

A/124/E.XX

Mono-axial IEPE accelerometer

IEPE, Side Entry M3.5 Connector, Adhesive Mount



KEY FEATURES

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

DEVICE / FAMILY OPTIONS

- ✓ A/124/E.XXET - Extended temperature variant to 165°C
- ✓ A/124/E.XXT - Transducer Electronic Datasheet (TEDS)
- ✓ Extended low & high frequency calibration
- ✓ Custom sensitivities available on request
- ✓ Alternative/additional stud options

A/124/E Side Entry M3.5 connector, adhesive mount

A/124/TE Top Entry M3.5 connector, adhesive mount

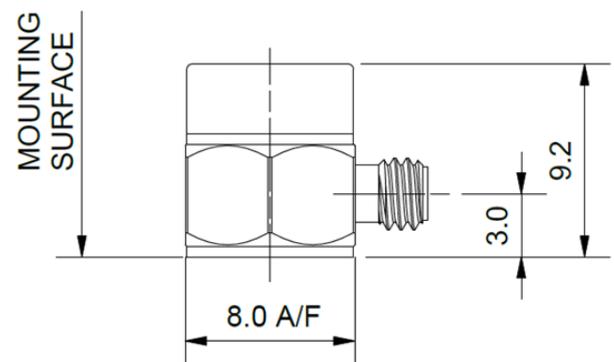
A/124/E-1 Side Entry M3.5 connector, ceramic isolated adhesive mount

A/124/TE-1 Top Entry M3.5 connector, ceramic isolated adhesive mount

TYPICAL CABLE OPTIONS

- ✓ KP/BC1/S11/30 - M3.5 to BNC, FEP jacket, co-axial, 3 meters
- ✓ KP/M1/S11/30 - M3.5 to Microdot Plug, FEP jacket, co-axial, 3 meters
- ✓ KP/MS1/S11/30 - M3.5 to Microdot Socket, FEP jacket co-axial, 3 meters
- ✓ Other options and lengths available

A/124/E ACCELEROMETER DIMENSIONS



All measurements in millimeters (mm)

TECHNICAL SPECIFICATIONS

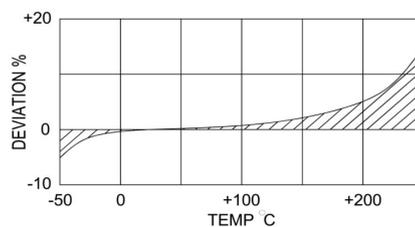
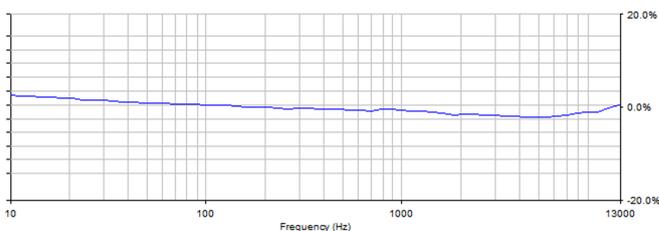
| Performance | A/124/E.1 | A/124/E.5 | A/124/E.10 | A/124/E.30 | A/124/E.100 |
|--|--|-------------|------------|------------|-------------|
| Voltage Sensitivity ($\pm 10\%$) | 1mV/g | 5mV/g | 10mV/g | 30mV/g | 100mV/g |
| Measurement Range | $\pm 5000g$ | $\pm 1000g$ | $\pm 500g$ | $\pm 160g$ | $\pm 50g$ |
| Frequency Response ($\pm 5\%$) | 1Hz to 11kHz | | | | |
| Frequency Response ($\pm 10\%$) | 0.7Hz to 13kHz | | | | |
| Resonant Frequency | $\geq 70kHz$ | | | | |
| Cross Axis Error | $\leq 5\%$ | | | | |
| Maximum Shock Limit | 5000g | | | | |
| Non-linearity (% FS) | $\leq 1\%$ | | | | |
| Base Strain Sensitivity | $\leq 0.001g/\mu$ strain | | | | |
| Broadband Resolution | 0.002grms (100mV/g) | | | | |
| Electrical Characteristics | | | | | |
| Supply Voltage | 15V to 35V DC | | | | |
| Supply Current | 2mA to 20mA (max 2mA above 125°C) | | | | |
| Bias Voltage | 10V to 14V DC | | | | |
| Output Impedance | $\leq 100\Omega$ | | | | |
| Base Isolation Impedance | N/A | | | | |
| Settling Time Constant | <5 seconds | | | | |
| Physical | | | | | |
| Case Material | Titanium | | | | |
| Connector | Side Entry, M3.5 | | | | |
| Mounting | Adhesive | | | | |
| Recommended Mounting Torque | | | | | |
| Weight | 2.1 grams | | | | |
| Size (metric) | 8.0mm (A/F) x 9.2mm | | | | |
| (imperial) | 0.31" (A/F) x 0.36" | | | | |
| Environmental | | | | | |
| Temperature Range (°C) | -50°C to +125°C (Extended temperature option to 165°C) | | | | |
| (°F) | -58°F to +257°F (Extended Temperature option to 329°F) | | | | |
| Total Mass Loss (TML) | <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 - 345 $\mu g/\sqrt{Hz}$
 10 Hz - 42.8 $\mu g/\sqrt{Hz}$
 100 Hz - 11.2 $\mu g/\sqrt{Hz}$
 1 kHz - 5.67 $\mu g/\sqrt{Hz}$
 10 kHz - 5.2 $\mu g/\sqrt{Hz}$

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ISO 9001 - 00025363



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.