CRY3203

1/2" Free-field Prepolarized High-sensitivity Microphone

Features

- **Key Specifications**

Sensitivity	50 mV/Pa
Dynamic Range	16 dBA to 146 dB
Frequency Range	3.15 Hz to 20 kHz ±2 dB

- **Applications**

  Anechoic chamber test
  Electroacoustic test
  Noise test

- **Standards**

  IEC 61094 4:1995 Measurement microphones - Part 4

Introduction

CRY3203 is a 1/2" free field prepolarization measurement microphone that is widely used in acoustic test environments such as anechoic and quiet rooms.

It has a frequency response range that matches the auditory frequency range of the human ear and is very suitable for noise detection. In addition, it is widely used in various fields such as electroacoustic measurement, audio measurement and acoustic research.

Highlights

- **Use of High-sensitivity Free-field Microphones**

  High -sensitivity microphone have a broad measure-ment frequency range and are applicable to a variety of measurement scenarios.
  Free-field microphone are specifically designed for measurements in environments that are free from reflections or echoes and are widely used in fields such as acoustic research, noise monitoring, and sound system testing.

- **Compatibility**

  The CRY3203 measuring microphone is compatible with the IEPE preamplifier of CRYSOUND.

  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 microphone 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 microphone capsules use 3rd generation titanium diaphragms and protection grids and synthetic sapphire insulators - resulting in the most rugged and reliable measurement microphones on the market. Titanium provides superior corrosion resistance, high temperature stability, impact resistance and strength-to-mass than traditional nickel and stainless steel. All capsules are assembled in strict clean-room environments for maximum quality.
  CRYSOUND microphones are supported by a 10-year warranty—offering one of the best service guarantee in the world.

Technical Specifications

Specifications

Field Type	Free-field
Sensitivity(±1.5 dB)	50 mV/Pa, -26 dB re 1V/Pa
Frequency Response	3.15 Hz to 20 kHz ±2 dB
Polarization Voltage	0 V
Capacitance	15 pF (@250 Hz)
Dynamic Range(re.20uPa)	16 dBA to 146 dB
Operating Temperature	-30°C to +80°C(-4°F to +140°F)
Temperature Stability	0.012 dB/°C (-10°C to +50°C) 0.007 dB/°F (+14°F to +122°F)
Static Pressure Stability	-0.01 dB/kPa
Operating Humidity Range	0 to 90%RH no condensation
Humidity Stability	< 0.1 dB (0 to 90%RH no condensation)
Pressure Equalization Vent	Rear vented
IEC 61094-4 Type	WS2F

Dimensions

Height with Grid	16.2 mm (0.64")
Diameter with Grid	13.2 mm (0.52")

Drawings(mm)[inch]

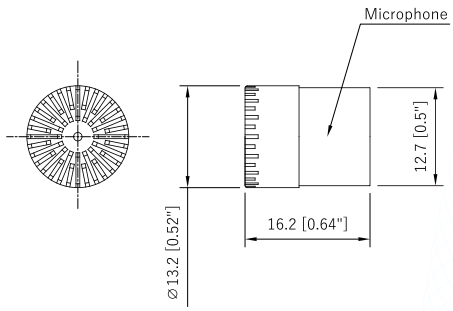

Fig.1 CRY3203 Microphone Drawings

Frequency Response

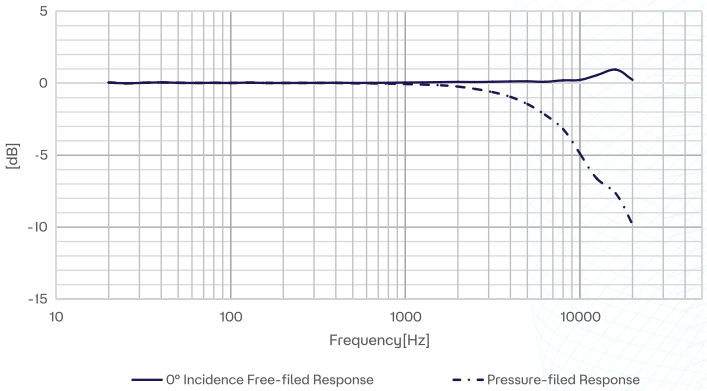

Fig.2 CRY3203 Microphone Typical Frequency Response

Ordering Information

Optional Accessories

Preamplifier	CRY3501 1/2" BNC Interface CRY3503 1/2" Microdot Interface CRY3541 1/4" SMB Interface
Electrostatic Actuator	TA0302 1/2" IEPE Electrostatic Actuator
Adapter	TA0502 1/4" to 1/2" Adapter Ring
Power Supply	CRY575 Three-channel Microphone Power Supply
Electroacoustic Analyzer	CRY6151B Electroacoustic Analyzer
Cable	BL5001 BNC to BNC Cable /1.6m SMB to BNC Cable /1.5m Microdot to BNC Cable /1.5m

Related Products

CRY3101	1" free-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-16kHz, 12 dBA-140 dB
CRY3201	1/2" free-field prepolarized high-frequency microphone, 12.5 mV/Pa, 3.15 Hz-40 kHz, 23 dBA-160 dB
CRY3202	1/2" pressure-field prepolarized wide-frequency microphone, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dBA-160 dB
CRY3401	1/4" free-field prepolarized low-noise microphone, 15.8 mV/Pa, 4 Hz-40 kHz, 26dB-144 dB
CRY3403	1/4" free-field prepolarized high-frequency microphone, 4 mV/Pa, 4 Hz-90kHz, 35dBA-165dB