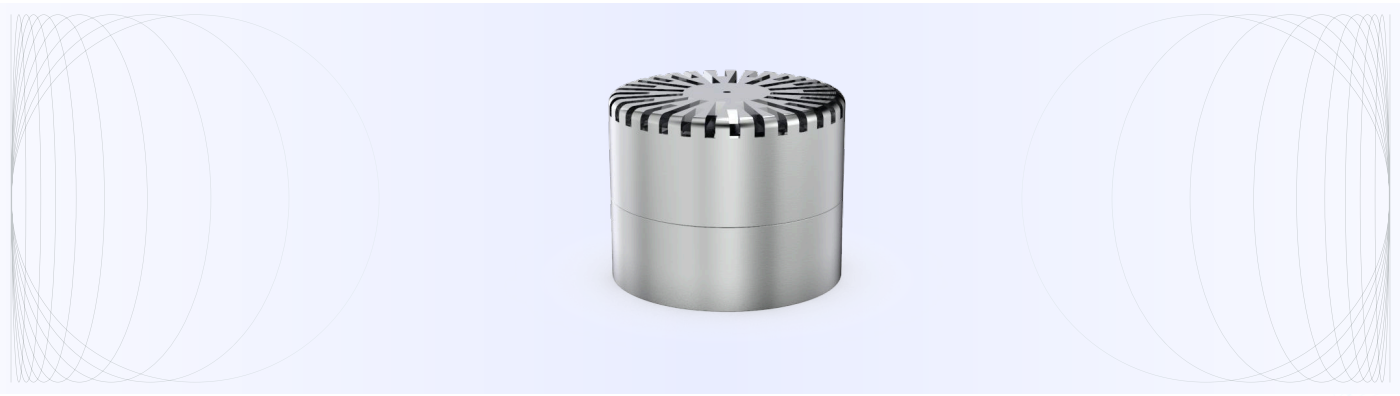

CRY3103

1" Free-field Prepolarized Low-noise Microphone

Features

- **Key Specifications**

Sensitivity	100 mV/Pa
Dynamic Range	10 dB to 130 dB
Frequency Range	4 Hz to 12 kHz ±2 dB

- **Applications**

  Anechoic chamber test
  Electroacoustic test
  Noise test

- **Standards**

  IEC 61094 4:1995 Measurement microphones – Part 4

Introduction

CRY3103 is a 1 inch free-field prepolarized measurement microphone, widely applicable in acoustic test environments.

The unique design of CRY3103 endows it with high sensitivity, providing users with excellent test performance and flexibility. It is widely applicable in acoustic testing, acoustic design research, and calibration testing of audio equipment such as speakers.

Highlights

- **Use Of Hifh-Sensitivity Free-Field Microphones**

  High-sensitivity microphones have a broad measurement 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 CRY3103 measuring microphone is compatible with the 1/2" 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 enjoy a 10-year warranty period. We will provide users with comprehensive after-sales support services.

Technical Specifications

Specifications

Field Type	Free-field
Sensitivity(±2 dB)	100 mV/Pa, -20 dB re 1 V/Pa
Frequency Response	4 Hz to 12 kHz ±2 dB
Polarization Voltage	0 V
Capacitance	66 pF (@250 Hz)
Dynamic Range(re.20uPa)	10 dB to 130 dB
Inherent noise	10 dBA
Operating Temperature	-20°C to +60°C(-4°F to +140°F)
Temperature Stability	0.015 dB/°C (-10°C to +50°C) 0.008 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	WS1F

Dimensions

Height with Grid	19 mm (0.748")
Diameter with Grid	23.77 mm (0.936")

Drawings(Mm)[Inch]

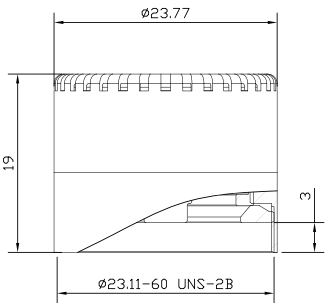

Fig.1 CRY3103 Microphone Drawings

Frequency Response

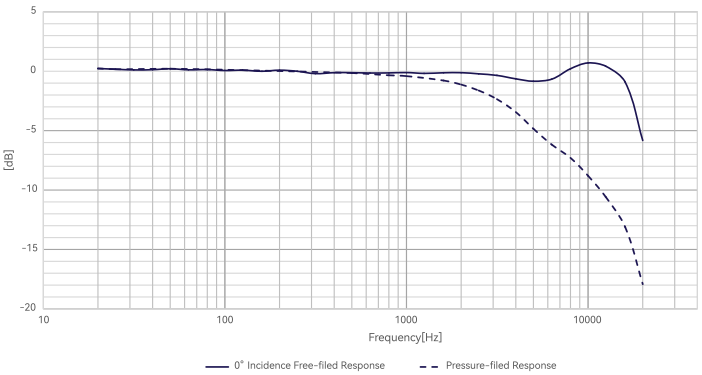

Fig.2 CRY3103 Microphone Typical Frequency Response

Ordering Information

Optional Accessories

Preamplifier	CRY3503 1/2" 10-32UNF CRY3502 1/2" SMB Interface
Adapter	TA0501 1/2" to 1" Adapter Ring
Sound Level Meter	CRY2851 Sound Level Meter
Power Supply	CRY575 Three-channel Microphone Power Supply
Electroacoustic Analyzer	CRY6151B Electroacoustic Analyzer

Related Products

CRY3201	1/2" free-field prepolarized high-frequency microphone, 12.5 mV/Pa, 3.15 Hz-40 kHz, 23 dB-160 dB
CRY3203	1/2" free-field prepolarized high-sensitivity microphone, 50 mV/Pa, 3.15 Hz-20kHz, 16 dB-146 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, 35dB-165dB