

Model Number
622A01

INDUSTRIAL ICP® ACCELEROMETER

Revision: G
ECN #: 29661

Performance

Sensitivity(± 5%)
Measurement Range
Frequency Range(± 5%)
Frequency Range(± 10%)
Frequency Range(± 3 dB)
Resonant Frequency
Broadband Resolution(1 to 10,000 Hz)
Non-Linearity
Transverse Sensitivity
Environmental
Overload Limit(Shock)
Temperature Range
Temperature Response
Enclosure Rating

Electrical
Settling Time(within 1% of bias)
Discharge Time Constant
Excitation Voltage
Constant Current Excitation
Output Impedance
Output Bias Voltage
Spectral Noise(10 Hz)
Spectral Noise(100 Hz)
Spectral Noise(1 kHz)
Electrical Protection
Electrical Isolation

Physical

Size (Hex x Height)
Weight
Mounting Thread
Mounting Torque
Sensing Element
Sensing Geometry
Housing Material
Sealing
Electrical Connector
Electrical Connection Position

ENGLISH

100 mV/g
± 50 g
35 to 240,000 cpm
25 to 300,000 cpm
12 to 600,000 cpm
1200 kcpm
50 µg
± 1%
± 5%

5000 g pk
-65 to +250 °F
See Graph
IP68
≤ 5.0 sec
≥ 0.8 sec
18 to 28 VDC
2 to 20 mA
<100 ohm
8 to 12 VDC
4.0 µg/√Hz
0.8 µg/√Hz
0.4 µg/√Hz
RFI/ESD
>10⁸ ohm

7/8 in x 2.06 in
3.3 oz
1/4-28 Female
2 to 5 ft-lb
Ceramic
Shear
Stainless Steel
Welded Hermetic
2-Pin MIL-C-5015
Top

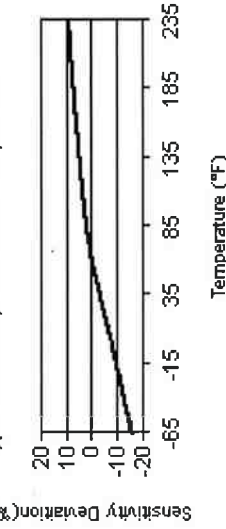
SI

10.2 mV/(m/s²)
± 490 m/s²
0.58 to 4000 Hz
0.42 to 5000 Hz
0.2 to 10,000 Hz
20 kHz
490 µm/s²
± 1%
± 5%

49,050 m/s² pk
-54 to +121 °C
See Graph
IP68
≤ 5.0 sec
≥ 0.8 sec
18 to 28 VDC
2 to 20 mA
<100 ohm
8 to 12 VDC
39.2 (µm/s²)/√Hz
7.85 (µm/s²)/√Hz
3.92 (µm/s²)/√Hz
RFI/ESD
>10⁸ ohm

22 mm x 52.3 mm
94 gm
1/4-28 Female
2.7 to 6.8 N-m
Ceramic
Shear
Stainless Steel
Welded Hermetic
2-Pin MIL-C-5015
Top

Typical Sensitivity Deviation vs Temperature



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.

CS - Canadian Standards Association Approved Intrinsically Safe

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

EX - ATEX, CSA, or ATEX and CSA Hazardous Area Approval

Hazardous Area Approval EEx ia IIC T4, -54°C≤Tas121° EEx ia IIC T4, -54°C≤Tas121°
C, II 1 G C, II 1 G

LB - Low Bias Voltage

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/s²

M - Metric Mount

Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1)

MS - Mine Safety & Health Administration Certification

[7]

MX - European Mine Safety Certification

[8]

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 3-Pin 3-Pin
Electrical Connections(Pin A) Acceleration Output Acceleration Output
Electrical Connections(Pin B) Ground Ground
Electrical Connections(Pin C) Temperature Output Temperature Output

NOTES:

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s².
- [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] See PCB Declaration of Conformance PS023 or PS061 for details.
- [7] Sensor Class K.
- [8] I M2 EEx ia I

SUPPLIED ACCESSORIES:

Model 081A40 Mounting Stud (1)
Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency (1)



Entered: PLS	Engineer: JEC	Sales: JJ	Approved: WJF	Spec Number:
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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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A PCB PIEZOTRONICS DIV.
3425 Walden Avenue, Depew, NY 14043

Phone: 800-959-4464
Fax: 716-684-3823
E-Mail: imi@pcb.com