

AWA14404 1/2" Pressure Field Working Standard Microphone



Features

- **Key Parameters**
Sensitivity 12.6 mV/Pa
Frequency range 3.15 Hz~20 kHz
Dynamic Range 22 dBA~160 dB
Polarization voltage 200 V
- **Applications**
Quality Transfer
Pressure Field Testing
Electroacoustic Testing
Noise Testing
- **Standards**
IEC 61094-4:1995 Measurement Microphones Part 4:

Brief Description

The AWA14404 measurement microphone is designed strictly according to the specifications of a working standard microphone. The diaphragm adopts a press-fit structure. The microphone requires external polarization power supply to operate and has extremely strong stability. The frequency range is up to 20 kHz. It can be used as a transfer standard in the calibration of acoustic measurement instruments and is also suitable for related electroacoustic tests such as simulated ears.

Product Highlights

Applications of Pressure Field Working Standard Microphones

Pressure field working standard microphones have a wide measurement frequency range and are suitable for various measurement scenarios. Designed specifically for measurements within precision cavities, their excellent stability also allows them to be used as a transfer standard in the calibration of acoustic measuring instruments, and they are widely used in acoustic research and electroacoustic testing.

Compatibility

The AWA14404 working 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 at least annually is recommended.

Quality and Warranty

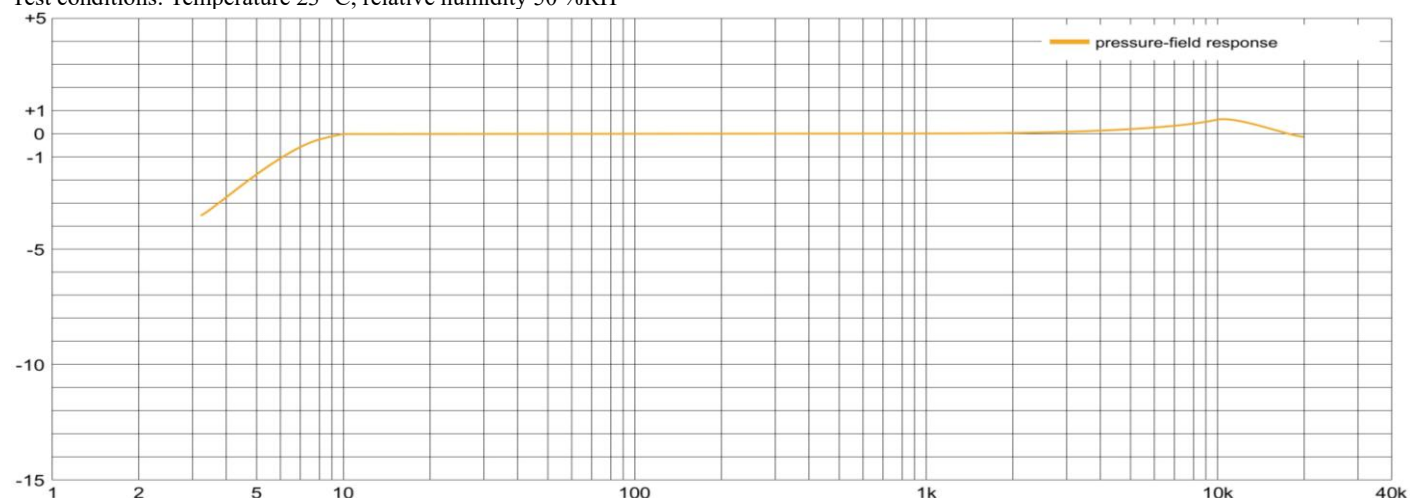
The microphones utilize a second-generation alloy diaphragm, a high-strength protective grille, and synthetic corundum insulators, making them stable and reliable measuring microphones on the market. Compared to traditional nickel and stainless steel, the alloy diaphragm offers superior corrosion resistance, 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

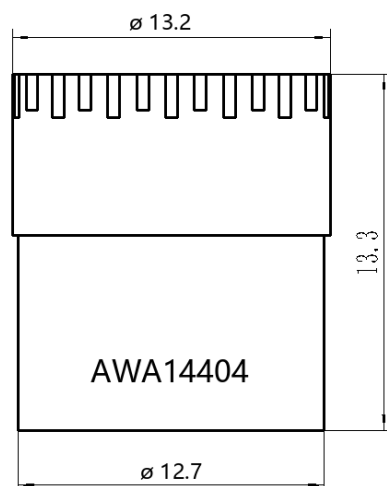
AWA14404 Pressure Field Working Standard Microphone			
Field Type	Pressure Field	Lower limit frequency (-3dB) (Hz)	3.15
Diameter	1/2 Inch	Operating Temperature (°C)	-30~+100
IEC 61094	WS2P	Temperature coefficient (dB/°C) (@250 Hz)	-0.005 (-10 °C~50 °C)
Polarization Voltage (V)	200	Static pressure coefficient (dB/kPa)	-0.005
Sensitivity (mV/Pa) (@250 Hz ± 2.0 dB)	12.6	Operating humidity range (%RH)	0~100
Frequency range (Hz)	3.15~20k	Height with grid (mm)	13.3
Capacitance (pF) (@250 Hz)	18	Diameter with grid (mm)	13.2
Dynamic Range	22 dBA~160 dB	Height without grid (mm)	12.5
Noise floor (dBA)	≤20	Diameter without grid (mm)	12.7
Voltage Equalization Method	Side Pressure Equalization	Preamplifier Fitting Thread	11.7 mm-60 UNS

Frequency Response

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



Dimensions



Related Products

AWA14403 1/2" free field standard microphone	14.1 mV/Pa, 3.15 Hz~40 kHz, 22 dBA~159 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	50mV/Pa, 0.1 Hz~20 kHz, 16 dBA~146 dB
AWA14523 1/2" prepolarized free field infrasound broadband 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