

**Model Number**  
**66103PPZ1**

# 3-WIRE TO-5 ACCELEROMETER

Revision: B  
ECN #: 52695

**Performance**

	ENGLISH	SI	
Sensitivity(± 20 %)	10 mV/g	1.02 mV/(m/s <sup>2</sup> )	[1][2]
Measurement Range	± 200 g	± 2,000 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	0.0049 g rms	0.048069 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	0.75 mA	0.75 mA	[6]
Output Bias Voltage(± 10 %)	0.5 x Excitation Voltage	0.5 x Excitation Voltage	
Spectral Noise(10 Hz)	103 µg/√Hz	1,010 (µm/sec <sup>2</sup> )/√Hz	[6]
Spectral Noise(100 Hz)	56 µg/√Hz	549 (µm/sec <sup>2</sup> )/√Hz	[6]
Spectral Noise(1 kHz)	46 µg/√Hz	451 (µm/sec <sup>2</sup> )/√Hz	[6]

**Physical**

Size (Lip Diameter x Height)	0.36 in x 0.26 in	9.1 mm x 6.6 mm
Weight	0.08 oz	2.2 gm
Mounting	Adhesive/Solder	Adhesive/Solder
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Stainless Steel	Stainless Steel
Sealing	Welded Hermetic	Welded Hermetic
Electrical Connector	Header Pins	Header Pins
Electrical Connection Position	Bottom	Bottom
Electrical Connections(Pin 1)	Acceleration Output	Acceleration Output
Electrical Connections(Pin 2)	Neg (-) Ground	Neg (-) Ground
Electrical Connections(Pin 3)	Pos (+) VDC	Pos (+) VDC

**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(Operating) -65 to 250 °F -54 to 121 °C

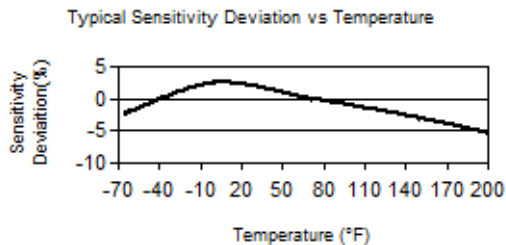
**RH** - RoHS Compliant

**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)



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.  
 ICP® is a registered trademark of PCB Piezotronics, Inc.

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	56240



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

3425 Walden Avenue, Depew, NY 14043