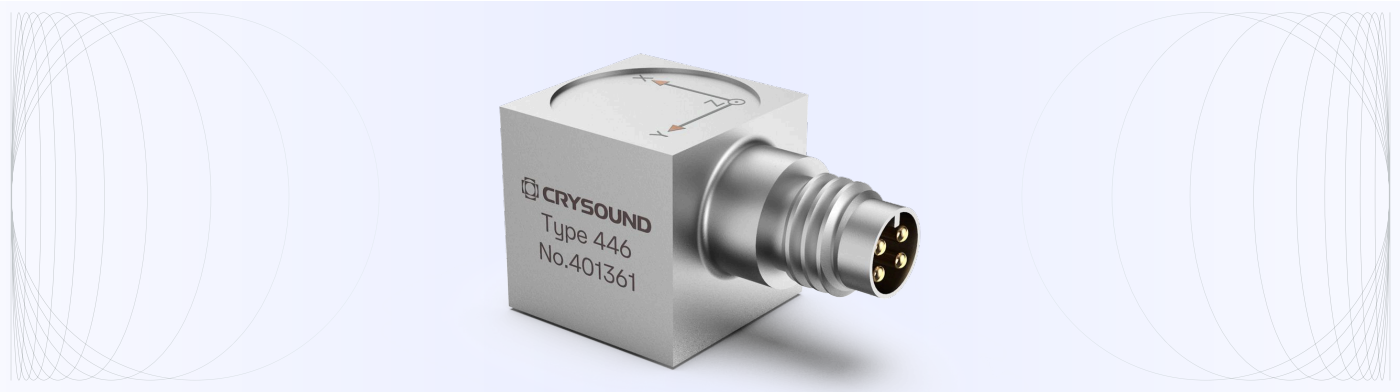

CRY446

Triaxial, Miniature, IEPE Accelerometer, High-G, Side 4-Pin Connector

Features

- **Key Specifications**

Sensitivity	10 mV/g
Frequency Response	1 Hz to 5 kHz (±1 dB)
Measuring Range	±500 g pk

- **Applications**

  Universal measurements
  Industrial vibration measurements
  Measurements in confined spaces

Introduction

CRY446 is a triaxial acceleration sensor with a side-mounted 1/4-28 (4-core) output. 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.

CRY446 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-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 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	10 mV/g
Frequency Response	1 Hz to 5 kHz (±1 dB)
Measuring Range (Peak)	±500 g 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	9 V to 13 V

Environmental Characteristics

Max Shock Protection	±2000 g
Operating Temperature	-40 ℃ to +120 ℃

Physical Characteristics

Connector Type	Side 1/4-28, 4-pin
Threaded Interface	M3
Sensing Structure	Shear Mode
Case Materials	304 Stainless Steel
Sensing Element	PZT-5
Weight	12 g

Frequency Response

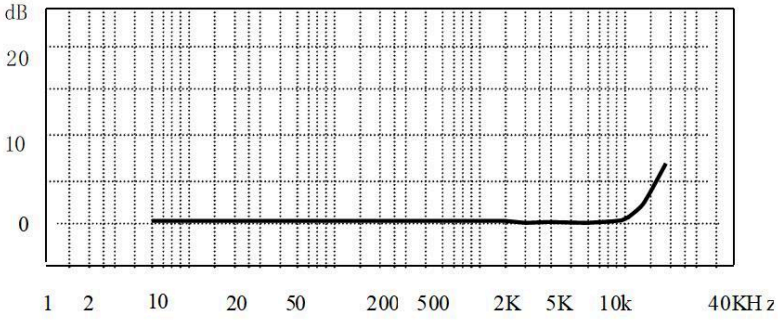

Fig.1 CRY446 Accelerometer Typical Frequency Response

Drawings(mm)[inch]

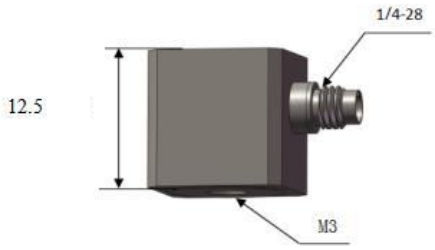

Fig.2 CRY446 Accelerometer Drawings

Ordering Information

Optional Accessories

Cable	1/4-28 four-core plug to BNC (3) cable/5m

Related Products

CRY431	1 Axis, high-g, IEPE accelerometer 5 mV/g, top M5 connector
CRY437	1Axis, high-g, IEPE accelerometer, 10 mV/g, miniature, overall cable
CRY442	Triaxial, high-sensitivity, miniature, IEPE accelerometer, 100 mV/g, side connector