

AWA14436-S14E 1/4" Pressure-Field Wideband High-SPL Measurement Microphone set



Features

Key Parameters

Sensitivity: 1.0 mV/Pa

Frequency Range: 3.15 Hz – 70 kHz

Dynamic Range: 57 dBA – 171 dB

Typical Applications

High sound pressure testing

Pressure field testing

High-frequency (ultrasonic) testing

Standards

IEC 61094-4:1995 Measurement microphones – Part 4: Specifications for working standard microphones

SJ/T 10724-2013 Electroacoustics – General specifications for measurement condenser microphones

Main Components

AWA14436 Measurement Microphone

AWA14614E Preamplifier

Brief Introduction

The AWA14436-S14E is a measurement unit comprising a pressure-field microphone and a preamplifier, specifically designed for high-frequency, high-sound-pressure-level (SPL) acoustic measurements in pressure fields. Supplied with an individual calibration certificate, it features a flat frequency response and supports an upper frequency limit of 70 kHz and a dynamic range upper limit of 171 dB. Compatible with mainstream acoustic analysis instruments, the unit is widely used in applications such as high-SPL testing, ultrasonic testing, noise source localization, and equipment acoustic performance testing.

Product Highlights

Application of Pressure-Field, Wide-Band, High-SPL Microphone set

These microphone sets feature a wide frequency response range and a high dynamic range upper limit, making them ideal for applications such as high sound pressure level (SPL) testing, ultrasonic testing, noise source localization, and equipment acoustic performance testing.

Compatibility

The AWA14436-S14E measurement microphone set requires an external constant-current power supply module capable of providing 2 mA to 20 mA of current and an open-circuit voltage of 24 V. Different manufacturers may use various names for such power supply modules and their powering modes, such as IEPE (Integrated Electronics Piezo-Electric), ICP (Integrated Constant-Current Power), CCP (Constant-Current Power), or CCLD (Constant-Current Line Drive).

TEDS-Enabled Measurement Microphone set

Supports TEDS (Transducer Electronic Data Sheet) and is programmed according to the IEEE 1451.4 standard (V1.0 format). It is compatible with smart sensor technology, facilitating the integration and automated management of sensor information.

Calibration

Each measurement microphone set is calibrated at the factory using traceable calibration equipment and is supplied with a calibration certificate. Annual recalibration is recommended.

Quality and Warranty

All Aihua microphones utilize second-generation alloy diaphragms, high-strength protective grids, and synthetic corundum insulators, ensuring exceptional stability and reliability. Compared to

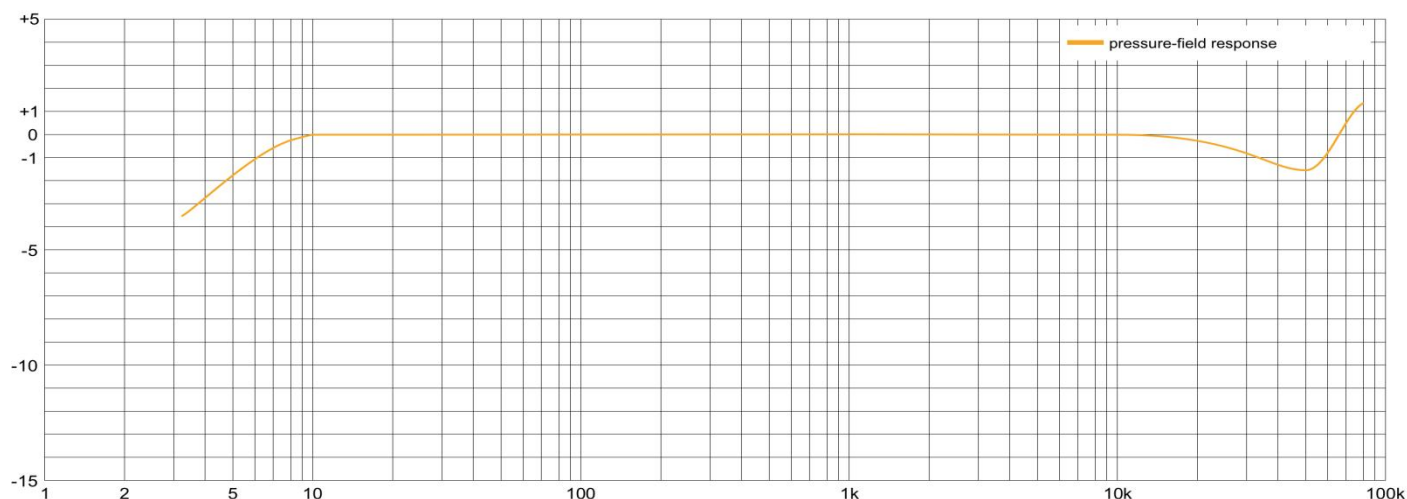
traditional nickel or stainless steel, these alloy diaphragms offer superior corrosion resistance, high-temperature stability, impact resistance, and specific strength. All microphones are assembled and tested in a Class 1000 cleanroom to ensure the highest quality. The measurement microphone sets come with a one-year warranty, backed by comprehensive after-sales support.

Technical Specifications

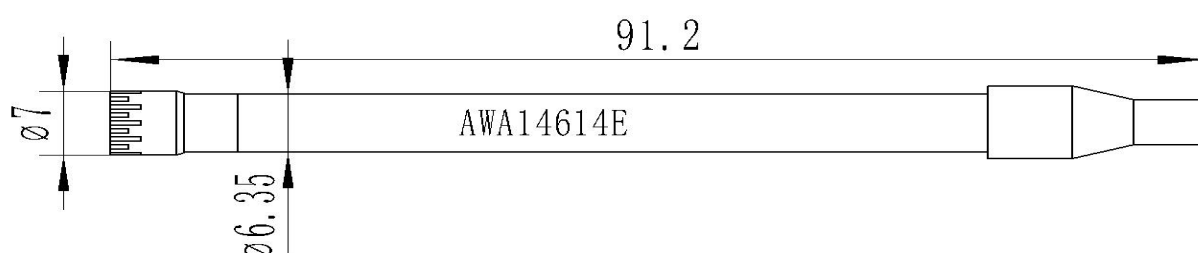
AWA14436-S14E 1/4" Pressure-Field Wideband High-SPL Measurement Microphone set			
Sound Field Type	Pressure field	Pressure Equalization	Side venting
Diameter	1/4 inch	Operating Temperature (°C)	-30 to +80
Dimensions Standard (IEC 61094)	WS3P	Temperature Coefficient (dB/°C) (@250 Hz)	-0.01 (-10°C to 50°C)
Power Supply	IEPE (2 mA to 20 mA)	Static Pressure Coefficient (dB/kPa)	-0.005
Sensitivity (mV/Pa) (@250 Hz ±2.0 dB)	1.0	Input Impedance/Capacitance	≥10 GΩ / ≤0.5 pF
Frequency Range (Hz)	3.15 to 70k	Output Voltage	≥5 Vrms @ 24 V supply
Polarization Voltage (V)	0	Output Impedance	≤50 Ω
Dynamic Range	57 dBA to 171 dB	TEDS	Standard
Noise Floor (dBA)	≤57	Output Connector	BNC

Frequency response

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



Specifications and Dimensions



Ordering Information

Optional Accessories

Microphone test clip	1/4" microphone test clip
Preamplifier power supply	AWA1710
Cable	Customizable length

Related Products:

AWA14404-S00E 1/2" Pressure-field working standard microphone set
12.6 mV/Pa, 3.15 Hz–20 kHz, 24 dBA–160 dB

AWA14403-S00E 1/2" Free-field working standard microphone set
14.1 mV/Pa, 3.15 Hz–40 kHz, 23 dBA–159 dB

AWA14423-S04E 1/2" Free-field measurement microphone set
50.0 mV/Pa, 3.15 Hz–20 kHz, 17 dBA–135 dB

AWA14423C-S01C 1/2" Free-field infrasound microphone set
39.8 mV/Pa, 0.1 Hz–20 kHz, 21 dBA–137 dB

AWA14424C-S01C 1/2" Pressure-field infrasound microphone set
21.1 mV/Pa, 0.2 Hz–16 kHz, 28 dBA–143 dB

AWA14523-S04E 1/2" Free-field infrasound/wideband microphone set
31.6 mV/Pa, 0.5 Hz–40 kHz, 21 dBA–139 dB

AWA14434-S14E 1/4" Pressure-field high-SPL measurement microphone set
0.63 mV/Pa, 3.15 Hz–40 kHz, 61 dBA–173 dB

AWA14435-S14E 1/4" Free-field high-SPL measurement microphone set
4.0 mV/Pa, 5 Hz–20 kHz, 43 dBA–160 dB

AWA14431-S14E 1/4" Free-field wideband measurement microphone set
4.0 mV/Pa, 3.15 Hz–80 kHz, 43 dBA–160 dB

AWA14411-S04E 1-inch free-field low-noise measurement microphone set
100.0 mV/Pa, 10 Hz–16 kHz, 11.5 dBA–129 dB
