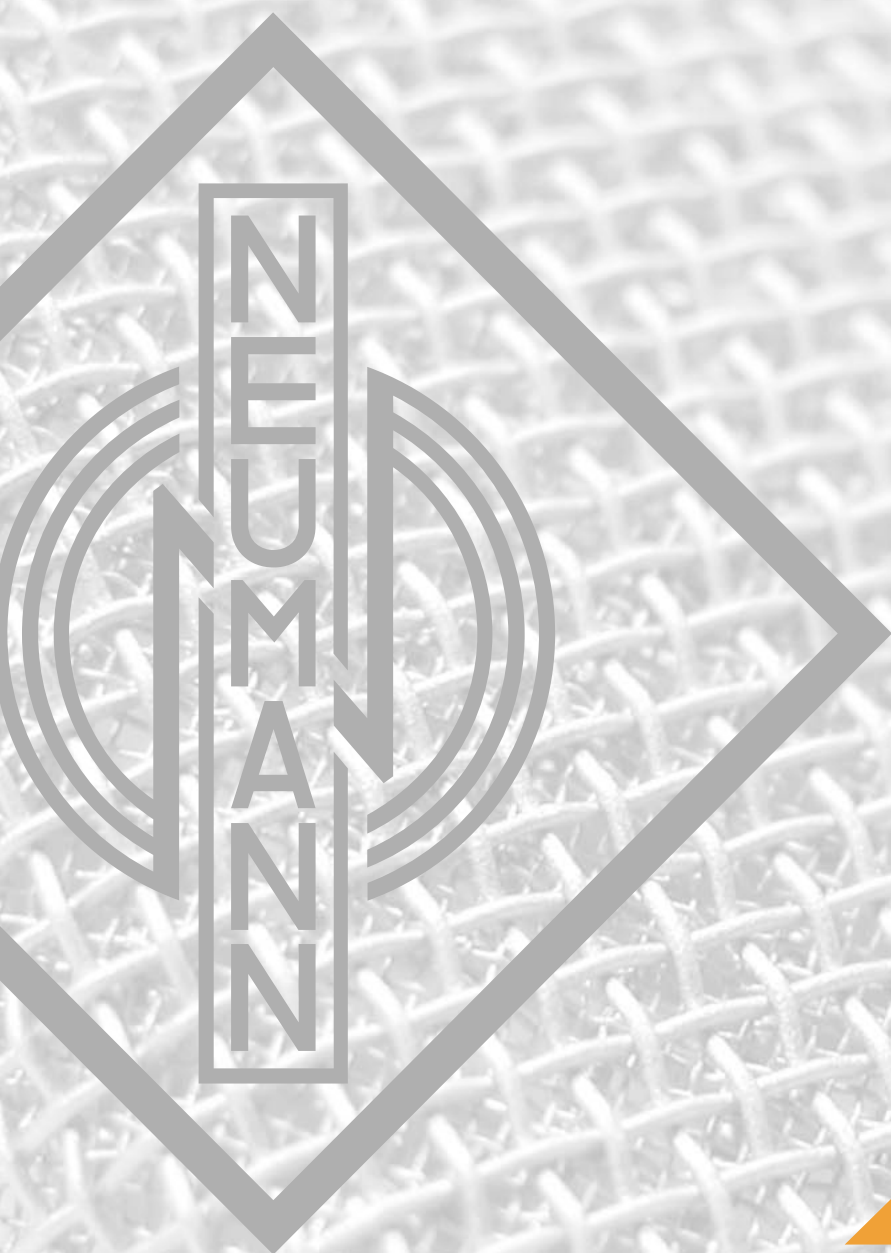


# KMS 104/105

► **Vocalist Microphones**



[www.neumann.com](http://www.neumann.com)



**T**he KMS 104 and KMS 105 microphones have been developed to permit optimal transmission of the human voice, and are thus microphones of choice for demanding live applications. The KMS 105, which has already been available on the market for some time, has become an internationally recognized standard in the field of high-quality stage microphones.

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

The KMS 104 has a 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 user can thus select the version that is optimally suited to the specific application.

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.

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### Acoustic features

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The studio condenser capsules used in both 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 both microphones, carefully adjusted acoustic filters and transformerless impedance converters that can handle very high sound pres-

sure 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 and KMS 105 vocalist microphones when they are used with a stage sound system.

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### Electrical features

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Since vocalist 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, each 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 104/105 is 132 dB, and the maximum sound pressure level is 150 dB.



The low self-noise level of only 18 dB-A permits both 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.

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### Mechanical features

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Microphones designed for use on stage require a particularly robust construction. The KMS 104 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 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 104/105 Microphone  
SG 105 Stand clamp  
Padded nylon bag

### Catalog No.

KMS 104	ni	08548
KMS 104 bk	blk	08549
KMS 105	ni	08454
KMS 105 bk	blk	08455

### Selection of Accessories

Battery supply, BS 48 i	blk	06494
Battery supply, BS 48 i-2	blk	06496
Power supply, N 248 (Euro)	blk	08537
Power supply, N 248 (US)	blk	08538
Power supply, N 248 (UK)	blk	08539

Microphone cable, IC 3 mt	blk	06543
Adapter cable, AC 25	blk	06600
Adapter cable, AC 27	blk	06602

Table stand, MF 3	blk	07321
Windscreen, WSS 100	blk	07352
Stand clamp, SG 105	blk	08460

(included in the supply schedule)

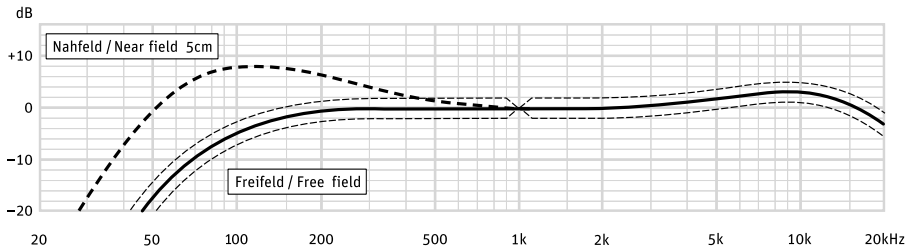
A complete survey and detailed descriptions of all accessories are contained in the accessories catalog.

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

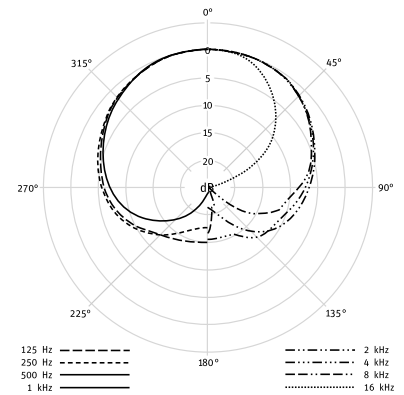




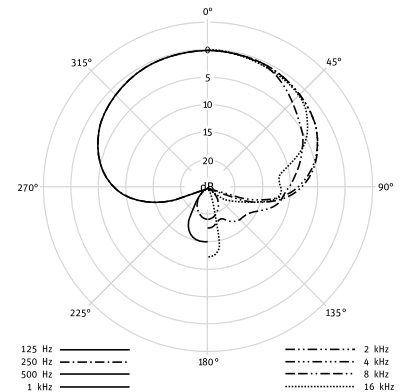
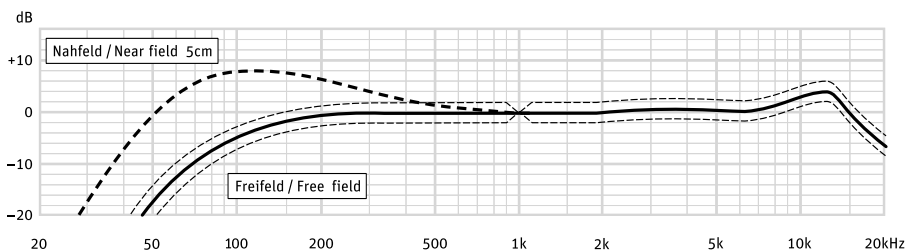
## KMS 104



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



## KMS 105



### Technical Data

Acoustical operating principle ..... Pressure gradient transducer  
 Directional pattern ..... 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, CCIR<sup>1)</sup> (rel. 94 dB SPL) ..... 66 dB  
 Signal-to-noise ratio, A-weighted<sup>1)</sup> (rel. 94 dB SPL) ..... 76 dB  
 Equivalent noise level, CCIR<sup>1)</sup> ..... 28 dB  
 Equivalent noise level, A-weighted<sup>1)</sup> ..... 18 dB-A

Maximum SPL for THD 0.5%<sup>2)</sup> ..... 150 dB  
 Maximum output voltage ..... 12 dBu  
 Dynamic range of the mic. amplifier (A-weighted) ..... 132 dB  
 Supply voltage (P48, IEC 1938) ..... 48 V ± 4 V  
 Current consumption (P48, IEC 1938) ..... 3.5 mA  
 Matching connector ..... XLR3F  
 Weight ..... approx. 300 g  
 Diameter ..... 48 mm  
 Length ..... 180 mm

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

## Selection of Accessories







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