



# CRY3404

## 1/4" Pressure-field Prepolarized High-level Microphone

### Features

- **Key Specifications**

Sensitivity	0.56 mV/Pa
Dynamic Range	59 dB to 175 dB
Frequency Range	10 Hz to 20 kHz $\pm 2$ dB

- **Applications**

Industrial blasting test  
Aero-engine noise test

- **Standards**

IEC 61094 4:1995 Measurement microphones – Part 4

### Introduction

CRY3404 is a 1/4" pressure field prepolarization measurement microphone designed for high sound pressure level acoustic measurement.

It is capable of acoustic testing in extremely high sound pressure environments and can withstand sound pressure levels up to 175 dB. It is particularly suitable for measuring sound characteristics in high-volume environments and for evaluating and optimizing acoustic environments.

### Highlights

- **Use of High-level Microphones**

High level microphones enable acoustic testing in extremely high sound pressure environments and are particularly suitable for measuring sound characteristics in large volume environments as well as evaluating and optimizing acoustic environments.

The CRY344 high-level microphone is widely used in various fields such as industrial blasting detection, aerospace testing, and military testing.

- **Compatibility**

The CRY3404 measuring microphone is compatible with the IEPE preamplifier of CRY SOUND.

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 microphone 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 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.

CRY SOUND microphones are supported by a 10-year warranty—offering one of the best service guarantee in the world.

## Technical Specifications

### Specifications

Field Type	Pressure-field
Sensitivity( $\pm 3$ dB)	0.56 mV/Pa, -65 dB re 1V/Pa
Frequency Response	10 Hz to 20 kHz $\pm 2$ dB
Polarization Voltage	0 V
Capacitance	7 pF (@250 Hz)
Dynamic Range(re.20uPa)	59 dB to 175 dB
Inherent noise	59 dBA
Operating Temperature	-30°C to +70°C (-22°F to +158°F)
Temperature Stability	-0.002 dB/°C (-10 to +50°C) -0.001 dB/°F (+14 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	Side vented
IEC 61094-4 Type	WS3P

### Dimensions

Height with Grid	10.5 mm (0.413")
Diameter with Grid	7 mm (0.276")

## Ordering Information

### TEDS Combinations

Microphone Set	CRY3404-S01 Microphone Set (CRY3543 IEPE Preamplifier)
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### Optional Accessories

Preamplifier	CRY3542 1/4" SMB Interface CRY3541 1/4" SMB Interface
Microphone Holder	1/4" Microphone Holder
Sound Level Meter	CRY2851 Sound Level Meter
Power Supply	CRY575 Three-channel Microphone Power Supply
Electroacoustic Analyzer	CRY6151B Electroacoustic Analyzer

### Drawings(mm)[inch]

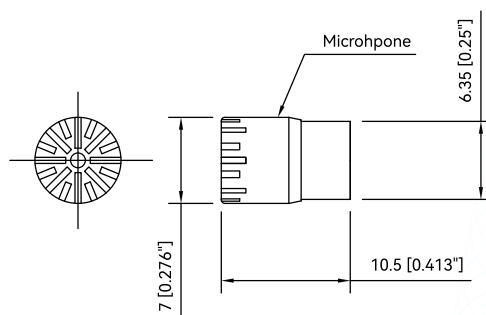


Fig.1 CRY3404 Microphone Drawings

### Frequency Response

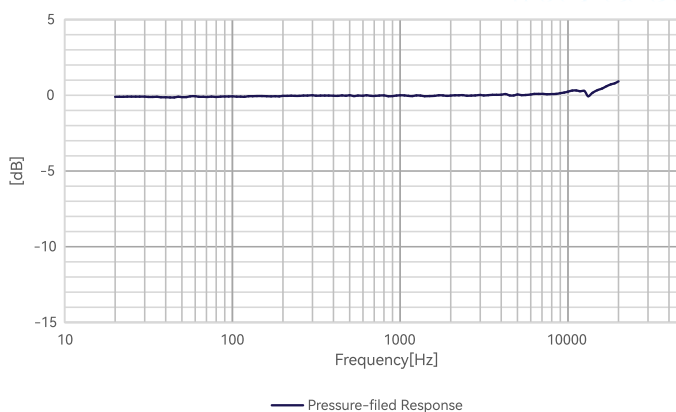


Fig.2 CRY3404 Microphone Typical Frequency Response

### Related Products

CRY3102	1" pressure-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-8 kHz, 12 dB-146 dB
CRY3202	1/2" pressure-field prepolarized wide-frequency microphone, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dB-160 dB
CRY3204	1/2" pressure-field prepolarized high-sensitivity microphone, 50 mV/Pa, 3.15 Hz-10 kHz, 16 dB-146 dB
CRY3402	1/4" pressure-field prepolarized High frequency microphone, 1.6 mV/Pa, 4 Hz-70kHz, 45dB-170 dB
CRY3406	1/4" pressure-field prepolarized low-noise microphone, 15.8 mV/Pa, 4 Hz-20kHz, 26dB-144 dB