

Model Number
629A12

INDUSTRIAL ICP® ACCELEROMETER

Revision:
ECN #:

DYNAMIC PERFORMANCE

	ENGLISH	SI	
Sensitivity (±5%)	500 mV/g	51 mV/(m/s ²)	[1]
Measurement Range	±10 g	±98 m/s ²	
Frequency Range: (±5%)	141 - 120,000 cpm	141 - 120 000 cpm	[2] [3]
(±10%)	102 - 300,000 cpm	102 - 300 000 cpm	
(±3 dB)	48 - 480,000 cpm	48 - 480 000 cpm	
Mounted Resonant Frequency	1,200 kcpm	1 200 kcpm	[4]
Amplitude Linearity	±1%	±1%	[5]
Transverse Sensitivity	≤5%	≤5%	

ENVIRONMENTAL

Shock Limit	5,000 g pk	49 050 m/s ² pk	
Temperature Range	-65 to +200 °F	-54 to +94 °C	
Temperature Response	See Graph	See Graph	[4]

ELECTRICAL

Settling Time (within 1% of bias)	≤2.0 sec	≤2.0 sec	
Discharge Time Constant	≥0.2 sec	≥0.2 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current	2 to 20 mA	2 to 20 mA	
Output Impedance	<100 ohms	<100 ohms	
Output Bias	8 to 12 VDC	8 to 12 VDC	
Broadband Electrical Noise (1-10 kHz)	120 µg	1 177 µm/s ²	[4]
Spectral Noise: (10 Hz)	6.0 µg/√Hz	58,9 (µm/s ²)/√Hz	[4]
(100 Hz)	2.2 µg/√Hz	21,6 (µm/s ²)/√Hz	[4]
(1 kHz)	1.2 µg/√Hz	11,8 (µm/s ²)/√Hz	[4]
Case Isolation Protection	>10 ⁸ ohms RFI/ESD	>10 ⁸ ohms RFI/ESD	

MECHANICAL

Size (length x width x height)	1.5 x 1.5 x 0.82 in	38,1 x 38,1 x 20,8 mm	
Weight (without cable)	4.9 oz	139 gm	
Mounting Thread	1/4-28 UNF-2A	Not Applicable	[6]
Mounting Torque	2 to 5 ft-lb	2,7 to 6,8 N-m	
Sensing Element/Geometry	Ceramic/Shear	Ceramic/Shear	
Case Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Connector Type (4-pin)/Position	Molded Integral Cable/Side	Molded Integral Cable/Side	
Cable Type/Length	Polyurethane/10 Ft	Polyurethane/3,0 M	[7]
Sensing Axis/Cable Color:	X/Red, Y/Green, Z/White, Ground/Black	X/Red, Y/Green, Z/White, Ground/Black	



All specifications are at room temperature unless otherwise specified.

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.

<input type="checkbox"/> LB - Low Bias		
Output Bias	6 to 8 VDC	6 to 8 VDC
Excitation Voltage	12 to 28 VDC	12 to 28 VDC
Measurement Range	±35 g	±343 m/s ²

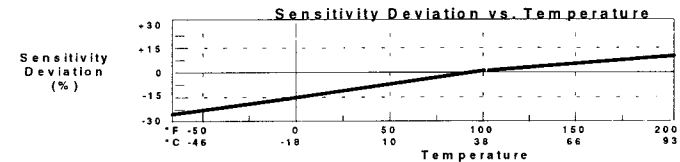
M - Metric
Supplied Accessories: M081A59 Captive Mounting Bolt replaces 081A56

NOTES:

- [1] Conversion Factor 1g = 9,81 m/s².
- [2] 1 Hz = 60 cpm (cycles per minute).
- [3] The high frequency tolerance is accurate within 10% of the specified frequency.
- [4] Typical value.
- [5] Zero-based, least-squares, straight line method.
- [6] 1/4-28 has no equivalent in S.I. units.
- [7] Twisted shielded four conductor.

SUPPLIED ACCESSORIES:

Model 081A56 Captive Mounting Bolt
Calibration Certificate (600 to 120,000 cpm)



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In the interest of constant product improvement, we reserve the right to change specifications without notice.

Form DD030 Rev.E 2/20/98

Drawn: <i>[Signature]</i>	Engineer: <i>MVB</i>	Sales: <i>KOB</i>	Approved: <i>UP</i>	Spec Number:
Date: <i>5/17/99</i>	Date: <i>5.17.99</i>	Date: <i>5/17/99</i>	Date: <i>5/17/99</i>	11000



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