

The MP201 microphone is the best choice for use in IEC61672 Class 1 Sound Level Meters and other noise measurements requiring Class 1 accuracy. It is a 1/2" prepolarized free-field measurement microphone whose development spans over 30 years in design, manufacture, calibration, and field testing.

Handcrafted to exacting standards along with rigorous testing ensure its high quality, reliability, and extreme stability in all kinds of environments. Its incredible performance stems from its nickel alloy diaphragm using BSWA's diaphragm coating technology. The microphone housing is also made from the same nickel alloy to ensure the smallest temperature coefficients.

Production quality control for the MP201 uses only 40% of the frequency response tolerances allowed by IEC61672 Class 1 microphones! Figure 1 shows the typical free-field frequency response curve of the MP201 (black curve) against quality control limits (red curves).

Each microphone is supplied with its individual calibration data for frequency response and sensitivity. Its stability and versatility has been proven in all fields of acoustic measurements.

It's no wonder many world-leading manufacturers of Class 1 sound level meters choose the MP201 microphone. Its proven quality, reliability, stability, and performance simply make it the best choice..



Specifications

CLASS 1 MICROPHONE MP201	
Diameter	1/2 inch
Response	Free Field
Open-Circuit Sensitivity	-26 ± 2 dB (50mV/Pa)
Frequency Response	20 ~ 20 kHz
Polarization Voltage	0 V
Dynamic Range (3% Distortion Limit)	> 146 dB
Cartridge Thermal Noise	< 16 dBA
Capacitance (Typical)	16 pF
Pressure Equalization Vent	Rear Vented
Operating Temperature	-30°C ~ 80°C
Operating Humidity	0 ~ 98% RH
Equivalent Air Volume	250 mm ³ at 250 Hz
Temperature Coefficient (-10 ~ 50°C)	- 0.005 dB/°C
Humidity Coefficient	-0.003 dB/%RH
Pressure Coefficient (250 Hz)	-0.004 dB/kPa
Dimensions	IEC 1094-4 Type WS 2

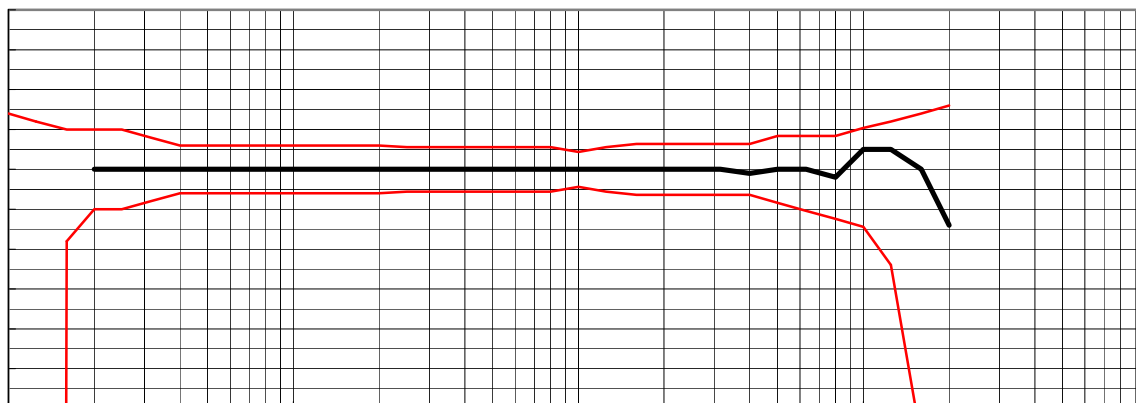


Figure 1: Typical free-field frequency response curve of MP201



The MP205 microphone is a 1/2" prepolarized free-field measurement microphone and the best choice for use in IEC61672 Class 2 Sound Level Meters and other noise measurements requiring Class 2 accuracy.

The design of the MP205 is based on the high performance MP201 design and technology. Like the MP201, the microphone diaphragm is also made from a nickel alloy using BSWA diaphragm coating technology while the housing is made from stainless steel. The temperature, pressure, and humidity coefficients are better than IEC 61672 Class 2 requirements. To help distinguish it from the MP201, the microphone protection grid was redesigned.

Figure 2 illustrates the typical polar pattern of the MP205 and its exceptional omni-directional capability. Each microphone is individually calibrated using an electrostatic actuator and piston phone and all microphones are environmentally aged for long-term stability.

The MP205 is an excellent all around Class 2 microphone with proven design for quality, reliability, stability, and performance.

Specifications

CLASS 2 MICROPHONE MP205	
Diameter	1/2 inch
Response	Free-field
Open Circuit Sensitivity	-28.0dB±3.0dB (40 mV/Pa)
Frequency Response	20 ~ 10 kHz
Polarization Voltage	0 V
Dynamic Range (3% Distortion Limit)	> 146 dB
Cartridge Thermal Noise	< 24 dB (A)
Capacitance (Typical)	13 pF
Pressure Equalization Vent	Rear
Operating Temperature	-20°C~ 80°C.
Operating Humidity	0 ~ 98% RH
Equivalent Air Volume	240 mm ³ at 250 Hz
Temperature Coefficient 0 ~ 40 °C	< ± 0.6 dB at 250Hz, at reference temperature 23 °C
Humidity Coefficient 20% - 90% RH	< ± 0.6 dB at 250Hz at temperature 40°C, and reference 50% RH
Pressure Coefficient	85 kPa~108 kPa ; SPL change < ± 0.6 dB at 250 Hz at reference pressure 101 kPa. From 65 kPa ~ 85 kPa: Sound Pressure Level change < ± 1.2 dB at 250 Hz
Dimensions	IEC 1094-4 Type WS 2



Figure 2: Directional response of the MP205 microphone.



The MP206 is a 1/2" prepolarized free-field condenser microphone. Developed specifically as an extremely low cost, general purpose microphone, it delivers Class 2 measurement accuracy. It uses a polymer diaphragm and copper housing making it well suited for use indoors and in controlled environments. These materials and associated manufacturing significantly reduce its cost but also limit its ability to meet Class 2 temperature and pressure coefficients. The overall stability and reliability within a constant environment, however, is maintained and ensured through testing of each microphone.

The MP206 protection grid is designed to reduce directivity factors in the higher frequency ranges. The microphone is supplied with its individual sensitivity and typical MP206 frequency response curve, as shown in figure 3. As an option, the actual frequency response of the microphone can be supplied.

Specifications

MICROPHONE MP206	
Diameter	1/2 inch
Response	Free Field
Open-Circuit Sensitivity (250 Hz)	-30±3dB (32mV/Pa)
Frequency Response	20 ~ 12.5 kHz; 60% Tolerance of Class 2
Polarization Voltage	0 V
Dynamic Range (-3% Distortion Limit)	> 135 dB
Cartridge Thermal Noise	< 23dBA
Capacitor (Typical)	20~30 pF
Pressure Equalization Vent	Rear Vented
Operating Temperature	0 ~ 40°C
Operating Humidity:	0 ~ 98% RH
Equivalent Air Volume	280 mm ³ at 250 Hz
Temperature Coefficient (250 Hz)	0.05 dB/°C
Humidity Coefficient (250Hz)	0.02 dB/%RH
Pressure Coefficient (250 Hz)	0.05 dB/kPa
Dimensions	IEC 1094-4 Type WS 2

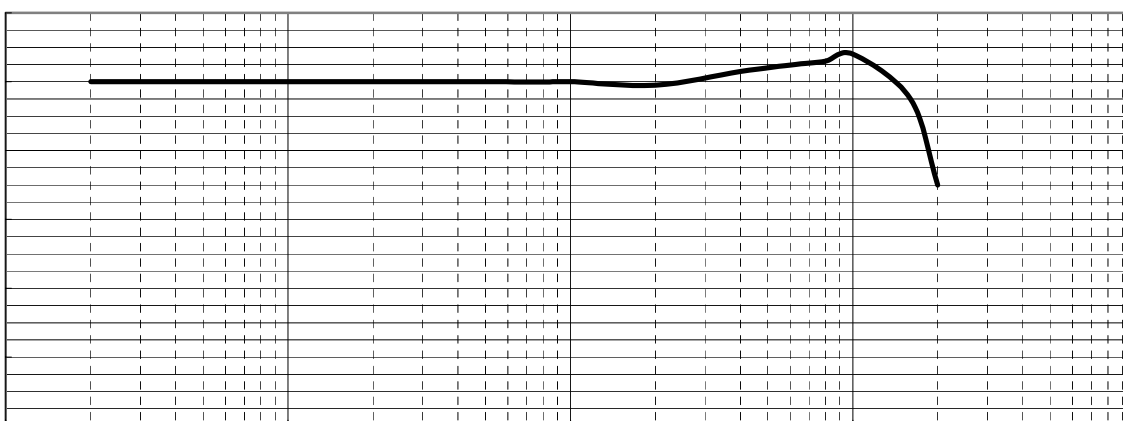


Figure 3: Typical free-field frequency response curve of MP206