

OVERVIEW

The Shure KSM9 is a dual-pattern (cardioid and supercardioid) handheld condenser microphone. Designed expressly for live vocal performance applications, the KSM9 removes the boundary between the studio and stage, offering the finest and clearest performance on modern high-end touring systems. The large dual diaphragm provides consistent polar response across the entire frequency range, for higher gain-before-feedback and minimal proximity effect for clear vocal reproduction.

FEATURES

- Dual 3/4" gold layered, low mass Mylar® diaphragms provide superior frequency response.
- Dual polar patterns (cardioid and supercardioid) for maximum flexibility in a wide variety of performance applications.
- Class A, discrete, transformerless preamplifier provides transparent, extremely fast transient response with no crossover distortion and minimal harmonic and intermodulation distortion.
- Advanced suspension shock mount system that isolates cartridge from handling and stand noise.
- Premium electronic components, including gold-plated internal and external connectors.
- Three-stage grille reduces "pop" and breath noise

PERFORMANCE CHARACTERISTICS

- Smooth, pronounced high end response
- Upper mid-range sounds accurate and articulate without sounding harsh
- Reduced proximity effect
- Focused low end response

MODEL VARIATIONS

Wired Models	Description
KSM9/SL	Dual-Pattern (Cardioid/Supercardioid) Handheld Vocal Microphone, Champagne
KSM9/CG	Dual-Pattern (Cardioid/Supercardioid) Handheld Vocal Microphone, Charcoal Gray

SPECIFICATIONS

Cartridge Type	Condenser (Electret Biased)	
Frequency Response	50 to 20,000 Hz (See Figures 1, 3)	
Output Impedance	150 Ω (actual)	
Phantom Power	48 Vdc ± 4 Vdc (IEC-268-15/DIN 45 596), positive pins 2 and 3	
Current Drain	5.2 mA typical at 48 Vdc	
Common Mode Rejection	>60 dB, 50 Hz to 20 kHz	
Polarity	Positive pressure on front diaphragm produces positive voltage on output pin 2 relative to pin 3	
Directional Polar Patterns	Cardioid (See Figure 2)	Supercardioid (See Figure 4)
Sensitivity (typical; at 1000 Hz; 1 Pa = 94 dB SPL)	-51 dBV/Pa	
Self-noise (typical, equivalent SPL; A-weighted, IEC 651)	22 dB	
Maximum SPL @ 1000 Hz 2500 Ω load 1000 Ω load	152 dB 152 dB	
Output Clipping Level* 2500 Ω load 1000 Ω load	6.7 dBV 6.0 dBV	
Dynamic Range 2500 Ω load 1000 Ω load	130 dB 130 dB	
Signal to Noise ratio**	72 dB	
Dimensions and Weight	49 mm (1 15/16 in.) maximum body diameter, 191 mm (7.5 in.) long; 300 grams (10.6 oz). See Figure 6.	

*100 Hz to 20 kHz; THD < 1%.

**S/N ratio is difference between 94 dB SPL and equivalent SPL of self-noise A-weighted.

CARDIOID RESPONSE GRAPHS

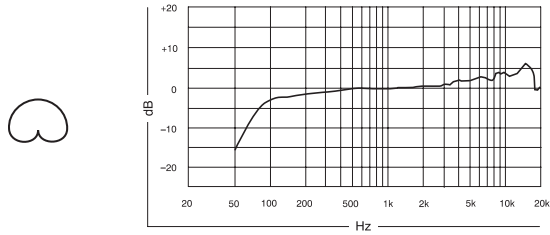


FIGURE 1

TYPICAL CARDIOID FREQUENCY RESPONSE

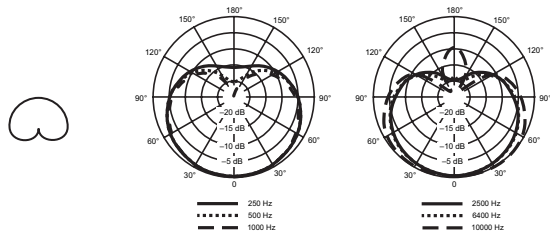


FIGURE 2

TYPICAL CARDIOID POLAR PATTERN

SUPERCARDIOID RESPONSE GRAPHS

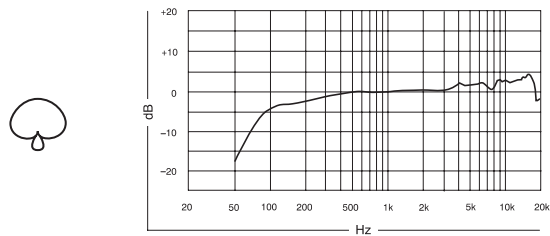


FIGURE 3

TYPICAL SUPERCARDIOID FREQUENCY RESPONSE

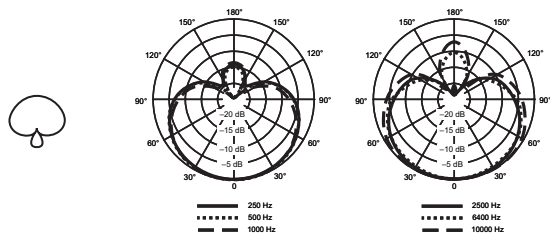
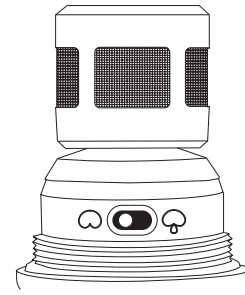


FIGURE 4

TYPICAL SUPERCARDIOID POLAR PATTERN



KSM9 POLAR PATTERN SWITCH

FIGURE 5

Cardioid. Is most sensitive to sounds directly in front of the microphone and is least sensitive to those in back. Cardioid is the most commonly used pattern in live sound applications. Its slightly wider pick-up pattern is more forgiving at picking up off-axis sound. See Figure 2.

Supercardioid. The narrower pattern provides greater rejection of off-axis sound and maximum gain before feedback. The supercardioid pattern is ideal for use in loud environments or applications in which sound sources are very close to each other. See Figure 4.

Phantom Power

The KSM9 requires phantom power and performs optimally with a 48 Vdc supply (IEC-268-15/DIN 45 596). However, it will operate with slightly decreased headroom and sensitivity with power supplies as low as 11 Vdc.

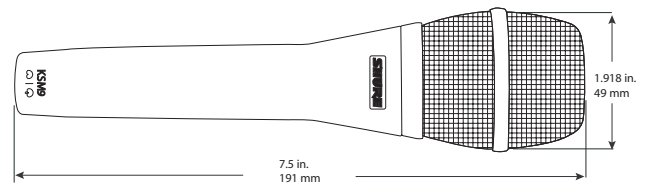
Connector

Three-pin (XLR) professional audio

Case

Aluminum die cast construction with painted champagne or charcoal finish, and hardened steel mesh grille with painted finish.

Dimensions



OVERALL DIMENSIONS

FIGURE 6

CERTIFICATION

Eligible to bear CE Marking; Conforms to European EMC directive 89/336/EEC. Meets applicable tests and performance criteria found in European Professional Audio Products EMC Standard EN 55103 (1996); Part 1 (emissions) and part 2 (immunity). The KSM9 is intended for use in environments E1 (residential) and E2 (Light Industrial) as defined in European standard EN 55103. EMC conformance is based on the use of shielded interconnecting cable.

FURNISHED ACCESSORIES

Aluminum Carrying Case for KSM9 A9SC
Stand Adapter A25E

REPLACEMENT PARTS

KSM9 Grille, ChampagneRPM260
KSM9 Grille, Charcoal.....RPM262
Cartridge for KSM9RPM160
KSM9 Switch Circuit Board AssemblyRPM462
KSM9 Preamp Circuit Board AssemblyRPM460

ARCHITECT’S SPECIFICATIONS:

The microphone shall be a condenser (Electret Biased) type with a frequency response of 50 to 20,000 Hz. The unit shall have a switchable cardioid and supercardioid polar characteristics.

The cancellation at the sides of the cardioid pattern shall be approximately 6 dB and the cancellation at 180° (null) should be approximately 18 dB. The cancellation at the sides of the supercardioid pattern shall be approximately 9 dB. The cancellation at 125° (null) shall be approximately 12 dB.

The microphone shall be low impedance with a rated impedance of 150 ohms for connection to microphone inputs rated at 19 to 300 ohms. The microphone input shall be -51 dB where 0 dB = 1 milliwat per Pascal.

The microphone shall be equipped with a stand adapter, suitable for mounting on a stand with a 5/8 in-27 thread.

The overall dimensions shall be 191 mm (7.5 in.) in height, and 49 mm (1 15/16 in.) Diameter. The weight of the microphone shall be 300 g (10.6 oz.).

The microphone shall be the Shure Model KSM9 or equivalent.

OPTIONAL ACCESSORIES

Foam Windscreen A85WS

SERVICE

For additional microphone service or parts information, please contact the Shure Service Department at 1-800-516-2525. Outside the United States, please contact your Authorized ShureService Center.



SHURE Incorporated <http://www.shure.com>
United States, Canada, Latin America, Caribbean:
5800 W. Touhy Avenue, Niles, IL 60714-4608, U.S.A.
Phone: 847-600-2000 U.S. Fax: 847-600-1212 Intl Fax: 847-600-6446
Europe, Middle East, Africa:
Shure Europe GmbH, Phone: 49-7131-72140 Fax: 49-7131-721414
Asia, Pacific:
Shure Asia Limited, Phone: 852-2893-4290 Fax: 852-2893-4055