



<b>MODEL NUMBER</b> <b>7531A1</b>	<b>PERFORMANCE SPECIFICATIONS</b>	<b>DOC NO.</b> <b>PS7531A1</b>
	<b>SINGLE AXIS, DC ACCELEROMETER</b>	REV B ECN 12745, 06/08/16



- **LOW COST**
- **WIDE SUPPLY VOLTAGE RANGE**
- **LOW CURRENT CONSUMPTION**

**PHYSICAL**

Weight, Max. (less cable)  
 Mounting  
 Cable  
 Housing

Type  
 Material  
 Material  
 Isolation

ENGLISH	SI
0.21 oz	6.0 grams
2X M2 Screws	2X M2 Screws
6-conductor	6-conductor
Santoprene	Santoprene
Aluminum, Anodized	Aluminum, Anodized
Case Isolated	Case Isolated

**PERFORMANCE**

Sensitivity, +/-10% [1]  
 Acceleration Range  
 Frequency Range, -3dB  
 Resonance Frequency  
 Linearity [2]  
 Transverse Sensitivity Max  
 Spectral Noise  
 Sensitivity Change Due to Temperature

420 mV/g	42.8 mV/m/s <sup>2</sup>
±2 Gpeak	±19.6 m/s <sup>2</sup> peak
0 to 1600 Hz	0 to 1600 Hz
>5.5 kHz	>5.5 kHz
±0.21 %F.S.	±0.21 %F.S.
5 %	5 %
250 μGrms/√Hz	2453 μm/s <sup>2</sup> rms/√Hz
±0.006 %/°F	±0.01 %/°C

**ELECTRICAL**

Supply Current  
 Supply Voltage Range  
 Output Impedance, Typ.  
 Output Bias Voltage  
 Output Range  
 Self-Test Output [3]  
 Turn-On Time

350 μA	350 μA
4 to 28 VDC	4 to 28 VDC
100 Ω	100 Ω
1.3 to 1.7 VDC	1.3 to 1.7 VDC
±0.95 VDC	±0.95 VDC
-210 to +850 mV	-210 to +850 mV
1 ms	1 ms

**ENVIRONMENTAL**

Shock Max  
 Vibration Max  
 Operating Temperature  
 Seal

10,000 g pk	98100 m/s <sup>2</sup>
5000 g pk	49050 m/s <sup>2</sup>
-40 to +185 °F	-40 to +85 °C
Epoxy	Epoxy

Model	Sensitivity (mV/g)	Range (Gpeak)	Noise(μGrms/sqr(Hz))	Oper. Temp(°F)
7531A2	300	±3	175	-40 to 185
7531A3	174	±5	250	-40 to 185
7531A4	57	±16	300	-40 to 185
7531A5	6.5	±200	2700	-40 to 185

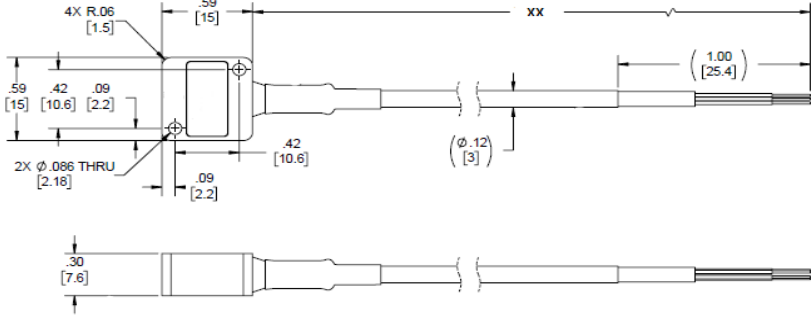
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting Screw, Model 6675, M2x0.4 x 12mm, qty. 2

**Notes:**

- [1] Measured at 100 Hz, 5 Grms per ISA RP 37.2
- [2] Linearity is % of specified full scale (or any less full-scale range), zero-based best fit straight line method.
- [3] Refer to the Operating Guide for instructions on how to use Self-Test feature



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-7531A1-XX for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880  
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