

Model Number
628F01

INDUSTRIAL ICP® ACCELEROMETER

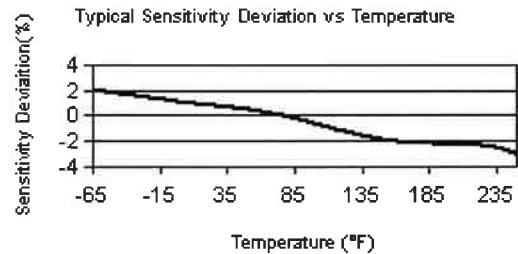
Revision: F
ECN #: 29661

| | ENGLISH | SI | |
|--------------------------------------|----------------------|------------------------------|-----|
| Performance | | | |
| Sensitivity(± 5 %) | 100 mV/g | 10.2 mV/(m/s ²) | [2] |
| Measurement Range | ± 50 g | ± 490 m/s ² | |
| Frequency Range(± 5 %) | 60 to 240,000 cpm | 1 to 4000 Hz | [3] |
| Frequency Range(± 10 %) | 40 to 390,000 cpm | 0.67 to 6500 Hz | |
| Frequency Range(± 3 dB) | 20 to 720,000 cpm | 0.33 to 12,000 Hz | |
| Resonant Frequency | 1080 kcpm | 18 kHz | [1] |
| Broadband Resolution(1 to 10,000 Hz) | 1000 µg | 9810 µm/s ² | [1] |
| Non-Linearity | ± 1 % | ± 1 % | [4] |
| Transverse Sensitivity | ≤ 5 % | ≤ 5 % | |
| Environmental | | | |
| Overload Limit(Shock) | 5000 g pk | 49,050 m/s ² pk | |
| Temperature Range | -65 to +250 °F | -54 to +121 °C | |
| Temperature Response | See Graph | See Graph | [1] |
| Enclosure Rating | IP68 | IP68 | |
| Electrical | | | |
| Settling Time(within 1% of bias) | ≤ 10 sec | ≤ 10 sec | |
| Discharge Time Constant | ≥ 0.5 sec | ≥ 0.5 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 ohm | <100 ohm | |
| Output Bias Voltage | 8 to 12 VDC | 8 to 12 VDC | |
| Spectral Noise(10 Hz) | 50 µg/√Hz | 491 (µm/s ²)/√Hz | [1] |
| Spectral Noise(100 Hz) | 20 µg/√Hz | 196 (µm/s ²)/√Hz | [1] |
| Spectral Noise(1 kHz) | 6 µg/√Hz | 59 (µm/s ²)/√Hz | [1] |
| Electrical Protection | RFI/ESD | RFI/ESD | |
| Electrical Isolation(Case) | >10 ⁸ ohm | >10 ⁸ ohm | |
| Physical | | | |
| Size (Hex x Height) | 7/8 in x 2.06 in | 22 mm x 52.3 mm | |
| Weight | 3.3 oz | 94 gm | |
| Mounting Thread | 1/4-28 Female | Not Applicable | [5] |
| Mounting Torque | 2 to 5 ft-lb | 2.7 to 6.8 N-m | |
| Sensing Element | Quartz | Quartz | |
| Sensing Geometry | Shear | Shear | |
| Housing Material | Stainless Steel | Stainless Steel | |
| Sealing | Welded Hermetic | Welded Hermetic | |
| Electrical Connector | 2-Pin MIL-C-5015 | 2-Pin MIL-C-5015 | |
| Electrical Connection Position | Top | Top | |

| 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 | CI I, Div I, Groups A, B, C, D; CI II, Div I, Groups E, F, G; CI III, Div I | CI I, Div I, Groups A, B, C, D; CI II, Div I, Groups E, F, G; CI III, Div I |
| 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; ExnL IIC T4, AExnA IIC T4 | CI I, Div 2, Groups A, B, C, D; ExnL IIC T4, AExnA IIC T4 |
| EX - ATEX, CSA, or ATEX and CSA Hazardous Area Approval | | |
| Hazardous Area Approval | EEx ia IIC T4, -54°CsTas121° C, II 1 G | EEx ia IIC T4, -54°CsTas121° 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/s ² |
| M - Metric Mount | | |
| Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40 | | |

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.

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



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: BLS | Engineer: JEC | Sales: JJ | Approved: NF | Spec Number: |
| Date: 11/11/08 | Date: 11/17/08 | Date: 11/17/08 | Date: 11/17/08 | 8312 |

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