



# Model 4807A Accelerometer

## performance specifications

All values are typical at +24°C, 80Hz 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

Parameters	±2	±5	±10	±20	±50	±100	±200	Notes
Range (g)	±2	±5	±10	±20	±50	±100	±200	
Sensitivity (mV/g)	1000	400	200	100	40	20	10	±2%
Frequency Response (Hz)	0-200	0-300	0-350	0-600	0-800	0-1300	0-1500	±5%
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	0.6	0.5	0.4	
Shock Limit (g)	5000	5000	5000	5000	5000	5000	5000	
Residual Noise (µV RMS)	25	20	23	31	26	32	32	Passband
Residual Noise (µg/√Hz RMS)	2	3	6	12	21	41	82	Spectral

#### ELECTRICAL

Zero Acceleration Output (mV)	±25 (±1.5 after auto-zero actuation)	Differential
Excitation Voltage (Vdc)	8 to 20	
Excitation Current (mA)	15	
Bias Voltage (Vdc)	2.5	
Full Scale Output Voltage (Vpk)	±2	
Output Impedance (Ω)	<100	
Insulation Resistance (MΩ)	>100	@50Vdc
Turn On Time (sec)	<2	
Ground Isolation	Isolated from Mounting Surface	

#### ENVIRONMENTAL

Thermal Zero Shift (%FSO)	±2 from -54 to +121°C ref to +24°C	Maximum
Thermal Sensitivity Shift (%)	±2.5 from -54 to +121°C ref to +24°C	Maximum
Operating Temperature (°C)	-54 to 121	
Compensated Temperature (°C)	-54 to 121	
Humidity	Hermetically Sealed, IP67	

#### PHYSICAL

Case Material	Stainless Steel
Weight (grams)	20
Mounting	2x #4 or M3 Screws
Mounting Torque	6 lb-in (0.7 N-m)

<b>Calibration supplied:</b>	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±5% Frequency Response Limit
<b>Supplied accessories:</b>	AC-A02285	2x #4-40 (7/16 length) Socket Head Cap Screw and Washer
<b>Optional accessories:</b>	AC-D02652	Triaxial Mounting Block
	340A-XXX	Cable Assembly, 4x #28 AWG, (XXX designates length in inches, 5ft standard)
	341A-XXX	Cable Assembly, 5x #30 AWG, for Auto-Zero Option (XXX designates length in inches, 5ft standard)
	121	3-Channel Precision Low Noise DC 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.

## ordering info

PART NUMBERING Model Number+Range

4807A-GGG

I \_\_\_\_\_ Range (010 is 10g)

Example: 4807A-010

Model 4807A, 10g