

# A/123/E.XX

## Mono-axial IEPE accelerometer

IEPE, Side Entry 10-32 Microdot Connector, Adhesive Mount



### KEY FEATURES

- ✓ Titanium case
- ✓ 3.6 grams
- ✓ 5 standard sensitivity options; 1mV/g to 100mV/g

### DEVICE / FAMILY OPTIONS

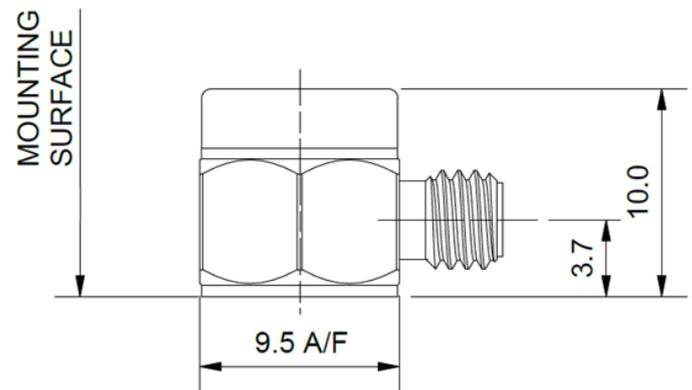
- ✓ A/123/E.XXET - Extended temperature variant to 165°C
- ✓ A/123/E.XXT - Transducer Electronic Datasheet (TEDS)
- ✓ Extended low & high frequency calibration
- ✓ Custom sensitivities available on request
- ✓ Alternative/additional stud options

- A/123/E Side Entry 10-32 Microdot, adhesive mount
- A/123/TE Top Entry 10-32 Microdot, adhesive mount
- A/123/EB Side Entry 10-32 Microdot, 5-40 UNC tapped base
- A/123/TB Top Entry 10-32 Microdot, 5-40 UNC tapped base
- A/123/E-1 Side Entry 10-32 Microdot, ceramic isolated adhesive mount
- A/123/TE-1 Top Entry 10-32 Microdot, ceramic isolated adhesive mount

### TYPICAL CABLE OPTIONS

- ✓ MP2/BC1/S18/30 - Microdot to BNC, FEP jacket, co-axial, 3 meters
- ✓ MP2/MP2/S18/30 - Microdot to Microdot, FEP jacket, co-axial, 3 meters
- ✓ Other options and lengths available

### A/123/E ACCELEROMETER DIMENSIONS



All measurements in millimeters (mm)

# TECHNICAL SPECIFICATIONS

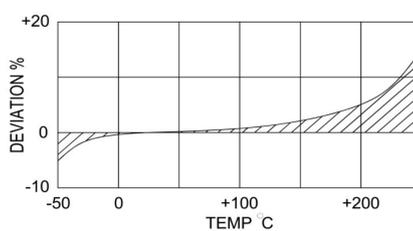
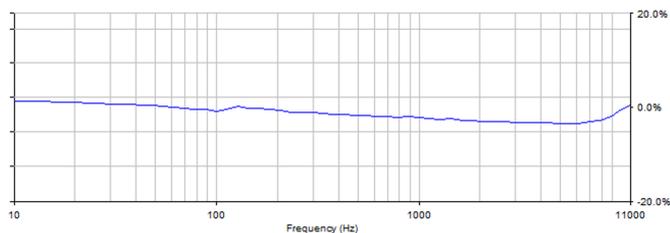
Performance	A/123/E.1	A/123/E.5	A/123/E.10	A/123/E.30	A/123/E.100
<b>Voltage Sensitivity (<math>\pm 10\%</math>)</b>	1mV/g	5mV/g	10mV/g	30mV/g	100mV/g
<b>Measurement Range</b>	$\pm 5000g$	$\pm 1000g$	$\pm 500g$	$\pm 160g$	$\pm 50g$
<b>Frequency Response (<math>\pm 5\%</math>)</b>	1Hz to 10kHz				
<b>Frequency Response (<math>\pm 10\%</math>)</b>	0.7Hz to 11kHz				
<b>Resonant Frequency</b>	$\geq 50kHz$				
<b>Cross Axis Error</b>	$\leq 5\%$				
<b>Maximum Shock Limit</b>	5000g				
<b>Non-linearity (% FS)</b>	$\leq 1\%$				
<b>Base Strain Sensitivity</b>	$\leq 0.001g/\mu\epsilon$				
<b>Broadband Resolution</b>	0.0009grms (100mV/g)				
<b>Electrical Characteristics</b>					
<b>Supply Voltage</b>	15V to 35V DC				
<b>Supply Current</b>	2mA to 20mA (max 2mA above 125°C)				
<b>Bias Voltage</b>	10V to 14V DC				
<b>Output Impedance</b>	$\leq 100\Omega$				
<b>Base Isolation Impedance</b>	N/A				
<b>Settling Time Constant</b>	$< 5$ seconds				
<b>Physical</b>					
<b>Case Material</b>	Titanium				
<b>Connector</b>	Side Entry, 10-32 UNF Microdot				
<b>Mounting</b>	Adhesive				
<b>Recommended Mounting Torque</b>	N/A				
<b>Weight</b>	3.6 grams				
<b>Size (mm)</b>	9.5mm (A/F) x 10mm				
<b>(Inches)</b>	0.37" (A/F) x 0.39"				
<b>Environmental</b>					
<b>Temperature Range (°C)</b>	-50°C to +125°C (Extended temperature option to 165°C)				
<b>(°F)</b>	-58°F to +257°F (Extended Temperature option to 329°F)				
<b>Total Mass Loss</b>	$< 0.1\%$				

**TYPICAL FREQUENCY RESPONSE**

**TYPICAL THERMAL RESPONSE**

**TYPICAL SPECTRAL NOISE (100mV/g)**

Response shows performance of piezoelectric sensing element, including beyond the stated operating limits.



1 Hz - 522  $\mu g/\sqrt{Hz}$   
 10 Hz - 31.2  $\mu g/\sqrt{Hz}$   
 100 Hz - 8.9  $\mu g/\sqrt{Hz}$   
 1 kHz - 5.8  $\mu g/\sqrt{Hz}$   
 10 kHz - 4.2  $\mu g/\sqrt{Hz}$

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SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

ALL DEVICES CALIBRATED IN ACCORDANCE WITH BS ISO 16063-21:2003. ALL DEVICE CALIBRATIONS ARE UKAS TRACEABLE.