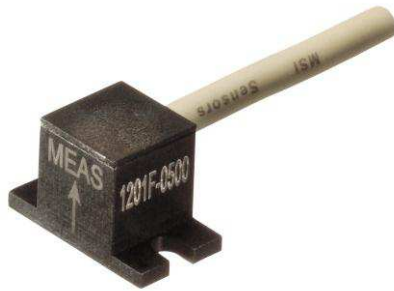
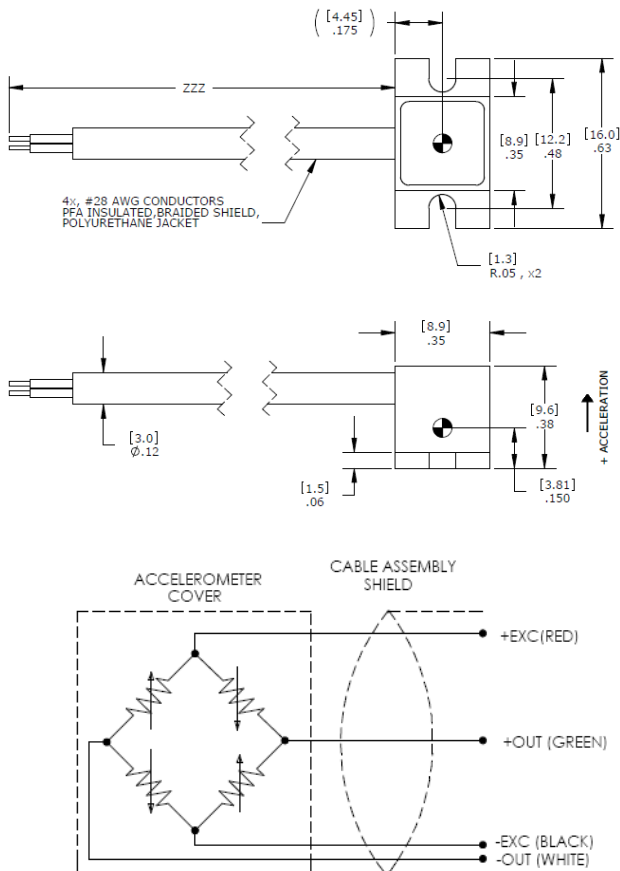


# MODEL 1201F ACCELEROMETER



## DIMENSIONS



## SPECIFICATIONS

- ◆ DC Response Accelerometer
- ◆ Durable, Low Noise Cable
- ◆ Vehicle Crush Zone Testing
- ◆ Low Cost, High Performance

The Model 1201F 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  $\pm 50$  g to  $\pm 1000$ g and frequency response to 3000 Hz, this sensor is easily mounted in hard to get places on vehicles under test.

For a similar accelerometer designed for adhesive mounting, see the model 1201.

## FEATURES

- ◆ Advanced MEMS Sensing Element
- ◆  $\pm 50$ g to  $\pm 1000$  g Dynamic Range
- ◆ 2-10 Vdc Excitation
- ◆ 0-50 °C Temperature Range
- ◆  $\pm 40$  mV Zero Measurand Output
- ◆ Gas Damping
- ◆ Connector Options
- ◆ Mechanical Overload Stops

## APPLICATIONS

- ◆ Crash Testing
- ◆ Crush Zone 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
<b>DYNAMIC</b>						
Range(g)	±50	±100	±200	±500	±1000	
Sensitivity (mV/g) <sup>1</sup>	2.0	0.9	0.9	0.40	0.15	@ 10Vdc excitation
Frequency Response (Hz)	0-800	0-1000	0-1400	0-2000	0-3000	±5%
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	
<b>ELECTRICAL</b>						
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.					
<b>ENVIRONMENTAL</b>						
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					
<b>PHYSICAL</b>						
Case Material	Anodized Aluminum					
Cable	4x #28 AWG Conductors, PFA Insulated, Braided Shield, PU Jacket					
Weight (grams)	<2.5					Cable Not Included
Mounting	2x #2-56 socket head cap screws					Torque 4 lb-in
<b>OPTION</b>						
Model 1201FL-GGGG-CCC	With transverse sensing direction (parallel to mounting surface)					

<sup>1</sup> 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

1201F-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  
-005 Lemo FGG.1B.307 and Dallas DS2401

Example: 1201F-1000-360

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

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