

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 $+125^{\circ}\text{C}$.

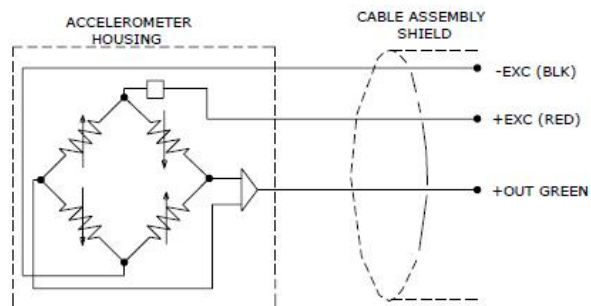
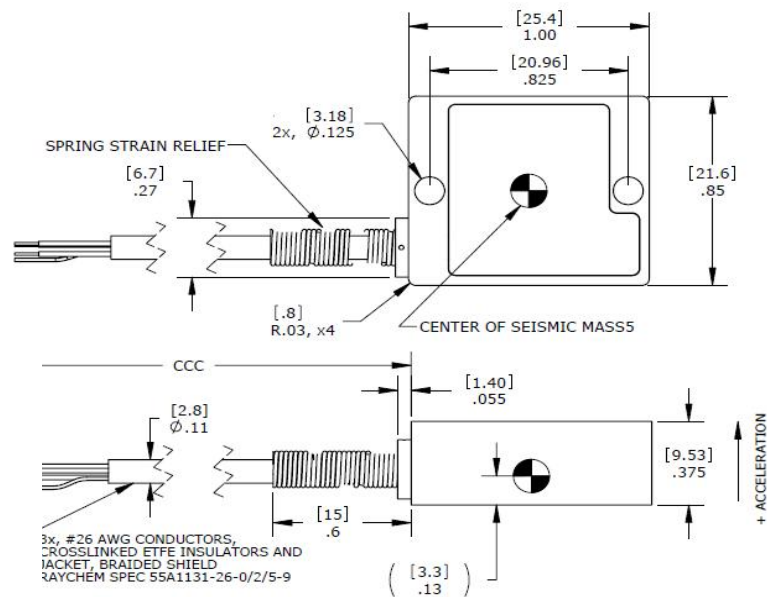
FEATURES

- 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

dimensions



Model 201 Accelerometer



Joint Sensor Instruments (H.K.) Ltd.
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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

DYNAMIC

	±2	±5	±10	±20	±30	±50	Notes
Range (g)							
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

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