

MODEL 1203 ACCELEROMETER

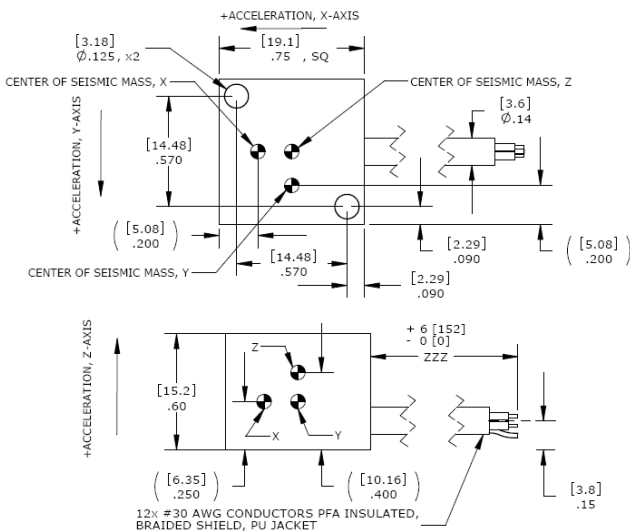


SPECIFICATIONS

- DC Response Triaxial Accelerometer
- Durable, Low Noise Cable
- Reliable Performance
- Low Cost, Rugged

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 $\pm 50g$ to $\pm 1000g$ and frequency response to 3000 Hz, this sensor is easily mounted in hard to reach places on vehicles under test.

DIMENSIONS

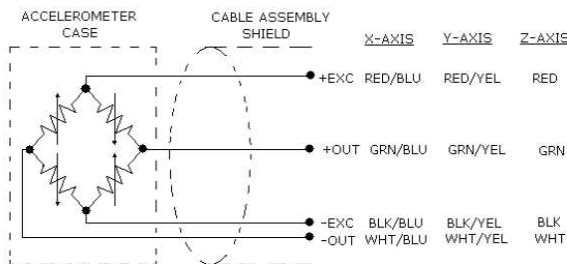


FEATURES

- Advanced MEMS Sensing Element
- $\pm 50g$ to $\pm 1000g$ Dynamic 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
- Vehicle Testing
- Impact Testing
- Off-Road Testing
- Transportation Testing



PERFORMANCE SPECIFICATIONS

All values are typical at ±24°C, 80 Hz and 10 Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters	-0050	-0100	-0200	-0500	-1000	Notes
DYNAMIC						
Range(g)	±50	±100	±200	±500	±1000	
Sensitivity (mV/g) ¹	2.0	0.9	0.9	0.40	0.15	@ 10Vdc excitation ±5%
Frequency Response (Hz)	0-600	0-800	0-1000	0-1200	0-1500	
Natural Frequency (Hz)	2000	3000	4000	6000	7000	
Non-Linearity (% FS)	±1	±1	±1	±1	±1	
Damping Ratio	0.7	0.5	0.5	0.3	0.1	Typical
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	
Shock Limit (g)	3000	3000	4000	5000	5000	
ELECTRICAL						
Zero Acceleration Output (mV)	<±40					
Excitation (Vdc)	2 to 10					
Input Resistance (Ω)	2400-6000					
Output Resistance (Ω)	2400-6000					
Insulation Resistance (MΩ)	>100					@50Vdc
Ground Isolation	Isolated from mounting surface.					
ENVIRONMENTAL						
Thermal Zero Shift (%FSO/°C)	±0.05					From 0 to +50°C
Thermal Sensitivity Shift (%/°C)	±0.2					From 0 to +50°C
Operating Temperature (°C)	-20 to +85					
Humidity	Epoxy Sealed, IP65					
PHYSICAL						
Case Material	Anodized Aluminum					
Cable	12x #30 AWG Conductors, PFA Insulated, Braided Shield, PU Jacket					
Weight (grams)	20					Cable Not Included
Mounting	2x #4 or M3 socket head cap screws					Torque 8 lb-in (1 N-m)

¹ Output is ratiometric to excitation voltage

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Limit

Optional accessories: 121 Three Channel DC Differential Amplifier
140A Auto-zero Inline Amplifier

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ORDERING INFORMATION

PART NUMBERING Model Number+Range+Cable Length+Options

1203-GGGG-ZZZ-XXX

 | | | Options (otherwise leave blank)
 | | | Cable (360 is 360 inches)
 | | | Range (0100 is 100 g)

Installed

Optional Dash Numbers

-001 5Vdc Calibration
-002 2Vdc Calibration
-007 Lemo FGG.1B.307 and Dallas DS2401

Example: 1203-1000-072

Standard Configuration: 1000g, 72" (30ft) cable, No Options

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
1000 Lucas Way
Hampton, VA 23666
Sales and Customer Service
Tel: +1-800-745-8008 or
+1-757-766-1500
Fax: +1-757-766-4297
t&m@meas-spec.com

EUROPE

MEAS France SAS
a TE Connectivity Company
26 Rue des Dames
F78340 Les Clayes-sous-Bois
France
Sales and Customer Service
Tel: +33 (0) 1 79 33 00
Fax: +33(0)1 34 81 03 59
t&m@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Sales and Customer Service
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
t&m@meas-spec.com

TE.com/sensorsolutions

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