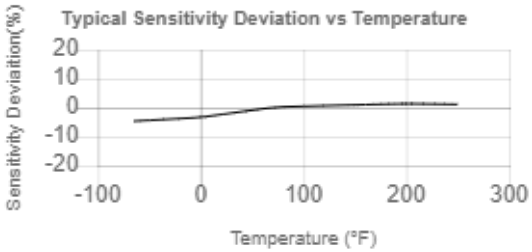
Model Number 639A91	INDUSTRIAL TRIAXIAL ICP® ACCELEROMETER	Revision: E ECN #: 56448

Performance	ENGLISH	SI	
Sensitivity(± 10 %)	100 mV/g	10.2 mV/(m/s²)	[1]
Measurement Range	± 50 g pk	± 491 m/s² pk	
Frequency Range(± 5 %)	1.5 to 5,500 Hz	1.5 to 5,500 Hz	
Frequency Range(± 3 dB)	0.5 to 13 kHz	0.5 to 13 kHz	
Resonant Frequency	≥ 26 kHz	≥ 26 kHz	
Broadband Resolution(1 to 10,000 Hz)	.3 mg	3.0 mm/s² rms	[2]
Non-Linearity	≤ 1 %	≤ 1 %	[3]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
Environmental			
Overload Limit(Shock)	± 5,000 g pk	± 5,000 g pk	
Temperature Range(Operating)	-65 to 250 °F	-54 to 121 °C	
Temperature Response	See Graph	See Graph	[2]
Enclosure Rating	IP68, IP69K	IP68, IP69K	
Electrical			
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 150 Ohm	≤ 150 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Discharge Time Constant	≥ .32 sec	≥ .32 sec	
Settling Time(within 10% of bias)	< 2 sec	< 2 sec	
Spectral Noise(1 Hz)	90 µg/√Hz	883 (µm/sec²)/√Hz	[2][1]
Spectral Noise(10 Hz)	20 µg/√Hz	196 (µm/sec²)/√Hz	[2][1]
Spectral Noise(100 Hz)	10 µg/√Hz	98.1 (µm/sec²)/√Hz	[2][1]
Spectral Noise(1 kHz)	3.0 µg/√Hz	29.4 (µm/sec²)/√Hz	[2][1]
Electrical Isolation(Case)	≥ 10^8 Ohm	≥ 10^8 Ohm	
Physical			
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Hermetic	Hermetic	
Size (Height x Length x Width)	.72 in x .95 in x .95 in	18.3 mm x 24.1 mm x 24.1 mm	
Weight(Maximum)	3.0 oz	85 gm	
Electrical Connector	4-Pin, M12	4-Pin, M12	
Electrical Connection Position	Side	Side	
Mounting	Through Hole	Through Hole	
Mounting Torque(Through Bolt)	2 to 5 ft-lb	2.7 to 6.8 n-M	



CE
UK CA [4]

Intertek [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.

EX - Hazardous Area Approval- contact factory for specific approvals

M - Metric Mount
Supplied Accessory: Model M081A119 Supplied Accessories: M081A119 mounting bolt

NOTES:

[1]Conversion Factor 1g = 9.81 m/s².
[2]Typical.
[3]Zero-based, least-squares, straight line method.
[4]See PCB Declaration of Conformance PS023 or PS140 for details.
[5]See Model's "Instructions For Use" (IFU) for North American Conformity and Certification Statements.

SUPPLIED ACCESSORIES:

Model 081A119 Captive mounting bolt 1/4-28 x .625" (1)
Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)
Model M081A119 Supplied Accessories: M081A119 mounting bolt

Entered: ND	Engineer: gs	Sales: JL	Approved: BAM	Spec Number:
Date: 08/27/2026	Date: 08/27/2026	Date: 08/27/2026	Date: 08/27/2026	64198

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