

Model 1201F Accelerometer

DC Response
Durable Cable
Reliable Performance
Low Cost



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

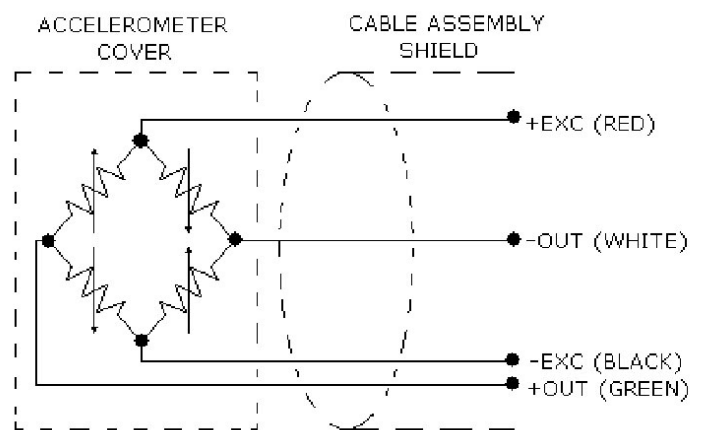
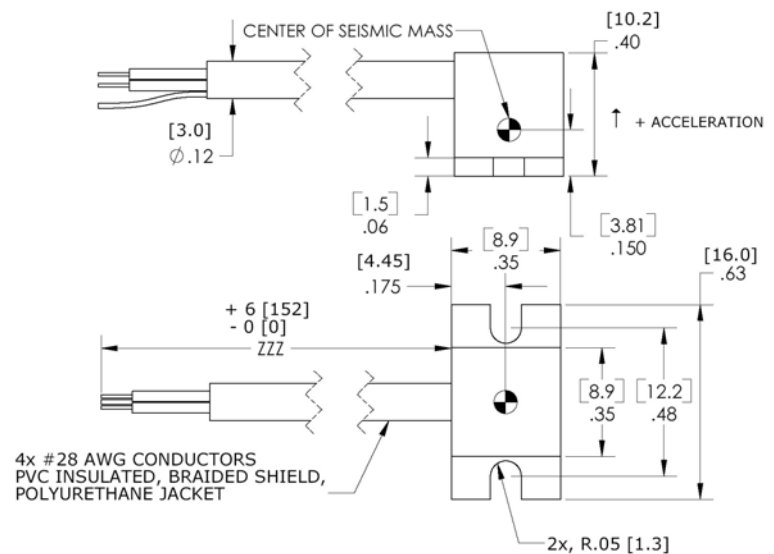
FEATURES

- 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 1201F 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

DYNAMIC

	± 50	± 100	± 200	± 500	± 1000	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
Resonant Frequency (Hz)	2000	3000	4000	6000	7000	
Non-Linearity (% of reading)	± 1	± 1	± 1	± 1	± 1	
Transverse Sensitivity (%)	3 %	3 %	3 %	3 %	3 %	
Thermal Zero Shift (%FSO/ $^{\circ}\text{C}$)	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	From 0 to $+50^{\circ}\text{C}$
Thermal Sensitivity Shift (%/ $^{\circ}\text{C}$)	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2	From 0 to $+50^{\circ}\text{C}$

ELECTRICAL

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 (Ω)	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					

ENVIRONMENTAL

Shock Limit (g)	3000	3000	4000	5000	5000	
Operating Temperature ($^{\circ}\text{C}$)						-20 to $+85$

PHYSICAL

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

1201F-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: 1201F-1000-10-360X

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