



## OM241 / OM261

### Semi-permanent Outdoor Microphone

#### Features:

- Optimized for 0° and 90° incidence to meet IEC 61672-1
- 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. 17dBA

#### Application:

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



#### Introduction

**OM241/OM261** 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.

The frequency response of **OM241** is optimized for 0° incidence, primarily for aircraft and airport noise measurement. The **OM261** is optimized for 90° incidence, primarily for urban, traffic and industrial noise measurement. Both of two types of microphones have been specially designed to achieve the free-field frequency response in specified direction of incidence within the limits of IEC 61672-1. 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.

**OM241/OM261** 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.

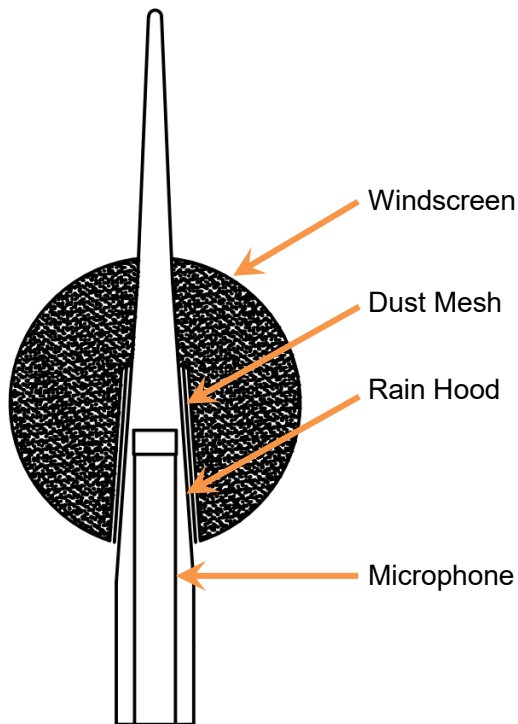
#### Specifications

Type	OM241	OM261
Application	Aircraft and airport noise	Urban, traffic and industrial noise
Incidence	0°	90°
Standard	GB/T 3785.1-2010 1 级, IEC 61672-1:2013 Class 1, ANSI S1.4-1983 Type 1	
Built-in Microphone	1/2" prepolarized measurement microphone	
Sound Field	Free-field	
Open-circuit Sensitivity	50mV/Pa	
Frequency Response	10Hz~20kHz (According to IEC 61672-1)	
Dynamic Range	17dBA~134dBA (50mV/Pa)	
Peak SPL	137dBA peak	
Maximum Output Voltage	5Vrms	
Inherent Noise	~17dBA	



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 requirements of IEC 61672-1.

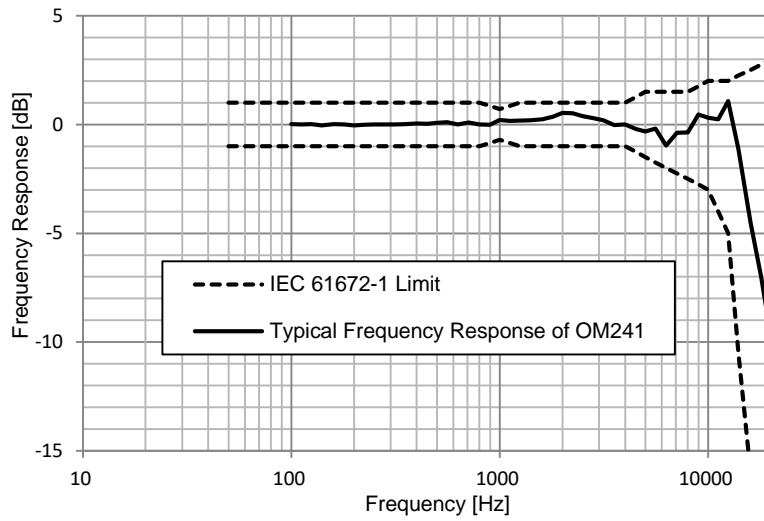
## Calibrate by Sound Calibrator

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

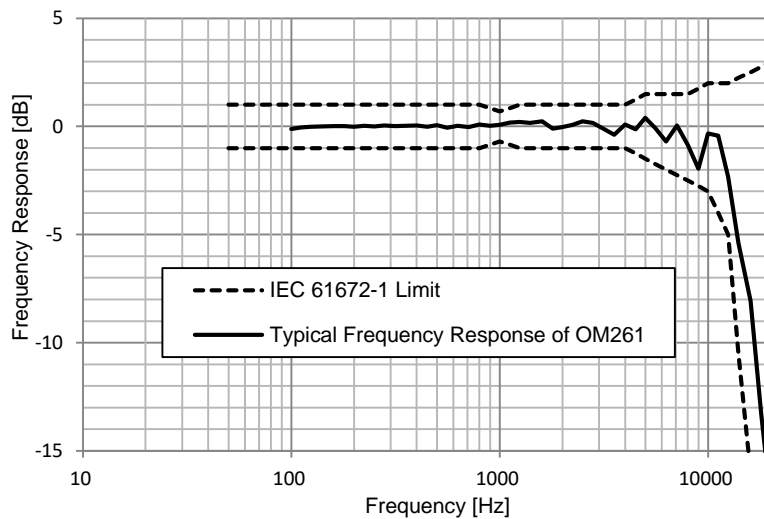




Typical Free-field Frequency Response



Typical 0° incidence free-field frequency response of OM241



Typical 90° incidence free-field frequency response of OM261

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