



# CRY3401

## 1/4" Free-field Prepolarized Low-noise Microphone

### Features

- **Key Specifications**

Sensitivity	15.8 mV/Pa
Dynamic Range	26 dB to 144 dB
Frequency Range	4 Hz to 40 kHz $\pm$ 2 dB

- **Applications**

Anechoic chamber test  
Speaker test  
Environmental test

- **Standards**

IEC 61094 4:1995 Measurement microphones – Part 4

### Introduction

CRY3401 is a 1/4 inch free field prepolarization measurement microphone designed for sensitive acoustic testing in low noise environments.

It has very low self-noise and a measurement frequency range of up to 40 kHz, and can withstand sound pressure levels of up to 144 dB. It is an excellent general purpose measurement microphone for high definition audio measurement and other ultrasonic acoustic applications.

### Highlights

- **Use of Low-noise frequency Free-field Microphones**

Low-noise microphones have very low internal noise, allowing them to conduct acoustic measurements without significantly adding to the background noise.

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 CRY3401 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	Free-field
Sensitivity( $\pm 1.5$ dB)	15.8 mV/Pa, -36 dB re 1V/Pa
Frequency Response	4 Hz to 40 kHz $\pm 2$ dB
Polarization Voltage	0 V
Capacitance	7 pF (@250 Hz)
Dynamic Range(re.20uPa)	26 dB to 144 dB
Inherent noise	26 dBA
Operating Temperature	-20°C to +60°C (-4°F to +140°F)
Temperature Stability	0.01 dB/°C (-10°C to +50°C) 0.006 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	Side vented
IEC 61094-4 Type	WS3F

### Dimensions

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

## Ordering Information

### TEDS Combinations

Microphone Set	CRY3401-S01 Microphone Set (CRY3541 IEPE Preamplifier)
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### Optional Accessories

Preamplifier	CRY3542 1/4" SMB CRY3543 1/4" 10-32UNF
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]

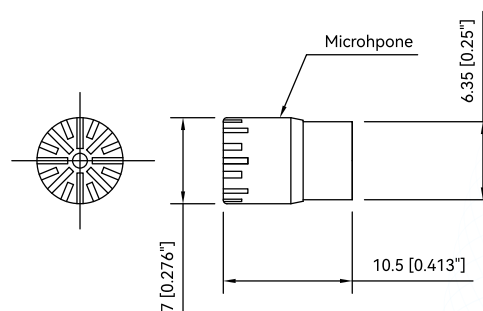


Fig.1 CRY3401 Microphone Drawings

### Frequency Response

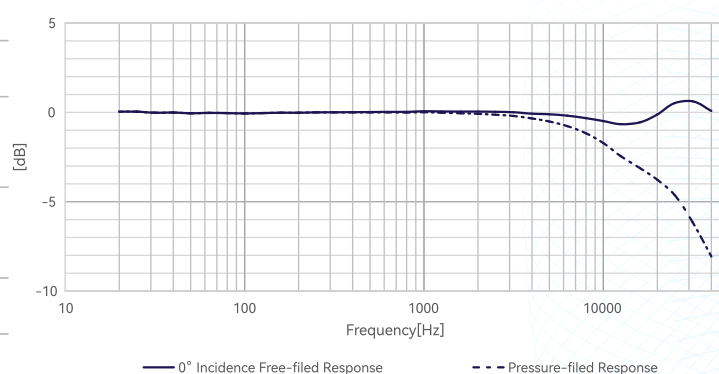


Fig.2 CRY3401 Microphone Typical Frequency Response

### Related Products

CRY3101	1" free-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-16kHz, 12 dB-146 dB
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
CRY3404	1/4" pressure-field prepolarized high-level microphone, 0.56mV/Pa, 10Hz-20kHz, 59dB-175dB