

MICROTECH GEFELL

microphones & acoustic systems - founded 1928 by Georg Neumann



M 102

Studio Microphone

with 1" nickel capsule

- condenser microphone
- omni-directional
- measurement quality capsule
- nickel diaphragm
- transistor pre-amplifier
- phantom powering P48



Studio Microphone M 102

The M 102 combines high quality measurement microphone capsule technology with a nickel metal membrane and a modular pre-amplifier. The use of a certified measurement capsule combined with a 48 V phantom powered pre-amplifier reaches a constant magnitude and phase response and transmission properties that are long-term stable. A sound calibrator like the KAL 4010 can be used for optimal level adjustment if required.

Application

The M 102 is ideally suited for applications where a low noise level is demanded. It is ideal as a main microphone for recordings that should include a certain amount of the room response. The M 102 is also perfect as a spot microphone for recording instruments close up, where the low frequencies need to be captured cleanly and with detail. The M 102 is also ideal for use as main microphones like an AB stereo pair or a Decca Tree. For these applications the microphone is ideal because of its precise and long-term stable transmission properties and can be supplied as a matched stereo pair or Decca Tree triple on request. The M 102 has an excellent transient response and is perfect to record instruments with extreme transients.

Specification

The sound transducer is an externally polarised capsule with a diameter of 23.8 mm with an extremely thin nickel metal diaphragm. This nickel diaphragm is “grown in place” on the metal structure of the microphone capsule making it one uniform piece. The diaphragm structure is the same in all directions and is a pure sampler of the sound pressure wave without the distortions that can happen with other construction methods. The pressure transducer is omni-directional and without any proximity effect. Because of the free-field equalisation, the M 102 has a constant frequency response from below 20 Hz up to 20 kHz. The static pressure equalisation between the capsule interior and the atmosphere is obtained via a tiny vent into the preamplifier.

The transformerless circuit design of the electronic impedance converter with symmetrical output facilitates an output capability for sound pressures from 11 dB(A) up to 136 dB with a maximum of 0.5% THD (total harmonic distortion). The microphone is powered via an external 48 V phantom supply according to IEC 61938 and internally generates the 200 V polarisation voltage for the capsule.

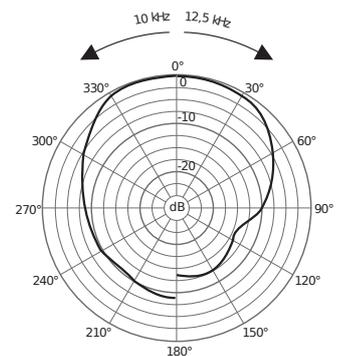
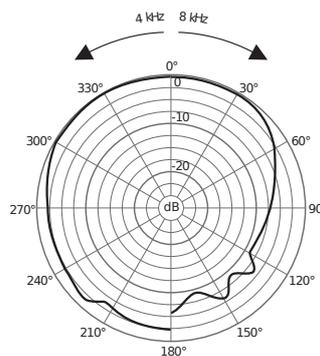
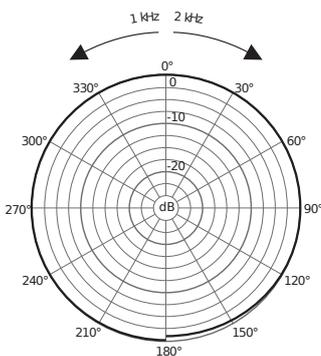
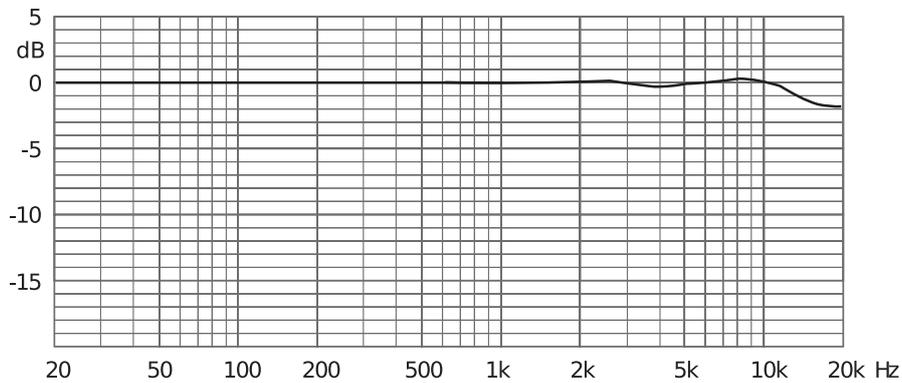


Technical Specifications



Polar pattern		Omni
Acoustic operating principle		Pressure transducer
Frequency range		20 Hz to 20,000 Hz
Sensitivity at 1 kHz		50 mV/Pa
Output impedance		100 Ohm
Noise level	CCIR 468-4	23 dB
	DIN EN 60268-4	11 dB-A
Signal-to-noise ratio	DIN EN 60268-4	83 dB-A
Max. SPL for 0.5% THD		136 dB
Dynamic range		125 dB
Power supply		48 V \pm 4 V
Current consumption		5.5 mA
Output connector		XLR3M
Weight		210 g
Length		180 mm
Capsule diameter		23.8 mm
Pre-amplifier diameter (connector end)		21.0 mm

Frequency response and polar pattern



Product Overview



Delivery

with microphone holder MH 93.1 in wooden case 275 mm x 90 mm x 70 mm

dark bronze

order number 2111197



Accessories

Windscreen, anthracite	W 1	order number 302326
Microphone holder, dark bronze	MH 93.1	order number 202303
Connection cable, 10 m	C 70.1	order number 202212
Connection cable, HF-stable, 10 m	C 70.1 HF	order number 202213

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