

Model 3630 Accelerometer

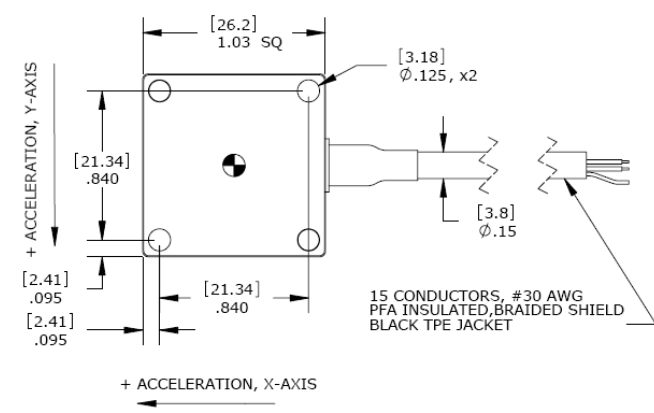


MEMS Triaxial Accelerometer
mV Output, DC Response
Gas Damped Sensors
5,000g Over-Range Protection

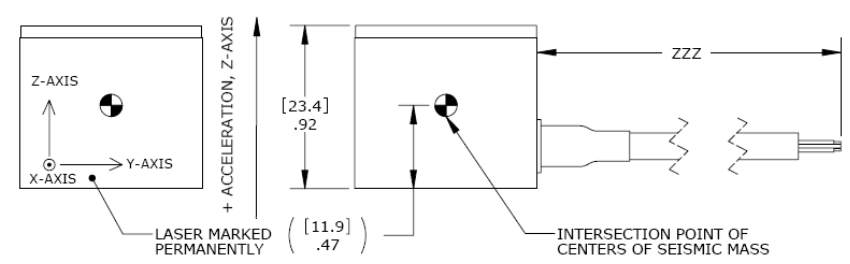
The **Model 3630** is a mV output MEMS triaxial accelerometer offering both static and dynamic response. The accelerometer incorporates integral temperature compensation from 0 to +50°C that provides a stable output over a wide operating range. The model 3630 is offered in $\pm 2g$ to $\pm 200g$ ranges and features gas damped MEMS sensing elements for wide frequency response.



dimensions



15 CONDUCTORS, #30 AWG
PFA INSULATED, BRAIDED SHIELD
BLACK TPE JACKET

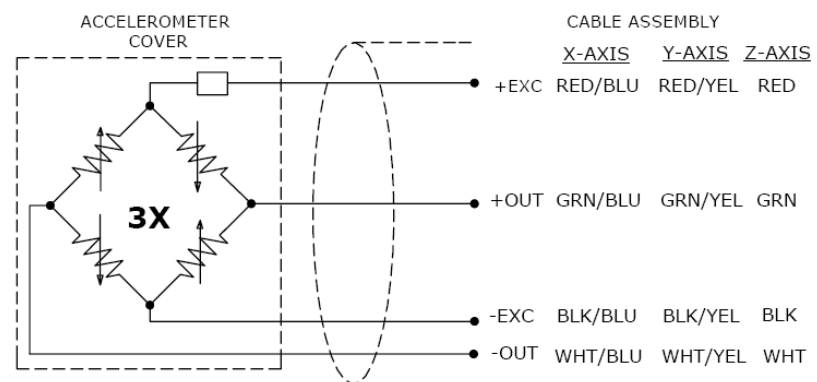


FEATURES

- Three Independent Circuits
- Low Current Consumption
- $\pm 2g$ to $\pm 200g$ Dynamic Ranges
- High Over-Range Protection
- 0-50°C Temp Compensation
- mV Output, Gas Damped

APPLICATIONS

- Transportation
- Vibration/Shock Monitoring
- Road Vehicle Testing
- Low Frequency Applications



Model 3630 Accelerometer

performance specifications

All values are typical at +24°C, 100Hz and 10Vdc 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	±50	±100	±200	Notes
Range (g)	±2	±5	±10	±20	±50	±100	±200	
Sensitivity (mV/g) ¹	24	12	6.4	3.2	1.4	0.7	0.3	Typical
Frequency Response (Hz)	0-150	0-250	0-350	0-450	0-800	0-1000	0-1500	±5%
Frequency Response (Hz)	0-250	0-350	0-450	0-550	0-950	0-1200	0-1700	±1dB
Natural Frequency (Hz)	700	800	1000	1500	4000	6000	8000	
Non-Linearity (%FSO)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<3	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.6	0.4	
Shock Limit (g)	3000	3000	3000	3000	5000	5000	5000	

ELECTRICAL

Zero Acceleration Output (mV)	±2							Differential
Excitation Voltage (Vdc)	2.7 to 10							
Input Impedance (Ω)	1200 to 6500							
Output Impedance (Ω)	1200 to 6500							
Insulation Resistance (MΩ)	>100							@100Vdc
Residual Noise (μV RMS)	10							
Ground Isolation	Isolated from Mounting Surface							

ENVIRONMENTAL

Thermal Zero Shift (%FSO)	±3							0 to 50°C
Thermal Sensitivity Shift (%)	±3							0 to 50°C
Operating Temperature (°C)	-20 to 100							
Compensated Temperature (°C)	0 to 50							
Humidity	Epoxy Sealed, IP62							

PHYSICAL

Case Material	Anodized Aluminum
Cable	Teflon Insulated Leads, Braided Shield, TPE Jacket
Weight (grams)	40
Mounting	2x #4 or M3 Screws
Mounting Torque	6 lb-in (0.7 N-m)

¹ Output is ratiometric to excitation voltage

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

Supplied accessories: AC-D02855 2x #4-40 (1^{1/8} length) Socket Head Cap Screw and Washer

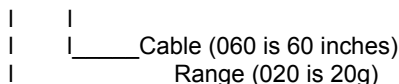
Optional accessories: 101 Three Channel DC Signal Conditioner Amplifier
140 Auto-Zero Inline Amplifier

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ordering info

PART NUMBERING Model Number+Range+Cable Length

3630-GGG-CCC



Example:3630-020-060

Model 3630, 20g, 60" (5ft) Cable