



CRY442

Triaxial, Miniature, 100 MV/ G, High-sensitivity, IEPE Accelerometer, Side Connector

Features

- **Key Specifications**

Sensitivity	100 mV/g
Frequency Response	0.5Hz to 5kHz (± 1 dB)
Measuring Range	± 50 g pk

- **Applications**

Universal measurements
 Industrial vibration measurements
 Measurements in confined spaces

Introduction

The CRY442 is a triaxial acceleration sensor with a side 1/4-28 (4-pin) output that 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.

CRY442 can be used 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	0.5Hz to 5kHz (±1 dB)
Measuring Range (Peak)	±50g pk
Transverse Sensitivity	≤5%
Amplitude Non-linearity	≤±1%

Electrical

Output Impedance	<100 Ω
Excitation Voltage	18 VDC to 28 VDC
Full Scale Output (Peak)	±5 V
Constant Current	2 mA to 10 mA
Noise	<50 uV
Bias Voltage	9 ± 13V

Environmental

Max Shock Protection	±1000g
Operating Temperature	-40 °C to +120 °C

Physical

Connector Type	Side 1/4-28 (4-pin)
Mounting Threads	10-32UNF(Microdot)
Sensing Structure	Shear Mode
Case Materials	304 Stainless Steel
Sensing Element	PZT-5
Level of Protection	IP65
Weight	18g

Ordering Information

Optional Accessories

Cable	1/4-28(4pin) to BNC (3) cable/5m
Bolt	M5 bolt

Frequency Response

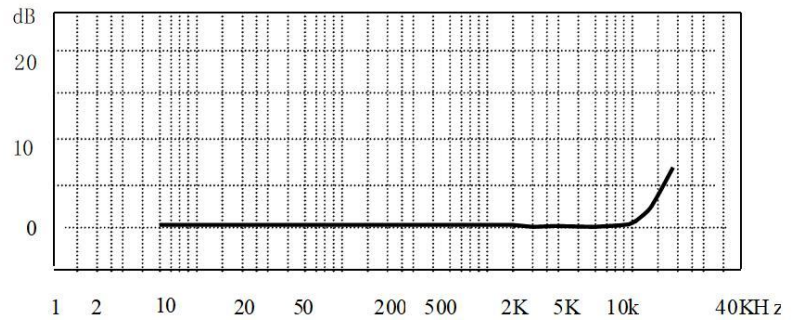


Fig.1 CRY442 Accelerometer Typical Frequency Response

Drawings(mm) [inch]

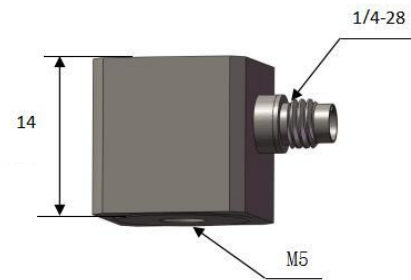


Fig.2 CRY442 Accelerometer Drawings

Dimensions

Size(no interface)	14mm*14mm*14mm
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Related Products

CRY431	1 Axis, high-g, IEPE accelerometer 5 mV/g, top 10-32UNF connector
CRY433	1 Axis, high-sensitivity, IEPE accelerometer, 100 mV/g, top 10-32UNF connector
CRY437	1Axis, high-g, IEPE accelerometer, 10 mV/g, miniature, Overall cable
CRY446	Triaxial, high-g, IEPE accelerometer, 10 mV/g, miniature, side connector