Model Number	HIGH AMPLITUDE MEMS SHOCK ACCELEROMETER	Revision: C
3501A1220KG		ECN #: 46064

Performance	**ENGLISH**	**SI**	
Sensitivity(± 50 %)(at 10 VDC excitation)	0.010 mV/g	0.001 mV/(m/s²)	[1]
Sensitivity	0.001 mV/V/g	0.0001 mV/V/(m/s²)	
Measurement Range	± 20,000 g	± 196,100 m/s² pk	
Frequency Range(± 1 dB)	0 to 10,000 Hz	0 to 10,000 Hz	
Resonant Frequency	>60 kHz	>60 kHz	
Damping Ratio	5 % Critical	5 % Critical	[5]
Non-Linearity(per 10,000 g (98,100 m/s²))	± 1 %	± 1 %	
Transverse Sensitivity	≤ 3 %	≤ 3 %	
Environmental			
Overload Limit(Shock)	± 60,000 g pk	± 588,000 m/s² pk	[4][3]
Overload Limit(Mechanical Stops)	≥ 30,000 g	≥ 294,200 m/s² pk	
Temperature Range(Operating)	-65 to 250 °F	-54 to 121 °C	
Temperature Coefficient of Sensitivity	-0.11 %/°F	-0.20 %/°C	[5]
Zero g Offset Temperature Shift	± 10 mV	± 10 mV	[6]
Base Strain Sensitivity	0.10 g/με	0.98 (m/s²)/με	[5]
Magnetic Sensitivity	10 μg/gauss	0.98 (m/s²)/Tesla	[5]
Electrical			
Excitation Voltage(Maximum)	15.0 VDC	15.0 VDC	
Current Consumption	<3 mA	<3 mA	
Input Resistance(± 2000 Ohm)	6000 Ohm	6000 Ohm	[1]
Output Resistance(± 2000 Ohm)	6000 Ohm	6000 Ohm	[1]
Offset Voltage	-40 to +40 mVDC	-40 to +40 mVDC	[1]
Settling Time	0.01 sec	0.01 sec	[2]
Electrical Isolation(Case)	≥ 10^8 Ohm	≥ 10^8 Ohm	[3]
Physical			
Sensing Element	Piezoresistive MEMS	Piezoresistive MEMS	
Sensing Geometry	Full Active	Full Active	
Housing Material	Titanium	Titanium	
Sealing	Epoxy	Epoxy	
Size (Hex x Height)	3/8 in x .50 in	3/8 in x 12.7 mm	
Weight(without cable)	0.088 oz	2.5 gm	[5]
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Side	Side	
Cable Type	034 4-cond Shielded	034 4-cond Shielded	
Cable Termination	Pigtail Ends	Pigtail Ends	
Cable Length	10 ft	3.05 m	
Mounting	Integral Stud	Integral Stud	
Mounting Thread	1/4-28 Male	1/4-28 Male	

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.

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.

M - Metric Mount

Mounting Thread	M6 x 0.75 Male	M6 x 0.75 Male

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] Individually tested to ensure compliance with specified value.
[4] Half-sine pulse duration, ≥ 20 μsec.
[5] Typical.
[6] -65 to +250 °F, ref. 75 °F (-54 to +121 °C, ref. 24 °C)

SUPPLIED ACCESSORIES:

Model ACS-62 Shock Calibration of Piezoresistive High Amplitude Accelerometers

Entered: LK	Engineer: JS	Sales: RWM	Approved: NJF	Spec Number:
Date: 10/14/2016	Date: 10/14/2016	Date: 10/14/2016	Date: 10/14/2016	**43078**

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