

MODEL MX400 SERIES MICROPHONES



OVERVIEW

Shure Microflex® MX400 Series microphones are miniature gooseneck-mounted electret condenser microphones designed primarily for speech and vocal pickup. They can be mounted on lecterns, pulpits, or conference tables. All models include a preamplifier and are available with interchangeable cardioid, supercardioid, or omnidirectional cartridges.

FEATURES

- Wide dynamic range and frequency response for accurate sound reproduction across the audio spectrum
- Interchangeable cartridges provide the right polar pattern for every application
- Balanced, transformerless output for increased immunity to noise over long cable runs
- Shock mount that provides over 20 dB isolation from surface vibration noise
- Locking flange mount for permanently securing microphone to lecterns, pulpits, or conference tables
- Snap-fit foam windscreen

MODEL VARIATIONS

- **MX412:** 305 mm (12 in.) gooseneck microphone.
- **MX418:** 457 mm (18 in.) gooseneck microphone.
- **MX412S:** 305 mm (12 in.) gooseneck microphone; includes a mute switch and an LED.
- **MX418S:** 457 mm (18 in.) gooseneck microphone; includes a mute switch and an LED.

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: -27.5 dB (42.2 mV)
All settings -12 dB at 0 gain
*1 Pascal = 94 dB SPL

Maximum SPL (1 kHz at 1% THD, 1 k Ω load)
Cardioid: 124.2 dB
Supercardioid: 122.7 dB
Omnidirectional: 116.7 dB
All settings +6 dB at 0 gain

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 k Ω Load
96.2 dB
100 dB at 0 gain

Common Mode Rejection
45.0 dB minimum

Mute Switch Attenuation (switched models only)
50.0 dB minimum

Preamplifier Output Clipping Level (1% THD)
-6.0 dBV (0.5 V)
-12 dB at 0 gain

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° C to 57° C (0° F to 135° F)

Relative Humidity: 0 to 95%

Dimensions (Figure 3)

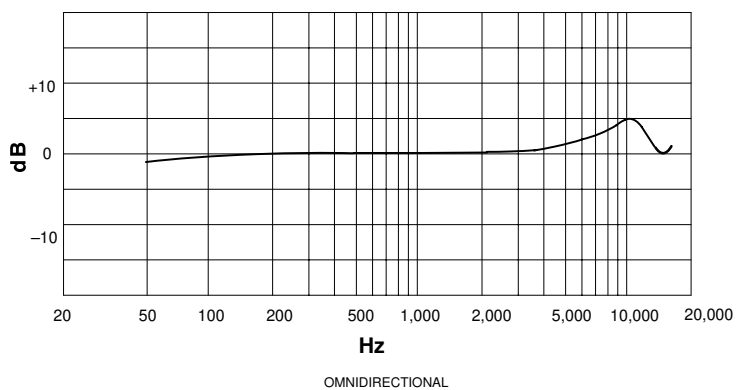
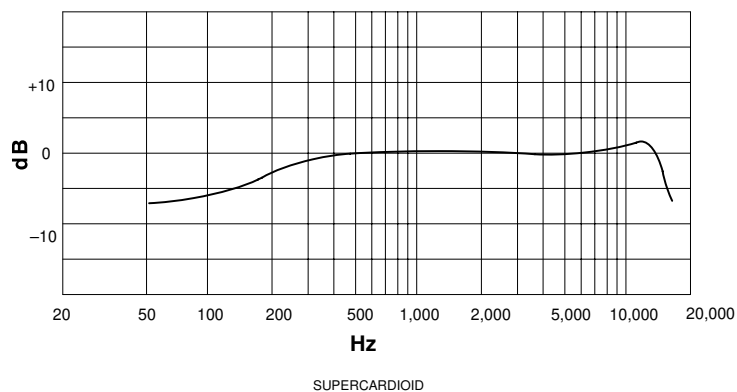
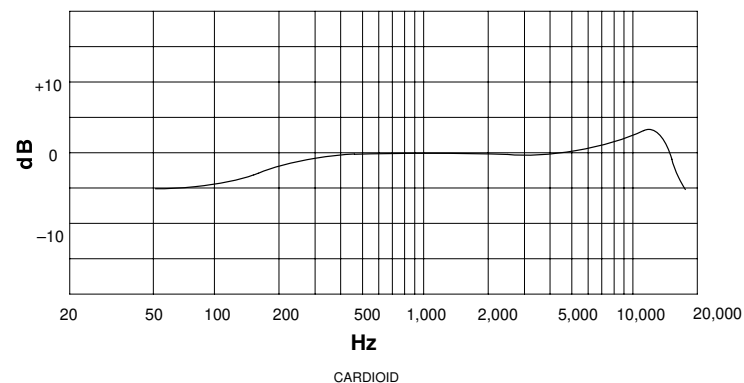
Certification

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.

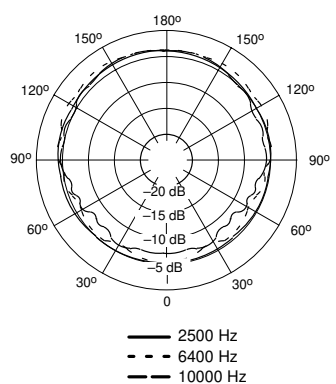
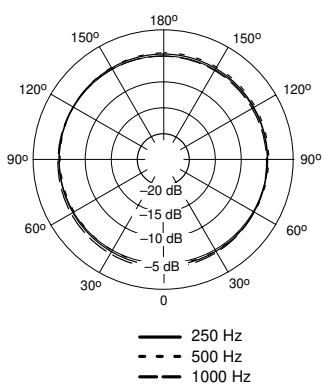
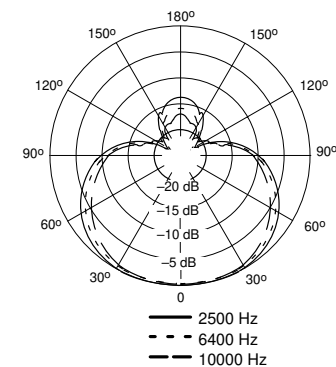
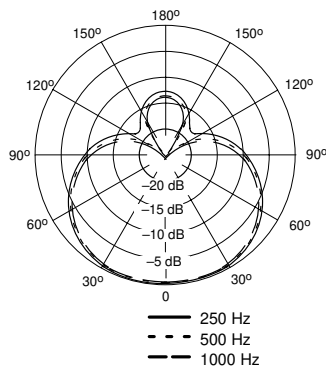
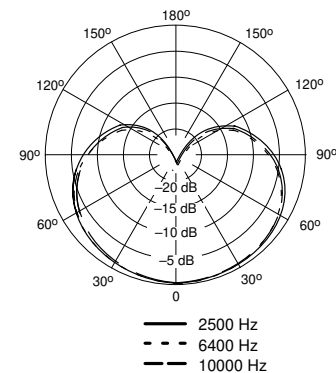
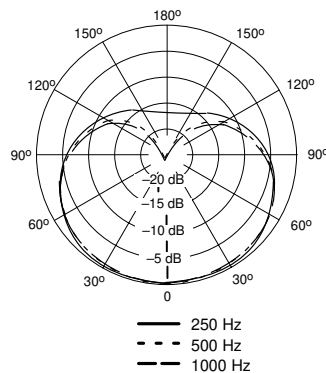
REPLACEMENT PARTS

Foam Ball Windscreen	A99WS
Locking Metal Windscreen	A412MWS

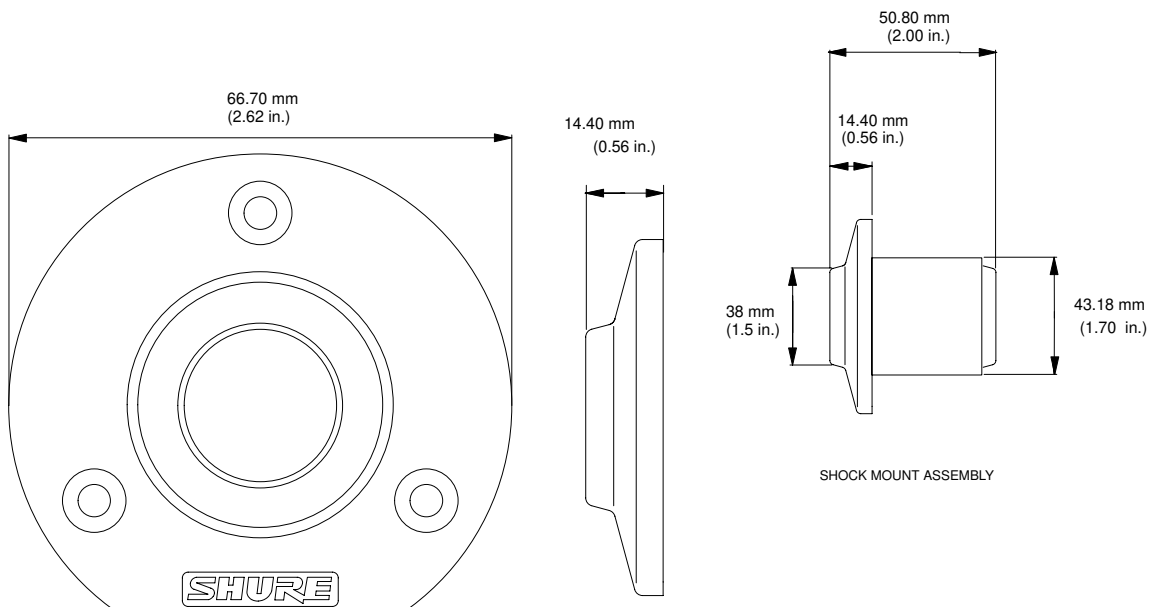
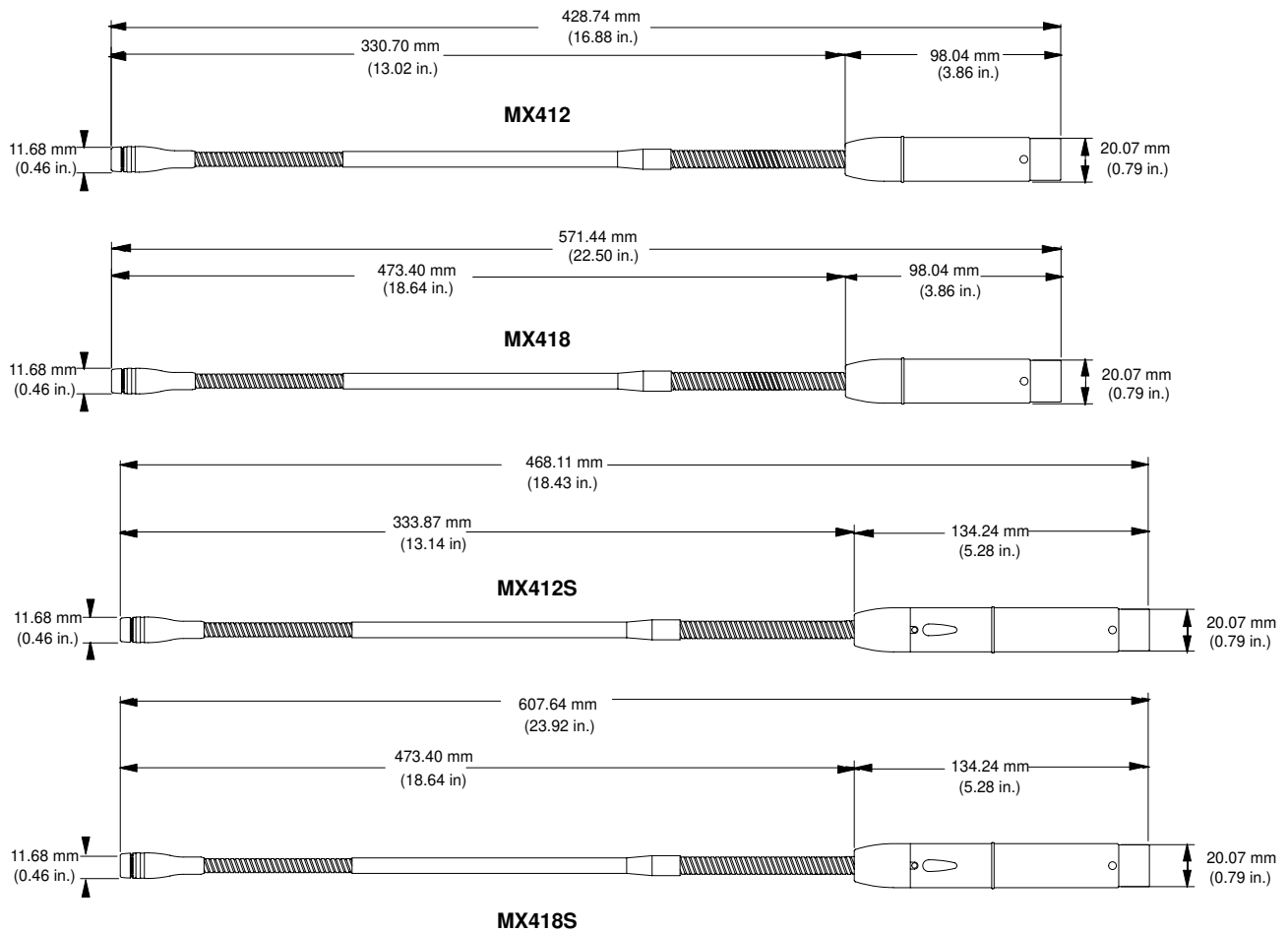
Portable Desktop Base	A412B
Stand Adapter	A57E
Omnidirectional Cartridge	R183B
Supercardioid Cartridge	R184B
Cardioid Cartridge	R185B
Snap-fit Foam Windscreen (4)	RK412WS
Shock Mount	A400SM



TYPICAL FREQUENCY RESPONSE
Figure 1



TYPICAL POLAR PATTERNS
Figure 2



(Actual Size)

MOUNTING FLANGE

SHOCK MOUNT ASSEMBLY

DIMENSIONS
Figure 3