

Model Number  
**603C01**

# ACCELEROMETER, INDUSTRIAL, ICP®

Revision H  
ECN #: 29657

**Performance**

Sensitivity ( $\pm 10\%$ ) 100 mV/g  
 Measurement Range  $\pm 50$  g  
 Frequency Range ( $\pm 3$  dB) 30 to 6000000 cpm  
 Resonant Frequency 1500 Kcpm  
 Broadband Resolution (1 to 10000 Hz) 350  $\mu$ g  
 Non-Linearity  $\pm 1\%$   
 Transverse Sensitivity  $\leq 7\%$

**Environmental**

Overload Limit (Shock) 5000 g pk  
 Temperature Range -65 to +250 °F  
 Temperature Response See Graph  
 Enclosure Rating IP68

**Electrical**

Settling Time (within 1% of bias)  $\leq 2.0$  sec  
 Discharge Time Constant  $\geq 0.3$  sec  
 Excitation Voltage 18 to 28 VDC  
 Constant Current Excitation 2 to 20 mA  
 Output Impedance  $< 150$  ohm  
 Output Bias Voltage 8 to 12 VDC  
 Spectral Noise (10 Hz) 8  $\mu$ g/ $\sqrt{\text{Hz}}$   
 Spectral Noise (100 Hz) 5  $\mu$ g/ $\sqrt{\text{Hz}}$   
 Spectral Noise (1 kHz) 4  $\mu$ g/ $\sqrt{\text{Hz}}$   
 Electrical Isolation (Case)  $> 10^8$  ohm

**Physical**

Size (Hex x Height) 11/16 in x 1.65 in  
 Weight 1.8 oz  
 Mounting Thread 1/4-28 Female  
 Mounting Torque 2 to 5 ft-lb  
 Sensing Element Ceramic  
 Sensing Geometry Shear  
 Housing Material Stainless Steel  
 Sealing Welded Hermetic  
 Electrical Connector 2-Pin MIL-C-5015  
 Electrical Connection Position Top

**ENGLISH**

Sensitivity ( $\pm 10\%$ ) 10.2 mV/(m/s<sup>2</sup>)  
 Measurement Range  $\pm 490$  m/s<sup>2</sup>  
 Frequency Range ( $\pm 3$  dB) 0.5 to 10000 Hz  
 Resonant Frequency 25 kHz  
 Broadband Resolution (1 to 10000 Hz) 3434  $\mu$ m/s<sup>2</sup>  
 Non-Linearity  $\pm 1\%$   
 Transverse Sensitivity  $\leq 7\%$

**SI**

Overload Limit (Shock) 49050 m/s<sup>2</sup> pk  
 Temperature Range -54 to +121 °C  
 Temperature Response See Graph  
 Enclosure Rating IP68

**Optional Versions** (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option may be used.)

**EX - ATEX or ATEX and CSA Hazardous Area Approval**  
 Hazardous Area Approval EEx nL IIC T4, - 40°C $\leq$ Tas $\leq$ 121°C, II 1 G EEx nL IIC T4, - 40°C $\leq$ Tas $\leq$ 121°C, II 1 G  
 Hazardous Area Approval C1 I, Div I, Groups A, B, C, D; C1 II, Div I, Groups E, F, G; C1 III, Div I EEx nL IIC T4, AEXia IIC, T4  
 Hazardous Area Approval C1 I, Div 2, Groups A, B, C, D; ExnL A, B, C, D; ExnL IIC T4, AEXnA IIC T4  
 Hazardous Area Approval EEx nL IIC T4, - 40°C $\leq$ Tas $\leq$ 121°C, II 3 G EEx nL IIC T4, - 40°C $\leq$ Tas $\leq$ 121°C, II 3 G

**M - Metric Mount**

Supplied Accessory: Model M081A61 Mounting stud, 1/4-28 to M6 x 1

**TO - Temperature Output**

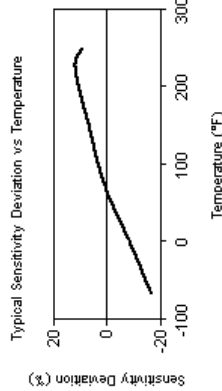
Temperature Output Range +36 to +250 °F  
 Temperature Scale Factor 5.56 mV/°F + 32  
 Electrical Connector 3-Pin MIL-C-5015  
 Electrical Connections (Pin A) Acceleration  
 Output Ground  
 Electrical Connections (Pin B) Temperature  
 Electrical Connections (Pin C) Temperature Output

Size (Height) 1.86 in  
 Weight 2.0 oz

**Notes**

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [3] The high frequency tolerance is accurate within  $\pm 10\%$  of the specified frequency.
- [4] Zero-based, least-squares, straight line method.
- [5] 1/4-28 has no equivalent in S.I. units.
- [6] See PCB Declaration of Conformance PS023 or PS060 for details.

**Supplied Accessories**  
 081A40 Mounting Stud ()  
 ICS-2 NIIST-traceable single-axis single-point amplitude response calibration at 6000 cpm (100 Hz) (1)



*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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Entered: LLH	Engineer: JEC	Sales: JJ	Approved: NJF	Spec Number:
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