Model MX400 Series Microphones
Specification Sheet

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 kΩ 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 kΩ 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)

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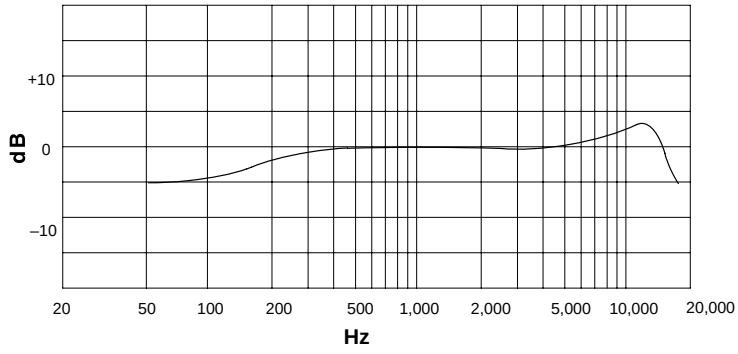
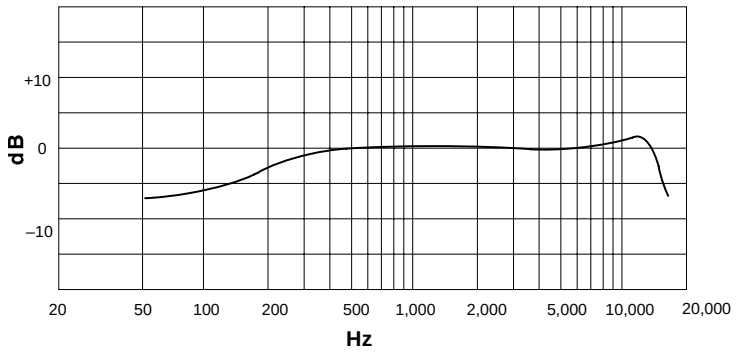
Certification
Eligible to bear CE Marking. Conforms to European EMC Directive 89/336/EEC. Meets applicable tests and performance criteria in European Standard EN55103 (1996) parts 1 and 2, for residential (E1) and light industrial (E2) environments.

REPLACEMENT PARTS

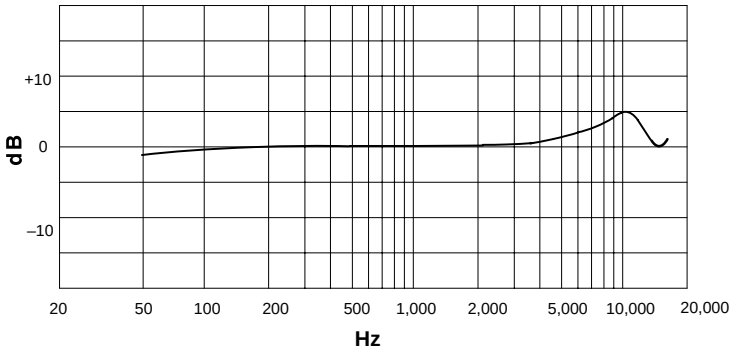
Foam Ball Windscreen	A99WS
Locking Metal Windscreen	A412MWS
Portable Desktop Base	A412B
Stand Adapter	A57E
Omnidirectional Cartridge	R183B
Supercardioid Cartridge	R184B
Cardioid Cartridge	R185B
Snap-fit Foam Windscreen (4)	RK412WS
Shock Mount	A400SM



CARDIOID

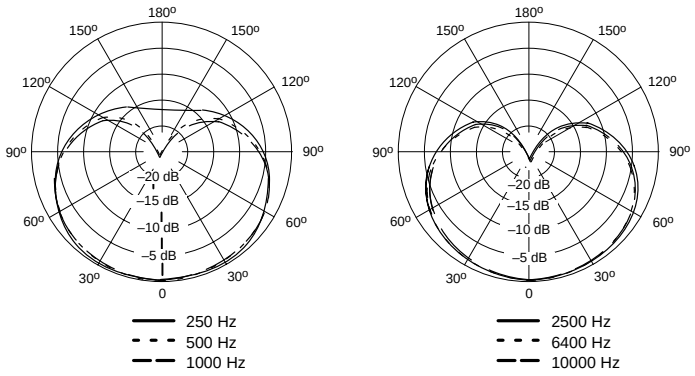


SUPERCARDIOID

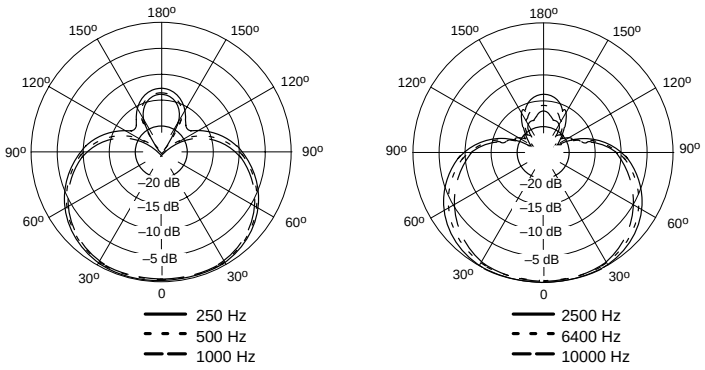


OMNIDIRECTIONAL

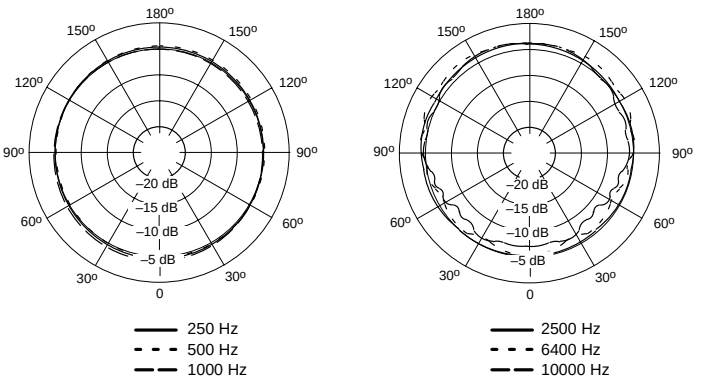
TYPICAL FREQUENCY RESPONSE
Figure 1



CARDIOID

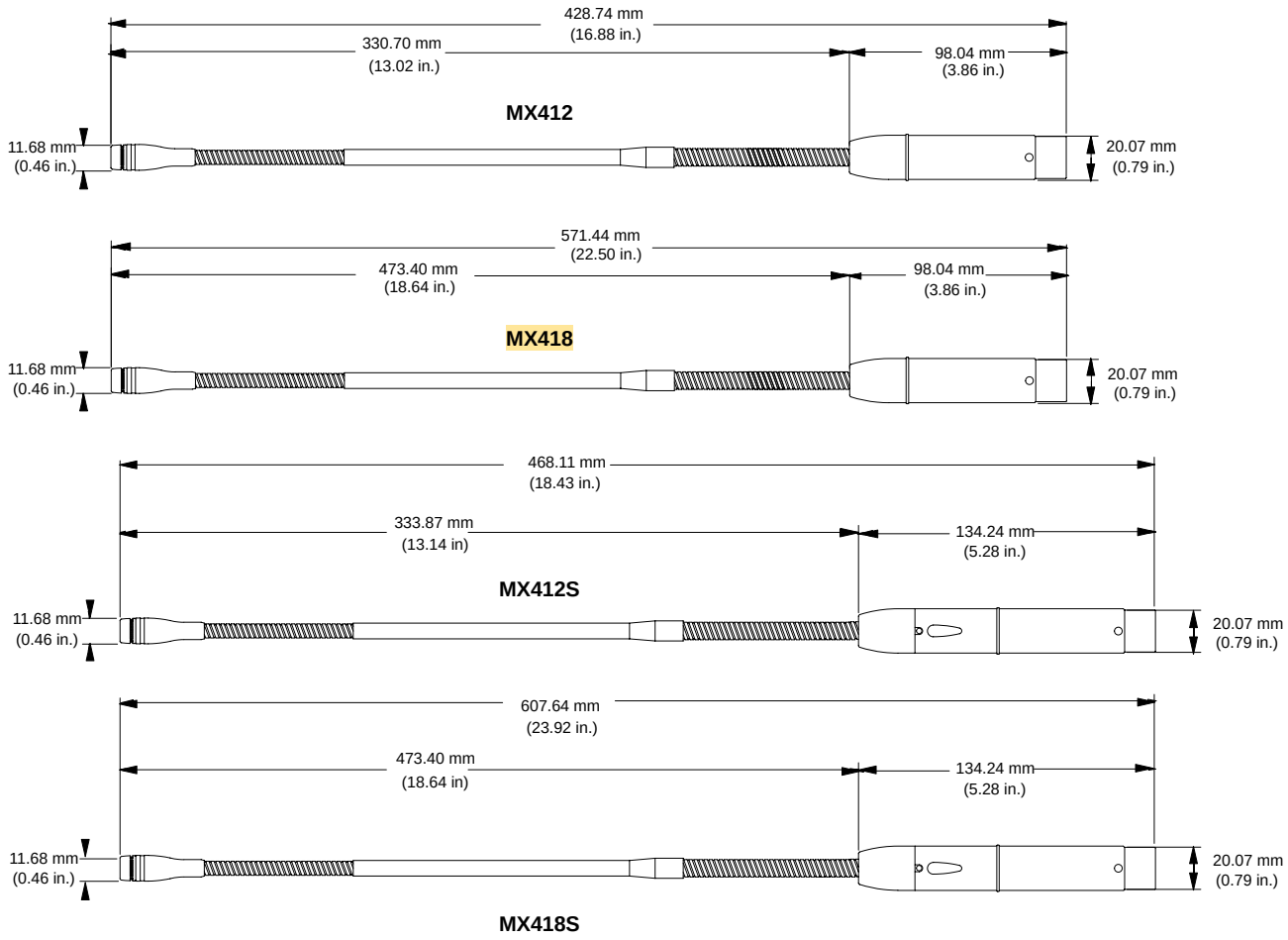


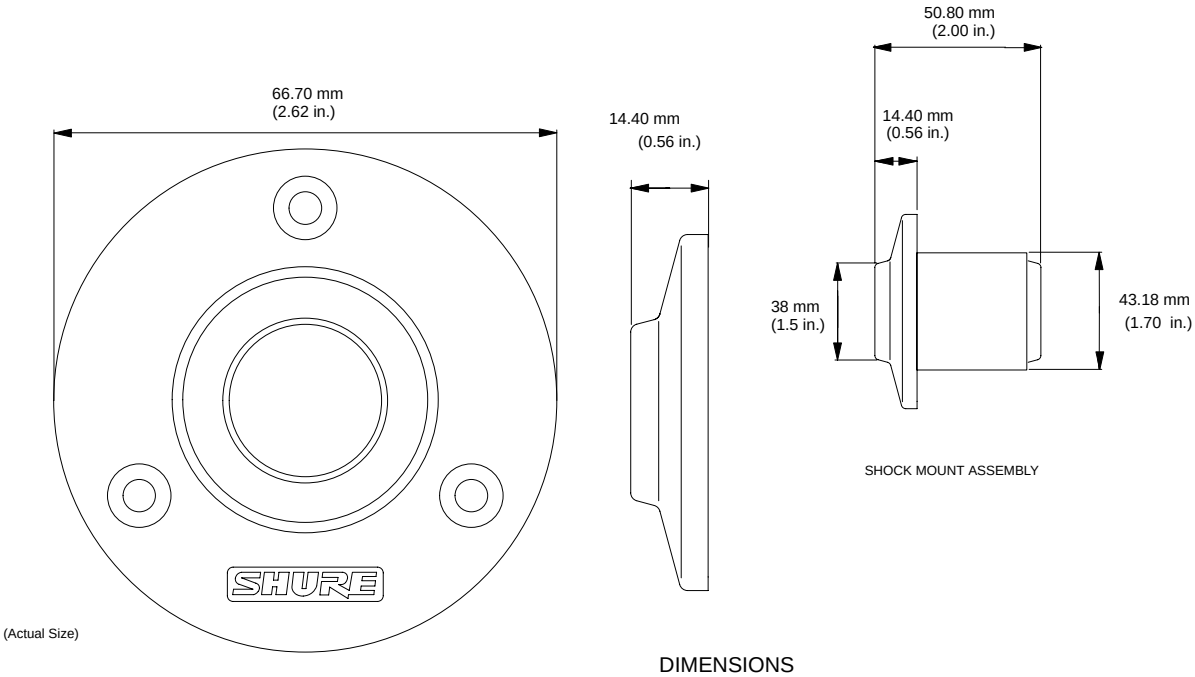
SUPERCARDIOID



OMNIDIRECTIONAL

TYPICAL POLAR PATTERNS
Figure 2





DIMENSIONS

Figure 3

AT8615

accessories

Microphone Desk Stand

Specifications

Input connector	3-pin XLRF-type
Output connector	3-pin XLRM-type
Mounting	Table-top with non-slip bottom pads
Dimensions	160.0 mm (6.29") maximum length, 130.0 mm (5.11") maximum width, 39.0 mm (1.53") maximum height

In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request. Specifications are subject to change without notice.

Features

- **Quick-mount plug-in desk stand for 3-pin XLRM-type output**
- **Standard XLR-type input and output connectors**
- **Heavy die-cast construction**
- **Low-profile design with low-reflectance black finish for minimum visibility**

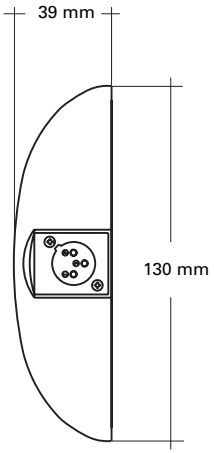
Description

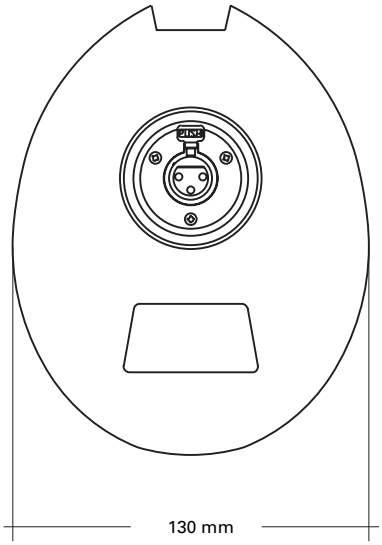
The AT8615 desk stand is a heavy-duty low-profile desk stand designed for tabletop applications. The sturdy metal base is equipped with three-pin XLRF-type input and three-pin XLRM-type output connector. It is designed to fit any gooseneck microphone with a three-pin XLRM-type output. The unit's heavy die-cast construction and no slip pads help minimize coupling of surface vibration while the low profile design with low-reflectance black finish provides minimum visibility.

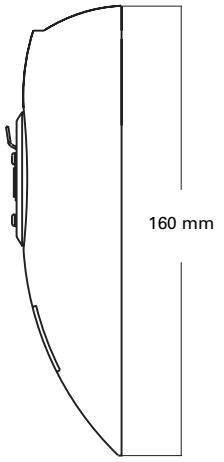
Architect's and Engineer's Specifications

The heavy desk stand base shall be designed to work with any dynamic gooseneck or phantom powered condenser gooseneck microphone with an integral 3-pin XLRM-type output connector. The unit shall offer a 3-pin XLRF-type input connector and a 3-pin XLRM-type connector for audio output. The unit shall offer a low-reflectance black finish. The unit's dimensions shall be: 160.0 mm (6.29") maximum length, 130 mm (5.11") maximum width, 39.0 mm (1.53") maximum height.

The Audio-Technica AT8615 is specified.







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