



SM94

Instrument Microphone

User guide for the Shure unidirectional, electret condenser microphone, SM94. View specifications and accessories for SM94.
Version: 3.1 (2024-I)

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SM94

Instrument Microphone

General Description

The Model SM94 is a unidirectional, electret condenser microphone tailored to the instrument miking needs of professional musicians and sound engineers in both live performance and sound recording. Its smooth, flat frequency response is free of either a “presence peak” or a low-frequency rolloff, making it a perfect choice for all types of musical instruments. The SM94 is equally at home in sound reinforcement systems or in sound studios and motion picture/TV scoring stages. When used with the optional windscreen, the SM94 can be used by vocalists and speechmakers who desire a wide, flat response with minimum coloration. The SM94 can be powered by any phantom power source, or by an internal 1.5-volt AA battery. The battery, which serves as a backup power source in the event of phantom power failure, can provide up to 5,000 hours of continuous operation. The SM94 is supplied with a swivel adapter for use on a microphone stand, boom or gooseneck, and a zippered vinyl storage bag. Model SM94-LC is supplied without a cable. Accessories include a foam windscreen (A3WS), two-channel phantom power supply (PS1A), and 7.6 m (25 ft.) microphone cable (C25J).

Specifications

Type

Electret Condenser

Frequency Response

40 to 16,000 Hz

Polar Pattern

Cardioid

Output Impedance

EIA rated at 150 Ω (200 Ω actual)

Sensitivity

at 1kHz, open circuit voltage

phantom power	-49 dBV/Pa(3.5 mV)
battery	-50 dBV/Pa(3.2 mV) [1]

Maximum SPL

1 kHz at 1% THD[2]

phantom power	141 dB
battery	123 dB

Signal-To-Noise Ratio[3]

Ref. 94 dB SPL at 1 kHz

72 dB

Dynamic Range

at 1kHz

phantom power	119 dB
battery	101 dB

Clipping Level

1 kHz at 0.25% THD, 1 kΩ load

phantom power	14 dB (0.63 mV)
battery	23 dB (0.71 mV)

Hum Pickup

typical, at 60 Hz, equivalent SPL/mOe

-3 dB

Polarity

Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3

Weight

Net	0.250 kg (0.55 lbs)
Packaged	0.949 kg (2.5 lbs)

Connector

Three-pin professional audio (XLR), male, balanced

Case

Steel and brass construction with gray finish and stainless steel mesh grille

Environmental Conditions

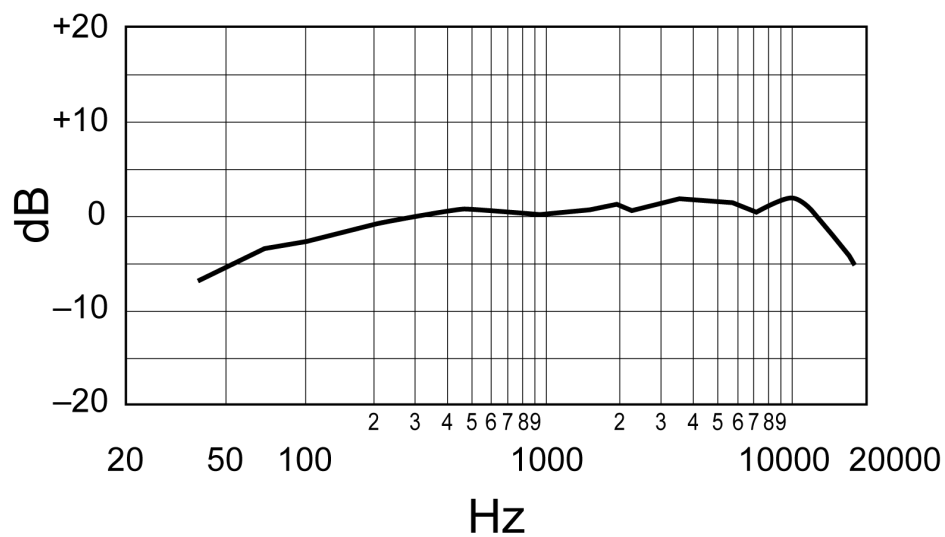
Operating Temperature	-6.7° to 49° C (20° to 120° F)
Storage Temperature	-29° to 74° C (-20° to 165° F)
Relative Humidity	0 to 95%

Power Requirements

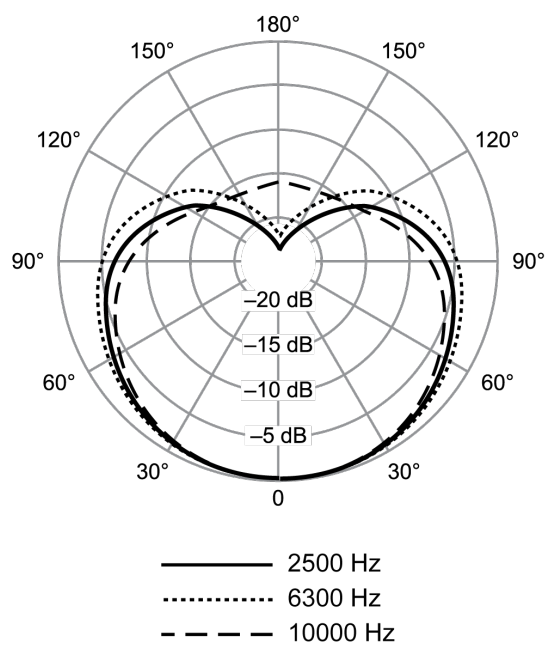
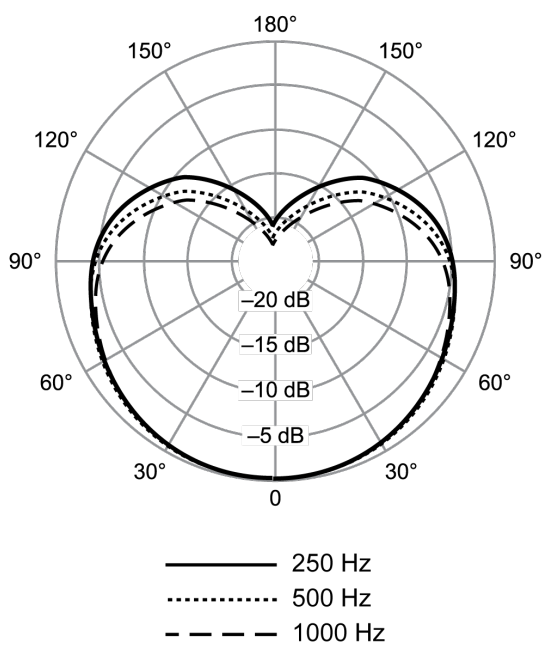
phantom power	11 to 52 V DC (1.2 mA)
battery	1.5 VAA batteries

Battery Life

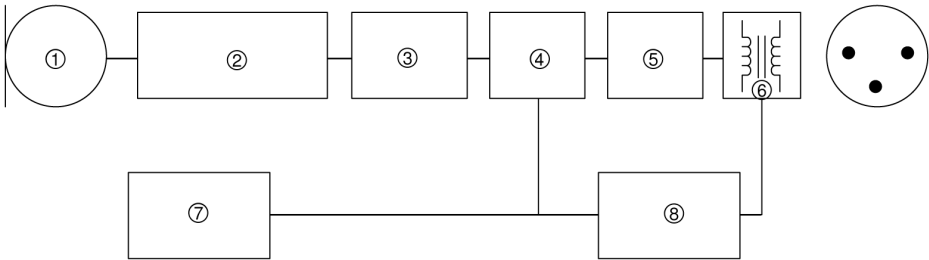
Up to 5000 hours (alkaline)



Typical Frequency Response

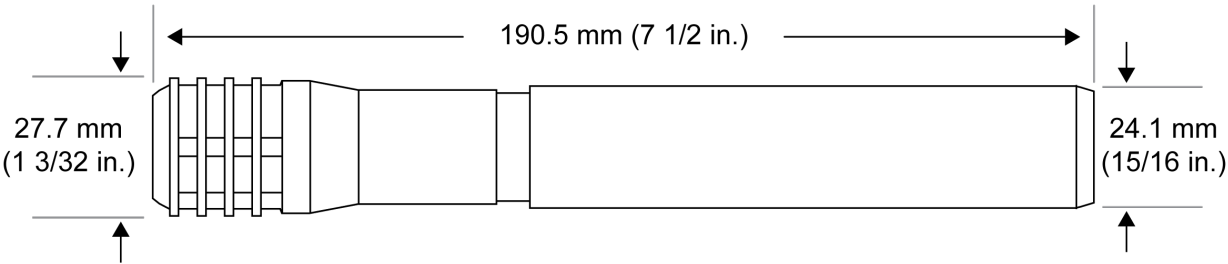


Typical Polar Pattern



Block Diagram

- ① Capacitor Cartridge
- ② FET Impedance Converter With Active Load
- ③ LF Response Filter
- ④ Class A Compound Amplifier
- ⑤ RFI Filter
- ⑥ Balanced Transformer
- ⑦ Battery
- ⑧ Regulator/Reverse Voltage Protector



Overall Dimensions

Accessories

Furnished Accessories

Microphone Clip for SM58, SM57, SM87A, BETA87A, BETA87C, PGA57, PGA58, PGA48, PGA81	A25D
Carrying/Storage Bag	95A2313

Optional Accessories

In-line Switchable Attenuator	A15AS
Shock Stopper® Isolation Mount	A55M

Black Foam Windscreen for PGA81, SM94 and SM137	A3WS
7.6 m (25 ft.) Cable (XLR-XLR)	C25J

Certifications

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

The CE Declaration of Conformity can be obtained from: www.shure.com/europe/compliance

Authorized European representative:

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