



SERIES 660

LOW COST, EMBEDDABLE ACCELEROMETERS

- Choice of charge mode, ICP® and 3-wire low power varieties
- Mountable via adhesive or soldering with choice of integral cable or solder pin connections
- Variety of sensitivities to accommodate a wide variety of applications

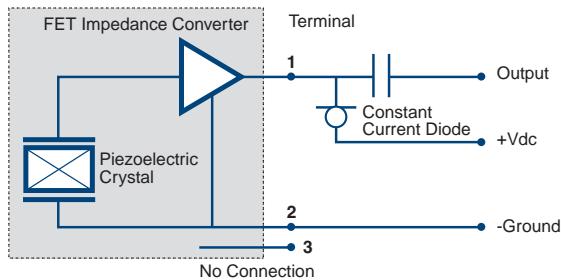


IDEAL FOR CONTINUOUS VIBRATION MONITORING IN HIGH-VOLUME AND COMMERCIAL OEM APPLICATIONS

Embeddable accelerometers offer an affordable solution for vibration and shock measurements in high-volume and commercial OEM applications. The units are particularly well suited for shock and impact detection of packages or components, as well as bearing and gear mesh vibration measurements in predictive maintenance and condition monitoring requirements. The compact designs may be imbedded into machinery at the OEM level to provide value-added monitoring protection.

The units employ field-proven, solid-state, piezoelectric sensing elements for durability and broadband performance. Choose from either charge mode types, which achieve high operating temperatures or voltage mode ICP® types, with built-in signal conditioning microelectronics, for simplified operation and connectivity to data acquisition and vibration monitoring instrumentation.

2-Wire ICP® Configuration

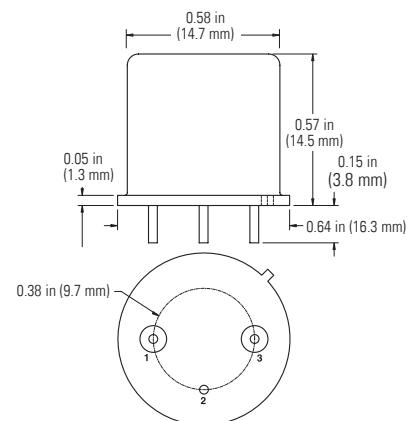
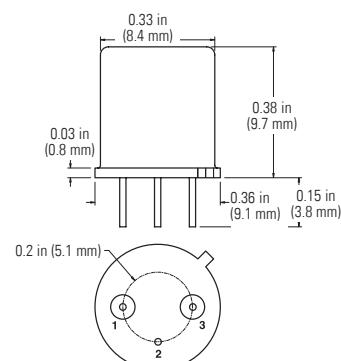
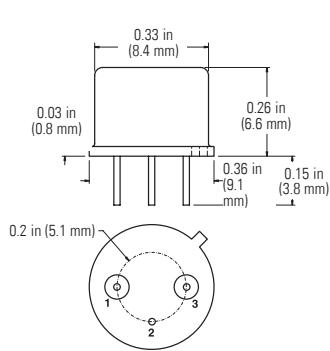


BASE MODEL

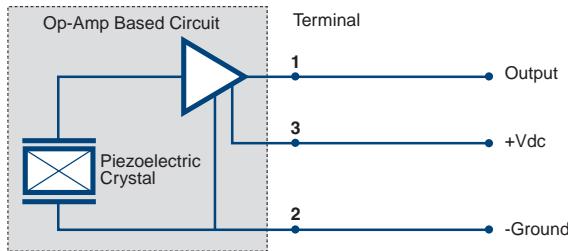
66	Pellet Accelerometer	
Sensor Input		
102A	Low Profile TO-5, 10 mV/g Sensitivity, 500 g Measurement Range	
122A	Low Profile TO-5, 50 mV/g Sensitivity, 100 g Measurement Range	
162A	Low Profile TO-5, 1 mV/g Sensitivity, 5000 g Measurement Range	
212A	TO-5, 100 mV/g Sensitivity, 50 g Measurement Range	
312A	TO-8, 100 mV/g Sensitivity, 50 g Measurement Range	
322A	TO-8, 500 mV/g Sensitivity, 10 g Measurement Range	
332A	TO-8, 1000 mV/g Sensitivity, 5 g Measurement Range	
Output		
PZ	Positive output along Z-axis	
NZ	Negative output along Z-axis	
Mounting		
1	Header Pins	
2	Integral 1ft Cable	

SPECIFICATIONS

Package Size	Low Profile TO-5	TO-5	TO-8
Performance			
Sensitivity	See "Base Model" Table		
Measurement Range	See "Base Model" Table		
Frequency Range	0.5 to 10,000 Hz		0.5 to 5000 Hz
Resonant Frequency	>25 kHz		>16 kHz
Broadband Resolution	1800 μ g rms	350 μ g rms	35 μ g rms
Non-Linearity	\leq 1%		
Transverse Sensitivity	\leq 7%		
Environmental			
Overload Limit (Shock)	5000 g pk 49050 m/s ² pk		
Temperature Range	65 to +185 °F -54 to +85 °C		
Electrical			
Settling Time	\leq 2 sec		\leq 10 sec
Discharge Time Constant	\geq 0.3 sec		\geq 1 sec
Excitation Voltage	18 to 28 VDC		
Constant Current Excitation	2 to 20 mA		
Output Impedance	<100 ohm	<150 ohm	<550 ohm
Output Bias Voltage	8 to 12 VDC		
Physical			
Sensing Element	Ceramic		
Sensing Geometry	Shear		
Housing Material	Stainless Steel		
Sealing	Hermetic		
Mounting	Adhesive or Solder		
Weight	0.08 oz 2.2 g	0.1 oz 3.0 g	0.88 oz 25 g



3-Wire Low Power Configuration

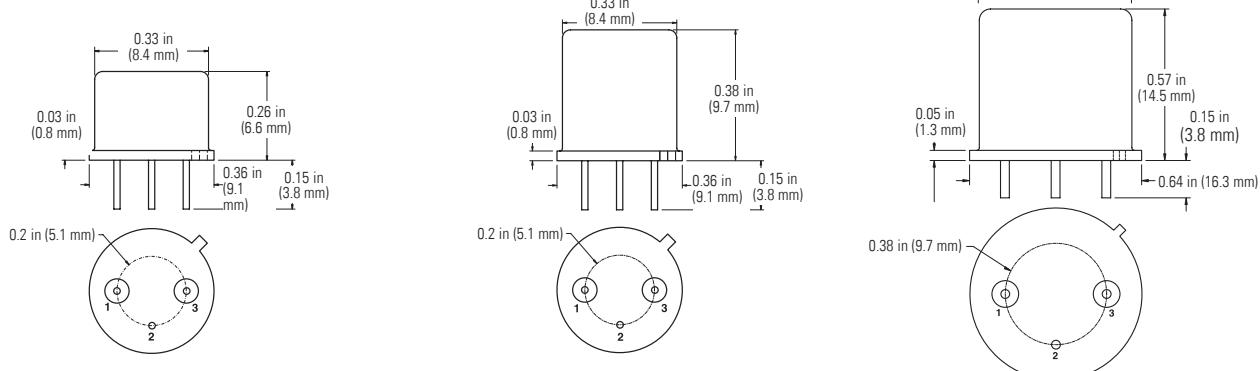


BASE MODEL

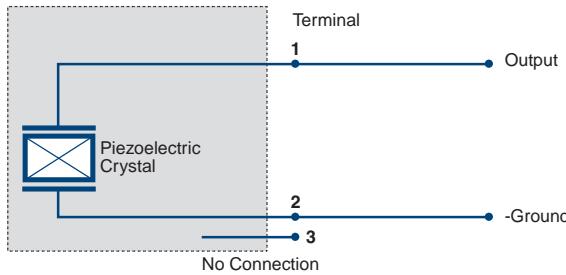
66	Pellet Accelerometer	
Sensor Input		
103P	Low Profile TO-5, 10 mV/g Sensitivity, 200 g Measurement Range	
203P	TO-5, 50 mV/g Sensitivity, 20 g Measurement Range	
213P	TO-5, 100 mV/g Sensitivity, 20 g Measurement Range	
313P	TO-8, 100 mV/g Sensitivity, 20 g Measurement Range	
323P	TO-8, 500 mV/g Sensitivity, 4 g Measurement Range	
333P	TO-8, 1000 mV/g Sensitivity, 2 g Measurement Range	
Output		
PZ	Positive output along Z-axis	
NZ	Negative output along Z-axis	
Mounting		
1	Header Pins	
2	Integral 1ft Cable	

SPECIFICATIONS

Package Size	Low Profile TO-5	TO-5	TO-8
Performance			
Sensitivity	See "Base Model" Table		
Measurement Range	$(0.5 \times \text{Excitation Voltage}) - 0.5 \text{ V}$ Sensitivity (V/g)		
Frequency Range	0.5 to 10000 Hz	0.5 to 5000 Hz	
Resonant Frequency	>25 kHz	>16 kHz	
Broadband Resolution	4900 μg rms	1700 μg rms	1040 μg rms
Non-Linearity	$\leq 1\%$		
Transverse Sensitivity	$\leq 7\%$		
Environmental			
Overload Limit (Shock)	5000 g pk 49050 m/s^2 pk		
Temperature Range	65 to +185 °F -54 to +85 °C		
Electrical			
Settling Time	≤ 2.5 sec	≤ 2 sec	
Discharge Time Constant	≥ 0.3 sec	≥ 0.4 sec	
Excitation Voltage	3 to 12 VDC		
Constant Current Excitation	0.75 mA		
Output Impedance	< 100 ohm		
Output Bias Voltage	0.5 \times Excitation Voltage		
Physical			
Housing Material	Stainless Steel		
Sealing	Hermetic		
Mounting	Adhesive or Solder		
Weight	0.08 oz 2.2 g	0.1 oz 3.0 g	0.88 oz 25 g



2-Wire Charge Mode



BASE MODEL	
66	Pellet Accelerometer
Sensor Input	
192C	Low Profile TO-5, 5 pC/g Sensitivity
292C	TO-5, 11 pC/g Sensitivity
392C	TO-8, 100 pC/g Sensitivity
Output	
PZ	Positive output along Z-axis
NZ	Negative output along Z-axis
Mounting	
1	Header Pins
2	Integral 1ft Cable

SPECIFICATIONS

Package Size	Low Profile TO-5	TO-5	TO-8
Performance			
Sensitivity	See "Base Model" Table		
Frequency Range	10 kHz		
Resonant Frequency	>25 kHz		
Non-Linearity	$\leq 1\%$		
Transverse Sensitivity	$\leq 7\%$		
Environmental			
Overload Limit (Shock)	5000 g pk 49050 m/s ² pk		
Temperature Range	65 to +185 °F -54 to +85 °C		65 to +250 °F -54 to +121 °C
Electrical			
Capacitance	350 pF		
Physical			
Housing Material	Stainless Steel		
Sealing	Hermetic		
Mounting	Adhesive or Solder		
Weight	0.08 oz 2.2 g	0.1 oz 3.0 g	0.88 oz 25 g

