



Model MX400D Series Microphones Specification Sheet

MODEL MX400D SERIES MICROPHONES



OVERVIEW

Shure Microflex® MX400D Series microphones are miniature electret condenser gooseneck microphones with a desktop base and attached 3 m (approximate)/10 ft cable. The desktop base allows these microphones to be used in multi-purpose rooms where quick set-up is required, or where permanent installation is impractical.

FEATURES

- Wide dynamic range and frequency response for accurate sound reproduction across the audio spectrum
- Interchangeable cartridges provide the right polar pattern for any application
- Balanced, transformerless output for increased immunity to noise over long cable runs
- Programmable on/off switch and LED on/off indicator
- New brighter LED improves visibility under strong ambient lighting
- Logic input and output terminals for remote control or use with automatic microphone mixers
- Snap-fit foam windscreen

MODEL VARIATIONS

- **MX412D:** 304.8 mm (12 in.) desktop mini-condenser, gooseneck-mounted microphone.
- **MX418D:** 457.2 mm (18 in.) desktop mini-condenser, gooseneck-mounted microphone.

SPECIFICATIONS

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

Polar Pattern (Figure 2)

Output Impedance (at 1,000 Hz)
Rated at 150 Ω (180 Ω actual)

Open Circuit Sensitivity
At 1 kHz, ref. 1 V per Pascal*

- Cardioid: -33.5 dBV (21.1 mV)
- Supercardioid: -32.5 dBV (23.7 mV)
- Omnidirectional: -28.0 dBV (39.8 mV)

* 1 Pascal=94 dB SPL

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

- Cardioid: 123.0 dB
- Supercardioid: 122.0 dB
- Omnidirectional: 117.5 dB

Equivalent Output Noise (A-weighted)

- Cardioid: 29.0 dB SPL
- Supercardioid: 28.0 dB SPL
- Omnidirectional: 70.5 dB SPL

Signal to Noise Ratio (referenced at 94 dB SPL)

- Cardioid: 65.0 dB
- Supercardioid: 66.0 dB
- Omnidirectional: 70.5 dB

Dynamic Range with 1 kΩ load
94.0 dB

Common Mode Rejection
45.0 dB minimum

Mute Switch Attenuation
50.0 dB minimum

Pre-amplifier 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 XLR 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)

Weight

MX412D: 0.81 kg (1.80 lbs.) net, 1.63 kg (3.62 lbs.) packaged
MX418D: 0.82 kg (1.82 lbs.) net, 1.64 kg (3.64 lbs.) packaged

Cable Type (figure 7)

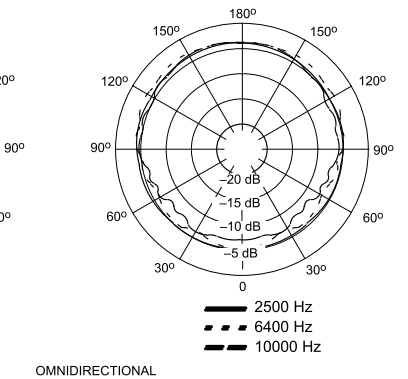
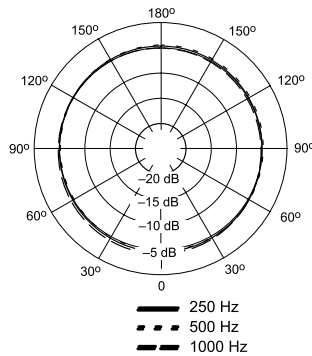
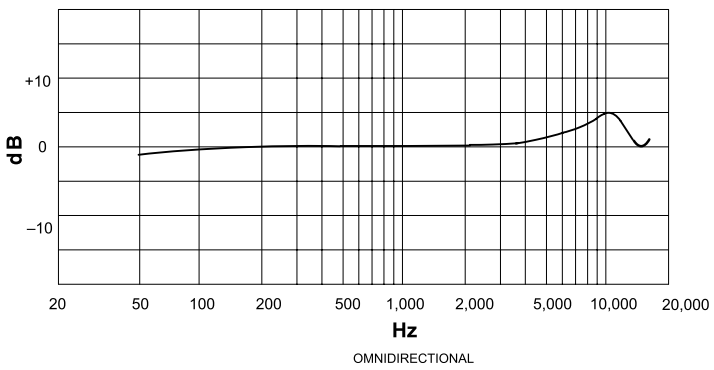
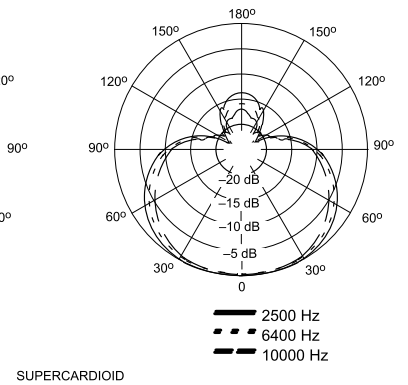
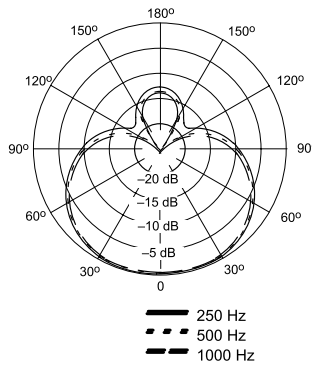
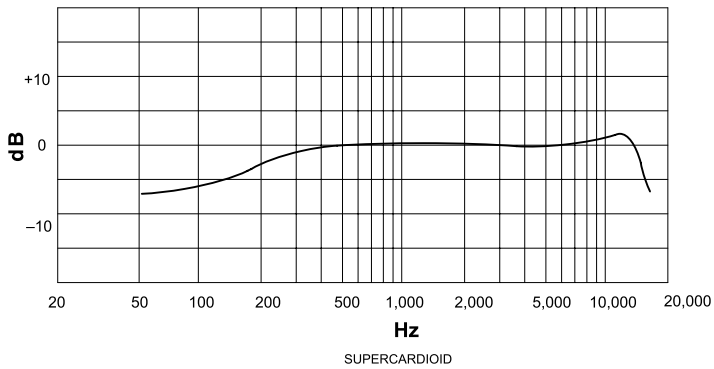
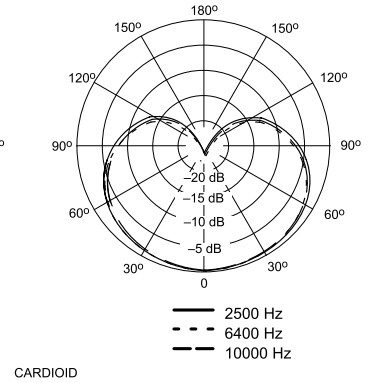
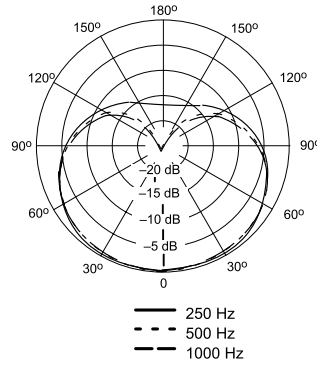
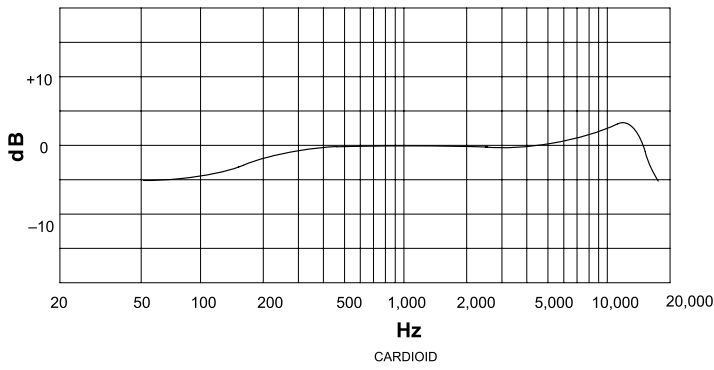
The attached custom cable contains a shielded audio pair and three unshielded conductors for logic control.
Overall diameter=0.6 mm (0.165 in.)

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
Replacement 3 m (10 ft) XLR Cable	C120
Custom Logic Cable (specify length)	15A523/1
Omnidirectional Cartridge	R183B
Supercardioid Cartridge	R184B
Cardioid Cartridge	R185B
Base Plate Bumpers	80A8053A



TYPICAL FREQUENCY RESPONSE

Figure 1

TYPICAL POLAR PATTERNS

Figure 2

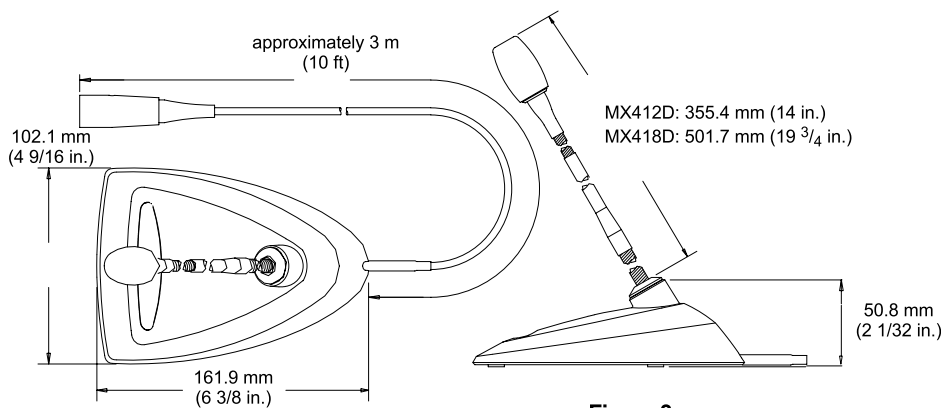


Figure 3