

Model Number
3741F1230G

DC RESPONSE ACCELEROMETER

Revision: B
ECN #: 53791

Performance	ENGLISH	SI	
Sensitivity(± 3 %)	90 mV/g	9.17 mV/(m/s ²)	[1]
Measurement Range	± 30 g pk	± 294.2 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 %	[2][4]
Zero g Offset Temperature Coefficient	± 1 % FSO	± 1 % FSO	[5][4][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 32 VDC	5 to 32 VDC	
Current Consumption	≤ 5 mA	≤ 5 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	[7]
Physical			
Housing Material	Anodized Aluminum	Anodized Aluminum	
Sealing	Epoxy	Epoxy	
Size (Height x Length x Width)	0.30 in x 1.00 in x .85 in	7.62 mm x 25.4 mm x 21.6 mm	
Weight(without cable)	0.35 oz	9.92 gm	[2]
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Side	Side	
Cable Termination	Pigtail Ends	Pigtail Ends	
Cable Type	010 4-cond Shielded	010 4-cond Shielded	
Cable Length	10 ft	3 m	
Mounting	Through Holes (2)	Through Holes (2)	

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 manufacturers supplied cable length.
- [7] Case and shield to mounting surface or cable leads.
- [8] See PCB Declaration of Conformance PS027 for details.

SUPPLIED ACCESSORIES:

Model 081A103 Mounting screw (2)
Model ACS-172 Phase and Amplitude Calibration from 5 Hz to +5% frequency range (1)
Model M081A103 Mounting screw and washer, M3 x 0.5 thread (2)

OPTIONAL ACCESSORIES:

Model 080A208 Triaxial mounting block



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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