



CRY3202-S01

1/2" Pressure-field, Prepolarized, Full-range Microphone Set

Features

- **Key Specifications**

Nominal Sensitivity	12.5 mV/Pa
Dynamic Range	23 dBA to 147dB
Frequency Range	3.15 Hz to 20 kHz ± 2 dB

- **Applications**

In-ear monitor measurements - used in conjunction with a coupler
Wideband earbud measurements - used in conjunction with a coupler

- **Standards**

IEC 61094 4:1995 Measurement microphones - Part 4

- **Components**

CRY3202 1/2" Pressure-field Prepolarized Microphone
CRY3501 1/2" IEPE Preamplifier

Introduction

CRY3202-S01 is a free-field prepolarized microphone and preamplifier set widely used in acoustic testing environments, such as anechoic chambers and quiet rooms. Its frequency response range matches the auditory frequency range of the human ear, making it highly suitable for noise detection. Additionally, it is also widely applicable in various fields including electroacoustic measurements, audio measurements, and acoustical research.

Highlights

- **Use of Full-range Pressure-field Microphones**

Full-range microphones can cover a wide frequency range from very low frequencies to high frequencies, making them highly suitable for testing and measuring various acoustic environments and sound sources.

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 2mA to 20mA 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 guarantees in the world.

Technical Specifications

Specifications

Field Type	Pressure-field
Sensitivity(± 1.5 dB)	12.5 mV/Pa, -38 dB re 1V/Pa
Frequency Response	3.15 Hz to 20 kHz ± 2 dB
Polarization Voltage	0 V
Dynamic Range(re.20 μ Pa)	23 dBA to 147 dB
Operating Temperature	-30°C to +70°C (-22°F to +158°F)
Temperature Stability	0.005dB/°C (-10 to +50°C) 0.003dB/°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	Rear vented
IEC 61094-4 Type	WS2P
Output Impedance	< 35 Ω
Maximum Output Voltage	>9.0 Vp
DC Bias Voltage	12V $\pm$ 2 V
Power Supply	IEPE (2 mA to 20 mA)
Typical Operating Current	4 mA
Interface Type	BNC

Ordering Information

Consisting of

Measurement Microphone	CRY3202 1/2" Pressure-field Prepolarized Microphone
Preamplifier	CRY3501 1/2" IEPE Preamplifier
Cable	BL5001 BNC to BNC Cable /1.6m

Optional Accessories

Electrostatic Actuator	TA0302 1/2" Electrostatic Actuator
Power Supply	CRY575 Three-channel Microphone Power Supply
Cable	BL5001 BNC to BNC Cable /1.0m BL5001 BNC to BNC Cable /3.2m BL5001 BNC to BNC Cable /5.0m

Frequency Response

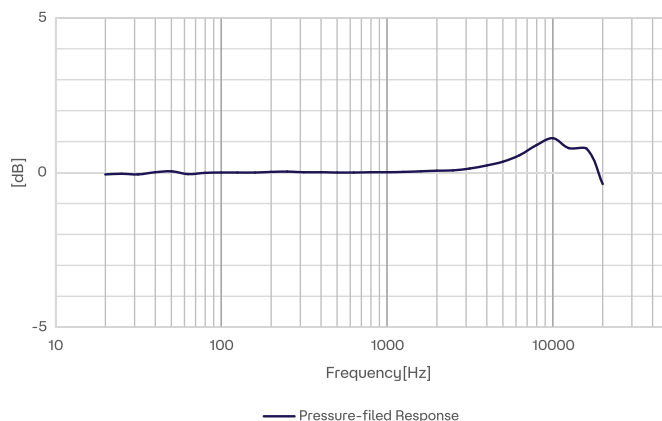


Fig.1 CRY3202-S01 Microphone Set Typical Frequency Response

Dimensions

Height with Grid	88 mm (3.46")
Diameter with Grid	13.2 mm (0.52")

Drawings(mm)[inch]

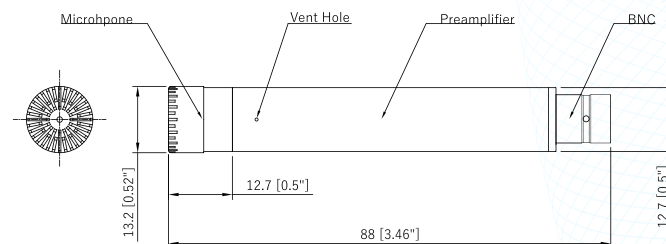


Fig.2 CRY3202-S01 Microphone Set Drawings

Related Products

CRY3102-S01	1" pressure-field prepolarized low-noise microphone set, 50 mV/Pa, 4 Hz-8 kHz, 12 dBA-135dB
CRY3202-S02	1/2" pressure-field prepolarized wide-frequency microphone set, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dBA-144 dB
CRY3204-S01	1/2" pressure-field prepolarized high-sensitivity microphone set, 50 mV/Pa, 3.15 Hz-10 kHz, 16 dBA-135dB
CRY3402-S01	1/4" pressure-field prepolarized ultra-high frequency microphone set, 1.6 mV/Pa, 4 Hz-70kHz, 45dB-161 dB
CRY3261-S01	1/2" free-field prepolarized ultra low-noise microphone set, 354 mV/Pa, 3.15 Hz-20kHz, 7.5dBA-115dB