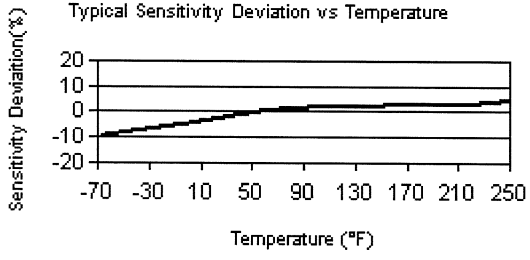
Model Number	INDUSTRIAL ICP® ACCELEROMETER	Revision: NR ECN #:
629A10		

Performance	ENGLISH	SI	
Sensitivity (± 5 %)	10 mV/g	1 mV/(m/s^2)	[2]
Measurement Range	± 500 g	± 4905 m/s^2	
Frequency Range (± 5 %)	144 to 120,000 cpm	2.4 to 2000 Hz	[3][4]
Frequency Range (± 10 %)	102 to 300,000 cpm	1.7 to 5000 Hz	
Frequency Range (± 3 dB)	48 to 480,000 cpm	0.8 to 8000 Hz	
Resonant Frequency	1200 kcpm	20 kHz	[1]
Broadband Resolution (1 to 10,000 Hz)	316 µg	3100 µm/s^2	[1]
Non-Linearity	± 1 %	± 1 %	[5]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
Environmental			
Overload Limit (Shock)	5000 g pk	49,050 m/s^2 pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	
Electrical			
Settling Time (within 1% of bias)	≤ 3.0 sec	≤ 3.0 sec	
Discharge Time Constant	≥ 0.2 sec	≥ 0.2 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<100 ohm	<100 ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise (10 Hz)	22.1 µg/√Hz	217 (µm/s^2)/√Hz	[1]
Spectral Noise (100 Hz)	8.9 µg/√Hz	87.3 (µm/s^2)/√Hz	[1]
Spectral Noise (1 kHz)	3.2 µg/√Hz	31.4 (µm/s^2)/√Hz	[1]
Electrical Isolation (Case)	>10^8 ohm	>10^8 ohm	
Electrical Protection	RFI/ESD	RFI/ESD	
Physical			
Size (Length x Width x Height)	1.5 in x 1.5 in x 0.82 in	38.1 mm x 38.1 mm x 20.8 mm	
Weight (without cable)	4.9 oz	139 gm	
Mounting Thread	1/4-28 Male	No Metric Equivalent	[6]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Molded Integral Cable	Molded Integral Cable	
Electrical Connection Position	Side	Side	
Electrical Connections (Red)	X axis	X axis	
Electrical Connections (Green)	Y axis	Y axis	
Electrical Connections (White)	Z axis	Z axis	
Electrical Connections (Black)	Ground	Ground	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	[7]

CE [8]



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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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
Supplied Accessory : Model M081A59 Captive mounting bolt M6 x 1 replaces Model 081A56

NOTES:

[1] Typical.
[2] Conversion Factor 1g = 9.81 m/s².
[3] The high frequency tolerance is accurate within ±10% of the specified frequency.
[4] 1Hz = 60 cpm (cycles per minute).
[5] Zero-based, least-squares, straight line method.
[6] 1/4-28 has no equivalent in S.I. units.
[7] Twisted shielded 4-conductor cable.
[8] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

Model 081A56 Captive mounting bolt 1/4-28 x .75"
Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency

Entered: BLS	Engineer: LaB	Sales: BCT	Approved: U.A	Spec Number:
Date: 10-14-04	Date: 10/14/04	Date: 10/15/04	Date: 10/15/04	27850

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