CRY3406-S01

1/4" Pressure-Field, Prepolarized, Low-noise Microphone Set

Features

- **Key Specifications**

Nominal Sensitivity	15.8 mV/Pa
Dynamic Range	26 dB to 146 dB
Frequency Range	4 Hz to 20 kHz ±2 dB

- **Applications**

  Anechoic chamber test
  Speaker test
  Audiometer test.

- **Standards**

  IEC 61094 4:1995 Measurement microphones - Part 4

- **Components**

  CRY3406 1/4" Pressure-field Prepolarized Microphone
  CRY3541 1/4" IEPE Preamplifier

Introduction

The CRY3406-S01 is a 1/4" pressure field prepolarization measurement microphone and preamplifier designed for sensitive acoustic testing in low noise environments.
Its unique design allows it to have very low self-noise and to withstand sound pressure levels up to 146 dB, making it an excellent general-purpose measurement microphone for high-definition audio measurements.

Highlights

- **Use of Low-noise Pressure-field Microphones**

  Low-noise microphones have very low internal noise. When performing acoustic measurements, they have lower background noise to obtain lower acoustic signals. 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 CRYSOUND pre-polarized microphone kit requires a constant current source power module (IEPE power supply), also known as ICP, CCP, etc., capable of supplying a current ranging from 2mA to 20mA.

- **TEDS Microphone Set**

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

- **Calibration**

  Each CRYSOUND microphone set is calibrated at the factory using traceable calibration equipment. Calibration certificates are provided with each unit. CRYSOUND recommends recalibration at least once a year.

- **Quality & Warranty**

  All CRYSOUND 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.

  CRYSOUND 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(±1.5 dB)	15.8 mV/Pa, -36 dB re 1V/Pa
Frequency Response	4 Hz to 20kHz ±2 dB
Polarization Voltage	0 V
Dynamic Range(re.20uPa)	26 dB to 146 dB
Inherent noise	26 dBA
Operating Temperature	-20℃ to +60℃ (-4℉ to +140℉)
Temperature Stability	0.01 dB/℃ (-10℃ to +50℃) 0.006 dB/℉ (+14℉ to +122℉)
Static Pressure Stability	-0.01 dB/kPa
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	< 50 Ω
Maximum Output Voltage	> 10.0 Vp
Current Source	IEPE (2 mA to 20 mA)
DC Bias Voltage	12V ± 2 V
Typical Operating Current	4 mA
Interface Type	SMB

Frequency Response

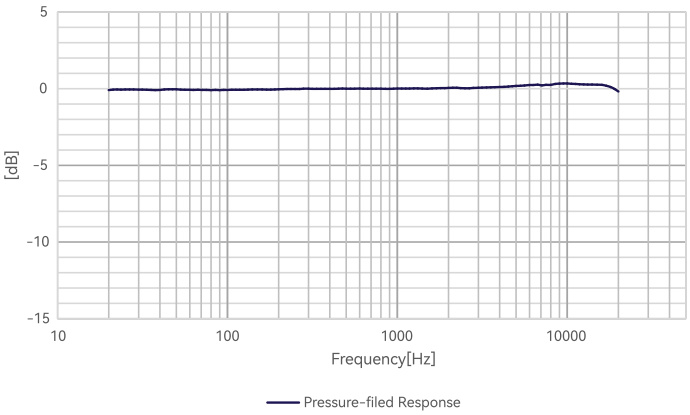

Fig.1 CRY3406-S01 Microphone Set Typical Frequency Response

Dimensions

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

Drawings(mm)[inch]

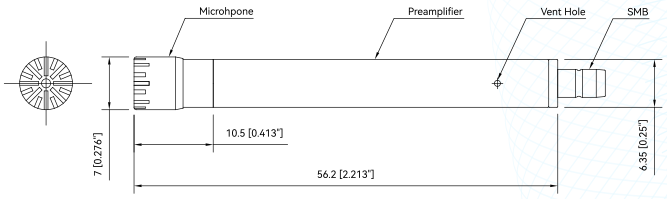

Fig.2 CRY3406-S01 Microphone Set Drawings

Ordering Information

Consisting of

Measurement Microphone	CRY3406 1/4" Pressure-field Prepolarized Microphone
Preamplifier	CRY3541 1/4" IEPE Preamplifier
Cable	SMB to BNC Cable /1.5m

Optional Accessories

Microphone Holder	1/4" Microphone Holder
Power Supply	CRY575 Three-channel Microphone Power Supply

Related Products

CRY3102-S01	1" pressure-field prepolarized low-noise microphone set, 50 mV/Pa, 4 Hz-8 kHz, 12 dB-138dB
CRY3202-S01	1/2" pressure-field prepolarized wide-frequency microphone set, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dB-150B
CRY3402-S01	1/4" pressure-field prepolarized ultra-high frequency microphone set, 1.6 mV/Pa, 4 Hz-70kHz, 45dB-168 dB