



## **Model 66213PPZ2**

**Low cost embeddable accelerometer, 3-wire low power, 100 mV/g, TO5 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](mailto:imi@pcb.com)  
Web: [www.imi-sensors.com](http://www.imi-sensors.com)**



Model Number  
66213PPZ2

## 3-WIRE TO-5 ACCELEROMETER

Revision: B  
ECN #: 52695

### Performance

Sensitivity(± 20 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[1][2]
Measurement Range	± 20 g	± 200 m/s <sup>2</sup>	[3]
Frequency Range(± 3 dB)	0.5 to 10k Hz	0.5 to 10k Hz	[4][5]
Resonant Frequency	> 25 kHz	> 25 kHz	[5]
Broadband Resolution	0.0017 g rms	0.016677 m/s <sup>2</sup> rms	[6]
Non-Linearity	≤ 1 %	≤ 1 %	[7]
Transverse Sensitivity	≤ 7 %	≤ 7 %	

### Environmental

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

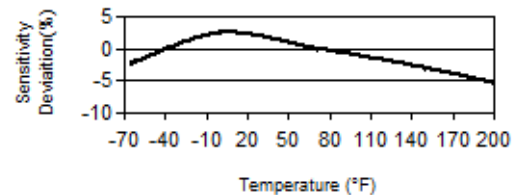
### Electrical

Settling Time(within 1% of bias)	< 3 sec	< 3 sec	[6]
Discharge Time Constant	≥ 0.3 sec	≥ 0.3 sec	
Excitation Voltage	3 to 12 VDC	3 to 12 VDC	
Output Impedance	< 100 Ohm	< 100 Ohm	
Current Draw	.75 mA	.75 mA	[6]
Output Bias Voltage(± 10 %)	0.5 x Excitation Voltage	0.5 x Excitation Voltage	
Spectral Noise(10 Hz)	67 µg/√Hz	657 (µm/sec <sup>2</sup> )/√Hz	[6]
Spectral Noise(100 Hz)	28 µg/√Hz	275 (µm/sec <sup>2</sup> )/√Hz	[6]
Spectral Noise(1 kHz)	15 µg/√Hz	148 (µm/sec <sup>2</sup> )/√Hz	[6]

### Physical

Size (Lip Diameter x Height)	0.36 in x 0.38 in	9.1 mm x 9.7 mm	
Weight	0.1 oz	3 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)	Acceleration Output	Acceleration Output	
Electrical Connections(Red)	Pos (+) VDC	Pos (+) VDC	
Electrical Connections(Black)	Neg (-) Ground	Neg (-) Ground	
Cable Length	1 ft	0.3 m	
Cable Type	PVC	PVC	

Typical Sensitivity Deviation vs Temperature



[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.

<b>HT</b> - High temperature, extends normal operation temperatures		
Temperature Range(Operating)	-65 to 250 °F	-54 to 121 °C
Cable Type	010	010

**RH** - RoHS Compliant

### NOTES:

- [1]Positive output along Z-axis (in upward direction when pin mounted).
- [2]Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [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	56153

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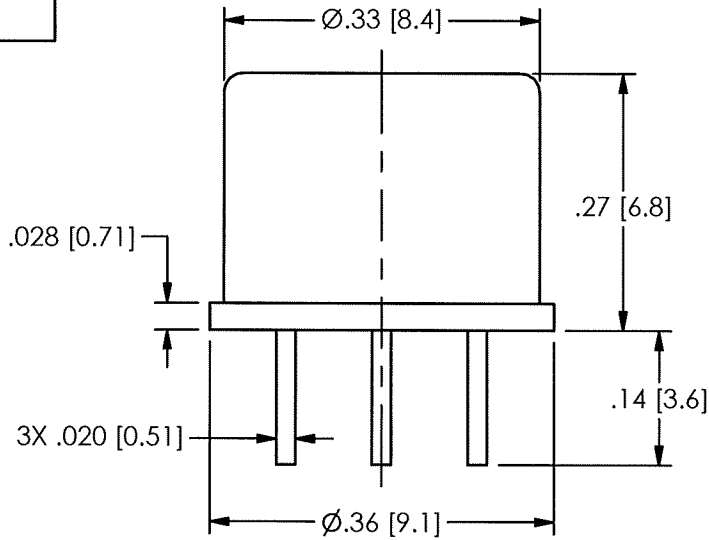
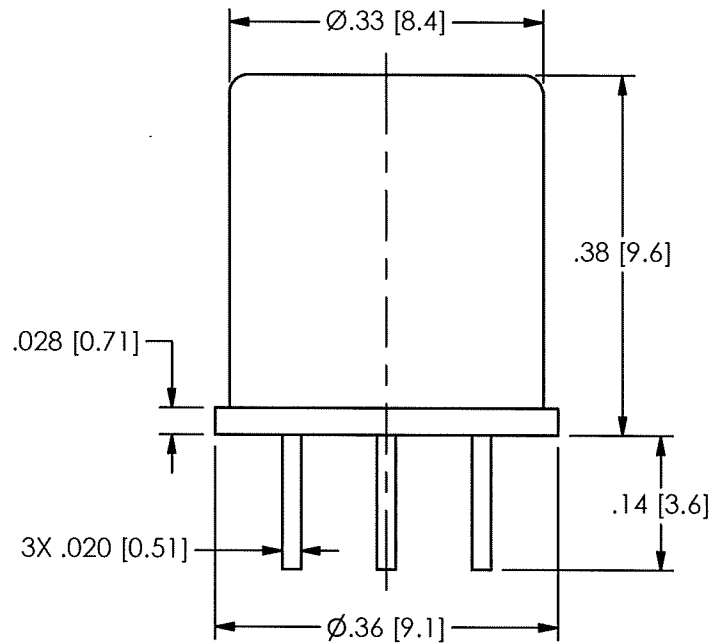
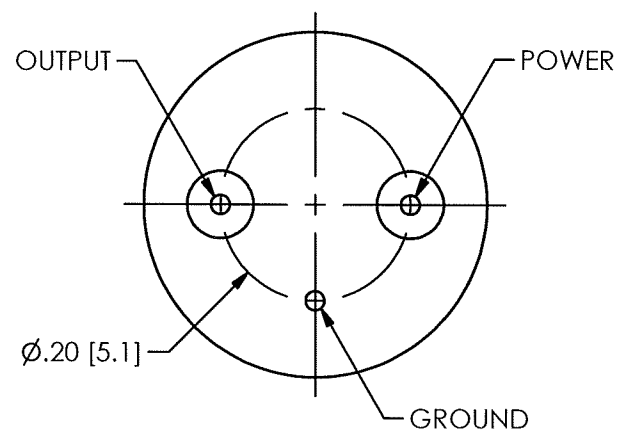
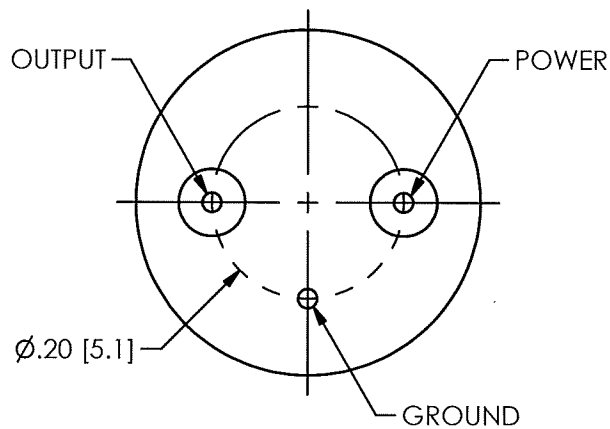
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## REVISIONS

REV	DESCRIPTION	DIN
NR	RELEASED TO DRAFTING	35624

49903

**LOW PROFILE****STANDARD PROFILE**

## UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

## DIMENSIONS IN INCHES

DECIMALS XX  $\pm 0.03$   
XXX  $\pm 0.010$

ANGLES  $\pm 2$  DEGREES

FILLETS AND RADII  
.003 - .005

## DIMENSIONS IN MILLIMETERS [IN BRACKETS]

DECIMALS X  $\pm 0.8$   
XX  $\pm 0.25$

ANGLES  $\pm 2$  DEGREES

FILLETS AND RADII  
0.07 - 0.13

## DRAWN

NOF 5/5/11

## CHECKED

ECB 5/5/11

## ENGINEER

LAB 5/5/11

## TITLE

OUTLINE DRAWING  
MODEL 660 SERIES  
3-WIRE ACCELEROMETER

**PCB PIEZOTRONICS**<sup>INC</sup>

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CODE  
IDENT. NO.  
52681

DWG. NO.

49903

SCALE: 5X

SHEET 1 OF 1

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