

MODEL 4620 Accelerometer

Gas Damped, DC Response

High Sensitivity

Temperature Compensated

High Over Range Protection

MEMS Accelerometer

DESCRIPTION

The Model 4620 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 $\pm 250g$ and incorporates a 2nd generation MEMS sensing element with integral over-range stops. The output is signal conditioned to provide a low noise amplified signal.

The model 4620 incorporates a teflon insulated cable with a rugged strain relief designed for demanding applications.



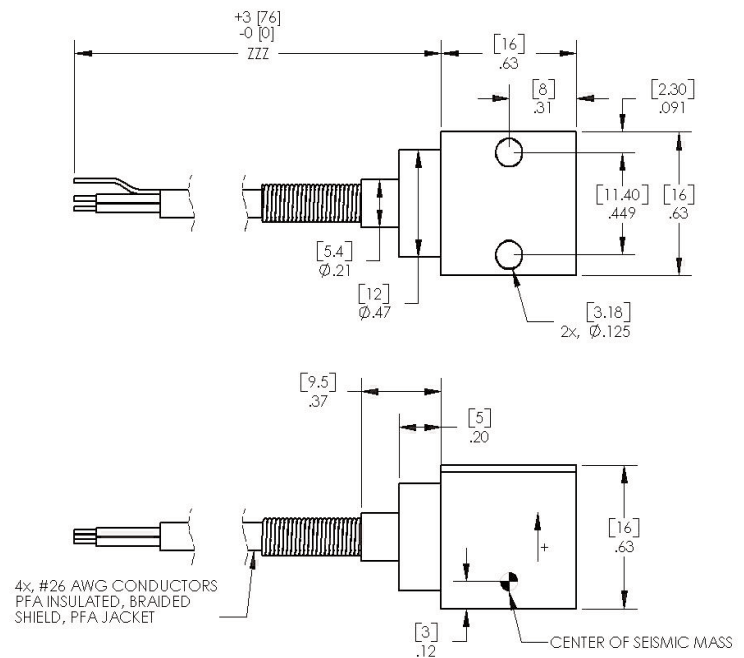
FEATURES

- ◆ $\pm 2g$ to $\pm 250g$ Dynamic Range
- ◆ Amplified Output
- ◆ Lower Power Consumption
- ◆ Gas Damping
- ◆ Integral Strain Relief
- ◆ DC, Low Frequency Response

APPLICATIONS

- ◆ Aerospace & Military Applications
- ◆ Structural Testing
- ◆ Test & Instrumentation
- ◆ Performance Testing
- ◆ Transportation

dimensions



Vibration Sensors Technical Support:
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measurement
SPECIALTIES

Model 4620 Accelerometer

performance specifications

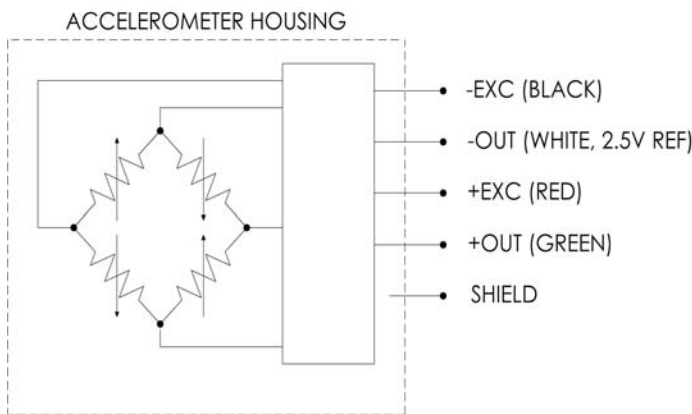
All values are typical at 25°C, 100HZ and 12Vdc excitation unless otherwise stated.

Measurement Specialties reserves the right to update and change these specifications without notice.

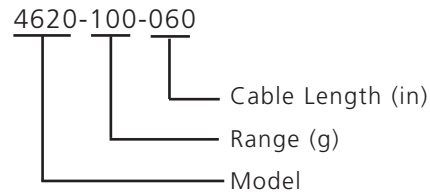
PARAMETERS

| DYNAMIC | | | | | | |
|---|-------|--------|-----------------------|-------|----------|-------------------------|
| Range | +/-2 | +/-5 | +/-10 | +/-25 | UNITS | NOTES |
| Sensitivity | 1000 | 400 | 200 | 80 | mV/g | Typical |
| Frequency Response | 0-150 | 0-150 | 0-200 | 0-400 | Hz | +/- 5% |
| | | | | | | |
| Range | +/-50 | +/-100 | +/-250 | | UNITS | NOTES |
| Sensitivity | 40 | 20 | 8 | | mV/g | Typical |
| Frequency Response | 0-500 | 0-1000 | 0-1000 | | Hz | +/- 5% |
| | | | | | | |
| Non-Linearity | | | +/-1 | | % FSO | Maximum |
| Transverse Sensitivity (Max) | | | +/-3 | | % | +/-1% Typical |
| Zero Acceleration Output | | | 2.50+/-0.05 | | V | Maximum |
| Thermal Zero Shift (-40 to +100°C) | | | +/-0.02 | | % FSO/°C | Maximum |
| Thermal Sensitivity Shift (-40 to +100°C) | | | +/-0.02 | | %/°C | Maximum |
| Damping Ratio | | | 0.70 | | | Gas Damped |
| | | | | | | |
| ELECTRICAL | | | | | | |
| Excitation Voltage | | | 8 to 32 | | Vdc | |
| Excitation Current | | | 5.0 | | mA | Typical |
| Reference Voltage | | | 2.5 | | Vdc | |
| Output Impedance | | | 100 | | Ohms | Maximum |
| Insulation Resistance (@ 50Vdc) | | | 100 | | MΩ | Minimum |
| Ground Isolation | | | Isolated | | | |
| | | | | | | |
| PHYSICAL | | | | | | |
| Base and Lid Material | | | Aluminum | | | Hard Anodized |
| Weight | | | 14 | | grams | Maximum |
| Mounting | | | 2x #4 or 2x M3 Screws | | | 6 lb-in mounting torque |
| | | | | | | |
| ENVIRONMENTAL | | | | | | |
| Shock Limit | | | 5,000 | | g's | |
| Operating Temperature | | | -54 to +121 | | °C | |
| Humidity | | | Epoxy Sealed | | | |

electrical schematic



ordering information



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