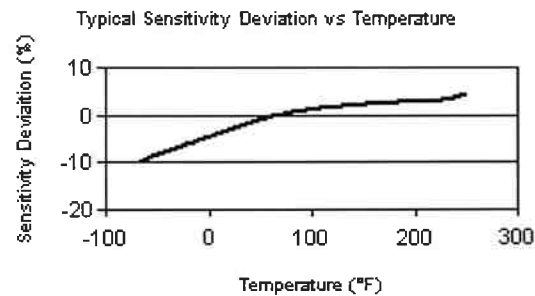


Model Number
629A31

INDUSTRIAL ICP® ACCELEROMETER

Revision: B
ECN #: 14824

	<u>ENGLISH</u>	<u>SI</u>	
Performance			
Sensitivity(± 5 %)	100 mV/g	10.2 mV/(m/s ²)	
Measurement Range	± 50 g	± 490 m/s ²	
Frequency Range(± 5 %)	144 to 120,000 cpm	2.4 to 2000 Hz	[2]
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 kcprm	20 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	100 µg	981 µm/s ²	[1]
Non-Linearity	± 1 %	± 1 %	[3]
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	[1]
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)	7.0 µg/√Hz	68.7 (µm/s ²)/√Hz	[1]
Spectral Noise(100 Hz)	2.8 µg/√Hz	27.5 (µm/s ²)/√Hz	[1]
Spectral Noise(1 kHz)	1.0 µg/√Hz	9.8 (µm/s ²)/√Hz	[1]
Electrical Protection	RFI/ESD	RFI/ESD	
Electrical Isolation(Case)	>10 ⁸ ohm	>10 ⁸ ohm	
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	4.9 oz	139 gm	
Mounting Thread	1/4-28 Male	1/4-28 Male	[4]
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	4-Pin MIL-C-26482	4-Pin MIL-C-26482	
Electrical Connection Position	Side	Side	
Electrical Connections(Pin A)	X axis	X axis	
Electrical Connections(Pin B)	Y axis	Y axis	
Electrical Connections(Pin C)	Z axis	Z axis	
Electrical Connections(Pin D)	Ground	Ground	



[5]

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.

Option	Specification	Standard Model
LB - Low Bias Voltage		
Output Bias Voltage	6 to 8 VDC	6 to 8 VDC
Excitation Voltage	12 to 18 VDC	12 to 18 VDC
Measurement Range	± 35 g	± 343 m/s ²
M - Metric Mount		

- NOTES:**
- [1] Typical.
 - [2] The high frequency tolerance is accurate within ±10% of the specified frequency.
 - [3] Zero-based, least-squares, straight line method.
 - [4] 1/4-28 has no equivalent in S.I. units.
 - [5] 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: JMF	Engineer: MWS	Sales: NJF	Approved: NJF	Spec Number:
Date: 6/3/1999	Date: 6/3/1999	Date: 6/3/99	Date: 6/3/1999	8317

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