

Model 1203 Accelerometer

- DC Response
- Durable Cable
- Reliable Performance
- Low Cost



DESCRIPTION

The **Model 1203** accelerometer is a small, compact triaxial device designed for vehicle impact and road testing. Its mechanical overload stops provide high shock protection in rugged applications. Featuring ranges from 50 g to 1000 g and frequency response to 3000 Hz, this sensor is easily mounted in hard to reach places on vehicles under test.

FEATURES

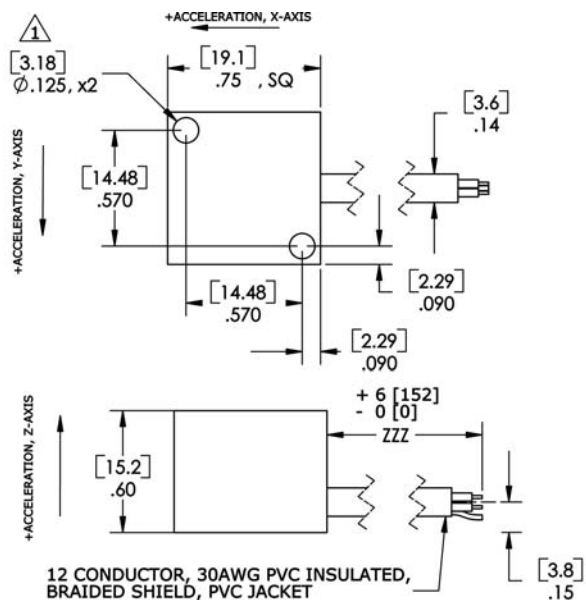
- ◆ 2nd Generation MEMS Sensing Element
- ◆ 1000 g Full Scale Range
- ◆ 2-10 VDC Excitation
- ◆ 0-50 °C Temperature Compensation
- ◆ ±40 mV Zero Measurand Output
- ◆ Gas Damping
- ◆ Mechanical Overload Stops
- ◆ Designed for Screw Mounting

APPLICATIONS

- ◆ Crash Testing
- ◆ Impact Testing
- ◆ Off-Road Testing
- ◆ Road Testing

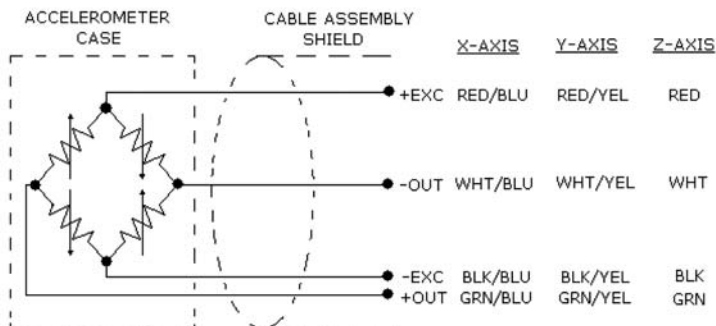
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dimensions



| STANDARD TOLERANCE (MILLIMETERS) | |
|----------------------------------|-------------|
| .XX = ± .03 inch | (.X ± .8) |
| XXX = ± .010 inch | (.XX ± .25) |

(Dimensions in inches [mm])



Model 1203 Accelerometer

performance specifications

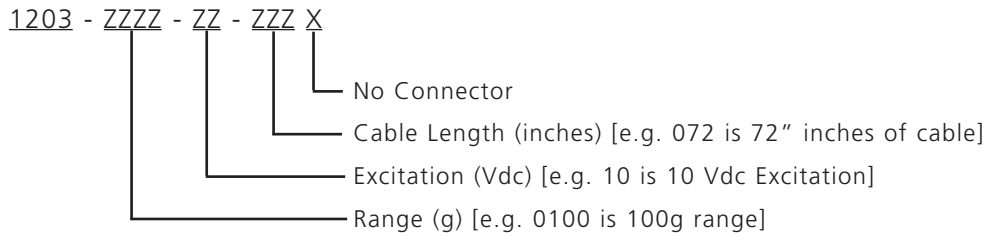
All values are typical at 24 °C, 100 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

PARAMETERS

| DYNAMIC | | | | | | Units | Notes |
|--|---------------|-------|--------|--------|--------|-------------------|---------------------|
| Range | 50 | 100 | 200 | 500 | 1000 | | |
| Sensitivity | 2.0 | 0.9 | 0.9 | 0.4 | 0.15 | mV/g | |
| Frequency Response | 0-600 | 0-800 | 0-1000 | 0-1200 | 0-1500 | Hz | ±10% |
| Resonance | 2000 | 3000 | 4000 | 6000 | 7000 | Hz | Gas Damped |
| Non-Linearity | ±1 | | | | | % FSO | |
| Transverse Sensitivity | 3 | | | | | % | |
| Zero Acceleration Output | <±40 | | | | | mV | |
| Thermal Zero Shift | ±0.05 (±0.03) | | | | | %FSO/°C (%FSO/°F) | |
| Thermal Sensitivity Shift | ±0.2 (±0.11) | | | | | %/°C(%/°F) | |
| ELECTRICAL | | | | | | | |
| Voltage Excitation | 2 to 10 | | | | | Vdc | |
| Input Impedance | 3500 to 4800 | | | | | Ω | |
| Output Impedance (Varies with current) | 2700 to 4800 | | | | | Ω | |
| Insulation Resistance | >100 | | | | | MΩ | |
| Ground Isolation | Isolated | | | | | | |
| Cable Output | Tinned Leads | | | | | | 72" Standard Length |
| PHYSICAL | | | | | | | |
| Case Material | Aluminum | | | | | | |
| Weight | 20 | | | | | grams | Without Cable |
| Mounting | Screw | | | | | | |
| ENVIRONMENTAL | | | | | | | |
| Shock Limit | 3000 | 3000 | 4000 | 5000 | 5000 | g's | |
| Operating Temperature | -20 to +85 | | | | | °C | |
| Humidity | | | | | | | Epoxy sealed |

PART NUMBERING Model Number+Range+Cable Length

ordering information



Custom connector options are available, Contact Measurement Specialties, Inc. for applicable model number.

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