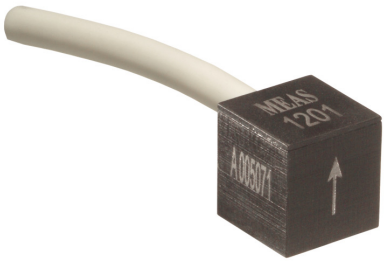
Model 1202 Accelerometer

DC Response
Durable Cable
Reliable Performance
Self Test



The Model 1202 Accelerometer

is a small, compact uniaxial 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 1000g and frequency response to 3000 Hz, this sensor is easily mounted in hard to get places on vehicles under test.
By applying a voltage to the self-test lead, an electrostatic force is created that attracts the seismic mass towards the top cap, simulating an acceleration and allowing proper sensor function to be verified.
Since the mass actually moves, the self-test is both a mechanical test of the unit's functioning and an electrical test. This ensures significant time and cost savings for quality personnel in determining performance during incoming inspections and for test engineers' trouble-checking instrumentation channels before and after auto safety tests.

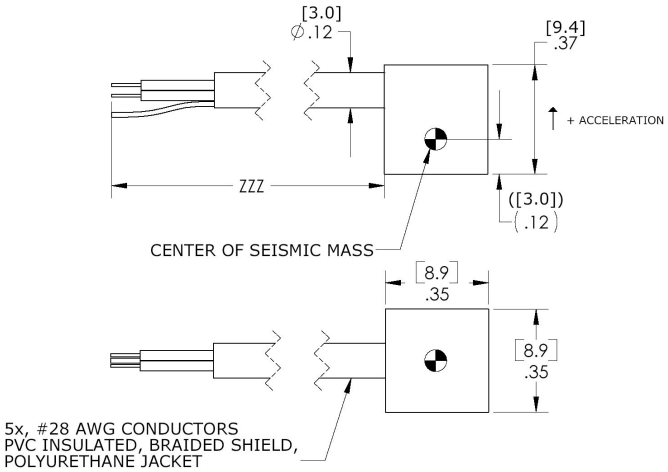
FEATURES

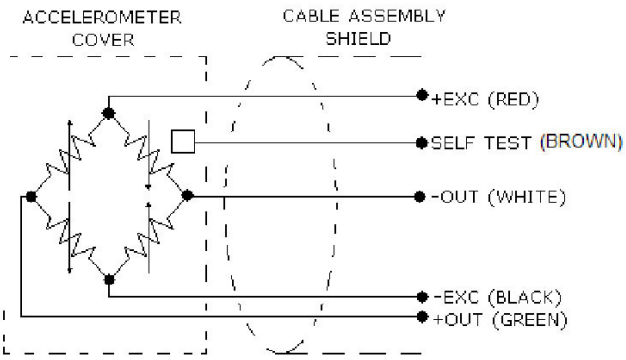
- 2nd GEN MEMS Sensing Element
- 1000 g Full Scale Range
- 2-10 VDC Excitation
- ±40 mV Zero Measurand Output
- Gas Damping
- Connector Options
- Mechanical Overload Stops
- Designed for Adhesive Mounting
- Self Test U.S. Patent Numbers
  - 5,103,667
  - 5,253,510

APPLICATIONS

- Crash Testing
- Impact Testing
- Off-Road Testing

dimensions





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measurement SPECIALTIES

Model 1202 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						**Notes**
Range(g)	±50	±100	±200	±500	±1000	
Sensitivity (mV/g)	2	.9	.9	.4	.15	
Frequency Response (Hz)	0-800	0-1500	0-1800	0-2700	0-3000	± 1 dB
Natural Frequency (Hz)	2000	3000	4000	6000	7000	
Non-Linearity (% FSO)	±1	±1	±1	±1	±1	Of Reading
Transverse Sensitivity (%)	3	3	3	3	3	
Thermal Zero Shift (%FSO/°C)	±0.05	±0.05	±0.05	±0.05	±0.05	From 0 to +50°C
Thermal Sensitivity Shift (%/°C)	±.2	±.2	±.2	±.2	±.2	From 0 to +50°C
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					@50Vdc
Ground Isolation			Isolated from Mounting Surface			
ENVIRONMENTAL						
Shock Limit (g)	3000	3000	4000	5000	5000	
Operating Temperature (C)	-20 to +85					
PHYSICAL						
Case Material			Andonized Aluminum			
Cable (Integral 30 ft)			Polyurethane Jacketed with 5 x 28 AWG Conductors			
Weight (grams)			3			Cable Not Included
Mounting			Adhesive			

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ordering info

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

```
1202-GGGG-VV-CCCX
        |    |   |    |_____Options
        |    |   |_____Cable (360 is 360 inches)
        |    |_______Excitation (10 is 10 Vdc)
        |____________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: 1202-1000-360
Model 1202, 1000g Full Scale Range, 10Vdc excitation, 360 inches cable

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