

Model 201 Accelerometer

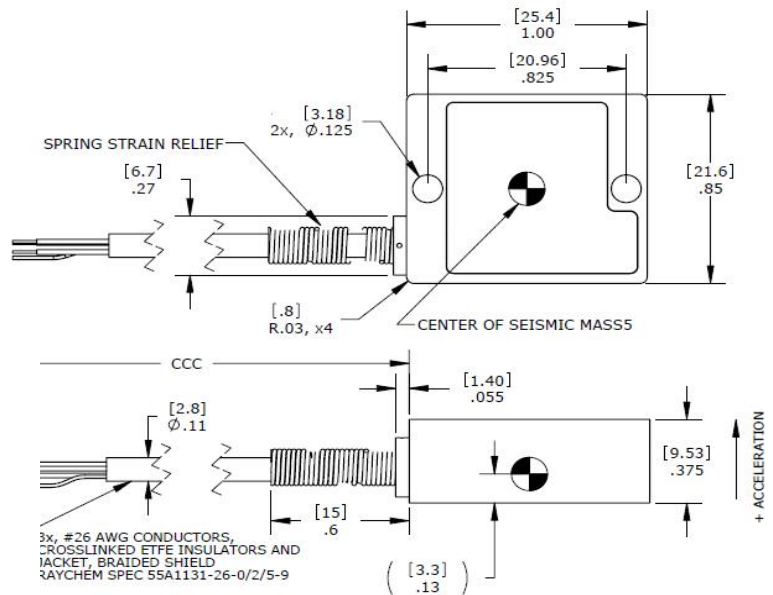


MEMS Accelerometer
 Temperature Calibrated
 Signal Conditioned Output
 Low Cost, Low Noise



The **Model 201** is a low noise accelerometer offering both static and dynamic response. The accelerometer is packaged in an anodized aluminum housing with an integral cable. It is offered in ranges from $\pm 2g$ to $\pm 50g$. Featuring gas damped MEMS sensing elements, the model 201 provides a flat frequency response over an operating temperature range of -40°C to $+125^{\circ}\text{C}$.

dimensions

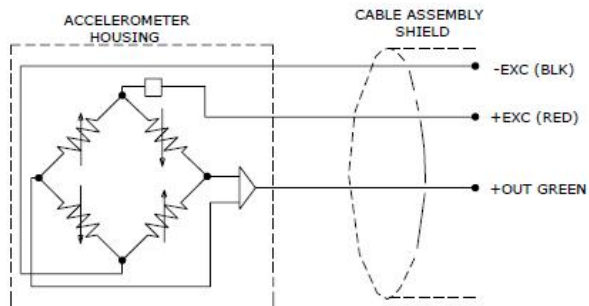


FEATURES

- Low Noise
- Low Current Consumption
- Ranges: $\pm 2g$ to $\pm 50g$
- High Over-Range Protection
- Temperature Compensation
- 2 Pole Electronic Filtering

APPLICATIONS

- Motorsports
- Vibration & Shock Monitoring
- Road Vehicle Testing
- Low Frequency Applications
- Seismic



Model 201 Accelerometer

performance specifications

All values are typical at +24°C and 12Vdc 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	
DYNAMIC								
Range (g)	±2	±5	±10	±20	±30	±50		
Sensitivity (mV/g)	1000	400	200	100	67	40		
-3dB Cutoff Frequency (Hz)	100 ±15	100 ±15	100 ±15	100 ±15	100 ±15	100 ±15		
Rolloff Above Cutoff Frequency (dB/dec)	-40	-40	-40	-40	-40	-40		
Natural Frequency (Hz)	700	800	1000	1500	1500	4000		
Non-Linearity (%FSO)				±1.0				
Transverse Sensitivity (%)				<3				<2 Typical
Damping Ratio				0.7				
Shock Limit (g)				5000				
ELECTRICAL								
Zero Acceleration Output (V)				2.5 ±0.1				
Excitation Voltage (Vdc)				5 to 30				
Excitation Current (mA)				<5				
Full Scale Output Voltage Swing (Vp-p)				0.5 to 4.5				
Output Resistance (Ω)				<100				
Insulation Resistance (MΩ)				>100				@100Vdc
Residual Noise (µV RMS)	80	50	50	60	50	60	0.1 to 100 Hz	
Ground Isolation				Isolated from Mounting Surface				
ENVIRONMENTAL								
Thermal Zero Shift (%FSO/°C)				±0.012				Typical
Thermal Sensitivity Shift (%/°C)				±0.020				Typical
Operating Temperature (°C)				-40 to 125				
Compensated Temperature (°C)				0 to 85				
Storage Temperature (°C)				-40 to 125				
PHYSICAL								
Case Material				Anodized Aluminum				
Cable				Teflon Insulated Leads, Braided Shield, Raychem Jacket				
Weight (grams)				14				
Mounting				2x #4-40 or M3 Socket Head Screw				
Mounting Torque				6 lb-in (0.7 N-m)				
Cable AWG				3 x #26				
Wiring color code:	+Excitation = Red; -Excitation = Blk;							
	+Output = Grn							
Supplied accessories:	AC-D02286 (#4 WASHER)							
	AC-D02995 (SCREW 4-40 7/8" SOCKET HD)							
Optional accessories:	101 Three Channel DC Signal Conditioner Amplifier							

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ordering info

PART NUMBERING Model Number+Range+Cable Length

201-XX-CCC

| |
 | | _____ Cable (060 is 60 inches)
 | _____ Range (05 = ±5g range, X axis)

Example: 201-05-060
 Model 201, ±5g, 60" (5ft) Cable