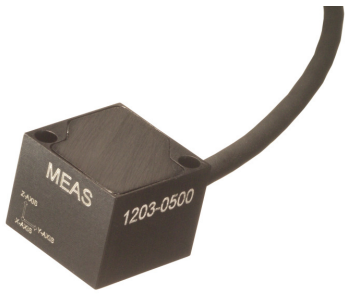
measurement SPECIALTIES

Model 1203 Accelerometer

DC Response
Durable Cable
Reliable Performance
Low Cost



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.

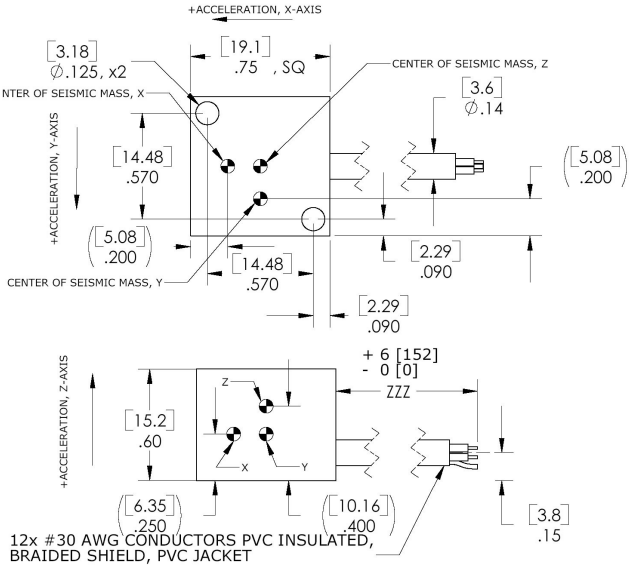
FEATURES

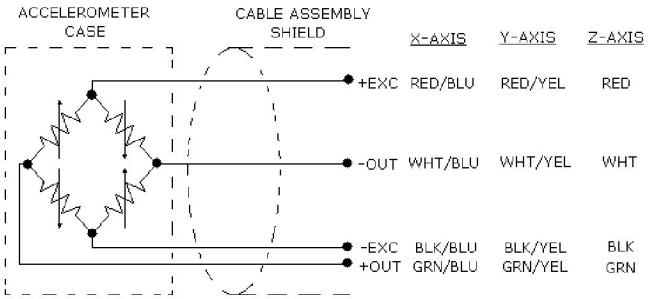
- 2nd Generation MEMS Sensing Element
- 1000 g Full Scale Range
- 2-10 VDC Excitation
- 0-50 °C Temperature Range
- ±40 mV Zero Measurand Output
- Gas Damping
- Mechanical Overload Stops
- Designed for Screw Mounting

APPLICATIONS

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

dimensions





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Model 1203 Accelerometer

performance specifications

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

Parameters						
DYNAMIC						**Notes**
Range(g)	±50	±100	±200	±500	±1000	
Sensitivity (mV/g)	2	.9	.9	.4	.15	
Frequency Response (Hz)	0-600	0-800	0-1000	0-1200	0-1500	± 10%
Natural Frequency (Hz)	2000	3000	4000	6000	7000	
Non-Linearity (% of reading)	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	3%	3%	3%	3%	3%	
Thermal Zero Shift (%FSO/℃)	±0.05	±0.05	±0.05	±0.05	±0.05	From 0 to +50℃
Thermal Sensitivity Shift (%/℃)	±0.2	±0.2	±0.2	±0.2	±0.2	From 0 to +50℃
ELECTRICAL						
Zero Acceleration Output (mV)	<±40	<±40	<±40	<±40	<±40	
Excitation (Vdc)	2 to 10	2 to 10	2 to 10	2 to 10	2 to 10	
Input Resistance	3500-4800	3500-4800	3500-4800	3500-4800	3500-4800	
Output Resistance (Ω)	2700-4800	2700-4800	2700-4800	2700-4800	2700-4800	
Insulation Resistance (MΩ)	>100	>100	>100	>100	>100	@50Vdc
Ground Isolation						Isolated from Mounting Surface
ENVIRONMENTAL						
Shock Limit (g)	3000	3000	4000	5000	5000	
Operating Temperature (C)			-20 to +85			
Humidity			Epoxy Sealed			
PHYSICAL						
Case Material			Aluminum			
Cable (Integral 6 Ft.)						12x30 AWG
Cable (PVC Jacket)						Braided Shield
Weight (grams)			20			Cable Not Included
Mounting			Screw			Torque 8 lb-in

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ordering info

PART NUMBERING Model Number+Range+Excitation+Cable Length+Options

```
1203-GGGG-VV-CCCX
        I    I   I    I_____Options
        I    I   I_____Cable (072 is 72 inches)
        I    I_________Excitation (10 is 10 Vdc)
        I______________Range (0100 is 100 g)
```

Options:
X = None
D = Deutsch Connector (P/N TBDJ)
L = Lemo Connector (P/N FGG.18.307.CYCD42)
T = Tajimi Connector (P/N R05PB5M)

Example: 1203-1000-10-072X
Standard Configuration: 1000g, 10V Excitation, 72" (6 ft) cable, No Options

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