



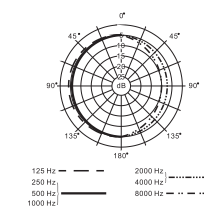
ECM 999

Measurement Microphone

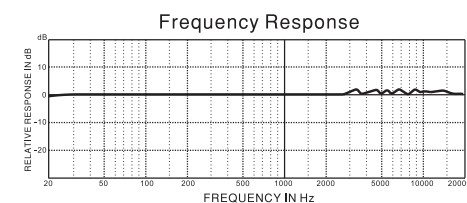
User Guide

Specifications

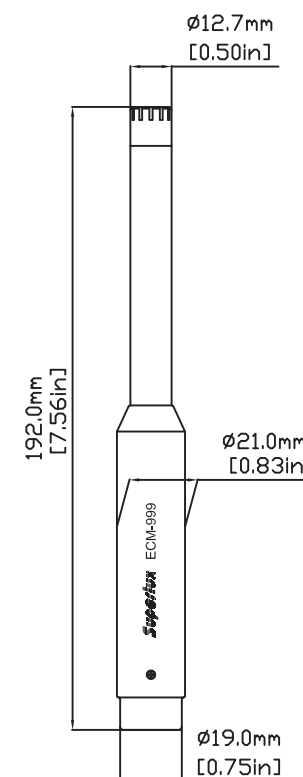
Type Back electret condenser	Power supply 9~52 V Phantom
Element Pressure, FET preamplifier.	Current consumption 2mA
Polar pattern Omni-directional (Figure 1)	Polarity Pin 2 output positive voltage (related to pin 3) when diaphragm receives positive pressure. (Diaphragm moving inward)
Frequency response 20 to 20,000 Hz (Figure 2)	Connector 3 pin male XLR type
Sensitivity (at 1,000 Hz Open Circuit Voltage) -37dBV/Pa (14mV/Pa) 1Pa=94dB SPL	Finish Sturdy metal construction, solemn black finish.
Rated impedance 200Ω	Environmental conditions The ECM999 operates between -10 to +50 (14 to 122) with relative humidity between 0 to 95%.
Minimum load impedance 1,000Ω	Dimensions Φ21.0x192.0mm (0.83x7.56in.) Figure 3
Equivalent noise level (A-weighted) 26dB	Weight 150g (5.30 oz.)
Max. SPL (1 kΩ load) 132dB SPL (THD≤1% 1kHz)	RoHS The ECM999, including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.
Dynamic range (1 kΩ Load) 106dB	
noise ratio-to-Signal 70 dB	



POLAR PATTERN (Figure 1)



FREQUENCY RESPONSE (Figure2)



Dimensions(Figure 3)

Description

The ECM-999 is an omni-directional microphone for free-field measurement. With a highly-reliable circuit and a 1/4" pre-polarized condenser capsule, it boasts high stability, low distortion, and low noise in performance. Its excellent flat frequency response makes it an ideal candidate for sonic analysis systems and for special recording as well.

Features

- Sturdy metal construction, solemn black finish.
- Very flat response, excellent electro-acoustic characteristics.
- Ideal for room sonic analysis systems, measurement, testing and recording.
- Standard 1/2" measurement diameter.

Cautions

- Turn off the level on the audio system before disconnecting the microphone.
- Place foam wind screen when in outdoor to reduce wind noise.

Accessories

Supplied accessories

Foam windscreen -----S02
Mic clip ----- HM10B



Optional accessories

Instrument boom stand -----MS104
Table top microphone stand ----- HM6
Adjustable boom stand -----MS131



Knowing your microphone

Superlux provides variety selection of microphones for professionals and amatures. To know your microphone is the first step to successful result.

Type of transducer



Condenser

Extremely light weight diaphragm, very sensitive to sound. Very small versions available for hiding applications. High performance condenser microphones are regarded as standard equipment of recording studios for extreme detail capturing. Operates with power, such as phantom or battery.

About Frequency Response

Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people persuit flatness, but for none-professionals, it is a challenge to makes it works as expectation.

Popular curve response

Based on years of practical experience of pro users. There are curves to be build for various applications, so that it is very simple to use the microphone for the purpose. Limiting bandwidth, and emphasing are typical skill.

Variable response

Incorporating switchable filters to elliminates interference, such as sub-sonic filter to cut air-conditioner and floor vibrations. And allows full flat when used in controlled environment.

Directivity

Select or set the directivity of your microphone for stereo recording, for various music instrument, vocal, speech, and environmental sound pick-up. Pair of spaced omni for A/B stereo, pair of near coincident cardioid for ORTF, and pair of coincident XY for Blumlein stereo.



Omni

Equal sensitivity to all direction, so that the microphone doesn't need to pointing toward the sound source. Low handling and wind noise. Welcome by news gathering, and music recording applications.

Distance to source

Close miking or distant miking sound very differently. Vocal recording or live performance practice close miking mostly. Suitable proximity effect is one desired target, and lower feedback problem is another factor for live sound application.

While distant miking is common practice for recording, especially stereo pair recording with large group of performers, such as orchestra or choir.

Distant miking generally picks up less bass section with pressure gradient type of microphone (cardioid, figure-8, shotgun...) due to acoustic nature and lack of proximity effects.

Rich bass with distant miking can be recorded with pressure type of microphone (Omni), which performs the same frequency response with close or distant pick-up.

Mounting the microphone

Pressure gradient microphone is very sensitive to vibration. Suitable shock mount for high performance microphone is necessary for extreme low noise recording. Sturdy stand can set the microphone excatly at the sweet spot and keep it there. Choose heavy duty microphone stand for studio condenser microphone which weights much more than handle microphone.

Superlux provides wide range of microphone stands for various demands. Big Foot Willie is specially developed for large condenser microphones that able to support 2 large microphones with stereo bracket for single point stereo recording.

Extension foot on all the 'E' versions serve to mount heavy studio microphone in limit space live sound applications.

Maintainence

Condenser microphone shall be kept in low humidity environment for best sound performance. Store the condenser microphones in airconditioned room or dehumidifier to keep away form moisture. Clean air is another important factor. Keep away from smoking environment to avoid tar residuals.

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