OM226 Permanent Outdoor Microphone

Features:

- Meet the requirement of IEC 61672-1 Class 2 both in 0° and 90° direction of incidence without correction
- Delivered with individual calibration data
- IP54 enclosure to against rain, dust and perching birds
- The protection kit can be quickly remove for calibration
- Built-in electrostatic actuator for remote system check (external excitation signal source is required)
- ICCP power supply, low self-generated noise, typical noise level is ~23 dBA
- It can be installed on the tripod by 1/4-inch thread on the bottom

Applications:

- Aircraft and airport noise measurement
- Urban, traffic and industrial noise measurement
- Acoustic measurement in severe weathers

Introduction

OM226 permanent outdoor microphone is developed by BSWA Tech for outdoor noise monitor. Compared with semi-permanent outdoor microphone, the main improvement of permanent outdoor microphone is the built-in electrostatic actuator which can be used for remote system check. The external excitation signal source that can generate sine wave signal with frequency of 500 Hz and amplitude of 210 Vpeak ~ 280 Vpeak (about 150 Vrms ~ 200 Vrms) can excite the microphone to generate an output signal of 90 dB@1 KHz. Electrostatic actuator can be used for whole system check including microphone, cable and measuring instrument, but it cannot completely replace the sound calibration. Therefore, it is still necessary to use sound calibrator for calibration regularly.

OM226 outdoor microphones have been specially designed to achieve the free-field frequency response both in 0° and 90° direction of incidence within the limits of IEC 61672-1 Class 2. It's suitable for aircraft, airport, urban, traffic and industrial noise measurement. Each microphone is supplied with an individual calibration certificate that contains the actual sensitivity and free-field frequency response data for the complete set of outdoor microphones. Users can use the calibration data to correct the measurement data for more accurate results.

OM226 meets the IP54 ingress protection rating. The windscreen, internal rain hood and dust mesh can fully protect microphone to against wind, rain, snow, dust and other severe weathers. The bird spike prevents impact of perching birds to the measurement.

★**NOTE**: The generation of the signal required by the electrostatic actuator needs to be realized by the circuit designed by the user. If the user lacks relevant knowledge, please directly purchase the permanent outdoor microphone OM243 / OM263 with built-in signal generator.

Specifications

Type	OM226
Application	Aircraft, airport, urban, traffic and industrial noise measurement
Incidence	0° and 90°

Standard	GB/T 3785.1-2010 Class 2, IEC 61672-1:2013 Class 2, ANSI S1.4-1983 Type 2
Built-in Microphone	1/2” Prepolarized Microphone
Sound Field	Free-field
Sensitivity@250 Hz (mV/Pa) (±3 dB)	40 (-28 dB re 1V/Pa)
Polarization Voltage	0 V (Prepolarized)
Frequency Response (Hz)	20 ~ 12.5 k (According to IEC 61672-1)
Dynamic Range (dBA ~ dB)	23 ~ 136
Self-generated Noise (dBA)	23
Maximum SPL (dB)	≥ 136 (3 % distortion)
Peak SPL (dBA)	139
Wind Noise Attenuation (dBA)	20 (wind speed 10 m/s)
Output Impedance	< 30 Ω
Maximum Output Voltage (Vpeak)	±7.1
Power Supply	ICCP (2 mA ~ 20 mA, 4 mA Typ.)
Output Connector	BNC (Microphone), SMA or 10-32 UNF (Actuator)
TEDS	Optional, IEEE 1451.4 compliant (default v0.9, optional v1.0)
Mounting Thread for Tripod	1/4” thread
Enclosure	IP54 (Microphone vertical placement only)
Operating Temperature Range (°C)	-30 ~ 80
Operating Humidity Range (%RH)	0 ~ 95
Dimensions (mm)	Ø90 x 222 (without extension rod), Ø90 x 376 (with extension rod)
Weight (g)	94 (without extension rod), 214 (with extension rod)

BSWA Technology Co., Ltd. Room 1003, North Ring Center, No.18 Yumin Road, Xicheng District, Beijing 100029, China • Tel: 86-10-5128 5118 • Fax: 86-10-8225 1626 • E-mail: info@bswa.com.cn • URL: www.bswa-tech.com

BSWA TECH