

# Model 606M1 Accelerometer

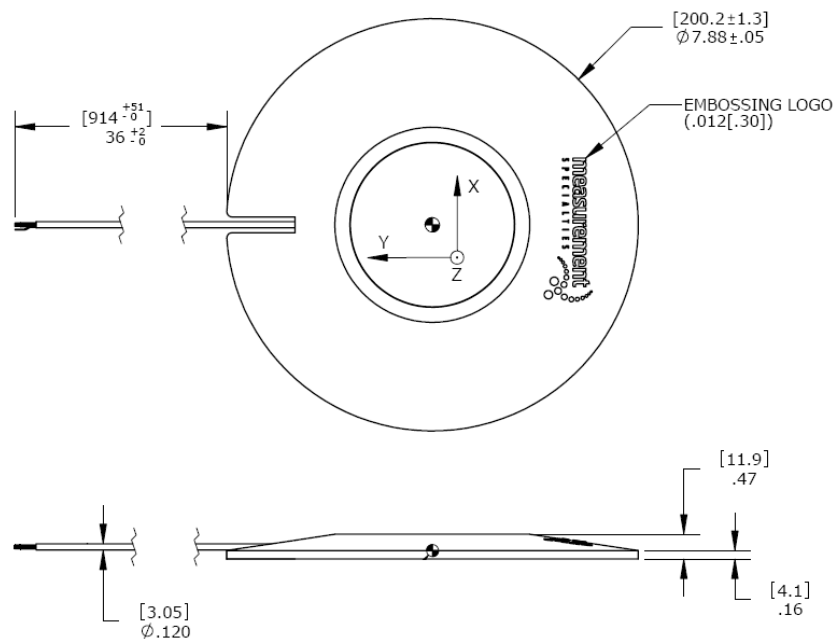


Seat Pad Accelerometer  
MEMS, Triaxial Sensors  
DC Response  
Accurate Temp Compensation  
ISO 10326-1 Configuration



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.

## dimensions

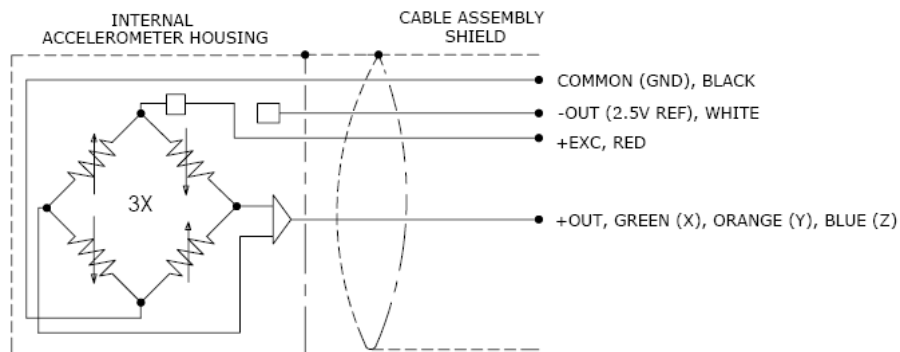


## FEATURES

- Three Independent Circuits
- Low Current Consumption
- Ranges:  $\pm 25g$
- 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



# Model 606M1 Accelerometer

## 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		Notes
<b>DYNAMIC</b>		
Range (g)	±25	
Sensitivity (mV/g)	80	
Frequency Response (Hz)	0-800	±5%
Frequency Response (Hz)	0-1000	±1dB
Natural Frequency (Hz)	4000	
Non-Linearity (%FSO)	±1.0	
Transverse Sensitivity (%)	<3	
Damping Ratio	0.7	
Shock Limit (g)	5000	
<b>ELECTRICAL</b>		
Zero Acceleration Output (mV)	±100	Differential
Excitation Voltage (Vdc)	8 to 36	
Excitation Current (mA)	<15	
Bias Voltage (Vdc)	2.5	
Output Impedance (Ω)	<100	
Insulation Resistance (MΩ)	>100	@100Vdc
Turn On Time (msec)	<100	
Residual Noise (μV RMS)	800	Passband
Ground Isolation	Isolated from Mounting Surface	
<b>ENVIRONMENTAL</b>		
Thermal Zero Shift (%FSO)	±3	Typical
Thermal Sensitivity Shift (%)	±3.5	Typical
Operating Temperature (°C)	-20 to 85	
Compensated Temperature (°C)	-20 to 85	
Storage Temperature (°C)	-20 to 85	
<b>PHYSICAL</b>		
Case Material (Seat Pad)	Nitrile Rubber	
Cable	6x #28 AWG Conductors, PFA Insulated, Braided Shield, TPE Jacket	
Weight (grams)	380	
<b>Wiring color code:</b>	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 Z-axis: +Excitation = Red; +Output = Blue; -Output (-2.5V Ref) = White; Common (Ground) = Black	
<b>Calibration supplied:</b>	CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit	
<b>Optional accessories:</b>	101 Three Channel DC Signal Conditioner Amplifier	

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

PART NUMBERING Model Number

606M1