M2010 / M2015

Measurement Microphone

The M2010 and M2015 are compact and accurate measurement microphones for acoustics, R&D and production. They are particularly suited for applications with restricted space available.

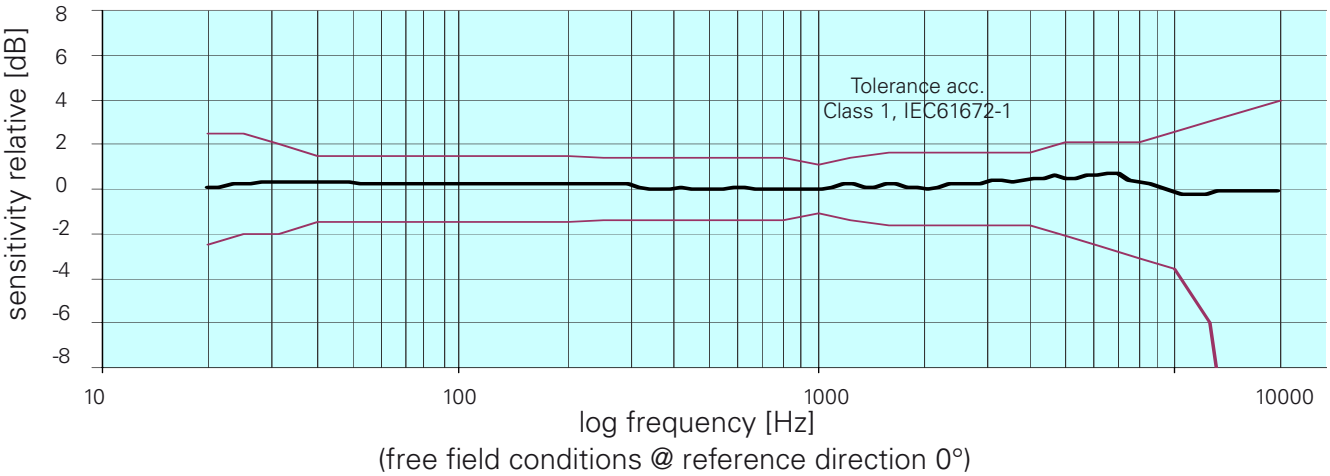
Main characteristics:

- 1/2" omni-directional free-field microphone
- Frequency Response Flatness Class 1 (IEC 61672-1)
- Phantom power 10 - 48 VDC
- Measurement range
  M2010: 24 - 145 dBSPL (typical)
  M2015: 34 - 155 dBSPL (typical)

The microphones M2010 and M2015 are optimised for a flat, free-field response in the audio range 20Hz - 20kHz.

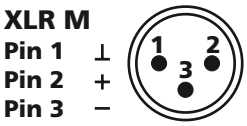
The detachable microphone cable at the pre-amplifier simplifies integration into mechanical fixtures, such as robotic arms. The microphone includes a wind screen, a microphone stand and an individual calibration certificate with individual frequency response chart and sensitivity.

Typical frequency response



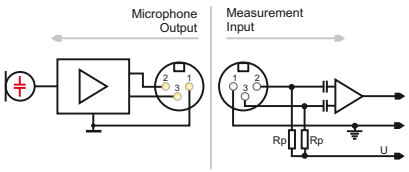
(free field conditions @ reference direction 0°)

Wind screen

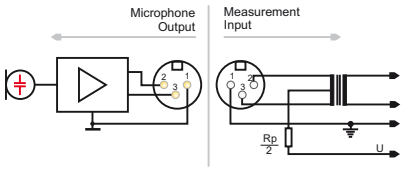


Connection diagram
of microphone

Phantom power supply



AC coupled amplifiers



Input transformer with center tap (floating).

Specifications

	M2010	M2015
Microphone type	Omnidirectional, pre-polarized condenser, free field microphone	
Capsule / Transducer	1/2" detachable with 60UNS2 thread and metal diaphragm	
Flatness	exceeds Class 1 (IEC61672-1) < ±1 dB @ 100 Hz - 4 kHz < ±2 dB @ 10 Hz - 20 kHz	
Sensitivity	-29 dBV/Pa ±3 dB (35 mV/Pa @ 1kHz)	-40 dBV/Pa ±3 dB (10 mV/Pa @ 1kHz)
Maximum SPL @ 1 kHz, THD 3%, 48 VDC	typical 145 dBSPL	typical 155 dBSPL
Equivalent noise level	< 24 dBSPL (A-weighted)	< 34 dBSPL (A-weighted)
Temperature coefficient	< ±0.015 dB / °C	
Temperature range	-10°C to +50°C (14°F to 122°F)	
Long term stability	>250 years /dB	
Electrostatic capacitance	18 pF (cartridge only)	
Output impedance	100 Ohm (balanced), 50 Ohm (single ended)	
Power consumption @ dBSPL max	typical 4 mA	
Overall shell length	50 mm (1.9")	
Body diameter	13.2 mm (0.52") with protective cap	
Connector	3-pole XLR (NEUTRIK®)	
Cable	1.5 m (5 ft), diameter 3.6 mm, cable is detachable at the amplifier side, 3-pole NanoCon® (NEUTRIK®)	

Worst case maximum SPL (@ THD 3%, 1 kHz, Rp*)		
Phantom Power	M2010	M2015
48 VDC	>142 dBSPL	>152 dBSPL
24 VDC	>134 dBSPL	>144 dBSPL
15 VDC	>128 dBSPL	>138 dBSPL
10 VDC	>124 dBSPL	>134 dBSPL

*Rp = 6.8 kOhm @ U = 48 V, 1.2 kOhm @ 24 V, 680 Ohm @ 15,10 V