

AWA14424C Measurement Sensor



Features

● Key Parameters

Sensitivity	26.6 mV/Pa
Frequency range	0.2 Hz~16 kHz
Dynamic Range	21 dBA~156 dB

● Typical Applications

Pressure Field Testing
Electroacoustic Testing
Noise Testing

● Standards

IEC 61094-4:1995 Measurement Microphones Part 4:

Brief Description

The AWA14424C measurement sensor is designed specifically for infrasound measurement scenarios, but can also be used for conventional pressure field acoustic measurements. It includes an independent calibration certificate and features a flat frequency response. It employs a high-precision capacitive sensor with a frequency range of 0.2 Hz~16 kHz, characterized by high sensitivity and strong stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in infrasound measurement, electroacoustic testing, and equipment acoustic performance testing.

Product Highlights

Applications of Prepolarized Pressure Field Infrasound Measurement Sensors

This sensor has a wide measurement frequency range, with a lower frequency limit down to 0.2 Hz, making it suitable for various measurement scenarios, including infrasound measurement, sonic boom measurement, and other applications. It is also widely used in acoustic research and electroacoustic testing.

Compatibility

The AWA14424C measurement sensor is compatible with IEPE or conventional preamplifiers from various manufacturers. IEPE is a general-purpose constant current source power supply technology used in preamplifiers. Different manufacturers may use different names, such as ICP (Integrated Circuit Constant Current Source), CCP (Constant Current Source), etc.

Calibration

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

Quality and Warranty

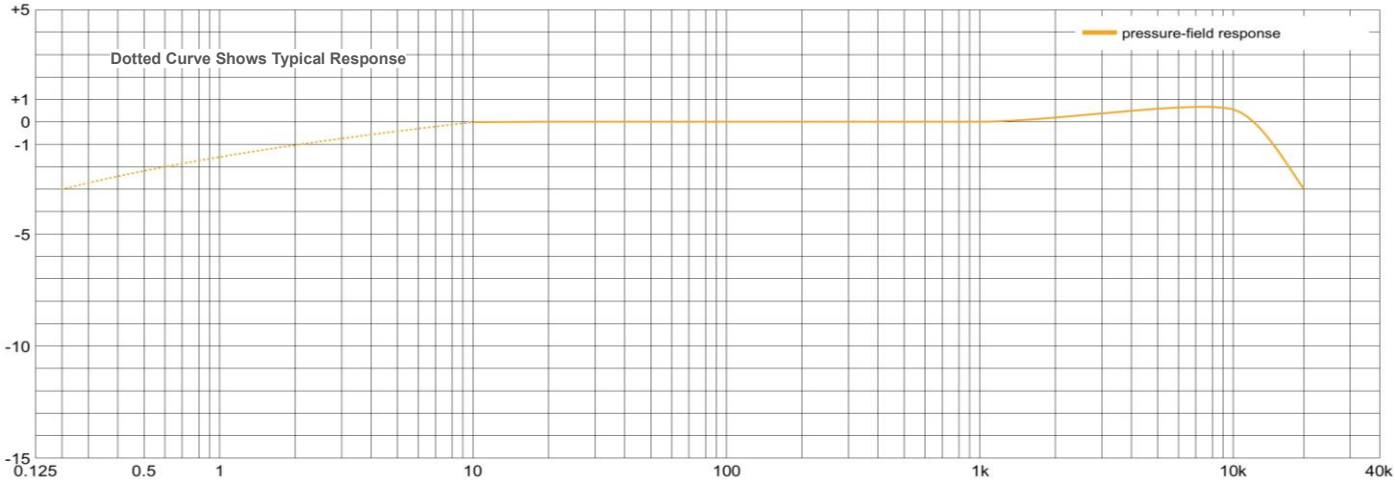
The measurement sensors utilize a second-generation alloy diaphragm, a high-strength protective grid, and a synthetic corundum insulator, making them stable and reliable measurement microphones on the market. Compared to traditional nickel and stainless steel, the alloy diaphragm offers superior corrosion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

Technical Specifications

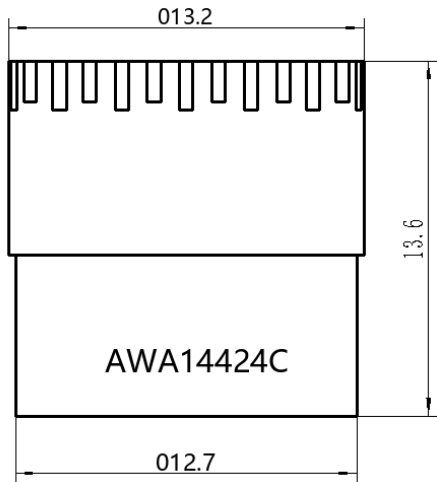
AWA14424C Measurement Sensor			
Field Type	Pressure Field	Lower limit frequency (-3dB) (Hz)	0.2
Diameter	1/2 inches	Operating Temperature (°C)	-30~+80
IEC 61094	WS2P	Temperature coefficient (dB/°C) (@250 Hz)	-0.01 (-10 °C~50 °C)
Polarization Voltage (V)	0	Static pressure coefficient (dB/kPa)	-0.01
Sensitivity (mV/Pa) (@250 Hz ± 2.0 dB)	26.6	Operating humidity range (%RH)	0~100
Frequency range (Hz)	0.2~20k	Height with grid (mm)	13.6
Capacitance (pF) (@250 Hz)	18	Diameter with grid (mm)	13.2
Dynamic Range	21 dBA~156 dB	Height without grid (mm)	12.6
Noise floor (dBA)	≤21	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



Ordering Information

Optional Accessories	
Preamplifier	AWA14604E 1/2" BNC interface AWA14600E 1/2" LEMO interface
Sensor Test Clip	1/2" Microphone Test Clip
Sound Calibrator	AWA6021A

Related Products

AWA14403 measuring microphone
14.1 mV/Pa, 3.15 Hz~40 kHz, 22 dBA~159 dB
AWA14404 measuring microphone
12.6 mV/Pa, 3.15 Hz~20 kHz, 22 dBA~160 dB
AWA14423 measuring microphone
50.0 mV/Pa, 3.15 Hz~20 kHz, 16 dBA~146 dB
AWA14523 measuring sensor
31.6 mV/Pa, 0.1 Hz~40 kHz, 20 dBA~153 dB
AWA14426 measuring microphone
12.6 mV/Pa, 3.15 Hz~20 kHz, 25 dBA~161 dB
AWA14431 measuring microphone
4.0 mV/Pa, 3.15 Hz~80 kHz, 40 dBA~165 dB
AWA14436 measuring microphone
1.0 mV/Pa, 3.15 Hz~70 kHz, 53 dBA~176 dB
AWA14411 measuring microphone
100.0 mV/Pa, 10 Hz~16 kHz, 6.5 dBA~137 dB
AWA14412 measuring microphone
50.0 mV/Pa, 10 Hz~8 kHz, 14.5 dBA~146 dB