

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.

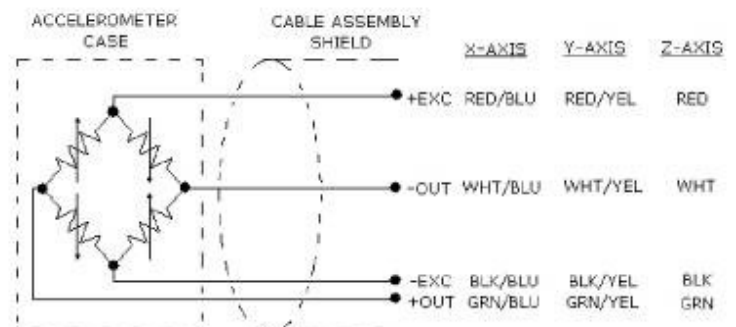
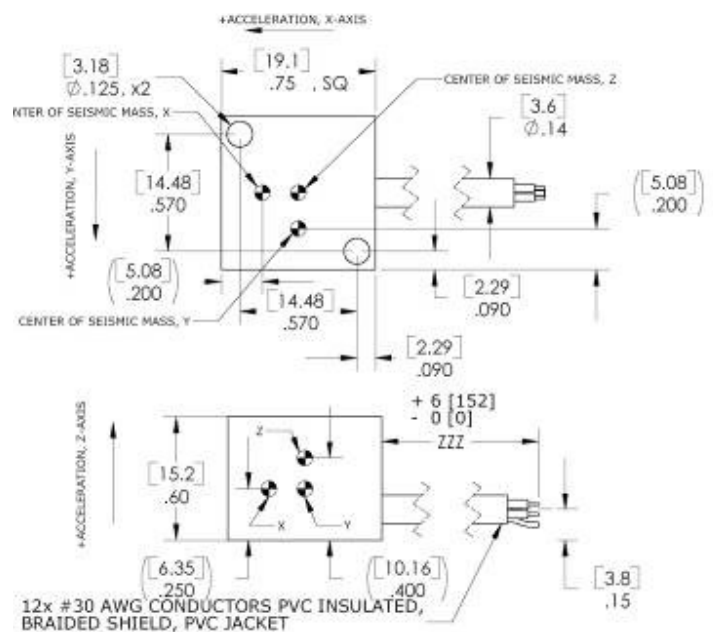
FEATURES

- 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



Model 1203 Accelerometer

performance specifications

All values are typical at $\pm 24^{\circ}\text{C}$, 100 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters						Notes
DYNAMIC						
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	$\pm 10\%$
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/ $^{\circ}\text{C}$)	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	From 0 to $+50^{\circ}\text{C}$
Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$)	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2	From 0 to $+50^{\circ}\text{C}$
ELECTRICAL						
Zero Acceleration Output (mV)	$<\pm 40$	$<\pm 40$	$<\pm 40$	$<\pm 40$	$<\pm 40$	
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 (O)	2700-4800	2700-4800	2700-4800	2700-4800	2700-4800	
Insulation Resistance (MO)	>100	>100	>100	>100	>100	@50Vdc Isolated from Mounting Surface
Ground Isolation						
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+Cable Length+Options

1203-GGGG-CCCX

| | | Options
 | | | Cable (072 is 72 inches)
 | | | 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: 1203-1000-072X

Standard Configuration: 1000g 10V Excitation 72" (6 ft) cable No Options