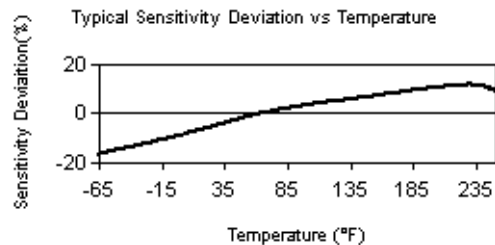


Model Number  
602D61

# LOW-COST INDUSTRIAL ICP® ACCELEROMETER

Revision: C  
ECN #: 53502

Performance	ENGLISH	SI	
Sensitivity(± 10 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[1]
Measurement Range	± 50 g	± 490 m/s <sup>2</sup>	
Frequency Range(± 3 dB)	30 to 480,000 cpm	0.5 to 8,000 Hz	[2]
Resonant Frequency	1,500 kcpm	25 kHz	[3]
Broadband Resolution(1 to 10,000 Hz)	350 µg	3,434 µm/sec <sup>2</sup>	[3]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 7 %	≤ 7 %	
<b>Environmental</b>			
Overload Limit(Shock)	5,000 g pk	49,050 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)	≤ 2.0 sec	≤ 2.0 sec	
Discharge Time Constant	≥ 0.3 sec	≥ 0.3 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 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	
Spectral Noise(10 Hz)	8.0 µg/√Hz	78.5 (µm/sec <sup>2</sup> )/√Hz	[3]
Spectral Noise(100 Hz)	5 µg/√Hz	49.1 (µm/sec <sup>2</sup> )/√Hz	[3]
Spectral Noise(1 kHz)	4 µg/√Hz	39.2 (µm/sec <sup>2</sup> )/√Hz	[3]
Electrical Isolation(Case)	> 10 <sup>8</sup> Ohm	> 10 <sup>8</sup> Ohm	
<b>Physical</b>			
Size (Length x Height x Width)	4.0 in x 0.845 in x 0.74 in	102 mm x 21.5 mm x 18.8 mm	
Weight(without cable)	2.61 oz	74 gm	
Mounting Thread	1/4-28 Male	No Metric Equivalent	[5]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 Nm	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Integral Armored Cable	Integral Armored Cable	
Electrical Connection Position	Side	Side	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	[6]



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 Piezotronics, Inc.

## 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

Hazardous Area Approval	EEx nL IIC T4, -40 °C ≤ Ta ≤ 121 °C, II 3 G	EEx nL IIC T4, -40 °C ≤ Ta ≤ 121 °C, II 3 G
Hazardous Area Approval	EEx ia IIC T4, -40 °C ≤ Ta ≤ 121 °C, II 1 G	EEx ia IIC T4, -40 °C ≤ Ta ≤ 121 °C, II 1 G
Hazardous Area Approval	Cl I, Div I, Groups A, B, C, D; Cl II, Div I, Groups E, F, G; Cl III, Div I	Cl I, Div I, Groups A, B, C, D; Cl II, Div I, Groups E, F, G; Cl III, Div I
Hazardous Area Approval	Ex ia IIC T4, AExia IIC, T4	Ex ia IIC T4, AExia IIC, T4
Hazardous Area Approval	Cl I, Div 2, Groups A, B, C, D; ExnL IIC T4, AExnA IIC T4	Cl I, Div 2, Groups A, B, C, D; ExnL IIC T4, AExnA IIC T4

### M - Metric Mount

Supplied Accessory: Model M081B97 Captive Mounting Bolt, M6 x 1 x 25 mm long, hex head (1) replaces Model 081B97

### TO - Temperature Output

Temperature Output Range	+36 to +250 °F	+2 to +121 °C
Temperature Scale Factor	5.56 mV/°F + 32	+10 mV/°C
Electrical Connector	Integral Armored Cable	Integral Armored Cable
Electrical Connections(Green)	Ground	Ground
Electrical Connections(Black)	Ground	Ground
Electrical Connections(White)	Temperature Output	Temperature Output
Electrical Connections(Red)	Acceleration Output	Acceleration Output

## NOTES:

- [1] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [2] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [3] Typical.
- [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 081B97 Captive Mounting Bolt 316SS - 7/16 HEX 1/4-28 UNF (1)  
Model ICS-2 NIST-traceable single-point amplitude response calibration at 6000 cpm (100 Hz) for each axis (1)

Entered: ND	Engineer: BAM	Sales: JL	Approved: NJF	Spec Number:
Date: 01/17/2023	Date: 01/17/2023	Date: 01/17/2023	Date: 01/17/2023	30239

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