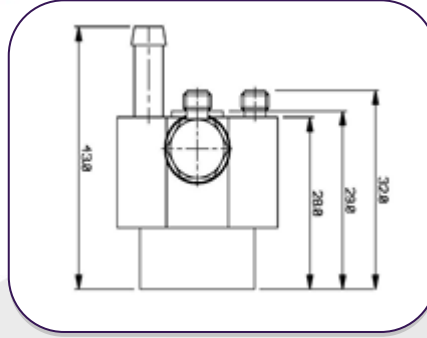
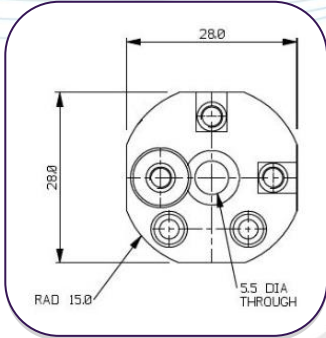


A/133/V-10 High Temperature, Water cooled Piezoelectric IEPE Triaxial Accelerometer

1mV/g up to 250mV/g $\pm 10\%$ 38gms
900°C max surface temperature *with water flow*



A/133/V-10



Options

- Wideband temperature calibration
- Voltage output A/33, A/33-1, A/133/V-3, A/133V-10

The A/133/V IEPE range of voltage triaxial accelerometers feature ultra high temperature usage on surfaces up to 900°C. Developed as solutions for Vibration Measurements on exhaust pipes or engine turbo collectors, they have since found uses in many other high temperature test applications.

X

Mono-axial versions can also be supplied on request, axis selection to suit customer application.

Water flow is via two titanium pipes and it's recommended that the flow rate of 0.5 litres/min is maintained permanently when in use at high temperature. Failure to do so could lead to injury and damage to the unit.

Y

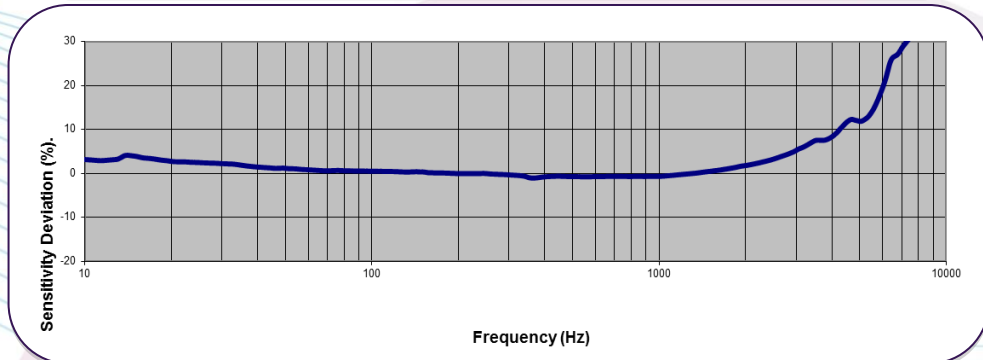
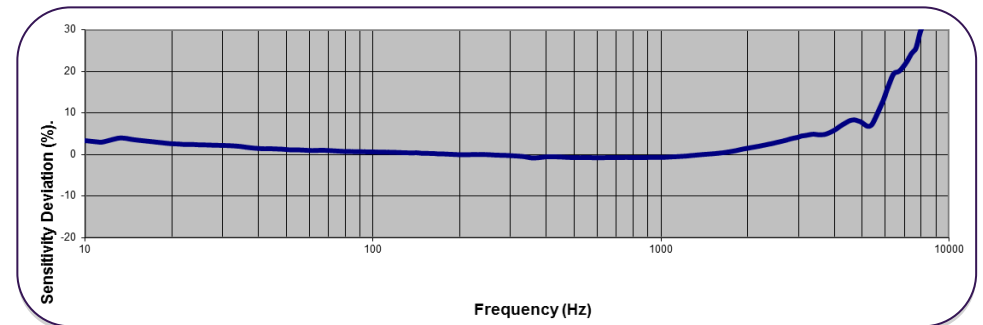
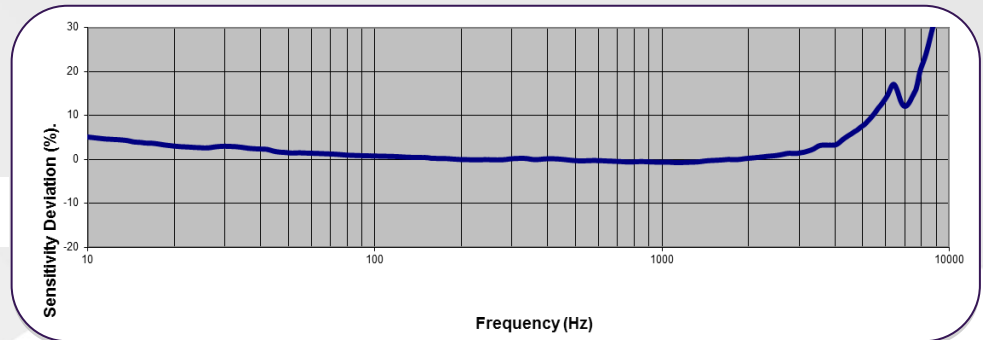
It is recommended at the highest temperatures a constant supply of chilled cooling water should be used.

The A/133/V consists of 3 mono axial voltage accelerometers mounted into an anodized aluminium block. This allows the advantage of single axis repair if required.

Z

Accessories:
Silicone tubing
General purpose 12V pump

Typical Frequency Response



Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes

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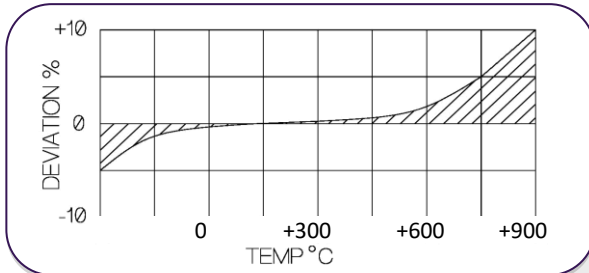
FM11310



A/133/V-10 High Temperature, Water cooled Piezoelectric IEPE Triaxial Accelerometer

1mV/g up to 250mV/g $\pm 10\%$ 38gms
900°C max surface temperature *with water flow*

Temperature Response



Spectral Noise

| | |
|-------|-------------------------------------|
| 1Hz | 761 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 10Hz | 193 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 100Hz | 37.8 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 1kHz | 11.2 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 10kHz | 4.2 $\mu\text{g}/\sqrt{\text{Hz}}$ |

| | Metric | | Imperial | |
|--|--|-----------------------------|---------------------------------------|----------|
| Voltage sensitivity $\pm 10\%$ | 1.02 mV/(m/s ²) | 10.2 mV/(m/s ²) | 10 mV/g | 100 mV/g |
| Resonant Frequency | $\approx 15\text{kHz}$ | | | |
| Typical Frequency Range $\pm 5\%$ $\pm 10\%$ | 1Hz - 3kHz 0.7Hz - 4kHz | | | |
| Cross Axis error | $\leq 5\%$ max | | | |
| Temperature Range Without water flow With water flow | -50/ +125°C +900°C (surface temp) | | -58/ +257°F +1652°F (surface temp) | |
| Max continuous accn. g sine | 4903m/s ² | | 500g | |
| Supply voltage | 15/35 V DC | | | |
| Supply current | 2/20mA | | | |
| Bias voltage (20°C / 68°F) | 9.5 V DC | | | |
| Setting time to 90% final val. | 1 sec | | | |
| Noise level equiv. mg | 3 | | | |
| Base Strain Sensitivity | $\leq 5\%$ | | | |
| Case Material | Inserts s/steel 303 S31 Mtg. block anodised al. alloy | | | |
| Mounting | 1 x $\text{Ø}2.22\text{mm}$ through hole | | | |
| Weight | 38gms | | 1.34oz | |
| Case seal | Welded hermetic connector | | | |
| Size | 28 x 28 x 42mm | | 1.1 x 1.1 x 1.65in | |
| Connector | 10-32 UNF Microdot | | | |

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