

**Model Number**  
3741F122G

# DC RESPONSE ACCELEROMETER

Revision: B  
ECN #: 53791

	ENGLISH	SI	
<b>Performance</b>			
Sensitivity(± 3 %)	1,350 mV/g	137.6 mV/(m/s <sup>2</sup> )	[1]
Measurement Range	± 2 g pk	± 19.6 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0 to 250 Hz	0 to 250 Hz	
Frequency Range(± 10 %)	0 to 350 Hz	0 to 350 Hz	
Resonant Frequency	1.2 kHz	1.2 kHz	[2]
Phase Response(10 Hz)	< 2.5 °	< 2.5 °	
Non-Linearity(Typical)	0.3 %	0.3 %	[3]
Non-Linearity(Max)	1 %	1 %	[3]
Broadband Resolution(0.5 to 100 Hz)	0.06 mg rms	0.0006 m/s <sup>2</sup> rms	[2]
Transverse Sensitivity(Typical)	1 %	1 %	
Transverse Sensitivity(Max)	3 %	3 %	
<b>Environmental</b>			
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	[5][4][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]
<b>Electrical</b>			
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)	6 μg/√Hz	59 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(10 Hz)	6 μg/√Hz	59 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(100 Hz)	6 μg/√Hz	59 (μm/s <sup>2</sup> )/√Hz	[2]
Electrical Isolation(Case)	> 10 <sup>8</sup> Ohm	> 10 <sup>8</sup> Ohm	[7]
<b>Physical</b>			
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 5 Hz, 0.5 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-85 Phase and Magnitude calibration from 0.5 Hz to 5% pt Linear scale (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.

Entered: ND	Engineer: NJF	Sales: JM	Approved: BAM	Spec Number:
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