

Model Number
3743F1130G

TRIAxIAL DC RESPONSE ACCELEROMETER

Revision: A
ECN #: 53791

Performance

	ENGLISH	SI	
Sensitivity(± 3 %)	90 mV/g	9.17 mV/(m/s ²)	[1]
Measurement Range	± 30 g pk	± 294 m/s ² pk	
Frequency Range(± 5 %)	0 to 1,500 Hz	0 to 1,500 Hz	
Frequency Range(± 10 %)	0 to 2,000 Hz	0 to 2,000 Hz	
Resonant Frequency	5.2 kHz	5.2 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)	0.9 mg rms	0.009 m/s ² rms	[2]
Transverse Sensitivity(Typical)	1 %	1 %	
Transverse Sensitivity(Max)	3 %	3 %	

Environmental

Overload Limit(Shock)	± 5,000 g pk	± 49,050 m/s ² 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 ²)/με	[2]
Magnetic Sensitivity	40 μg/gauss	3.9 (m/s ²)/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)	90 μg/√Hz	883 (μm/s ²)/√Hz	[2]
Spectral Noise(10 Hz)	90 μg/√Hz	883 (μm/s ²)/√Hz	[2]
Spectral Noise(100 Hz)	90 μg/√Hz	883 (μm/s ²)/√Hz	[2]
Electrical Isolation(Case)	> 10 ⁸ Ohm	> 10 ⁸ 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, 10 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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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.