



Model 66333PPZ2

Low cost embeddable accelerometer, 3-wire low power, 1000 mV/g, TO8 housing, positive output, integral cable

Installation and Operating Manual

**For assistance with the operation of this product,
contact the PCB Piezotronics, Inc.**

**Toll-free: 800-959-4464
24-hour SensorLine: 716-684-0001
Fax: 716-684-3823
E-mail: imi@pcb.com
Web: www.imi-sensors.com**



Model Number
66333PPZ2

3-WIRE TO-8 ACCELEROMETER

Revision: A
ECN #: 52695

Performance

Sensitivity(± 20 %)	1,000 mV/g	102 mV/(m/s ²)	[1][2]
Measurement Range	± 2 g	± 20 m/s ²	[3]
Frequency Range(± 3 dB)	0.5 to 5k Hz	0.5 to 5k Hz	[4][5]
Resonant Frequency	> 16 kHz	> 16 kHz	[5]
Broadband Resolution	0.00104 g rms	0.010202 m/s ² rms	[6]
Non-Linearity	≤ 1 %	≤ 1 %	[7]
Transverse Sensitivity	≤ 7 %	≤ 7 %	

Environmental

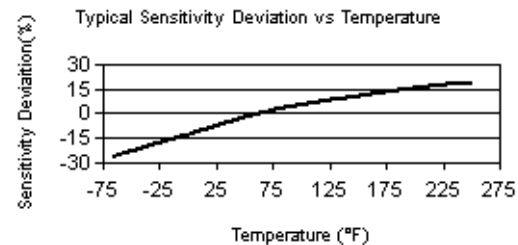
Overload Limit(Shock)	5,000 g pk	49k m/s ² pk	
Temperature Range(Operating)	-65 to 185 °F	-54 to 85 °C	
Temperature Response	See Graph	See Graph	[6]

Electrical

Settling Time(within 1% of bias)	< 3 sec	< 3 sec	[6]
Discharge Time Constant	≥ 0.4 sec	≥ 0.4 sec	
Excitation Voltage	3 to 12 VDC	3 to 12 VDC	
Output Impedance	< 100 Ohm	< 100 Ohm	
Current Draw	0.75 mA	0.75 mA	
Output Bias Voltage	0.5 x Excitation Voltage	0.5 x Excitation Voltage	
Spectral Noise(10 Hz)	39 µg/√Hz	383 (µm/sec ²)/√Hz	[6]
Spectral Noise(100 Hz)	15 µg/√Hz	147 (µm/sec ²)/√Hz	[6]
Spectral Noise(1 kHz)	9 µg/√Hz	88 (µm/sec ²)/√Hz	[6]

Physical

Size (Diameter x Height)	0.64 in x 0.57 in	16.3 mm x 14.5 mm	
Weight	0.88 oz	25 gm	
Mounting	Adhesive	Adhesive	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Bottom	Bottom	
Cable Termination	Blunt cut	Blunt cut	
Electrical Connections(White)	Output	Output	
Electrical Connections(Black)	Neg (-) Ground	Neg (-) Ground	
Electrical Connections(Red)	Pos (+) VDC	Pos (+) VDC	
Cable Length	1 ft	0.3 m	
Cable Type	PVC	PVC	



[8]

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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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.

HT - High temperature, extends normal operation temperatures

Temperature Range	-65 to 250 °F	-54 to 121 °C
Cable Type	010	010

RH - RoHS Compliant

NOTES:

- [1] Conversion Factor 1g = 9.81 m/s².
- [2] Positive output along Z-axis (in upward direction when pin mounted).
- [3] Measurement range achieved is dependent upon excitation voltage.
- [4] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [5] Performance depends on mounting
- [6] Typical.
- [7] Zero-based, least-squares, straight line method.
- [8] See PCB Declaration of Conformance PS198

SUPPLIED ACCESSORIES:

Model ICS-2 NIST-traceable single-point amplitude response calibration at 6000 cpm (100 Hz) for each axis (1)

Entered: ND	Engineer: GD	Sales: JL	Approved: BAM	Spec Number:
Date: 05/24/2022	Date: 05/24/2022	Date: 05/24/2022	Date: 05/24/2022	58873

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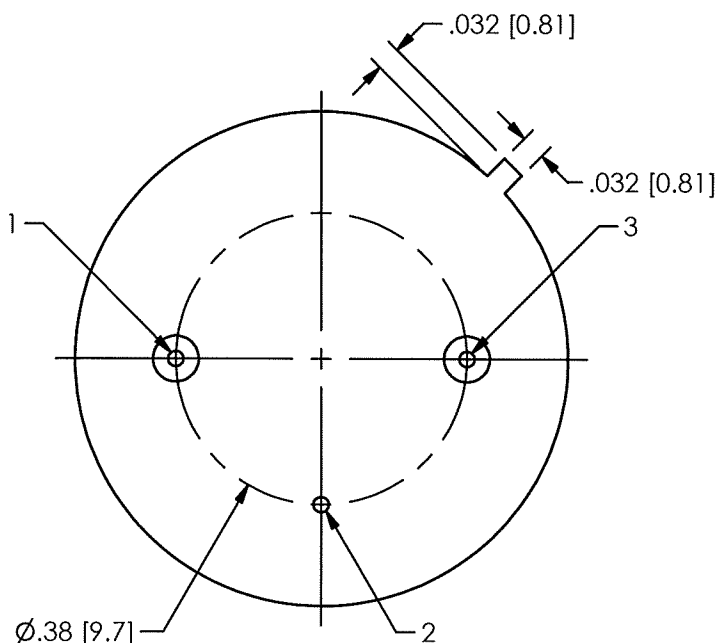
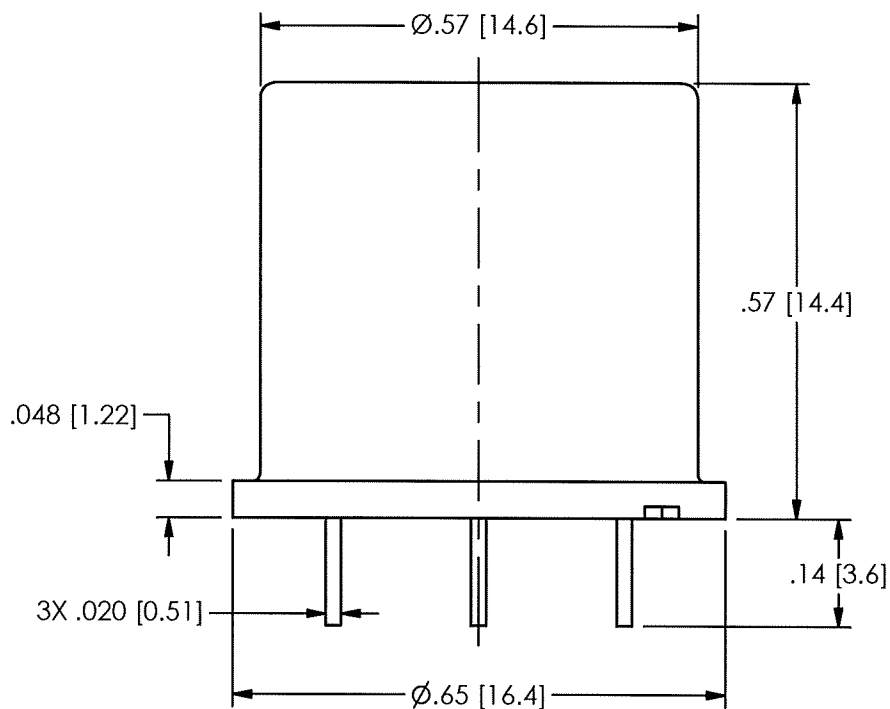
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REVISIONS

REV	DESCRIPTION	DIN
NR	RELEASED TO DRAFTING	35624

49905



CHARGE: 1 - OUTPUT
2 - GROUND
3 - N/C

ICP®: 1 - OUTPUT/POWER
2 - GROUND
3 - N/C

3-WIRE: 1 - OUTPUT
2 - GROUND
3 - POWER

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

DIMENSIONS IN INCHES

DECIMALS XX $\pm .03$
XXX $\pm .010$

ANGLES ± 2 DEGREES

FILLETS AND RADII
.003 - .005

DIMENSIONS IN MILLIMETERS
[IN BRACKETS]

DECIMALS X ± 0.8
XX ± 0.25

ANGLES ± 2 DEGREES

FILLETS AND RADII
0.07 - 0.13

DRAWN

DATE 5/5/11
ECS

CHECKED

DATE 5/5/11
ECS

ENGINEER

LAB 5/5/11

TITLE

OUTLINE DRAWING
MODEL 663 SERIES
ACCELEROMETER



PCB PIEZOTRONICS INC.

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CODE
IDENT. NO.
52681

DWG. NO.

49905

SCALE:

4X

SHEET

1 OF 1

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