



Model MX400SE Series Microphones Specification Sheet

MODEL MX400SE SERIES MICROPHONES



FEATURES

- Wide dynamic range and frequency response for accurate sound reproduction across the audio spectrum
- Interchangeable cartridges that provide an optimal polar pattern choice for each application
- Balanced transformerless output for increased immunity to noise over long cable runs

MODEL VARIATIONS

All Microflex[®] microphones are available with any one of three interchangeable cartridges. The polar pattern is indicated by the model number suffix:

/C = Cardioid, /S = Supercardioid, /O = Omnidirectional

MX412SE/C, MX418SE/C: Recommended for general sound reinforcement applications. Pickup angle (–3 dB) = 130°.

SPECIFICATIONS

Frequency Response (Figure 1)
50 to 17,000 Hz

Polar Pattern (Figure 2)

Output Impedance (at 1000 Hz)
Rated at 150 Ω (180 Ω actual)

Open Circuit Sensitivity (at 1 kHz, ref. 1 V/Pascal*)

- Cardioid: –35.0 dB (17.8 mV)
- Supercardioid: –33.5 dB (21.1 mV)
- Omnidirectional: –27.5dB (42.2 mV)

*1 Pascal= 94 dB SPL

Maximum SPL (1 kHz at 1% THD, 1 kΩ load)

- Cardioid: 124.2.0 dB
- Supercardioid: 122.7 dB
- Omnidirectional: 116.7 dB

Equivalent Output Noise (A-weighted)

- Cardioid: 28.0 dB SPL
- Supercardioid: 26.5 dB SPL
- Omnidirectional: 20.5 dB SPL

Signal to Noise Ratio (referenced at 94 dB SPL)

- Cardioid: 66.0 dB
- Supercardioid: 67.5 dB
- Omnidirectional: 73.5 dB

Dynamic Range at 1 kΩ Load
96.2 dB

Common Mode Rejection
45.0 dB minimum

OVERVIEW

Shure Microflex[®] MX400SE Series microphones are miniature gooseneck-mounted electret condenser microphones designed for speech and vocal pickup. Their high sensitivity and broad frequency range make them suitable for recording, as well as sound reinforcement applications.

MX400SE microphones can be screwed onto a mic stand or the supplied 5/8 inch 27-threaded flange. They can be easily changed from side-exit to bottom-exit to conceal the cable. All models include an in-line preamplifier and a 3 m (10 ft) cable. Each microphone is available with interchangeable cardioid, supercardioid, or omnidirectional cartridges.

- Supplied shock mount for more than 20 dB isolation from surface transmitted noise
- Supplied threaded flange mount for permanently securing the microphone to a lectern, pulpit, or conference table
- Snap-fit foam windscreen

MX412SE/S, MX418SE/S: Recommended for sound reinforcement applications requiring narrow or more distant coverage. Pickup angle (–3 dB) = 115°.

MX412SE/O, MX418SE/O: Recommended for recording or remote monitoring applications. Pickup angle = 360°.

Preamplifier Output Clipping Level (1% THD)
–6.0 dBV (0.5 V)

Polarity

Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output connector.

Power Requirements

11 to 52 Vdc phantom, 2.0 mA

Environmental Requirements

Operating Temperature Range: –18° to 57° C (0° to 135° F)
Relative Humidity: 0 to 95%

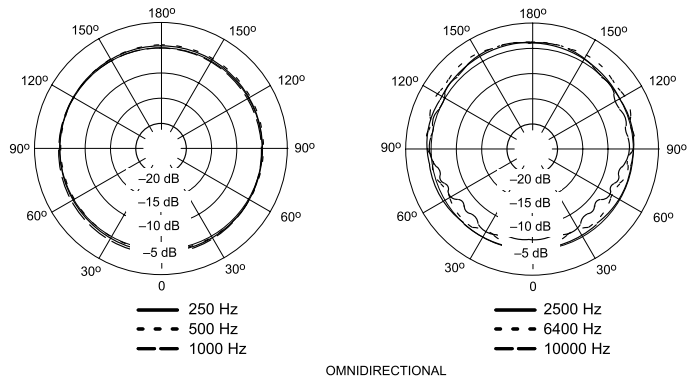
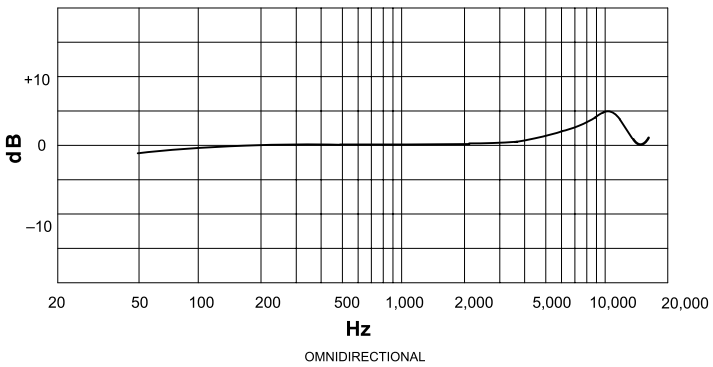
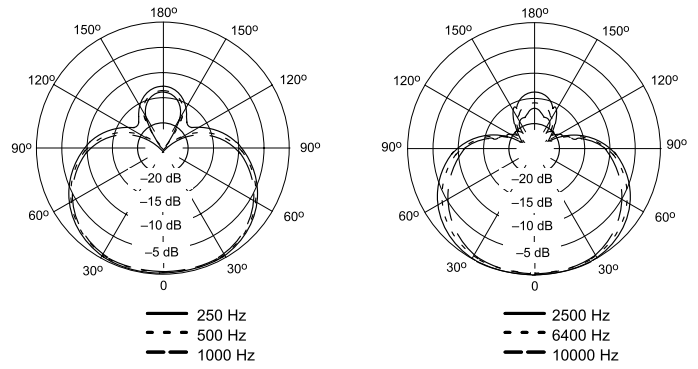
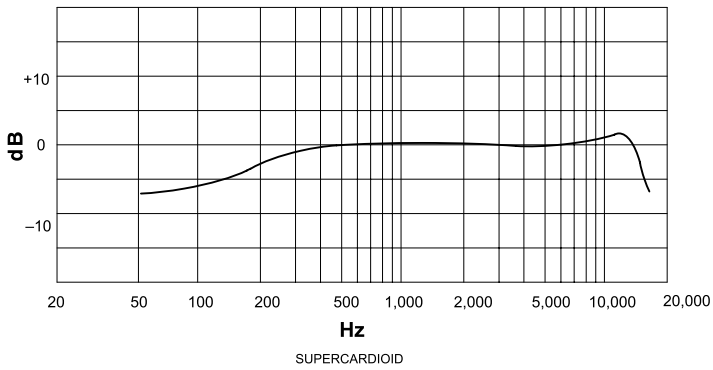
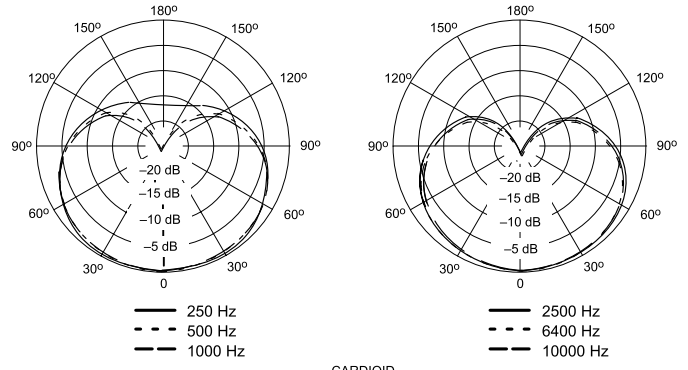
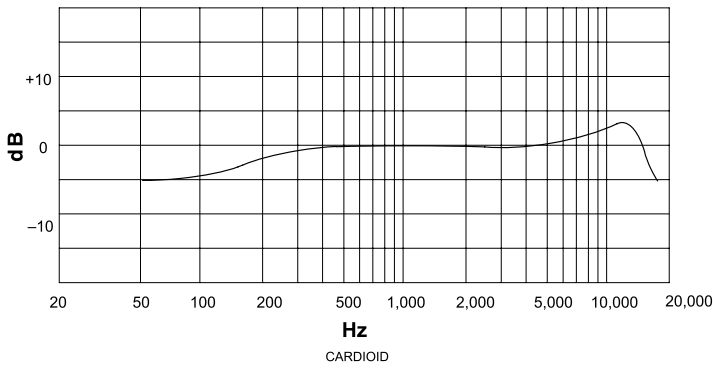
Dimensions (Figure 3)

Certification

Eligible to bear CE Marking. Conforms to European EMC Directive 89/336/EEC. Meets applicable tests and performance criteria in European Standard EN55103 (1996) parts 1 and 2, for residential (E1) and light industrial (E2) environments.

REPLACEMENT PARTS

Snap-fit Foam Windscreen (4 per pkg.)	RK412WS
Foam Ball Windscreen	A99WS
Locking Metal Windscreen	A412MWS
Omnidirectional Cartridge	R183B
Supercardioid Cartridge	R184B
Cardioid Cartridge	R185B
Replacement Preamplifier	RK183PK
Shock Mount	A400SM



TYPICAL FREQUENCY RESPONSE
Figure 1

TYPICAL POLAR PATTERNS
Figure 2

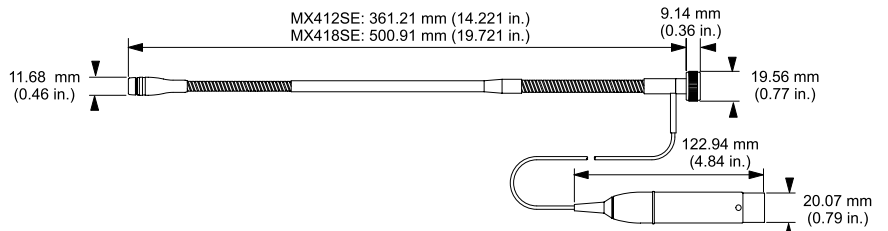
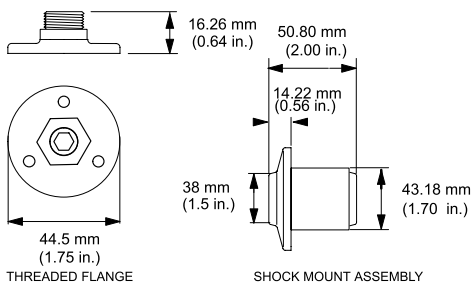


Figure 3