

Model 4801A Accelerometer



Amplified, Signal Conditioned
Hermetically Sealed
Detachable Cable
10,000g Over-Range Protection

Description

The model 4801A is a true hermetically sealed accelerometer in a rugged stainless steel package. The offers an amplified signal conditioned output in ranges from ± 2 to $\pm 500g$. The model 4801A incorporates enhanced temperature compensation and a gas damped MEMS sensing element for optimum frequency response. Mechanical over-range stops offers shock protection up to 10,000g.



dimensions

FEATURES

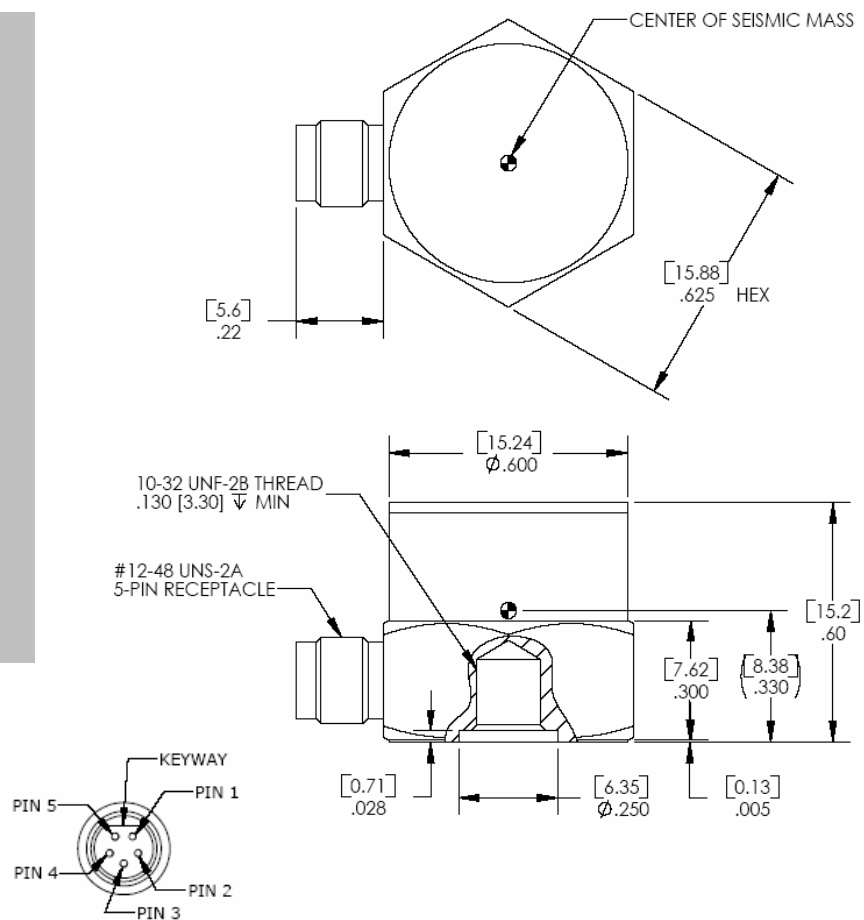
- $\pm 2g$ to $\pm 500g$ Dynamic Range
- 10,000g Shock Protection
- Hermetically Sealed Sensor
- 8 to 36Vdc Excitation Voltage
- Gas Damped MEMS Element
- DC to 2000Hz Response
- Stud Mounting

APPLICATIONS

Vehicle Testing
Transportation Measurements
Structural Testing
Test & Instrumentation
Environmental Testing

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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 these specifications without notice.

Parameters

DYNAMIC

Range	±2	±5	±10	±20	Units	Notes
Sensitivity	1000	400	200	100	mV/g	
Frequency Response	0-100	0-200	0-300	0-400	Hz	±5%
Range	±50	±100	±200	±500	Units	Notes
Sensitivity	40	20	10	4	mV/g	
Frequency Response	0-800	0-1300	0-1500	0-1500	Hz	±5%
Non-Linearity				±0.5	% FSO	
Transverse Sensitivity				±3	%	±2% Typical
Zero Acceleration Output				±50	mV	
Thermal Zero Shift (-40 to +100°C)				±.02	% FSO/°C	
Thermal Sensitivity Shift (-40 to +100°C)				±.02	%/°C	
Damping Ratio				0.70		Gas Damped

ELECTRICAL

Excitation Voltage	8 to 36	Vdc	
Excitation Current	5.0	mA	Typical
Bias Voltage	2.5	Vdc	
Output Impedance	100	Ω	Maximum
Insulation Resistance (@ 50Vdc)	100	MΩ	Minimum
Ground Isolation	Isolated		

PHYSICAL

Housing	Stainless Steel		Passivated
Weight	22	grams	Maximum
Mounting	10-32 Stud		18 lb-in mounting torque

ENVIRONMENTAL

Shock Limit	10,000	g's
Operating Temperature	-54 to +121	°C
Humidity	Hermetically sealed	

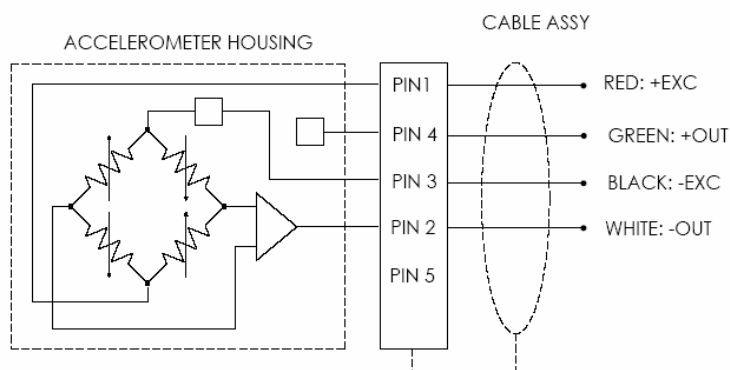
SUPPLIED ACCESSORIES

AC-D02298	10-32 to 10-32 mounting stud
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OPTIONAL ACCESSORIES

340-XXX	Cable Assembly, #32 AWG, -54 to +121°C (XXX designates length in inches, 5ft standard)
343-XXX	Cable Assembly, #28 AWG, -40 to +85°C (XXX designates length in inches, 5ft standard)

electrical schematic



ordering information

4801A-0010

Range (g)
Model