

Model Number
333D05

PIEZOELECTRIC USB DIGITAL ACCELEROMETER

Revision: NR
ECN #:

PERFORMANCE

Sensitivity^{1,2,3} Channel A
Channel B
Measurement Range⁵ Channel A
Channel B
ADC Bandwidth (-3dB)
Frequency Range (± 5%)
Frequency Range (± 10%)³
Frequency Range (± 3 dB)³
Resonant Frequency
Mounted Resonance³
Mounted Resonance Amplification³
Broadband Resolution¹ (1 Hz to 10000 Hz)
Non-Linearity⁴
Transverse Sensitivity

ENGLISH

4.00 % FSV/g
7.96 % FSV/g
± 20 g pk
± 10 g pk
9.3 cpm to 1374000 cpm
120 cpm to 480000 cpm
90 cpm to 660000 cpm
54 cpm to 900000 cpm
≥ 1500000 cpm
1044000 cpm
200%
0.0025 g pk
≤ 2 %
≤ 5 %
7000 g pk
14 °F to 158 °F
0.10 % / °F
IP67

SI

0.408 % FSV/m/s²
0.811 % FSV/m/s²
± 196 m/s² pk
± 98 m/s² pk
0.155 Hz to 22900 Hz
2 Hz to 8000 Hz
1.5 Hz to 11000 Hz
0.9 Hz to 15000 Hz
≥ 25000 Hz
17400 Hz
200%
0.0245 m/s² pk
≤ 2 %
≤ 5 %
68647 m/s² pk
-10 °C to +70 °C
0.18 % / °C
IP67

ENVIRONMENTAL

Overload Limit (Shock)
Temperature Range (Operating)
Temperature Coefficient
IP Rating

ELECTRICAL

Communication Standard
Power Consumption³
Internal ADC
Supported Sample Rates

USB 2.0 Full Speed
≤ 45 mA
24 bit
24, 16 bit @ 48, 44.1, 32
22.05, 16, 11.025, 8 kHz

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MECHANICAL

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

1.0 in
2.6 in
4.3 oz
1/4-28 UNF
2 lbf ft to 5 lbf ft
Piezoelectric Ceramic
Shear
Stainless Steel
Welded Hermetic
M12-4P/M USB
Coding A, M12x1mm
Top

25.4 mm
66.0 mm
122 gram
1/4-28 UNF
2.7 N m to 6.8 N m
Piezoelectric Ceramic
Shear
Stainless Steel
Welded Hermetic
M12-4P/M USB
Coding A, M12x1mm
Top

NOTES:

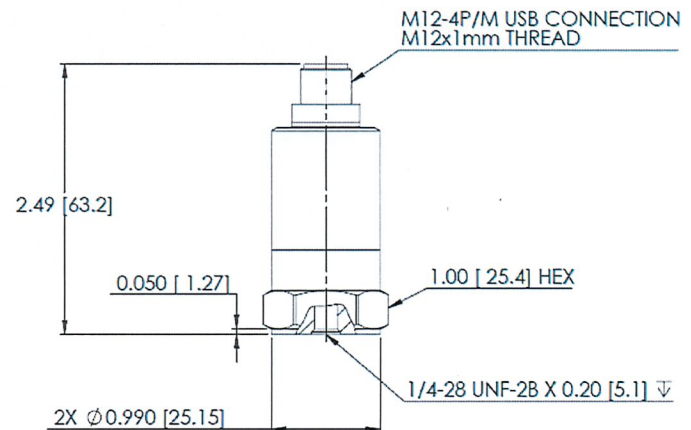
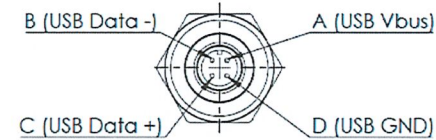
- Conversion Factor 1g = 9.80665 m/s²
- FSV = Full Scale Value
- Typical
- Zero-based, least square straight line method
- Minimum Range

INCLUDED ACCESSORIES:

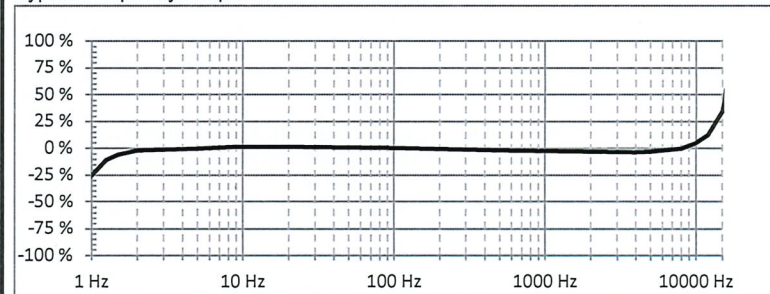
- 525D10 M12 to USB Type A cable, 10 ft (3 m)
081A40 Mounting Stud

PRODUCT DRAWING

TOP VIEW OF CONNECTOR



Typical Frequency Response



In the interest of constant product improvement, specifications may change without notice.



All specifications are at room temperature unless otherwise specified.

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|---------------------------------|----------------------------------|--------------------------------|--------------------------------|
| Project Engineer: <i>TEC</i> | Product Manager: <i>Clark</i> | Mkt Team Leader: <i>JWB</i> | Spec Number: PS-0178 |
| Date: <i>3/31/23</i> | Date: <i>3/31/23</i> | Date: <i>3/31/23</i> | |

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