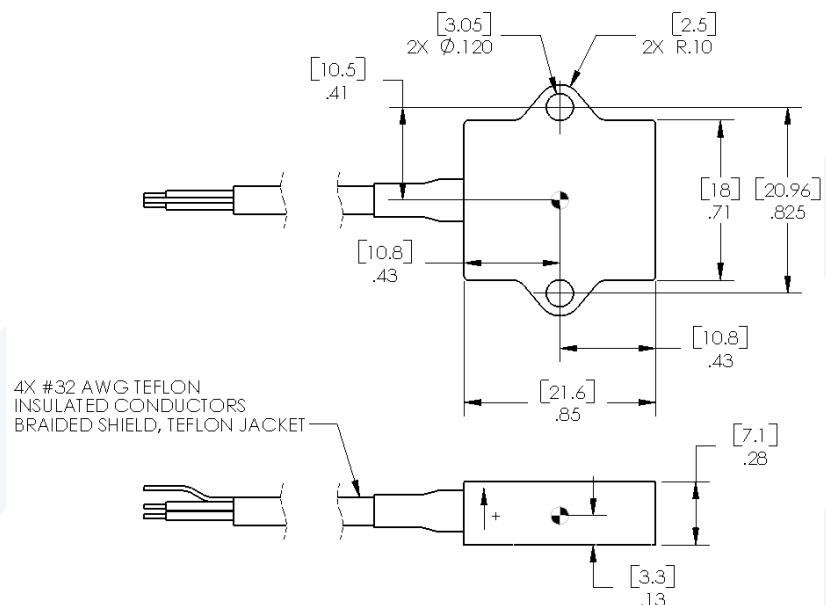
FEATURES

- ◆ ±2g to ±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



深圳市新世联科技有限公司

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performance specifications

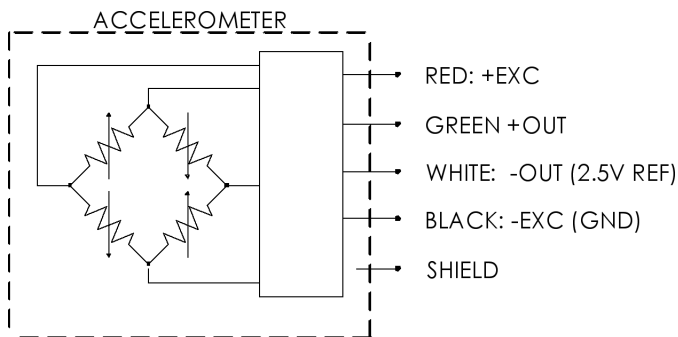
All values are typical at 25°C, 100Hz and 12Vdc excitation unless otherwise stated. MSI Sensors reserves the right to update and change these specifications without notice.

Parameters

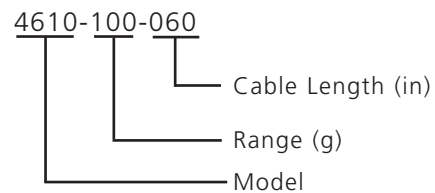
| DYNAMIC | | | | | | |
|--|--------|--------|-------------------------------------|--------|----------|---------------|
| Range | ±2 | ±5 | ±10 | ±20 | Units | Notes |
| Sensitivity | 1000 | 400 | 200 | 100 | mV/g | |
| Frequency Response | 0-250 | 0-400 | 0-500 | 0-800 | Hz | ±5% |
| | | | | | | |
| 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



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