



# CRY3404-S01

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

### Features

- **Key Specifications**

Nominal Sensitivity	-65±1.5dB re 1V/Pa
Dynamic Range	59dBA to 175dB
Frequency Range	10Hz to 20kHz ±2dB

- **Applications**

High-frequency (ultrasonic) measurements  
High-definition speakers, headphones, and earbud measurements  
High Sound Pressure Level (SPL) measurements

- **Standards**

IEC 61094 4:1995 Measurement microphones - Part 4

- **Components**

CRY3404 1/4" Pressure-field Prepolarized Microphone  
CRY3543 1/4" IEPE Preamplifier

### Introduction

The CRY3404-S01 is a 1/4 inch pressure field prepolarization measurement microphone and preamplifier set 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 suitable for measuring sound characteristics in high-volume environments and evaluating and optimizing acoustic environments.

### Highlights

- **Use of High-level Pressure-field 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.

Pressure-field microphone sets are specifically designed for measurements in small enclosed cavities or near the sound source ports, and are widely used in fields such as acoustic research and electroacoustic testing.

- **Compatibility**

CRY SOUND microphone set requires a constant current input module capable of delivering 4mA and 24V unloaded IEPE voltage supply.

IEPE is a universal constant current source power supply technology used on sensors. Each manufacturer has different names, such as ICP, CCP, etc.

- **TEDS Microphone Set**

Supports TEDS, and TEDS programmed to the IEEE 1451.4 standard for SMART transducers, V 1.0 format.

- **Calibration**

Each CRY SOUND microphone set 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 and preamplifiers are supported by a 10-year warranty—offering one of the best service guarantee in the world.

# Technical Specifications

## Specifications

Field Type	Pressure-field
Nominal Sensitivity	0.56mV/Pa, -65 ±1.5dB re 1V/Pa
Frequency Response	10Hz to 20kHz ±2dB
Polarization Voltage	0V
Dynamic Range(re.20uPa)	59dBA to 175dB
Operating Temperature	-30 to +70°C (-22 to +158°F)
Temperature Stability	0.015dB/°C (-10 to +50°C) 0.008dB/°F (+14 to +122°F)
Static Pressure Stability	-0.01dB/kPa
Operating Humidity Range	0 to 90%RH no condensation
Humidity Stability	< 0.1dB (0 to 90%RH no condensation)
Pressure Equalization Vent	Side vented
IEC 61094-4 Type	WS3P
Output Impedance	< 20Ω
Maximum Output Voltage	> 5.0Vrms
Current Source	IEPE (2mA to 10mA)
Typical Operating Current	4mA
Interface Type	Microdot

## Frequency Response

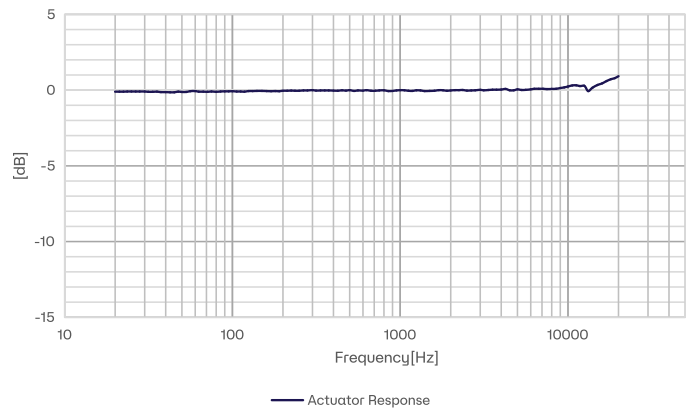


Fig.1 CRY3404-S01 Microphone Set Typical Frequency Response

## Dimensions

Height with Grid	56.2mm (2.213")
Diameter with Grid	7mm (0.276")

## Drawings(mm)[inch]

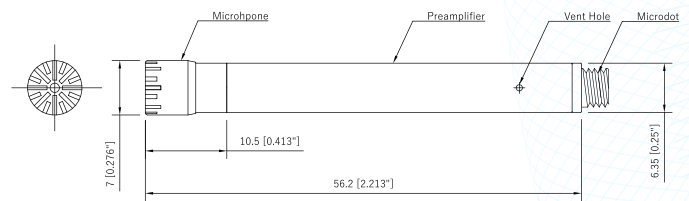


Fig.2 CRY3404-S01 Microphone Set Drawings

## Ordering Information

### Consisting of

Measurement Microphone	CRY3404 1/4" Pressure-field Prepolarized Microphone
Preamplifier	CRY3543 1/4" IEPE Preamplifier
Cable	Microdot to BNC Cable /1.5m

### Optional Accessories

Electrostatic Actuator	TA0303 1/4" Electrostatic Actuator
Power Supply	CRY575 Three-channel Microphone Power Supply
Cable	Microdot to BNC Cable /1.5m

### Related Products

CRY3402-S01	1/4" pressure-field, prepolarized, SMB interface microphone set. Designed specifically for testing high frequencies and high sound pressure levels.
CRY3202-S01	1/2" pressure-field, prepolarized microphone set, primarily used for acoustic testing of high-quality in-ear headphones.
CRY3102-S01	1" pressure-field, prepolarized microphone set, primarily used for low-noise testing and electroacoustic testing with coupler.
CRY3406-S01	1/4" pressure-field, low-noise prepolarized microphone set. Low self-noise, Widely used for sensitive acoustic testing.
CRY3261-S01	1/2" free-field, prepolarized microphone set, commonly used for low-noise testing.