



# CRY433

## IEPE Accelerometer, High-sensitivity ,Top connector

### Features

- **Key Specifications**

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

- **Applications**

Universal measurements  
High precision measurements  
Industrial vibration measurements

### Introduction

CRY433 is a uniaxial acceleration sensor. The output mode is top M5 and it is installed on an object through an M5 bolt.

CRY433 can be used to measure tiny motions in laboratories and scientific research. It can also be used to monitor the vibration status of industrial equipment online. It can be equipped with armored shielded cables for measuring vibration parameters such as acceleration, velocity and displacement in strong interference environments such as industry and 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

### Dynamic Characteristics

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

### Electrical Characteristics

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

### Environmental Characteristics

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

### Physical Characteristics

|                    |                     |
|--------------------|---------------------|
| Connector Type     | Top M5              |
| Threaded Interface | M5                  |
| Sensing Structure  | Shear Mode          |
| Case Materials     | 304 Stainless Steel |
| Sensing Element    | PZT-5               |
| Weight             | 13g                 |

### Frequency Response

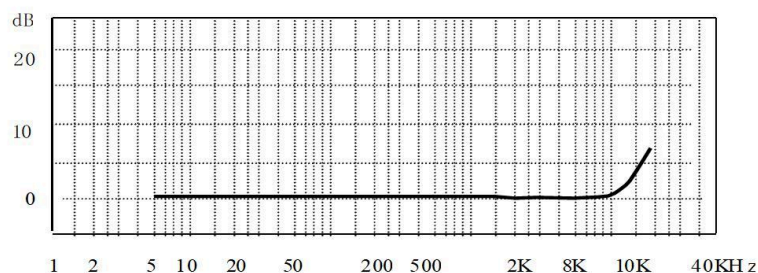


Fig.1 CRY433 Accelerometer Typical Frequency Response

### Drawings(mm)[inch]

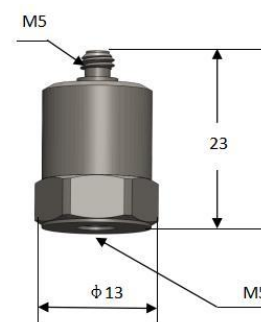


Fig.2 CRY433 Accelerometer Drawings

### Dimensions

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

## Ordering Information

### Optional Accessories

|       |                    |
|-------|--------------------|
| Cable | M5 to BNC cable/2m |
|-------|--------------------|

### Related Products

|        |                                                                              |
|--------|------------------------------------------------------------------------------|
| CRY431 | 1 Axis, high-g, IEPE accelerometer<br>5 mV/g, top M5 connector               |
| CRY434 | 1 Axis, high-sensitivity, IEPE accelerometer,<br>100 mV/g, side M5 connector |
| CRY441 | 1 Axis, high-g charge accelerometer, 5pC/<br>g, miniature, side M5 connector |
| CRY446 | Triaxial, high-g, IEPE accelerometer, 10<br>mV/g, miniature, side connector  |