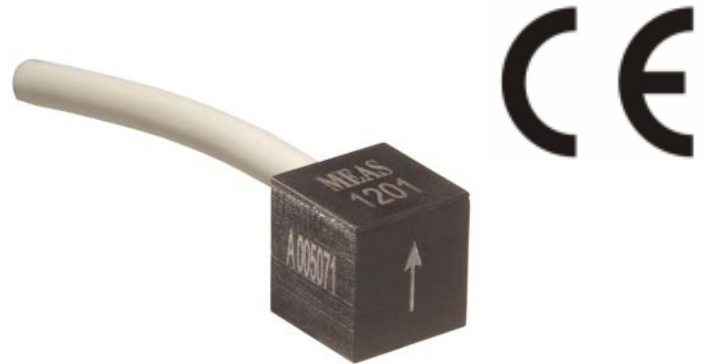


# Model 1201 Accelerometer

DC Response  
Durable Cable  
Reliable Performance  
Low Cost



## The Model 1201 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.

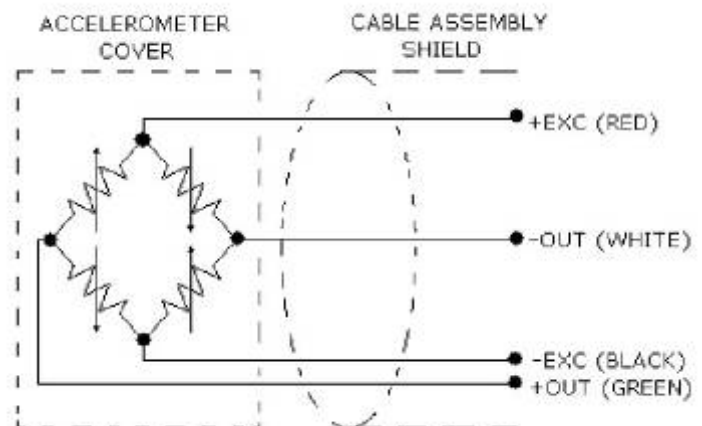
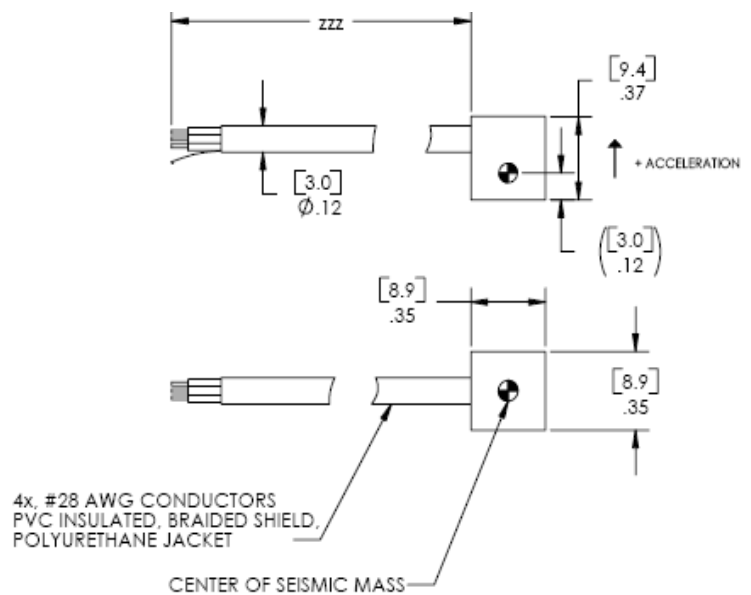
## FEATURES

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

## APPLICATIONS

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

## dimensions



# Model 1201 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)                            | 0-800                          | 0-1500     | 0-1800     | 0-2700     | 0-3000     | $\pm 1$ dB                      |
| Resonant 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  | Measured between +EXC and -EXC  |
| Output Resistance ( $\Omega$ )                     | 2700-4800                      | 2700-4800  | 2700-4800  | 2700-4800  | 2700-4800  | Measured between +OUT and -OUT  |
| Insulation Resistance ( $M\Omega$ )                | $>100$                         | $>100$     | $>100$     | $>100$     | $>100$     | @50Vdc                          |
| Ground Isolation                                   | Isolated from Mounting Surface |            |            |            |            |                                 |
| Humidity   | Epoxy Sealed                   |            |            |            |            |                                 |
| <b>ENVIRONMENTAL</b>                               |                                |            |            |            |            |                                 |
| Shock Limit (g)                                    | 3000                           | 3000       | 4000       | 5000       | 5000       |                                 |
| Operating Temperature ( $^{\circ}\text{C}$ )       | -20 to $+85$                   |            |            |            |            |                                 |
| <b>PHYSICAL</b>                                    |                                |            |            |            |            |                                 |
| Case Material                                      | Anodized Aluminum              |            |            |            |            |                                 |
| Cable (Integral 30 Foot Cable)                     |                                |            |            |            |            | 4 x 28 AWG Conductors           |
| Cable Jacket                                       |                                |            |            |            |            | Polyurethane                    |
| Weight (grams)                                     | 2.5                            | 2.5        | 2.5        | 2.5        | 2.5        | Cable Not Included              |
| Mounting   | Adhesive / Screw Mount         |            |            |            |            |                                 |

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## ordering info

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

1201-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: 1201-1000-10-360X

Standard Configuration: 1000g, 10V Excitation, 360" (30ft) cable, No Options