

# 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.

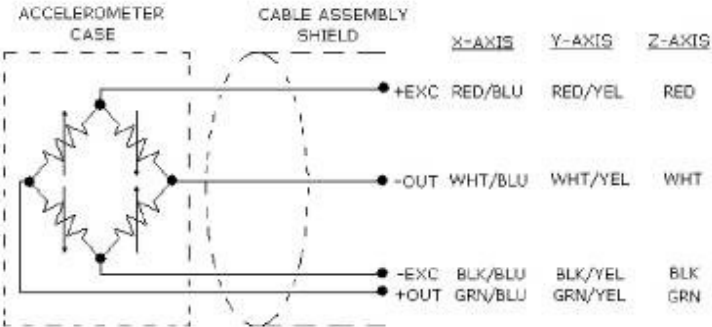
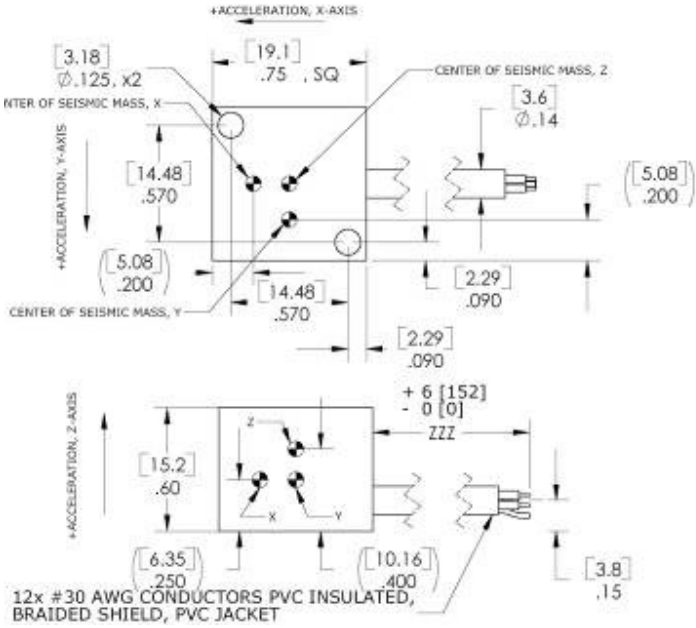
**FEATURES**

- 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
<b>DYNAMIC</b>						
Range(g)	$\pm 50$	$\pm 100$	$\pm 200$	$\pm 500$	$\pm 1000$	
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)	$\pm 1$	$\pm 1$	$\pm 1$	$\pm 1$	$\pm 1$	
Transverse Sensitivity (%)	3%	3%	3%	3%	3%	
Thermal Zero Shift (%FSO/ $^{\circ}\text{C}$ )	$\pm 0.05$	$\pm 0.05$	$\pm 0.05$	$\pm 0.05$	$\pm 0.05$	From 0 to $+50^{\circ}\text{C}$
Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$ )	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	From 0 to $+50^{\circ}\text{C}$
<b>ELECTRICAL</b>						
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						
<b>ENVIRONMENTAL</b>						
Shock Limit (g)	3000	3000	4000	5000	5000	
Operating Temperature (C)			-20 to +85			
Humidity			Epoxy Sealed			
<b>PHYSICAL</b>						
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

### CONTATO

#### Endereço

Rua Sete de Setembro, 2671 - Centro  
13560-181 - São Carlos - SP - Brasil

#### Telefone

+ 55 (16) 3371-0112

#### Fax

+ 55 (16) 3372-7800

#### Internet

[www.metrolog.net](http://www.metrolog.net)  
[metrolog@metrolog.net](mailto:metrolog@metrolog.net)



Metrolog Controles de Medição