

Model Number 639A91	INDUSTRIAL TRIAXIAL ICP® ACCELEROMETER			Revision: C ECN #: 48030
Performance	ENGLISH	SI		OPTIONAL VERSIONS
Sensitivity(± 10 %)	100 mV/g	10.2 mV/(m/s²)	[2]	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.
Measurement Range	± 50 g pk	± 491 m/s² pk		
Frequency Range(± 5 %)	1.5 to 5500 Hz	1.5 to 5500 Hz		EX - Hazardous Area Approval- contact factory for specific approvals
Frequency Range(± 3 dB)	0.5 to 13 kHz	0.5 to 13 kHz		M - Metric Mount
Resonant Frequency	≥ 26 kHz	≥ 26 kHz		Supplied Accessory : Model M081A119 Supplied Accessories: M081A119 mounting bolt replaces 081A119
Broadband Resolution(1 to 10,000 Hz)	.3 mg	3.0 mm/s² rms	[1]	
Non-Linearity	≤ 1 %	≤ 1 %	[3]	
Transverse Sensitivity	≤ 5 %	≤ 5 %		
Environmental				
Overload Limit(Shock)	± 5000 g pk	± 5000 g pk		
Temperature Range(Operating)	-65 to 250 °F	-54 to 121 °C		
Temperature Response	See Graph	See Graph	[1]	
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	[1][2]	NOTES:
Spectral Noise(10 Hz)	20 µg/√Hz	196 (µm/sec²)/√Hz	[1][2]	[1] Typical.
Spectral Noise(100 Hz)	10 µg/√Hz	98.1 (µm/sec²)/√Hz	[1][2]	[2] Conversion Factor 1g = 9.81 m/s².
Spectral Noise(1 kHz)	3.0 µg/√Hz	29.4 (µm/sec²)/√Hz	[1][2]	[3] Zero-based, least-squares, straight line method.
Electrical Isolation(Case)	≥ 10⁸ Ohm	≥ 10⁸ Ohm		[4] See PCB Declaration of Conformance PS023 for details.
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-cm		
Typical Sensitivity Deviation vs Temperature Sensitivity Deviation(%) Temperature (°F)				
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. ICP® is a registered trademark of PCB Group, Inc.				
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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)				
Entered: LK	Engineer: JJD	Sales: MC	Approved: NJF	Spec Number:
Date: 3/22/2018	Date: 3/22/2018	Date: 3/22/2018	Date: 3/22/2018	64198