

Model Number 3501A202KG	PIEZORESISTIVE ACCELEROMETER	Revision: E ECN #: 46956
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	<u>ENGLISH</u>	<u>SI</u>	
Performance			
Sensitivity(± 50 %)(at 10 VDC excitation)	0.2 mV/g	0.02 mV/(m/s ²)	[1]
Sensitivity	0.02 mV/V/g	0.002 mV/V/(m/s ²)	[6]
Measurement Range	± 2 kg	± 19,610 m/s ² pk	
Frequency Range(± 1 dB)	0 to 10,000 Hz	0 to 10,000 Hz	
Resonant Frequency	>20 kHz	>20 kHz	
Damping Ratio	0.7 % Critical	0.7 % Critical	[4]
Non-Linearity	± 1 %	± 1 %	
Transverse Sensitivity	≤ 3 %	≤ 3 %	
Environmental			
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s ² pk	[3]
Overload Limit(Mechanical Stops)	≥ 2.2 kg	≥ 21,582 m/s ² pk	
Temperature Range(Operating)	-65 to 250 °F	-54 to 121 °C	
Temperature Coefficient of Sensitivity	-0.11 %/°F	-0.20 %/°C	[4]
Zero g Offset Temperature Shift	± 10 mV	± 10 mV	[5]
Base Strain Sensitivity	0.01 g/με	0.1 (m/s ²)/με	[4]
Electrical			
Excitation Voltage(Maximum)	15.0 VDC	15.0 VDC	
Current Consumption	<10 mA	<10 mA	
Input Resistance(± 1250 Ohm)	2750 Ohm	2750 Ohm	[1]
Output Resistance(± 1250 Ohm)	2750 Ohm	2750 Ohm	[1]
Offset Voltage	-40 to +40 mVDC	-40 to +40 mVDC	[1]
Settling Time	0.01 sec	0.01 sec	[2]
Physical			
Sensing Element	Piezoresistive MEMS	Piezoresistive MEMS	
Sensing Geometry	Full Active	Full Active	
Housing Material	Ceramic	Ceramic	
Sealing	Epoxy	Epoxy	
Size (Height x Length x Width)	0.085 in x 0.236 in x 0.138 in	2.16 mm x 6.00 mm x 3.50 mm	[4]
Weight	0.005 oz	0.15 gm	
Electrical Connector	Solder Tabs	Solder Tabs	
Mounting	Surface Mount	Surface Mount	

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1] Verified with test data provided on supplied calibration certificate.
 [2] Settling Time is the maximum time after power-up for the Offset Voltage to be within +/-2% of Measurement Range output of the final offset value. Mounting surface must be at thermal equilibrium.
 [3] Half-sine pulse duration, ≥ 20 μsec.
 [4] Typical.
 [5] -65 to +250 °F, ref. 75 °F (-54 to +121 °C, ref. 24 °C)
 [6] Sensitivity is proportional to excitation voltage, and at other excitation values, sensitivity can be predicted from the 10VDC calibrated value with a small (<~.5%) increase in uncertainty.
 [7] See PCB Declaration of Conformance PS151 for details.

SUPPLIED ACCESSORIES:
 Model ACS-62 Shock Calibration of Piezoresistive High Amplitude Accelerometers

Entered: LK	Engineer: BAM	Sales: WDC	Approved: BAM	Spec Number:
Date: 8/8/2017	Date: 8/8/2017	Date: 8/8/2017	Date: 8/8/2017	51970



All specifications are at room temperature unless otherwise specified.
 In the interest of constant product improvement, we reserve the right to change specifications without notice.



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