



# CRY433

## 1 Axis, 100 mV/G, IEPE High-sensitivity Accelerometer, Top 10-32UNF connector

### Features

- **Key Specifications**

Sensitivity	100 mV/g
Frequency Response	0.5 Hz to 8 kHz ( $\pm 1$ dB)
Measuring Range	$\pm 50g$ pk

- **Applications**

Universal measurements  
 High precision measurements  
 Industrial vibration measurements

### Introduction

CRY433 is a single-axis acceleration sensor with an 10-32 UNF(Microdot) output connector at the top, which is mounted to an object via a 10-32 UNF bolt. It can be used to measure small movements in laboratory and scientific research, and can also be used to monitor the vibration state of industrial equipment online.

CRY433 can be equipped with armored shielded cables to measure vibration parameters such as acceleration, velocity, and displacement under strong interference conditions such as industrial and electric power.

### Highlights

- **Applications of High-sensitivity Accelerometer**

High-sensitivity accelerometers can detect small changes in acceleration, providing accurate and reliable acceleration data for the early small fault vibration monitoring of industrial equipment and laboratory scientific research.

- **Compatibility**

The IEPE accelerometer is a PE charge accelerometer with an integrated preamplifier with an output signal in the form of a low-impedance voltage output that can be matched to a common coaxial cable.

IEPE is a universal constant current source power supply technology used on sensors. Each manufacturer has different names, such as ICP, CCP, etc.

- **Calibration**

Each CRY SOUND accelerometer is calibrated at the factory using traceable calibration equipment. Calibration certificates are provided with each unit. CRY SOUND recommends recalibration at least once a year.

- **Quality & Warranty**

All CRY SOUND accelerometers are made of stainless steel with good corrosion resistance and robustness, suitable for long-term storage.

CRY SOUND preamplifiers are supported by a 1-year warranty—offering one of the best service guarantee in the world.

# Technical Specifications

## Specifications

Sensitivity	100 mV/g
Frequency Response	0.5 Hz to 8 kHz ( $\pm 1$ dB)
Measuring Range (Peak)	$\pm 50$ g pk
Transverse Sensitivity	$\leq 5\%$
Amplitude Non-linearity	$\leq \pm 1\%$

## Electrical

Output Impedance	$< 100 \Omega$
Excitation Voltage	18 VDC to 28 VDC
Full Scale Output (Peak)	$\pm 5$ V
Constant Current	2 mA to 10 mA
Noise	$< 50 \mu\text{V}$
Bias Voltage	9 V to 12 V

## Environmental

Max Shock Protection	$\pm 3000$ g
Operating Temperature	$-40 \text{ }^\circ\text{C}$ to $+120 \text{ }^\circ\text{C}$

## Physical

Connector Type	Top 10-32UNF(Microdot)
Mounting Threads	10-32UNF(Microdot)
Sensing Structure	Shear Mode
Case Materials	304 Stainless Steel
Sensing Element	PZT-5
Weight	13g

## Ordering Information

### Optional Accessories

Cable	10-32UNF to BNC cable/2m
Bolt	M5 bolt

## Frequency Response

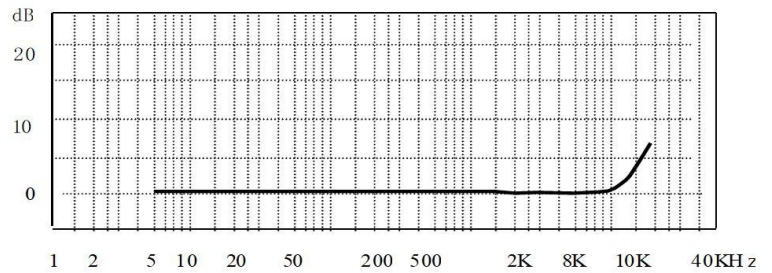


Fig.1 CRY433 Accelerometer Typical Frequency Response

## Drawings(mm)[inch]

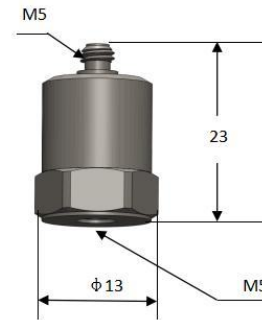


Fig.2 CRY433 Accelerometer Drawings

## Dimensions

Height	23mm(0.905")
Diameter	13mm(0.512")

## Related Products

CRY431	1 Axis, high-g, IEPE accelerometer 5 mV/g, top 10-32UNF connector
CRY434	1 Axis, high-sensitivity, IEPE accelerometer, 100 mV/g, side 10-32UNF connector
CRY441	1 Axis, high-g charge accelerometer, 5pC/ g, miniature, side 10-32UNF connector
CRY446	Triaxial, high-g, IEPE accelerometer, 10 mV/g, miniature, side connector