



CRY3404-S01

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

Features

- **Key Specifications**

Sensitivity	0.56 mV/Pa
Dynamic Range	56 dBA to 175 dB
Frequency Range	10 Hz to 20 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

- **Components**

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

Introduction

The CRY3404-S01 is a 1/4" 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**

The CRY SOUND prepolarized microphone kit requires a constant current source power module (IEPE power supply) that can provide a current of 2 mA to 20 mA and a no-load voltage of 24V.

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
Sensitivity(± 3 dB)	0.56 mV/Pa, -65 dB re 1V/Pa
Frequency Response	10 Hz to 20 kHz ± 2 dB
Polarization Voltage	0 V
Dynamic Range(re.20 μ Pa)	56 dBA to 175 dB
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
Output Impedance	< 35 Ω
Maximum Output Voltage	> 9.0 Vp
DC Bias Voltage	12V $\pm$ 2 V
Current Source	IEPE (2 mA to 20 mA)
Typical Operating Current	4 mA
Interface Type	10-32UNF(Microdot)

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

Frequency Response

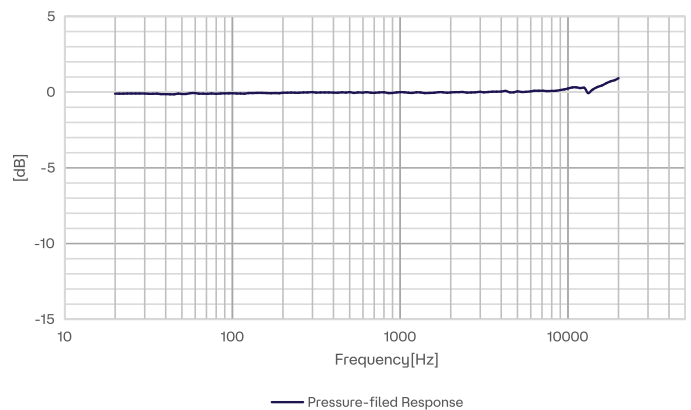


Fig.1 CRY3404-S01 Microphone Set Typical Frequency Response

Dimensions

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

Drawings(mm)[inch]

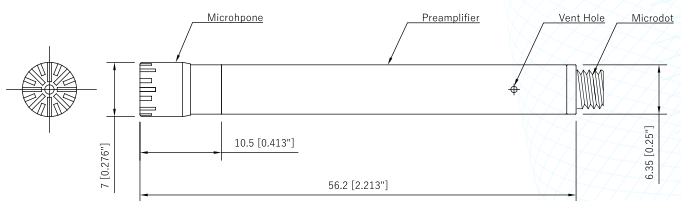


Fig.2 CRY3404-S01 Microphone Set Drawings

Related Products

CRY3102-S01	1" pressure-field prepolarized low-noise microphone set, 50 mV/Pa, 4 Hz-8 kHz, 12 dBA-135dB
CRY3202-S01	1/2" pressure-field prepolarized wide-frequency microphone set, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dBA-147dB
CRY3402-S01	1/4" pressure-field prepolarized ultra-high frequency microphone set, 1.6 mV/Pa, 4 Hz-70kHz, 45dB-161 dB
CRY3406-S01	1/4" pressure-field prepolarized low-noise microphone set, 15.8 mV/Pa, 4 Hz-20kHz, 26dB-142 dB
CRY3261-S01	1/2" free-field prepolarized ultra low-noise microphone set, 354 mV/Pa, 3.15 Hz-20kHz, 7.5dBA-115dB