

# 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.

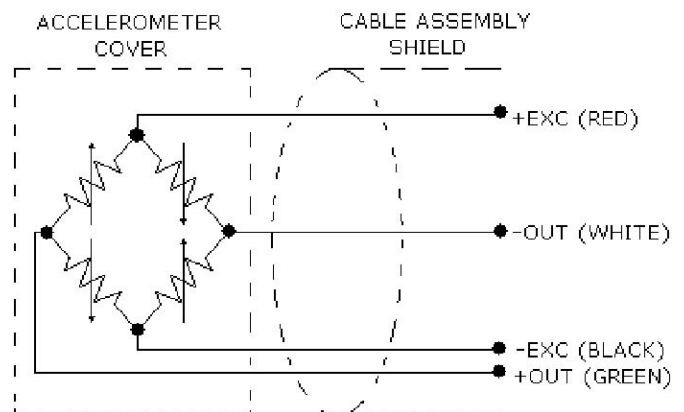
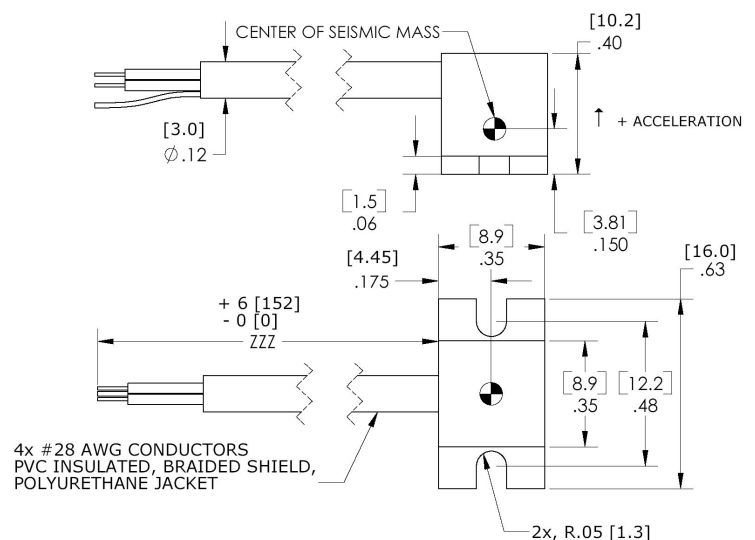
## FEATURES

- 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						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 (O)	2700-4800	2700-4800	2700-4800	2700-4800	2700-4800	Measured between +OUT and -OUT
Insulation Resistance (MO)	$>100$	$>100$	$>100$	$>100$	$>100$	@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+Cable Length+Options

1201F-GGGG-CCCX

|            |    |    |    Options  
 |            |    |    |    Cable (360 is 360 inches)  
 |            |    |    |    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-1000-360X

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