

Model Number
603C01

ACCELEROMETER, INDUSTRIAL, ICP®

Revision H
ECN #: 29657

Performance

Sensitivity ($\pm 10\%$) 100 mV/g
 Measurement Range ± 50 g
 Frequency Range (± 3 dB) 30 to 6000000 cpm
 Resonant Frequency 1500 Kcpm
 Broadband Resolution (1 to 10000 Hz) 350 μ 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) ≤ 2.0 sec
 Discharge Time Constant ≥ 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 μ g/ $\sqrt{\text{Hz}}$
 Spectral Noise (100 Hz) 5 μ g/ $\sqrt{\text{Hz}}$
 Spectral Noise (1 kHz) 4 μ 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

SI
 10.2 mV/(m/s²)
 ± 490 m/s²
 0.5 to 10000 Hz
 25 kHz
 3434 μ m/s²
 $\pm 1\%$
 $\leq 7\%$

49050 m/s² pk
 -54 to +121 °C
 See Graph
 IP68

≤ 2.0 sec
 ≥ 0.3 sec
 18 to 28 VDC
 2 to 20 mA
 < 150 ohm
 8 to 12 VDC
 78.5 (μ m/s²)/ $\sqrt{\text{Hz}}$
 49.1 (μ m/s²)/ $\sqrt{\text{Hz}}$
 39.2 (μ m/s²)/ $\sqrt{\text{Hz}}$
 $> 10^8$ ohm

18 mm x 42.2 mm
 51 gm
 No Metric Equivalent
 2.7 to 6.8 N-m
 Ceramic
 Shear
 Stainless Steel
 Welded Hermetic
 2-Pin MIL-C-5015
 Top

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
 C I I, Div I, Groups
 A, B, C, D; C I II,
 Div I, Groups E, F,
 G; C I III, Div I
 Exia IIC T4, AExia
 IIC, T4
 C I I, Div 2, Groups
 A, B, C, D; ExnL
 IIC T4, AExnA IIC
 T4
 EEx nL IIC T4, -
 40°C \leq Tas \leq 121°C, II
 3 G

Hazardous Area Approval
 C I I, Div I, Groups
 A, B, C, D; C I II,
 Div I, Groups E, F,
 G; C I III, Div I
 Exia IIC T4, AExia
 IIC, T4
 C I I, Div 2, Groups
 A, B, C, D; ExnL
 IIC T4, AExnA IIC
 T4
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 3 G

Hazardous Area Approval
 C I I, Div 2, Groups
 A, B, C, D; ExnL
 IIC T4, AExnA IIC
 T4
 EEx nL IIC T4, -
 40°C \leq Tas \leq 121°C, II
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Hazardous Area Approval
 C I I, Div 2, Groups
 A, B, C, D; ExnL
 IIC T4, AExnA IIC
 T4
 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
 Temperature
 Output
 1.86 in
 2.0 oz

Electrical Connections (Pin B) Acceleration
 Output
 Ground
 Temperature
 Output
 1.86 in
 2.0 oz

Electrical Connections (Pin C) Acceleration
 Output
 Ground
 Temperature
 Output
 1.86 in
 2.0 oz

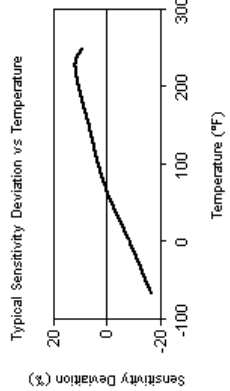
Size (Height) 1.86 in
Weight 2.0 oz

Notes

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s².
- [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 NIST-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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