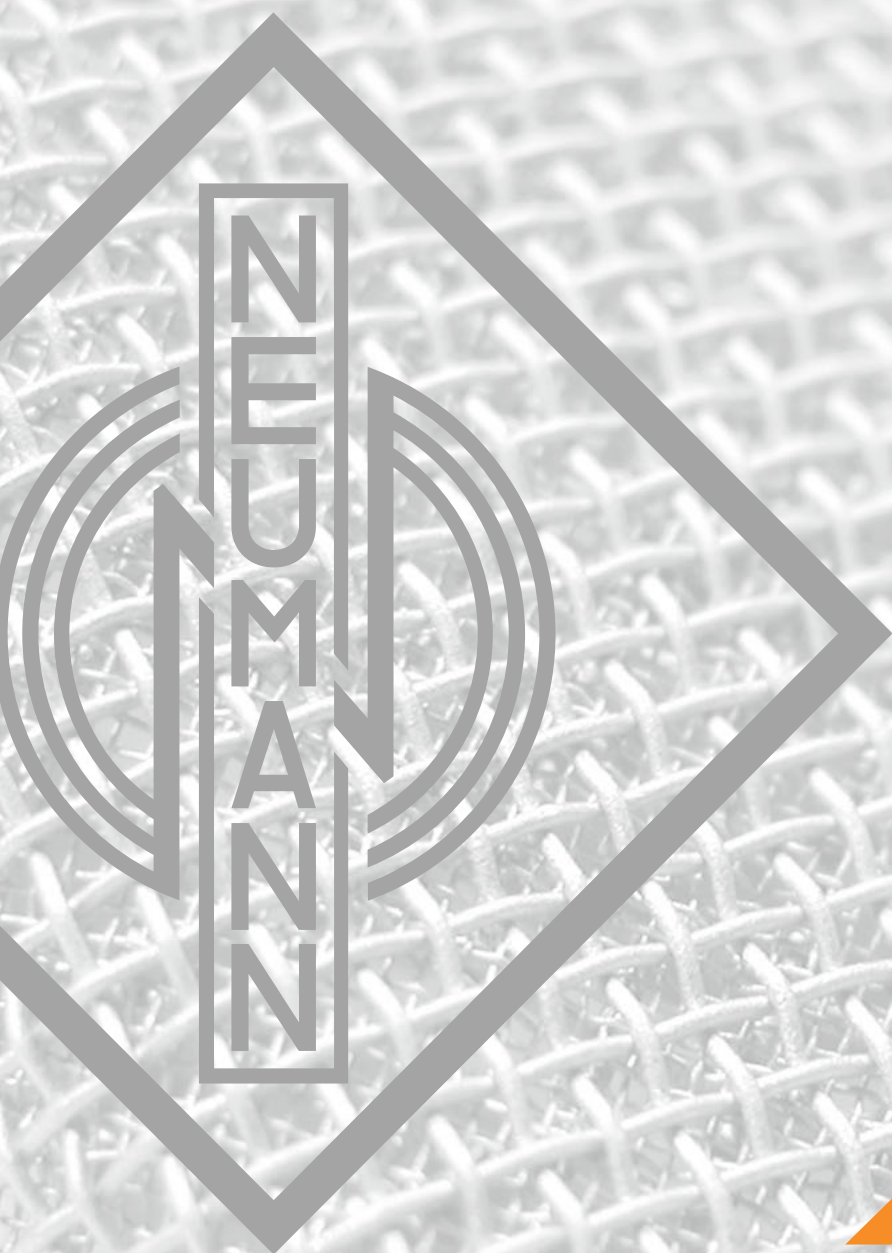


KMS Series

► **Vocal Microphones**



www.neumann.com



The KMS 104/104 plus and the KMS 105 microphones have been developed to optimally transmit the human voice with respect to the demanding conditions present on the live stage. The KMS series has become the internationally acknowledged standard for first-class stage microphones.

The high acoustic resolution and smooth frequency response of the microphones ensure that the musician has optimal control of the stage performance at all times.

Especially due to their low self-noise and crosstalk behavior which is free of coloration, the KMS microphones are ideal for use with in-ear monitoring systems.

The KMS 104 and the KMS 104 plus have a condenser microphone capsule with a cardioid directional characteristic which provides the best possible suppression of sounds originating from behind the microphone. In contrast, with its supercardioid characteristic the KMS 105 is particularly good at suppressing sounds originating from the entire 180° hemisphere behind the microphone. The KMS 104 plus features, compared to KMS 104, a more extended bass frequency response. In close cooperation with professional musicians, with the aid of extensive practical tests, the KMS 104 plus has been especially optimized for the requirements of female voices in the rock and pop field.

The user can thus select the version that is optimally suited to the specific application.

Acoustic features

The studio condenser capsules used in the microphone versions provide the basis for transmitting all the nuances of the human voice. In comparison with other handheld microphones, which operate mostly with dynamic capsules, the KMS series has a particularly high acoustic transparency, a wide frequency range and a fine resolution of transients.

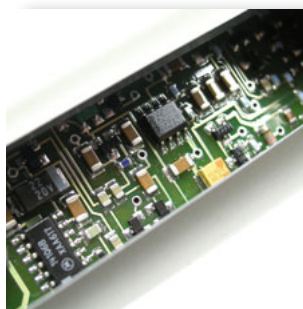
In KMS microphones, carefully adjusted acoustic filters and transformerless impedance converters that can handle very high sound pressure levels prevent the microphones from being overloaded even by strong plosive sounds.

In spite of excellent pop protection, sibilants and “S” sounds are transmitted with their natural accentuation, as is possible only with condenser microphones. Furthermore, the above-mentioned acoustic filters are designed so that the distinctive directional characteristics of the capsules are preserved even in the bass range. The filters thus ensure a very high level of feedback protection for the KMS 104/104 plus and KMS 105 vocal microphones when they are used with a stage sound system.

Electrical features

Since vocal microphones are typically addressed at close range, for the bass frequency response of the microphones, electronic compensation is used for the proximity effect in the respective capsules.

In addition, the microphone has an invariable, built-in high-pass filter with a cutoff frequency of 120 Hz (–3 dB, measured in a free sound field). The dynamic range of the KMS microphones is 132 dB, and the maximum sound pressure level is 150 dB.



The low self-noise level of only 18 dB-A permits the microphones to be used at high gain levels without the risk of additional noise. Even at large distances, the microphones thus operate with a high signal-to-noise ratio, facilitating the freedom of movement and creativity that are important to the artist.

Due to the transformerless output circuit, the microphone signals can be transmitted even through long cables without loss of sound.

Mechanical features

Microphones designed for use on stage require a particularly robust construction. The KMS 104/104 plus and KMS 105 therefore have thick-walled metal housings, which also provide effective protection against handling noise.

The microphone headgrilles are made of hardened steel. If required, they can easily be unscrewed to permit cleaning of the interior acoustic filters.



Delivery Range

The KMS 104/104 plus and KMS 105 microphones, with a matching stand clamp, are supplied in an attractive padded nylon bag that is sufficiently durable for touring.

Features

- Neumann sound on stage
- Excellent transparency for vocals/speech
- Cardioid/Supercardioid polar pattern with excellent feedback rejection
- Without off-axis coloration
- Transformerless output
- Effective pop shielding without any side effects
- Set includes stand clamp

Application Hints

- Vocals and speech on stage
- Announcer's mic for broadcasting/dubbing
- Especially suited for in-ear-monitoring
- For feedback-prone environment

These are just some of the most common applications. We recommend additional experimentation to gain maximum use from this microphone.

Delivery Range

KMS 104, KMS 104 plus or KMS 105 Microphone
SG 105 Stand clamp
Padded nylon bag

Catalog No.

KMS 104	ni	008548
KMS 104 bk	blk	008549
KMS 104 plus	ni	008624
KMS 104 plus bk	blk	008625
KMS 105	ni	008454
KMS 105 bk	blk	008455

Selection of Accessories

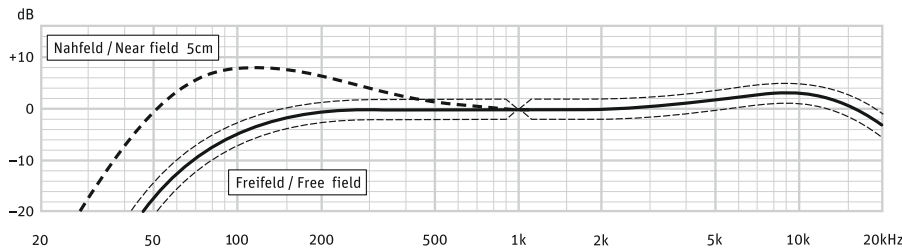
Battery supply, BS 48 i	blk	006494
Battery supply, BS 48 i-2	blk	006496
Power supply, N 248	blk	008537
Microphone cable, IC 3 mt	blk	006543
Adapter cable, AC 25	blk	006600
Adapter cable, AC 27	blk	006602
Table stand, MF 3	blk	007321
Windscreen, WSS 100	blk	007352

A complete survey and detailed descriptions of all accessories are contained in the accessories catalog.

Meaning of color codes:
blk = black,
ni = nickel

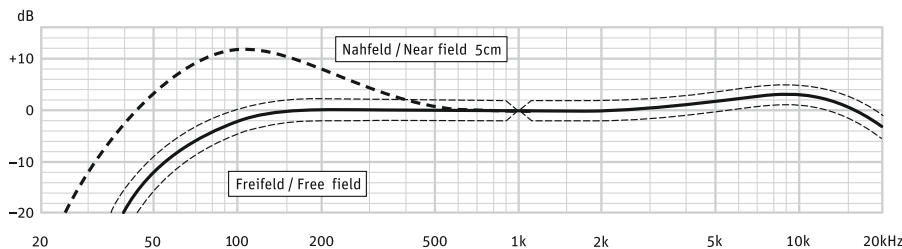


KMS 104

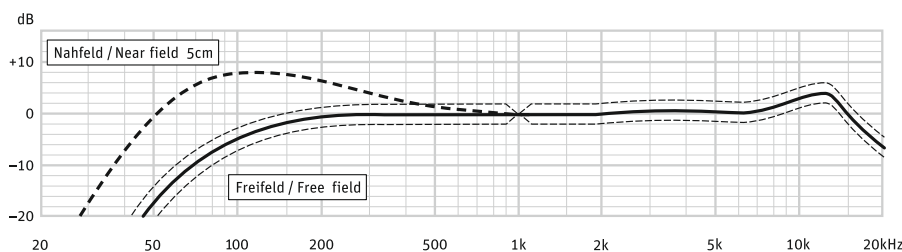


measured in free-field conditions (IEC 60268-4)

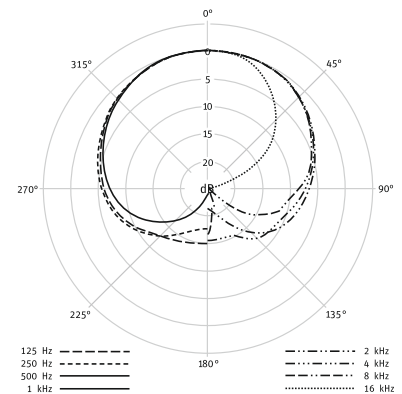
KMS 104 plus



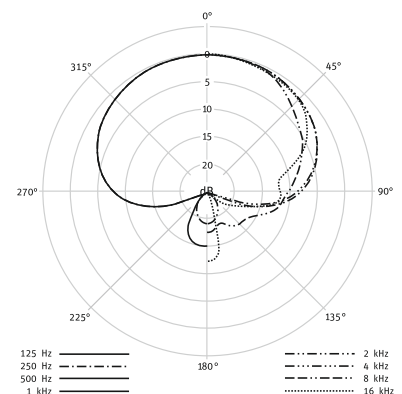
KMS 105



KMS 104 / KMS 104 plus



KMS 105



Technical Data KMS 104 / KMS 104 plus / KMS 105

Acoustical operating principle Pressure gradient transducer
 Directional pattern cardioid/cardioid/supercardioid
 Frequency range 20 Hz...20 kHz
 Sensitivity at 1 kHz into 1 kohm 4.5 mV/Pa
 Rated impedance 50 ohms
 Rated load impedance 1000 ohms
 Signal-to-noise ratio, CCIR¹⁾ (rel. 94 dB SPL) 66 dB
 Signal-to-noise ratio, A-weighted¹⁾ (rel. 94 dB SPL) 76 dB
 Equivalent noise level, CCIR¹⁾ 28 dB
 Equivalent noise level, A-weighted¹⁾ 18 dB-A

Maximum SPL for THD 0.5%²⁾ 150 dB
 Maximum output voltage 12 dBu
 Dynamic range of the mic. amplifier (A-weighted) 132 dB
 Supply voltage (P48, IEC 61938) 48 V ± 4 V
 Current consumption (P48, IEC 61938) 3.5 mA
 Matching connector XLR3F
 Weight approx. 300 g
 Diameter 48 mm
 Length 180 mm

¹⁾ according to IEC 60268-1; CCIR-weighting according to CCIR 468-3, quasi peak; A-weighting according to IEC 61672-1, RMS ²⁾ measured as equivalent el. input signal



»» NEUMANN.BERLIN

