

AWA14403 1/2" Free-Field Standard Microphone



Features

● Key Parameters

Sensitivity	14.1 mV/Pa
Frequency range	3.15 Hz~40 kHz
Dynamic Range	22 dBA~159 dB
Polarization voltage	200 V

● Applications

Quality Transfer
Free Field Testing
Electroacoustic Testing
Noise Testing

● Standards

IEC 61094-4:1995 Measuring Microphones Part 4:

Brief Description

The AWA14403 measuring microphone is designed strictly according to the specifications for standard microphones. The diaphragm uses a press-fit structure. The microphone requires external polarization power supply and has extremely high stability. Its frequency range is up to 40 kHz. It can be used as a transfer standard in the calibration of acoustic measuring instruments and is also suitable for acoustic environments with no reflections or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers).

Product Highlights

Applications of Free Field Standard Microphones

Free field standard microphones have a wide measurement frequency range, accurately measuring high-frequency sounds and are suitable for various measurement scenarios. Free field microphone kits are designed for environments without reflections or echoes and are widely used in acoustic research, noise monitoring, and sound system testing.

Compatibility

The AWA14403 standard microphone is compatible with conventional preamplifiers from various manufacturers on the market.

Calibration

Each measuring microphone is calibrated at the factory using traceable calibration equipment and comes with a calibration certificate. Recalibration is recommended at least annually.

Quality and Warranty

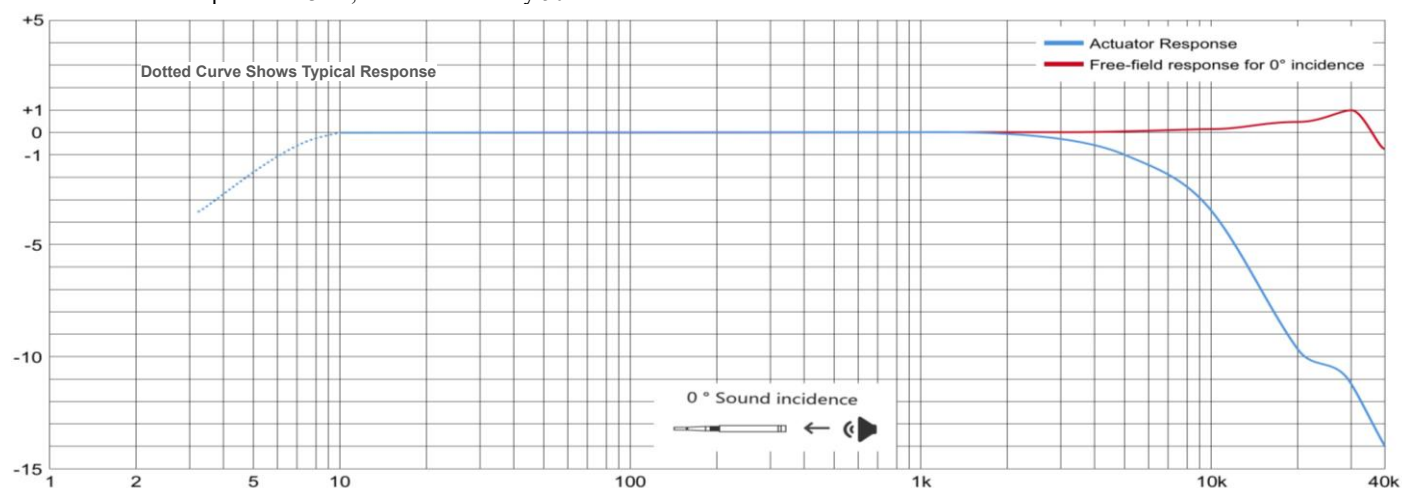
The microphones utilize a second-generation alloy diaphragm, a high-strength protective grille, and synthetic corundum insulators, making them stable and reliable measuring microphones on the market. Compared to traditional nickel and stainless steel, the alloy diaphragm offers superior corrosion resistance, high-temperature stability, shock resistance, and specific strength. All microphones are assembled and tested in a Class 1000 cleanroom to ensure product consistency and stability. The microphones come with a one-year warranty, and we will provide users with comprehensive after-sales support services.

Technical Specifications

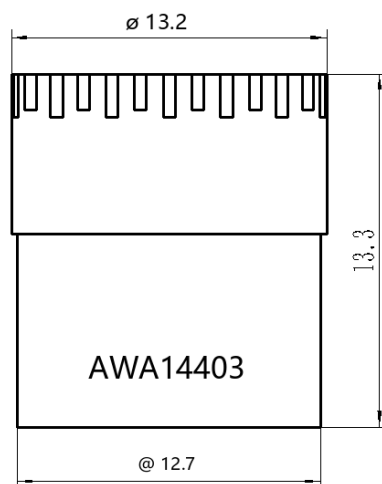
AWA14403 Free-Field Standard Microphone			
Field Type	Free Field	Lower limit frequency (-3dB) (Hz)	3.15
Diameter	1/2 inches	Operating Temperature (°C)	-30~+100
IEC 61094	WS2F	Temperature coefficient (dB/°C) (@250 Hz)	-0.005 (-10 °C~50 °C)
Polarization Voltage (V)	200	Static pressure coefficient (dB/kPa)	-0.005
Sensitivity (mV/Pa) (@250 Hz ± 2.0 dB)	14.1	Operating humidity range (%RH)	0~100
Frequency range (Hz)	3.15~40k	Height with grid (mm)	13.3
Capacitance (pF) (@250 Hz)	18	Diameter with grid (mm)	13.2
Dynamic Range	22 dBA~159 dB	Height without grid (mm)	12.5
Noise floor (dBA)	≤22	Diameter without grid (mm)	12.7
Voltage Equalization Method	Side Voltage Equalization	Preamplifier Fitting Thread	11.7 mm-60 UNS

Frequency Response

Test conditions: Temperature 23 °C, Relative humidity 50% RH



Dimensions



Related Products

AWA14404 1/2" Pressure field standard microphone

12.6 mV/Pa, 3.15 Hz~20 kHz, 22 dBA~160 dB

AWA14423 1/2" Prepolarized free field measurement microphone

50.0 mV/Pa, 3.15 Hz~20 kHz, 16 dBA~146 dB

AWA14423C 1/2" Prepolarized free field infrasound sensor

50 mV/Pa, 0.1 Hz~20 kHz, 16 dBA~146 dB

AWA14523 1/2" Prepolarized Free-Field Infrasound Wideband Sensor

31.6 mV/Pa, 0.1 Hz~40 kHz, 20 dBA~153 dB

AWA14426 1/2" Prepolarized Pressure Field Measurement Microphone

12.6 mV/Pa, 3.15 Hz~20 kHz, 25 dBA~161 dB

AWA14431 1/4" Prepolarized Free-Field Wideband Measurement Microphone

4.0 mV/Pa, 3.15 Hz~80 kHz, 40 dBA~165 dB

AWA14436 1/4" Prepolarized Pressure Field Wideband High Sound Pressure Measurement Microphone

1.0 mV/Pa, 3.15 Hz~70 kHz, 53 dBA~176 dB

AWA14411 1" Prepolarized Free-Field Low-Noise Measurement Microphone

100 mV/Pa, 10 Hz~16 kHz, 6.5 dBA~137 dB

AWA14412 1" Prepolarized Pressure Field Measurement Microphone

50 mV/Pa, 10 Hz~8 kHz, 14.5 dBA~146 dB

Ordering Information

Optional Accessories

Preamplifier	AWA14600E 1/2" LEMO interface
Microphone Test Clip	1/2" Microphone Test Clip
Sound Calibrator	AWA6021A