Мс	del	Nur	nber
37	41F	121	10G

# **DC RESPONSE ACCELEROMETER**

Revision: B ECN #: 53791

OPTIONAL VERSIONS					
Optional versions have identical specifications and accessories as listed for the standard model e where noted below. More than one option may be used.					

Performance	ENGLISH	SI	
Sensitivity(± 3 %)	270 mV/g	27.5 mV/(m/s <sup>2</sup> )	[1]
Measurement Range	± 10 g pk	$\pm 98.1  \text{m/s}^2  \text{pk}$	
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 %	1-3
Transverse Sensitivity(Max)	3 %	3 %	
Environmental			
Overload Limit(Shock)	± 5,000 g pk	$\pm 49,050 \text{ m/s}^2 \text{ pk}$	
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/s²)/με	[2]
Magnetic Sensitivity	40 µg/gauss	3.9 (m/s²)/Tesla	[2]
Electrical	p.g, g	2.0 (, 2 ), . 20.2	1-3
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)	30 μg/√Hz	294 (µm/s²)/√Hz	[2]
Spectral Noise(10 Hz)	30 μg/√Hz	294 (µm/s²)/√Hz	[2]
Spectral Noise(100 Hz)	30 μg/√Hz	294 (µm/s²)/√Hz	[2]
Electrical Isolation(Case)	> 10 <sup>8</sup> Ohm	> 10 <sup>8</sup> Ohm	[7]
Phoneton	> 10 011111	> 10 OIIII	
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	
Size (Height x Length x Width)	0.30 111 X 1.00 111 X .03 111	7.02 IIIII X 23.4 IIIII X 21.0 mm	
Weight(without cable)	0.35 oz	9.92 gm	[2]
Weight(without cable) Electrical Connector	Integral Cable	9.92 gm Integral Cable	[4]
Electrical Connection Position	Side	Side	
Cable Termination	Pigtail Ends	Pigtail Ends	
Cable Type	010 4-cond Shielded	010 4-cond Shielded	
Cable Type Cable Length	10 ft	3 m	
Mounting	Through Holes (2)	Through Holes (2)	
Modifiling	milough notes (2)	Tillough Holes (2)	

# CH<sup>[8]</sup>

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.

### 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

Entered: ND	Engineer: NJF	Sales: JM	Approved: BAM	Spec Number:
Date: 05/05/2023	Date: 05/05/2023	Date: 05/05/2023	Date: 05/05/2023	69811



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