



## OM225 Semi-permanent Outdoor Microphone

### Features:

- Meet the requirement of 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
- ICCP power supply, low inherent noise, typical noise level is approx. 23dBA

### Application:

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



### Introduction

**OM225** semi-permanent outdoor microphone is developed by BSWA Tech for outdoor noise monitor. Semi-permanent outdoor microphone has no built-in calibration device and therefore requires periodic calibration using a sound calibrator for short-term noise measurement.

**OM225** 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 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.

**OM225** meets the IP54 ingress protection rating. The 90mm 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.

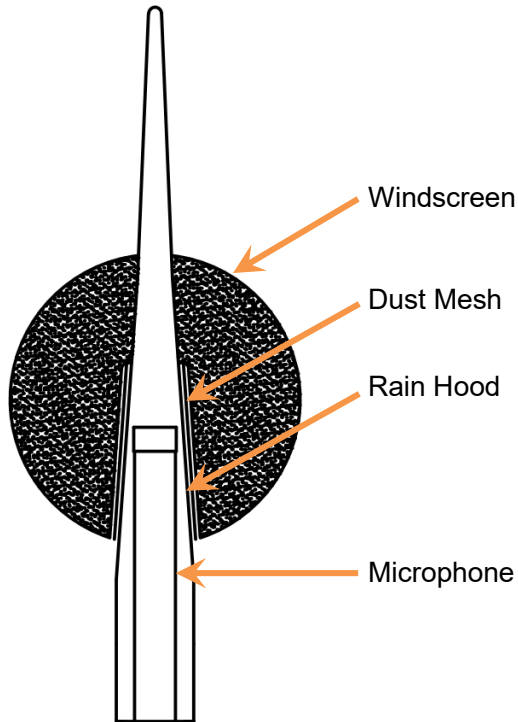
### Specifications

|                          |   |
|--------------------------|---|
| Type                     | OM225   |
| Application              | Aircraft, airport, urban, traffic and industrial noise measurement    |
| Incidence                | 0° and 90°  |
| Standard                 | GB/T 3785.1-2010 2 级, IEC 61672-1:2013 Class 2, ANSI S1.4-1983 Type 2 |
| Built-in Microphone      | 1/2" prepolarized measurement microphone                              |
| Sound Field              | Free-field  |
| Open-circuit Sensitivity | 40mV/Pa   |
| Frequency Response       | 20Hz~12.5kHz (According to IEC 61672-1)                               |
| Dynamic Range            | 23dBA~136dBA (40mV/Pa)  |
| Peak SPL                 | 139dBA peak   |
| Maximum Output Voltage   | 5Vrms   |
| Inherent Noise           | ~23dBA  |
| Output Impedance         | <30Ω  |



|                 |   |
|-----------------|---|
| Power Supply    | ICCP power supply (2mA~20mA, 4mA Typ.)                        |
| Conditions      | Temperature: -30℃~80℃, Humidity: 0%~95%RH                     |
| Connector       | BNC   |
| Mounting Thread | 1/4" thread   |
| Enclosure       | IP54 (Microphone vertical placement only)                     |
| Size(mm)        | Ø90x222 (without extension rod), Ø90x372 (with extension rod) |
| Weight          | 89g (without extension rod), 203g (with extension rod)        |

## Microphone Protection



The microphone is protected from wind, rain, snow and dust by a windscreen, dust mesh and rain hood.

The special acoustic design minimizes the influence of protection kit on the free-field frequency response to meet the Class 2 requirements of IEC 61672-1.

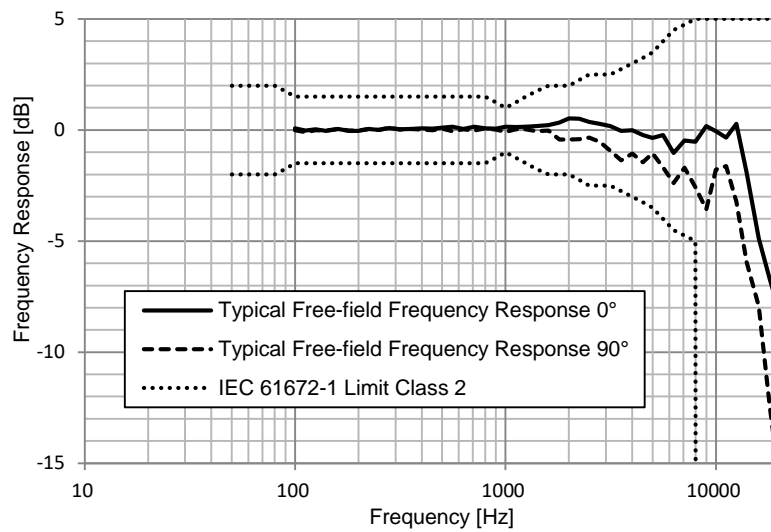
## Calibrate by Sound Calibrator

Protection kit can be easily removed. Internal use of 1/2" pre-polarized microphone allows calibration with a 1/2" sound calibrator.





### Typical Free-field Frequency Response



Typical 0° and 90° incidence free-field frequency response of OM225

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