Industrial tri-axial accelerometer


## Features

- Central hole mounting
- Low frequency response
- Tri-axial output
- High sensitivity
- Hermetic seal
- EMI / RFI shielded


## Application

- High speed train
- Heavy-duty bearing
- High structure monitoring



## Description

Model 334A is a general purpose tri-axial IEPE accelerometer permitting low frequency vibration measurements. 334A features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit with in a two-wire IEPE system which transmits its low impedance voltage output through the same cable that supplies the constant current power. Signal ground is internal shielded and isolated from the outer case of the unit. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded stainless-steel construction provides a hermetic housing. Integrated cable provides long-term reliable performance over the operating temperature range. In addition to adhesive mounting, 334A offer $\varnothing 6.4$ central through holes for screw mounting on the test object, cable outgoing direction can be discretional for install convenience. The 334A provides low frequency response and shock resistance, which is ideal for high structure vibration monitoring under incidental shockenviron ment.




Specification

| Dash NO. | -5-LF | -10-LF | -20 | -50 | -500 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dynamic Range | $\pm 5$ | $\pm 10$ | $\pm 20$ | $\pm 50$ | $\pm 500$ | g, peak |
| Sensitivity $\pm 10 \%$ | 1000 | 500 | 250 | 100 | 10 | $\mathrm{mV} / \mathrm{g}$ |
| Freq. Resp. $\pm 10 \%$ | 0.3-4000 | 0.3-4000 | 1-6000 | 1-6000 | 1-6000 | Hz |
| Freq. Resp. $\pm 3 \mathrm{~dB}$ | 0.1-6000 | 0.1-6000 | 0.5-8000 | 0.3-8000 | 0.3-8000 | Hz |
| Resonant Frequency | 20 | 20 | 32 | 32 | 32 | kHz |
| Transverse Sensitivity | <5 | <5 | <5 | <5 | <5 | \% |
| Temp. Resp., -55 to $+125^{\circ} \mathrm{C}$ | $\pm 10$ | $\pm 10$ | $\pm 10$ | $\pm 10$ | $\pm 10$ | \% |
| Non-Linearity | $\pm 1$ | $\pm 1$ | $\pm 1$ | $\pm 1$ | $\pm 1$ | \%FSO |
| Residual Noise | 0.00015 | 0.0002 | 0.0005 | 0.0005 | 0.0010 | g RMS |
| Shock Limit | 2000 | 2000 | 5000 | 5000 | 5000 | g |
| Warm-up Time | <5 | <5 | <2 | <2 | <2 | second |
| Weight (Excluding Cable) | 367 | 367 | 360 | 360 | 360 | Gram |


| Specifications | Standard | Units |
| :--- | :---: | :---: |
| Bias Voltage | 10 to 14 | Vdc |
| Supply Voltage | 18 to 30 | Vdc |
| Supply Current | 2 to 10 | mA |
| Output Impedance | $<100$ | $\Omega$ |
| Case Insulation (@100Vdc) | $>100$ | $\mathrm{M} \Omega$ |
| Operating Temperature | -40 to +125 | ${ }^{\circ} \mathrm{C}$ |
| Humidity | Hermetically Sealed |  |
| Case Material | Stainless Steel 316L |  |
| Protection Grade | $\mathrm{IP67}$ |  |
| Mounting Torque | $2.2(19.5)$ | $\mathrm{N}-\mathrm{m}(\mathrm{lb}-\mathrm{in})$ |

## Accessories

Calibration certificate included.

| Part Number | Description | Availability |
| :--- | :--- | :--- |
| PM0244 | M6x35 Hex head screw | 1pc Included |
| PM0118 | $1 / 4-28 \times 11 / 4$ Hex head screw |  |
| IN-03 | 3 channels IEPE signal conditioner | Optional |
| IN-91 | Portable vibration analyzer | Optional |
| IN-3062 | 8 channels data acquisition system | Optional |

## Measurement configuration

Sensor Signal conditioner |  | BNC cable | Data acquisition | Computer |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Ordering information

| 334 | A | - | 10 | - | LF | - | 3 | - | A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Output signal | - | Range | - | Low frequency option | - | Cable length | - | Mounting screw |
| 334 | A=IEPE output | - | $\begin{aligned} & 5=5 \mathrm{~g} \\ & 10=10 \mathrm{~g} \\ & 20=20 \mathrm{~g} \\ & 50=50 \mathrm{~g} \\ & 500=500 \mathrm{~g} \end{aligned}$ | - | LF=Low frequency | - | 3=3 meters | - | $A=1 / 4-28 \times 1 \frac{1}{4}$ Hex head screw $B=M 6 \times 35$ Hex head screw |

