

## MYc-3 48V XLR measurement microphone

**MYc-3** is a professional measurement microphone, expressly designed for PA systems optimization. It requires 48V phantom power and it is an extremely linear low-distortion compact and robust microphone. It is hand made and tested with great care. It has several high-level features, such as removable tip with spring contact, colored ring, serial number laser-engraved and waterproof case. Its performance, cost and features are unique compared with those commercially available.



Actual size (A4)

- > Free field **frequency response** between 10 and 20000 Hz falls within the tolerance limits of  $\pm 2$  dB, and **each** microphone has been equipped with its own **response correction file** and **calibration chart**.
- > **Total harmonic distortion** at the sound pressure level of 130 dB is around 1% and less than 3% at 140 dB.
- > Thanks to its **very low intrinsic noise**, less than 23 dBA SPL equivalent and the **sensitivity** of  $-36$  dBV, this is a versatile device that can be used both in conditions of extremely high sound pressure levels and in the presence of particularly quiet sound fields.
- > The **body** has been realized with the highest quality stainless steel (AISI 316 marine grade) and high precision machinery. It is treated with the passivation process to make it absolutely corrosion-resistant.
- > Serial number is **laser-engraved** so it can't be cancelled. Thanks to its compact size and solid structure this device is easily handled and it can even be "carelessly" used.
- > The **Neutrik\* XLR connector** ensures a perfect connection and houses the distinctive **colored identification ring**. (When using multiple microphones, it is very useful to use a color code to distinguish microphones and curves on the analyzer, but also measuring points on a map, cables, compensation file names, etc.).
- > The **tip** of the microphone has a diameter of 7 mm allowing the use of standard 1/4" calibrators. It's a separate part that has its own serial number and houses the microphone capsule and a first amplification stage. It is screwed to the microphone body entrusting the electrical connection to a high quality spring contact. It's the most delicate part and therefore the most at risk. Stages, construction sites and similar environments and workplaces are dangerous places! In the unfortunate event of an accident (let's touch wood!), the replacement is easy and cheap, as well as a future possible upgrades.
- > The internal **head amp** has been realized with selected components in order to achieve very low distortion and noise. Each circuit is tested for the full compliance to specifications.
- > The **power supply** complies with 48 V phantom power system ( $\pm 4$  V). Power consumption is less than 5 mA in order to not overload preamplifiers.

The microphone is protected by a **cylindrical aluminum watertight case** (O-Ring closure). The whole device looks like a closed tube: 14 cm length, 24 mm diameter, for a total weight less than 80 g. Maximum protection, minimum size and weight.

\*Registered marks

**TECHNICAL SPECIFICATIONS**

*Omni-directional pre-polarized condenser microphone*

*Polarity: a positive pressure variation on the diaphragm produces a positive voltage at pin 2 of the XLR.*

*Free field frequency response, 0°, +/- 1dB*

10–10000 Hz

*Free field frequency response, 0°, +/- 2dB*

10–22000 Hz

*Sensitivity (@ 250Hz; +/-2 dB)*

15 mV/Pa [–36.5 dB re 1 V/Pa]

*Max SPL (THD<3 %)*

140 dB SPL

*Noise*

<23 dBA SPL equiv. (typical 22 dBA)

*Temperature coeff.*

+0.035 dB/°C

*Operating temperature range*

–10 °C to +50 °C (14 to 122 °F)

*Balanced output impedance*

30 ohm

*Powering*

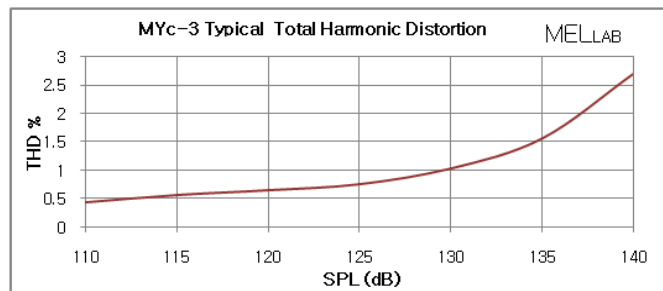
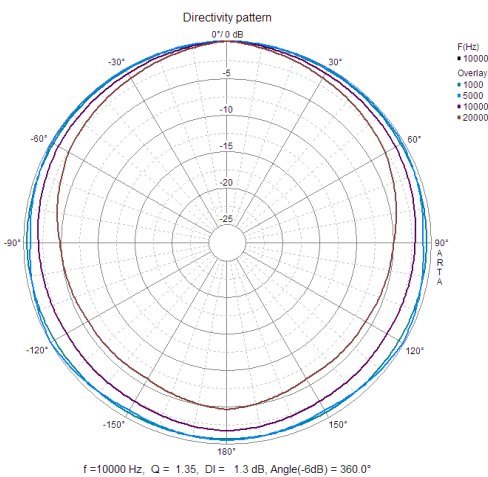
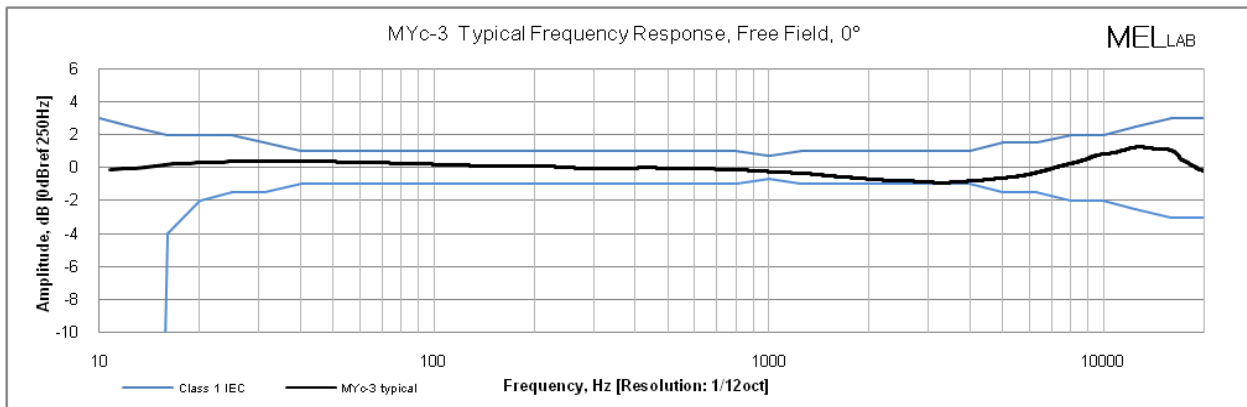
48V [5 mA] phantom power

*Weight*

68 g

*Length*

116 mm



This specs refer to a typical MYc-3 microphone connected to a MELLab balanced microphone measurement amplifier: 2 kΩ input impedance / 48.2 Vdc phantom power.  
 Frequency response measured in anechoic chamber (f>250 Hz) and pressure chamber (f<250 Hz).  
 Reference microphone Bruel&Kjaer Type 4958 s/n 2864560.  
 Reference pistonphone Bruel&Kjaer Type 4220 s/n 613857.  
 Soundcard: RME Fireface 800. Software: ARTA. Calibration accuracy > +/- 0.5 dB.  
 Standard environmental conditions (23 °C, 50% UR, 1013.25 mb/hPa).