# Model 606M1 Accelerometer



Seat Pad Accelerometer
MEMS, Triaxial Sensors
DC Response
Accurate Temp Compensation
ISO 10326-1 Configuration

The Model 606M1 is a MEMS triaxial seat pad accelerometer with both static and dynamic responses designed specially for characterizing whole body vibration in accordance with ISO 2631-1 and ISO 8041. The DC response of the silicon MEMS sensors is the key to yield accurate velocity and displacement results from the raw acceleration data. The 606M1 incorporates integral temperature compensation that provides a stable output over a wide operating range. The on-board voltage regulation circuit works with power supply from 8 to 32Vdc.

#### **FEATURES**

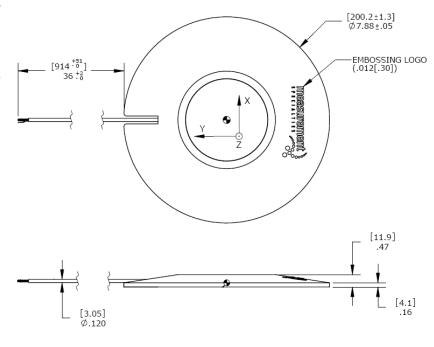
- Three Independent Circuits
- Low Current Consumption
- Ranges: ±25g
- Gas Damped, DC Response
- High Over-Range Protection
- Temperature Compensation
- Low Transverse Sensitivity

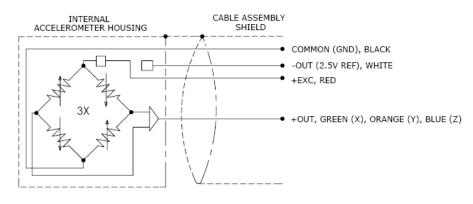
#### **APPLICATIONS**

- Whole Body Vibration Study
- Vibration/Shock Monitoring
- Helicopter Flight Testing
- Heavy Equipment Testing
- Biodynamic Study



### dimensions









## performance specifications

All values are typical at +24°C, 100Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change the specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameters DYNAMIC Range (g)	±25	Notes
Sensitivity (mV/g) Frequency Response (Hz) Frequency Response (Hz) Natural Frequency (Hz) Non-Linearity (%FSO) Transverse Sensitivity (%) Damping Ratio Shock Limit (g)	80 0-800 0-1000 4000 ±1.0 <3 0.7 5000	±5% ±1dB
ELECTRICAL Zero Acceleration Output (mV) Excitation Voltage (Vdc) Excitation Current (mA) Bias Voltage (Vdc) Output Impedance (Ω)	±100 8 to 36 <15 2.5 <100	Differential
Insulation Resistance (MΩ)	>100 <100	@100Vdc
Turn On Time (msec) Residual Noise (μV RMS) Ground Isolation	800 Isolated from Mounting Surface	Passband
ENVIRONMENTAL Thermal Zero Shift (%FSO) Thermal Sensitivity Shift (%) Operating Temperature (°C) Compensated Temperature (°C) Storage Temperature (°C)	±3.5 -20 to 85 -20 to 85 -20 to 85	Typical Typical
PHYSICAL Case Material (Seat Pad) Cable Weight (grams)	Nitrile Rubber 6x #28 AWG Conductors, PFA Insulated, Braided Shield, TPE Jacket 380	

Wiring color code: X-axis: +Excitation = Red; +Output = Green; -Output (-2.5V Ref) = White; Common (Ground) = Black

Y-axis: +Excitation = Red; +Output = Orange; -Output (-2.5V Ref) = White; Common (Ground) = Black +Excitation = Red; +Output = Blue; -Output (-2.5V Ref) = White; Common (Ground) = Black Z-axis:

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

101 Three Channel DC Signal Conditioner Amplifier Optional accessories:

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PART NUMBERING Model Number

606M1