

Model Number  
**625B61**

# INDUSTRIAL ICP<sup>®</sup> ACCELEROMETER

Revision: E  
ECN #: 14824

Performance	ENGLISH	SI	
Sensitivity (±5 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[2]
Measurement Range	±50 g	±490 m/s <sup>2</sup>	
Frequency Range (±5 %)	30 to 390000 cpm	0.5 to 6500 Hz	[3]
Frequency Range (±10 %)	22 to 450000 cpm	0.37 to 7500 Hz	
Frequency Range (±3 dB)	12 to 630000 cpm	0.2 to 10500 Hz	
Resonant Frequency	1500 kcpm	25 kHz	[1]
Broadband Resolution (1 to 10000 Hz)	50 µg	491 µm/s <sup>2</sup>	[1]
Non-Linearity	±1 %	±1 %	[4]
Transverse Sensitivity	≤5 %	≤5 %	
<b>Environmental</b>			
Overload Limit (Shock)	5000 g pk	49050 m/s <sup>2</sup> pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	
Enclosure Rating	IP68	IP68	
<b>Electrical</b>			
Settling Time (within 1% of bias)	≤8.0 sec	≤8.0 sec	
Discharge Time Constant	≥1.0 sec	≥1.0 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 ohms	<100 ohms	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectra: No se (10 Hz)	2.5 µg/√Hz	24.5 (µm/s <sup>2</sup> )/√Hz	[1]
Spectra: No se (100 Hz)	0.8 µg/√Hz	7.8 (µm/s <sup>2</sup> )/√Hz	[1]
Spectra: No se (1 kHz)	0.5 µg/√Hz	4.9 (µm/s <sup>2</sup> )/√Hz	[1]
Electrical Isolation (Case)	>10 <sup>8</sup> ohms	>10 <sup>8</sup> ohms	
Electrical Protection	RFI/ESD	RFI/ESD	
<b>Physical</b>			
Size (Diameter x Height)	1.38 in x 1.13 in	35.1 mm x 28.7 mm	
Weight (without cable)	4.7 oz	133 gm	
Mounting	Through Hole	Through Hole	
Mounting Thread	1/4-28 Male	Not Applicable	[5]
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	Armor Jacketed Cable	Armor Jacketed Cable	
Electrical Connection Position	Side	Side	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	[6]

**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.

LB - Low Bias Voltage	6 to 8 VDC	6 to 8 VDC
Output Bias Voltage	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 <sup>2</sup>

**M - Metric Mount**  
Supplied Accessory : Model M081A73 Mounting Bolt M6 x 1.00 replaces Model 081A73

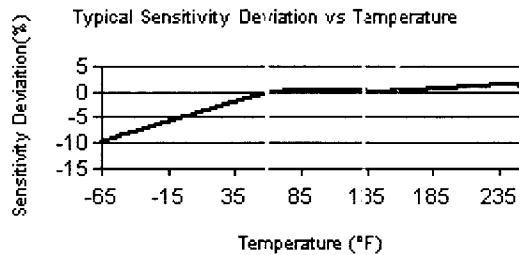
TO - Temperature Output	+36 to +250 °F	+2 to +12 °C
Temperature Output Range	+36 to +250 °F	+2 to +12 °C
Temperature Scale Factor	5.56 mV/°F + 32	+10 mV/°C
Electrical Connections (Red)	Acceleration Output	Acceleration Output
Electrical Connections (Black)	Ground	Ground
Electrical Connections (White)	Temperature Output	Temperature Output
Electrical Connections (Green)	Ground	Ground

**NOTES:**

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [3] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [4] Zero-based, least-squares, straight line method.
- [5] 1/4-28 has no equivalent in S.I. units.
- [6] Stainless steel armor jacket over twisted shielded pair.
- [7] See PCB Declaration of Conformance PS023 for details.

**SUPPLIED ACCESSORIES:**

Model 080B45 Thermal Boot (1)  
Model 081A73 Captive mounting bolt 1/4-28 x 1.34" (1)  
Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency



[7]

Entered: <i>MWS</i>	Engineer: <i>MWS</i>	Sales: <i>BDJ</i>	Approved: <i>UF</i>	Spec Number:
Date: <i>11.1.02</i>	Date: <i>11.1.02</i>	Date: <i>11/5/02</i>	Date: <i>11/1/02</i>	9909

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All specifications are at room temperature unless otherwise specified.  
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