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

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.

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

FEATURES

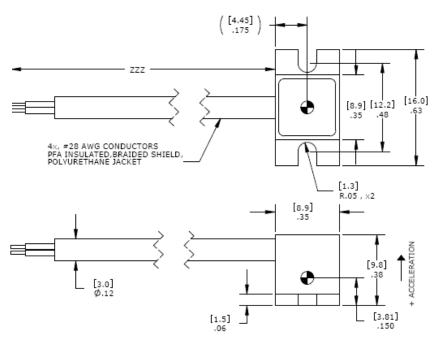
- Advanced MEMS Sensing Element
- ±50g to ±1000 g Dynamic Range
- 2-10 Vdc Excitation
- 0-50 °C Temperature Range
- ±40 mV Zero Measurand Output
- Gas Damping
- Connector Options
- Mechanical Overload Stops

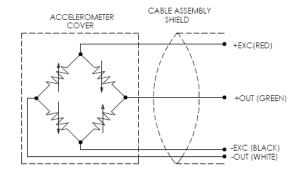
APPLICATIONS

- Crash Testing
- Crush Zone Testing
- Impact Testing
- Off-Road Testing
- Transportation Testing



dimensions





Model 1201F 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. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters	-0050	-0100	-0200	-0500	-1000	
DYNAMIC						Notes
Range(g)	±50	±100	±200	±500	±1000	
Sensitivity (mV/g) ¹	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	0.7	0.7	0.6	0.5	Typical
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	
Shock Limit (g)	3000	3000	4000	5000	5000	

ELECTRICAL

Zero Acceleration Output (mV) $<\pm40$ Excitation (Vdc)2 to 10Input Resistance (Ω)2400-6000Output Resistance (Ω)2400-6000Insulation Resistance (MΩ)>100

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
Operating Temperature (°C) -20 to +85

@50Vdc

PHYSICAL

Humidity

Case Material Anodized Aluminum

Cable 4x #28 AWG Conductors, PFA Insulated, Braided Shield, PU Jacket

Epoxy Sealed, IP65

Weight (grams) <2.5 Cable Not Included Mounting 2x #2-56 socket head cap screws Torque 4 lb-in

OPTION

Model 1201FL-GGGG-CCC With transverse sensing direction (parallel to mounting surface)

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

Optional accessories: 101 Three Channel DC Signal Conditioner Amplifier

140 Auto-zero Inline Amplifier

ordering info

PART NUMBERING Model Number+Range+Cable Length+Options

1201F-GGGG-2	ZZZ-	ΚXX	Optiona	al Dash Numbers
1	I	<pre>IOptions (otherwise leave blank)</pre>	-001	5Vdc Calibration
I	<u> </u>	Cable (360 is 360 inches)	-002	2Vdc Calibration
1		Range (0100 is 100 g)	-005	Lemo FGG.1B.307 and Dallas DS2401 Installed

Example: 1201F-1000-360

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

联系方式



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¹ Output is ratiometric to excitation voltage