

# CRY437

## Miniature, High-G, IEPE Accelerometer, Overall Cable

### Features

- **Key Specifications**

Sensitivity	10 mV/g
Frequency Response	2Hz to 8 kHz ( $\pm 1$ dB)
Measuring Range	$\pm 500$ g pk

- **Applications**

Universal measurements  
Industrial vibration measurements  
Measurements in confined spaces  
Measurements on delicate structures

### Introduction

CRY437 is a miniature uniaxial acceleration sensor. The output mode is an integrated connection on the side and it is installed on an object in a gel-like manner.

It 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. Its small size makes it an excellent choice for measurements in limited spaces and on delicate structures.

### Highlights

- **Applications of High-G Accelerometer**

High-g accelerometers are used to measure high-amplitude vibration, such as in collision and impact testing, aircraft and car acceleration, ballistic testing, and more. They can capture these huge acceleration changes and provide reliable data support.

- **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	10 mV/g
Frequency Response	2 Hz to 8 kHz ( $\pm 1$ dB)
Measuring Range (Peak)	$\pm 500$ g pk
Transverse Sensitivity	$\leq 5\%$
Amplitude Non-linearity	$\leq \pm 1\%$

### 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	$< 100 \mu\text{V}$
Bias Voltage	11 V- 13 V

### Environmental Characteristics

Max Shock Protection	$\pm 2000$ g
Operating Temperature	$-40^\circ\text{C}$ to $+80^\circ\text{C}$

### Physical Characteristics

Connector Type	Overall cable (M5)
Mounting Bolt	Glue
Sensing Structure	Shear Mode
Case Materials	304 Stainless Steel
Sensing Element	PZT-5
Weight	2 g (Excluded Cable)

### Frequency Response

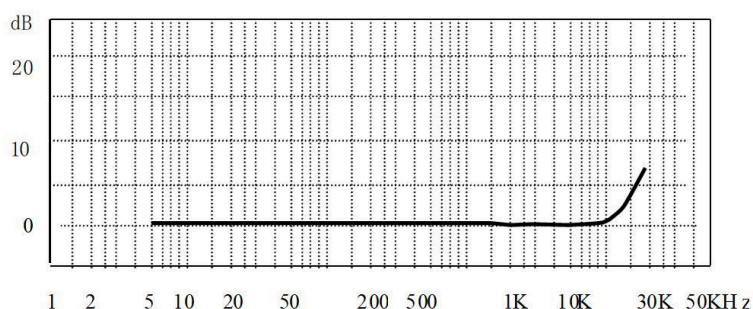


Fig.1 CRY437 Accelerometer Typical Frequency Response

### Drawings(mm)[inch]

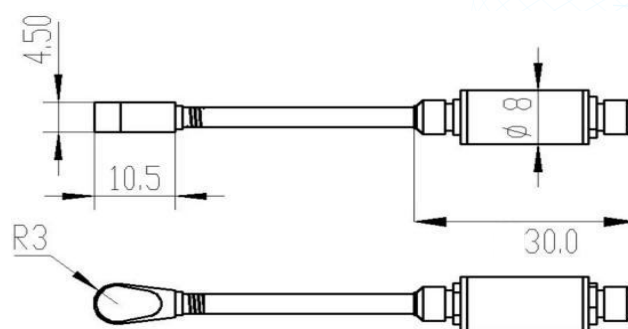


Fig.2 CRY437 Accelerometer Drawings

## Related Products

Model of Accelerometer	Axis	Sensitivity	Frequency Range	Measurement Range(Peak)
CRY431 IEPE Accelerometer	Single-axis	5 mV/g	1 Hz - 12 kHz	$\pm 1000$ g pk
CRY441 Charge Accelerometer	Single-axis	5 pC/g	1 Hz - 10 kHz	$\pm 2400$ g pk
CRY445 IEPE Accelerometer	Triaxial	100 mV/g	0.5 Hz - 8 kHz	$\pm 80$ g pk