



CRY3402

1/4" Pressure-field Prepolarized High Frequency Microphone

Features

- **Key Specifications**

Sensitivity	1.6 mV/Pa
Dynamic Range	45 dBA to 170 dB
Frequency Range	4 Hz to 70 kHz ± 2 dB

- **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

Introduction

CRY3402 is a 1/4" pressure field prepolarization measurement microphone designed for high frequency and high dynamic range acoustic measurements.

It provides a flat frequency response, allowing measurement frequencies up to 70 kHz. It is also capable of withstanding sound pressure levels up to 170 decibels and can be used for high-definition audio measurement and other ultrasonic acoustic applications.

Highlights

- **Use of High frequency Pressure-field Microphones**

High frequency microphones can accurately capture high-frequency sounds and are highly suitable for ultrasonic detection, high-frequency acoustic research, and other similar applications.

Pressure-field microphones 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**

The CRY3402 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(± 3 dB)	1.6 mV/Pa, -56 dB re 1V/Pa
Frequency Response	4 Hz to 70 kHz ± 2 dB
Polarization Voltage	0 V
Capacitance	7 pF (@250 Hz)
Dynamic Range(re.20uPa)	45 dBA to 170 dB
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	WS3P

Dimensions

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

Ordering Information

TEDS Combinations

Microphone Set	CRY3402-S01 Microphone Set (CRY3541 IEPE Preamplifier) CRY3402-S02 Microphone Set (CRY3543 IEPE Preamplifier)
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Optional Accessories

Preamplifier	CRY3542 1/4" SMB Interface CRY3501 1/2" BNCInterface
Microphone Holder	1/4" Microphone Holder
Adapter	TA0503 1/2" to 1/4" Adapter Ring
Power Supply	CRY575 Three-channel Microphone Power Supply

Drawings(mm)[inch]

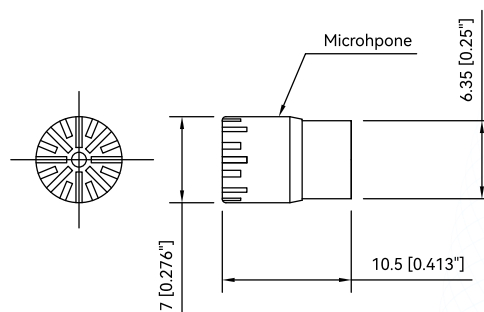


Fig.1 CRY3402 Microphone Drawings

Frequency Response

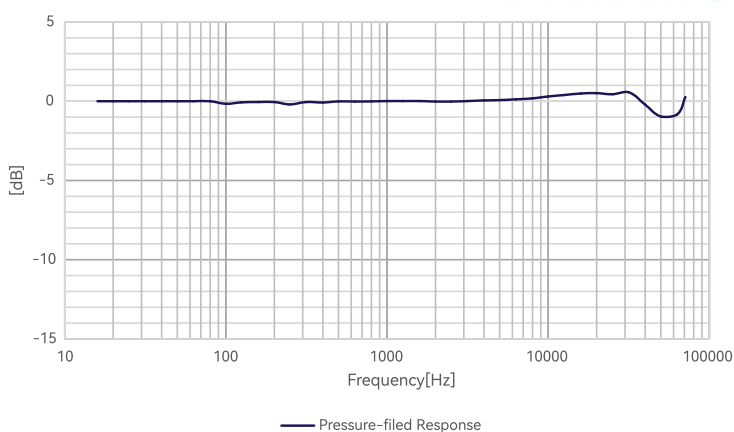


Fig.2 CRY3402 Microphone Typical Frequency Response

Related Products

CRY3102	1" pressure-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-8 kHz, 12 dBA-146 dB
CRY3202	1/2" pressure-field prepolarized wide-frequency microphone, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dBA-160 dB
CRY3204	1/2" pressure-field prepolarized high-sensitivity microphone, 50 mV/Pa, 3.15 Hz-10 kHz, 16 dBA-146 dB
CRY3404	1/4" pressure-field prepolarized high-level microphone, 0.56 mV/Pa, 10 Hz-20kHz, 59dB-175dB