CRY442

Triaxial, MIniature, IEPE Accelerometer, Side 4-Pin Connector

Features

- **Key Specifications**

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

- **Applications**

Universal measurements
Industrial vibration measurements
Measurements in confined spaces

Introduction

CRY442 is a triaxial acceleration sensor. The output mode is 1/4 - 28 (4 pins) on the side and it is installed on an object through an M5 bolt. 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.

CRY442 can be used in conjunction with armored shielded cables for measuring parameters such as acceleration, velocity, and displacement under strong interference conditions such as in 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 CRYSOUND accelerometer is calibrated at the factory using traceable calibration equipment. Calibration certificates are provided with each unit. CRYSOUND recommends recalibration at least once a year.

- **Quality & Warranty**

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

CRYSOUND 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	0.5Hz to 5kHz (±1 dB)
Measuring Range (Peak)	±50g pk
Transverse Sensitivity	≤5%

Electrical Characteristics

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

Environmental Characteristics

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

Physical Characteristics

Connector Type	Side 1/4-28 4-pin
Threaded Interface	M5
Sensing Structure	Shear Mode
Case Materials	304 Stainless Steel
Sensing Element	PZT-5
Weight	18g

Frequency Response

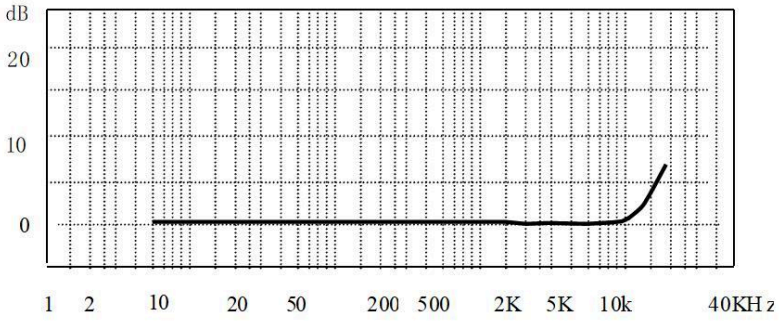

Fig.1 CRY442 Accelerometer Typical Frequency Response

Drawings(mm)[inch]

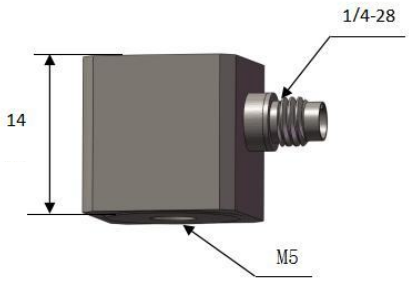

Fig.2 CRY442 Accelerometer Drawings

Ordering Information

Optional Accessories

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

Related Products

CRY431	1 Axis, high-g, IEPE accelerometer 5 mV/g, top M5 connector
CRY433	1 Axis, high-sensitivity, IEPE accelerometer, 100 mV/g, top M5 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