

Model Number  
3743F1110G

# TRIAxIAL DC RESPONSE ACCELEROMETER

Revision: A  
ECN #: 53791

### Performance

	ENGLISH	SI	
Sensitivity(± 3 %)	270 mV/g	27.5 mV/(m/s <sup>2</sup> )	[1]
Measurement Range	± 10 g pk	± 98.1 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0 to 1,000 Hz	0 to 1,000 Hz	
Frequency Range(± 10 %)	0 to 1,500 Hz	0 to 1,500 Hz	
Resonant Frequency	3.2 kHz	3.2 kHz	[2]
Phase Response(100 Hz)	< 10 °	< 10 °	
Non-Linearity(Typical)	0.3 %	0.3 %	[3]
Non-Linearity(Max)	1 %	1 %	[3]
Broadband Resolution(0.5 to 100 Hz)	0.3 mg rms	0.003 m/s <sup>2</sup> rms	[2]
Transverse Sensitivity(Typical)	1 %	1 %	
Transverse Sensitivity(Max)	3 %	3 %	

### Environmental

Overload Limit(Shock)	± 5,000 g pk	± 49,050 m/s <sup>2</sup> pk	
Temperature Range(Operating)	-65 to +250 °F	-54.0 to +121 °C	
Temperature Range(Storage)	-65 to +250 °F	-54.0 to +121 °C	
Temperature Coefficient of Sensitivity	± 1 %	± 1 %	[4][2]
Zero g Offset Temperature Coefficient	± 1 % FSO	± 1 % FSO	[4][5][2]
Base Strain Sensitivity	.001 g/με	.01 (m/s <sup>2</sup> )/με	[2]
Magnetic Sensitivity	40 μg/gauss	3.9 (m/s <sup>2</sup> )/Tesla	[2]

### Electrical

Excitation Voltage	5 to 28 VDC	5 to 28 VDC	
Current Consumption	≤ 15 mA	≤ 15 mA	
Output Impedance	≤ 120 Ohm	≤ 120 Ohm	
Offset Voltage(0 g)	± 20 mVDC	± 20 mVDC	[6]
Common Mode Voltage(+/- 0.1 VDC)	1.65 VDC	1.65 VDC	
Spectral Noise(1 Hz)	30 μg/√Hz	294 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(10 Hz)	30 μg/√Hz	294 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(100 Hz)	30 μg/√Hz	294 (μm/s <sup>2</sup> )/√Hz	[2]
Electrical Isolation(Case)	> 10 <sup>8</sup> Ohm	> 10 <sup>8</sup> Ohm	

### Physical

Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Length x Width x Height)	0.8 in x 0.8 in x 0.8 in	20.3 mm x 20.3 mm x 20.3 mm	
Weight	0.6 oz	17.3 gm	
Electrical Connector	9-Pin	9-Pin	
Electrical Connection Position	Side	Side	
Mounting Thread	10-32 Female	10-32 Female	

### 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.

### NOTES:

- [1] Measured at 100 Hz, 1 grms.
- [2] Typical.
- [3] Zero-based, least-squares, straight line method.
- [4] -65 to +250 °F, ref. 75 °F (-54 to +121 °C, ref. 24 °C)
- [5] FSO= Full Scale Output over the Measurement Range
- [6] Offset tolerance is based on 10 ft of 037 test cable.
- [7] See PCB Declaration of Conformance PS027 for details.

### SUPPLIED ACCESSORIES:

Model 080A12 Adhesive Mounting Base (1)  
 Model 081B05 Mounting Stud (10-32 to 10-32) (1)  
 Model ACS-172T Triaxial Phase and Amplitude Calibration from 5 Hz to +5% frequency range (1)  
 Model M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)



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**PCB PIEZOTRONICS**  
 AN AMPHENOL COMPANY  
 Phone: 716-684-0001  
 Fax: 716-684-0987  
 E-Mail: info@pcb.com

3425 Walden Avenue, Depew, NY 14043

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.