



Microphone modules

Übersicht der Mikrofonkapseln

PDF Export of the Original HTML Manual



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1. Preface

PDF Export of the Original HTML Manual

This PDF document is an automatic export of an interactive set of HTML manuals. Some content and interactive elements may not be included in the PDF because they cannot be displayed in this format. In addition, automatically generated page breaks may cause related content to be slightly shifted. We can therefore only guarantee the completeness of the information in the HTML manual and recommend using it. You can find it in the Documentation Portal at www.sennheiser.com/documentation.



2. Product Information

Overview of the microphone modules and the compatibility.

Product overview

Overview of the microphone modules.

ME 9002 | ME 9004 | ME 9005



ME 9002 | Art. no. 502587



ME 9004 | Art. no. 502588



ME 9005 | Art. no. 502589

i You can find more detailed information about the ME 9002, ME 9004 und ME 9005 in the following sections:

- **Startup and operation:** [ME 9002](#) | [ME 9004](#) | [ME 9005](#)
- **Specifications:** [ME 9002](#) | [ME 9004](#) | [ME 9005](#)

MM 435 | **MM 445**



MM 435 | Art. no. 508829



MM 445 | Art. no. 508830

i You can find more detailed information about the MM 435 und MM 445 in the following sections:

- **Startup and operation:** [MM 435](#) | [MM 445](#)
- **Specifications:** [MM 435](#) | [MM 445](#)

MMD 42-1



MMD 42-1 | Art. no. 506772



i You can find more detailed information about the MMD 42-1 in the following sections:

- **Startup and operation:** [MMD 42-1](#)
- **Specifications:** [MMD 42-1](#)

MMD 835 | MMD 845 | MME 865



MMD 835-1 BK | Art. no. 502575



MMD 845-1 BK | Art. no. 502576



MME 865-1 BK | Art. no. 502581

i You can find more detailed information about the MMD 835, MMD 845 und MME 865 in the following sections:

- **Startup and operation:** [MMD 835](#) | [MMD 845](#) | [MME 865](#)
- **Specifications:** [MMD 835](#) | [MMD 845](#) | [MME 865](#)

MMD 935 | MMD 945 | MMK 965



MMD 935-1 BK | Art. no. 502577



MMD 945-1 BK | Art. no. 502579



MMK 965-1 BK, schwarz | Art. no. 502582

MMK 965-1 NI, nickel | Art. no. 502584

i You can find more detailed information about the MMD 935, MMD 845 und MMK 965 in the following sections:

- **Startup and operation:** [MMD 935](#) | [MMD 945](#) | [MMK 965](#)
- **Specifications:** [MMD 935](#) | [MMD 945](#) | [MMK 965](#)



Delivery includes

ME 9002 | ME 9004 | ME 9005

- ME 9002 **or** ME 9004 **or** ME 9005
- 5x Pop shield
- Pouch
- Safety Guide
- Quick Guide

MM 435 | MM 445

- MM 435 **or** MM 445
- Thread protection
- 5x Pop shield
- Pouch
- Safety Guide
- Quick Guide

MMD 42-1

- MMD 42-1
- Thread protection
- Pouch
- Instruction Manual

MMD 835 | MMD 845 | MME 865

- MMD 835 **or** MMD 845 **or** MME 865
- Thread protection
- Safety Guide
- Quick Guide

MMD 935 | MMD 945 | MMK 965

- MMD 935 **or** MMD 945 **or** MMK 965
- Thread protection
- Pouch (MMK 965 only)
- Safety Guide
- Quick Guide



Compatibility

	ME 9002	ME 9004	ME 9005	MM 435	MM 445	MMD 42-1	MMD 835	MMD 845	MME 865	MMD 935	MMD 945	MMK 965
SKM 100 G4/-S				x	x	x	x	x	x	x	x	x
SKM 300 G4-S				x	x		x	x	x	x	x	x
SKM 500 G4				x	x		x	x	x	x	x	x
SKM 100 3 00 500 G3							x	x	x	x	x	x
SKM 2000						x	x	x	x	x	x	x
SKM 6000	x	x	x	x*	x*		x	x	x	x	x	x
SKM 9000	x	x	x	x*	x*		x	x	x	x	x	x
SKM AVX	x	x	x			x	x	x	x	x	x	x
SL Hand held DW	x	x	x			x	x	x	x	x	x	x
EW-D SKM-S	x	x	x	x	x	x	x	x	x	x	x	x
EW-DX SKM/-S	x	x	x	x	x	x	x	x	x	x	x	x

*Firmware update required



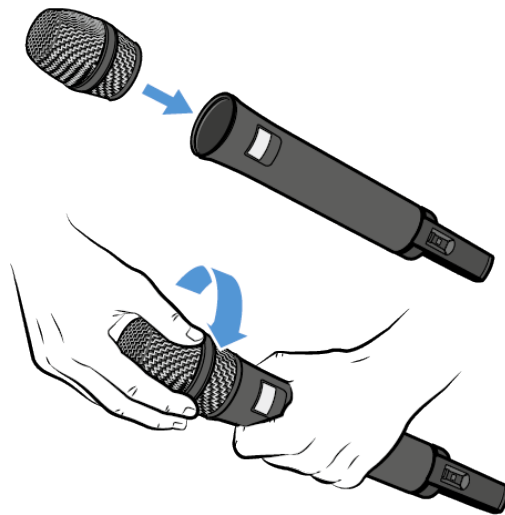
3. User Manual

Starting up and operating the microphone modules.

ME 9002 | ME 9004 | ME 9005

To use the microphone modules with a handheld transmitter:

- ▶ Check which handheld transmitters are compatible with the microphone modules (see [Compatibility](#)).
- ▶ Screw the microphone module onto the handheld transmitter.



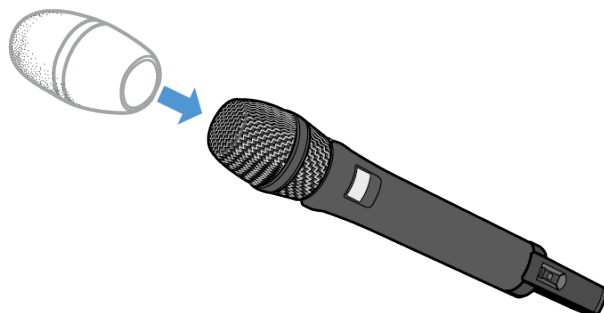
- ▶ Do not touch the contacts of either the microphone or the microphone module, as this may contaminate or bend them.





To use the windscreen:

- ▶ Attach the MZW 1 windscreen (optional accessory).



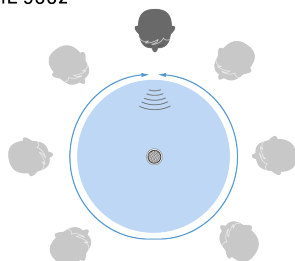
- ✓ Wind noise is reduced by 20 dB.

To speak into the microphone modules:

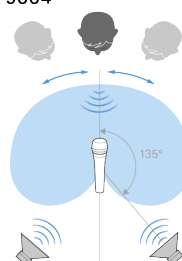
- ▶ Position yourself as shown in the illustrations.



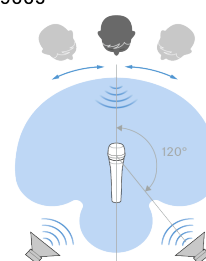
ME 9002



ME 9004



ME 9005

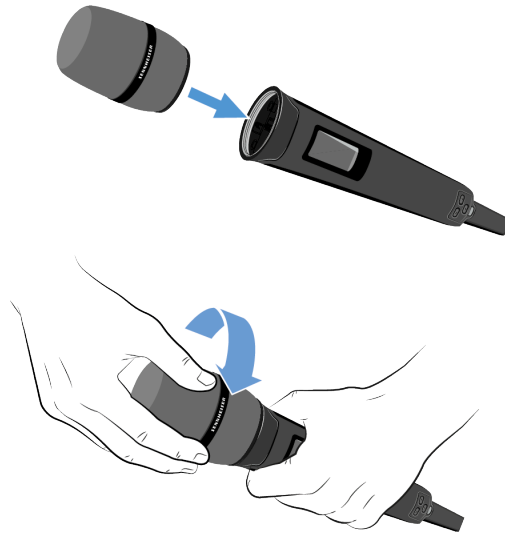




MM 435 | MM 445

To use the microphone modules with a handheld transmitter:

- ▶ Check which handheld transmitters are compatible with the microphone modules (see [Compatibility](#)).
- ▶ Screw the microphone module onto the handheld transmitter.



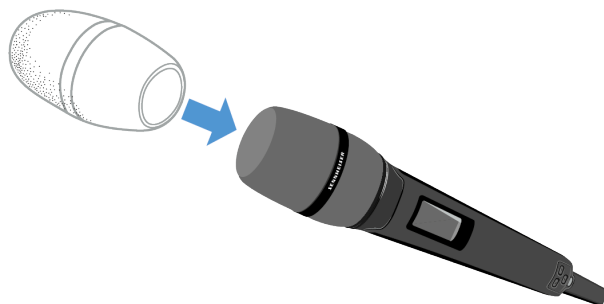
- ▶ Do not touch the contacts of either the microphone or the microphone module, as this may contaminate or bend them.





To use the windscreen:

- ▶ Attach the MZW 4032 or MZW 1 windscreen (optional accessory).



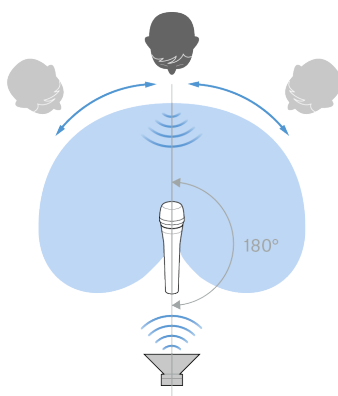
- ✓ Wind noise is reduced by 20 dB.

To speak into the microphone modules:

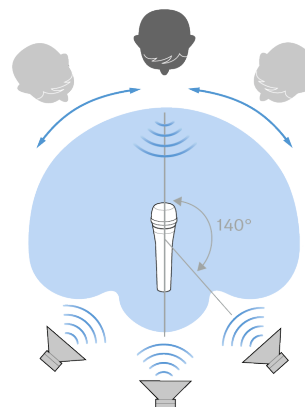
- ▶ Position yourself as shown in the illustrations.



MM 345



MM 445

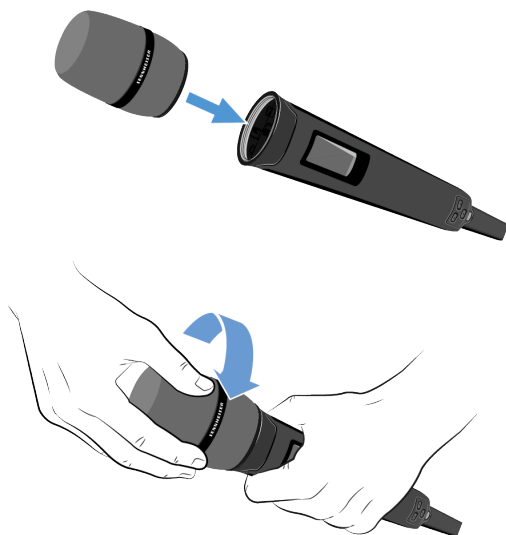




MMD 42-1

To use the microphone modules with a handheld transmitter:

- ▶ Check which handheld transmitters are compatible with the microphone modules (see [Compatibility](#)).
- ▶ Screw the microphone module onto the handheld transmitter.



- ▶ Do not touch the contacts of either the microphone or the microphone module, as this may contaminate or bend them.

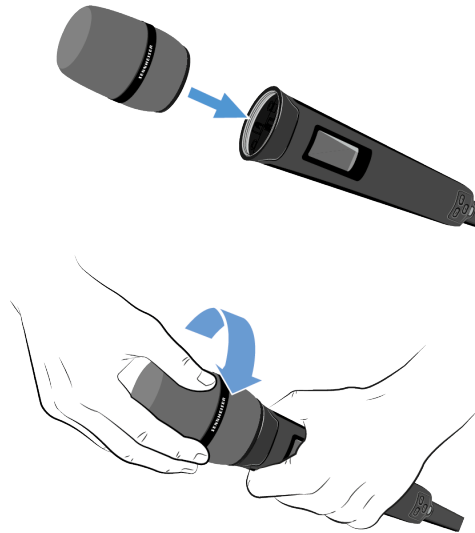




MMD 835 | MMD 845 | MME 865

To use the microphone modules with a handheld transmitter:

- ▶ Check which handheld transmitters are compatible with the microphone modules (see [Compatibility](#)).
- ▶ Screw the microphone module onto the handheld transmitter.



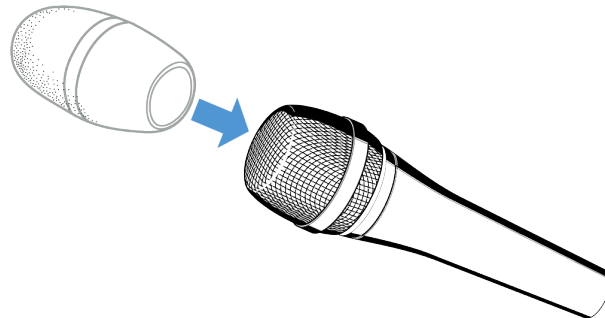
- ▶ Do not touch the contacts of either the microphone or the microphone module, as this may contaminate or bend them.





To use the windscreen:

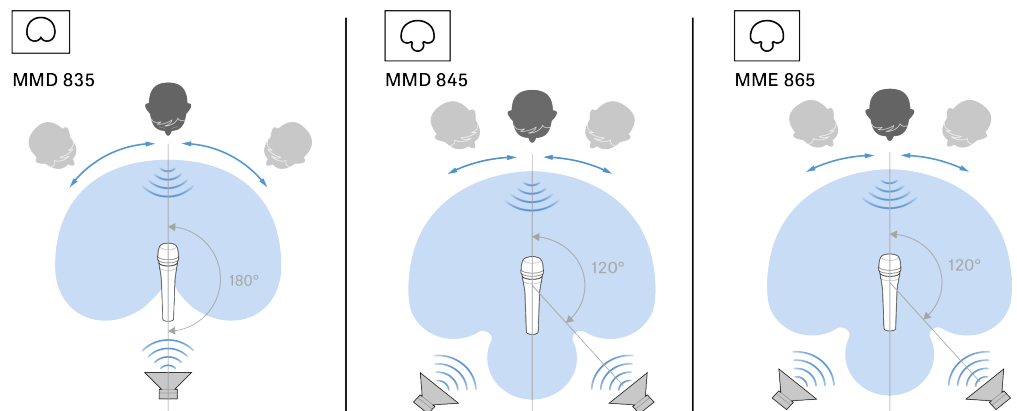
- ▶ Attach the MZW 5000 windscreen (optional accessory).



- ✓ Wind noise is reduced by 20 dB.

To speak into the microphone modules:

- ▶ Position yourself as shown in the illustrations.

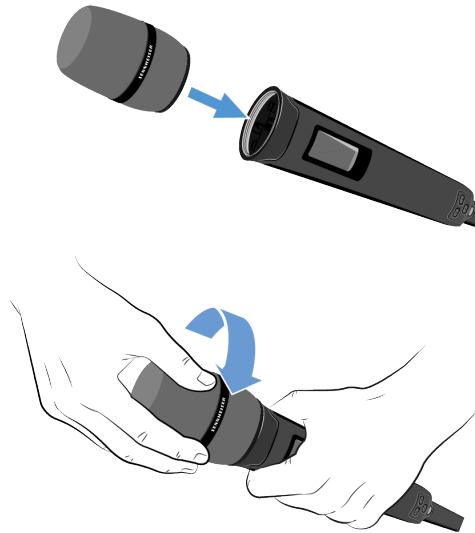




MMD 935 | MMD 945 | MMK 965

To use the microphone modules with a handheld transmitter:

- ▶ Check which handheld transmitters are compatible with the microphone modules (see [Compatibility](#)).
- ▶ Screw the microphone module onto the handheld transmitter.



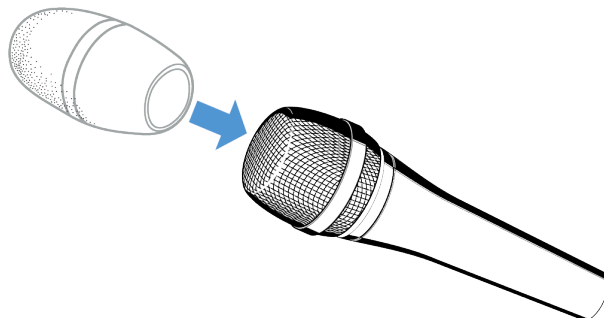
- ▶ Do not touch the contacts of either the microphone or the microphone module, as this may contaminate or bend them.





To use the windscreen:

- ▶ Attach the MZW 5000 windscreen (optional accessory).



- ✓ Wind noise is reduced by 20 dB.

To switch the pick-up pattern (MMK 965 only):

NOTICE

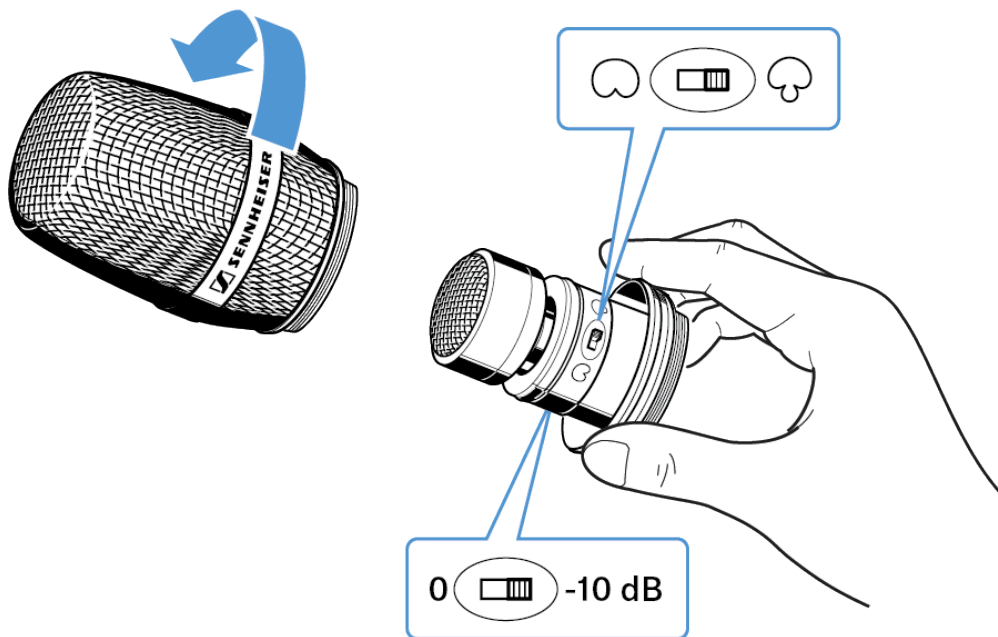


Danger of damage to the microphone head!

The microphone head can be damaged if you try to turn the microphone capsule.

- ▶ Never try to turn the microphone capsule.

- ▶ Hold the lower threaded ring.
- ▶ Unscrew the sound inlet basket in order to have access to the following moisture-protected switches:



Factory default setting: cardioid, -10 dB



The factory default setting of -10 dB is recommended for vocal applications, 0 dB is recommended for speech and presentation applications.

NOTICE



Danger of damage to the product

The product switches may become damaged if they are touched with tools.

- ▶ Only operate the product switches with your fingers.

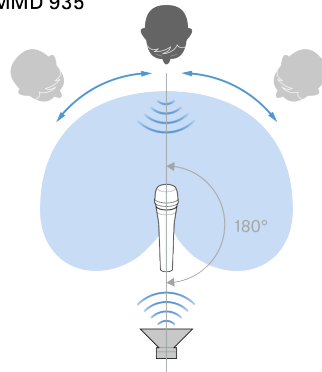
- ▶ Slide the switches into the desired position using your finger.

To speak into the microphone modules:

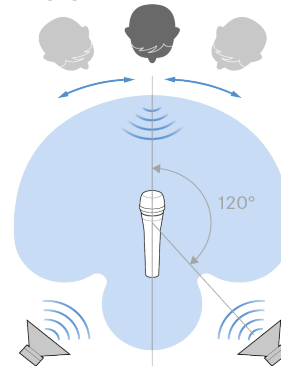
- ▶ Position yourself as shown in the illustrations.



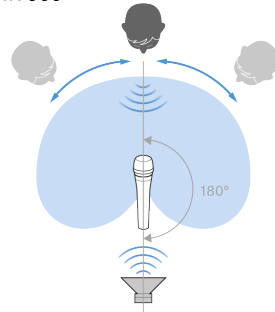
MMD 935



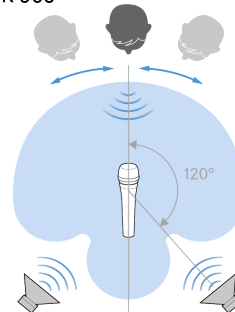
MMD 945



MMK 965



MMK 965





Cleaning and maintenance

Note the following information when cleaning and maintaining the products.

NOTICE



Liquids can damage the electronics of the product

Liquids entering the product housing can cause a short-circuit and damage the electronics.

- ▶ Keep all liquids away from the products.
- ▶ Do not use any solvents or cleansing agents.
- ▶ Disconnect the mains-operated products from the power supply system and remove rechargeable batteries and batteries (if present) before you begin cleaning.
- ▶ Clean all products only with a soft, dry cloth.

- ▶ Note the special cleaning instructions below for the following products.

To clean the microphone head's sound inlet basket:

- ▶ Unscrew the sound inlet basket from the microphone head.
- ▶ Remove the foam insert from the sound inlet basket. If necessary, use a pair of tweezers.
- ▶ Use a slightly damp cloth to clean the sound inlet basket from the inside and outside.
- ▶ Let the sound inlet basket dry briefly.
- ▶ If the pop filter insert gets too dirty, replace it with a new one.



4. Specifications

All specifications at a glance.

ME 9002

Transducer principle

- pressure transducer, pre-polarized condenser microphone

Frequency response

- 20 to 20,000 Hz

Pick-up pattern

- omni-directional

Sensitivity (at 1 kHz)

- 3.35 / 33.5* mV/Pa
- -49.5 / -29.5* dBV/Pa

Max. SPL

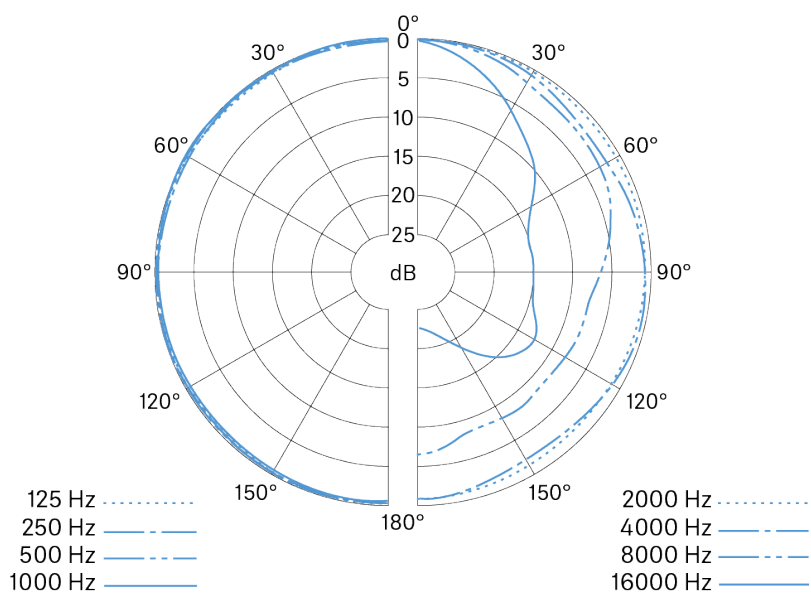
- 139 / 131* dB

Equivalent noise level

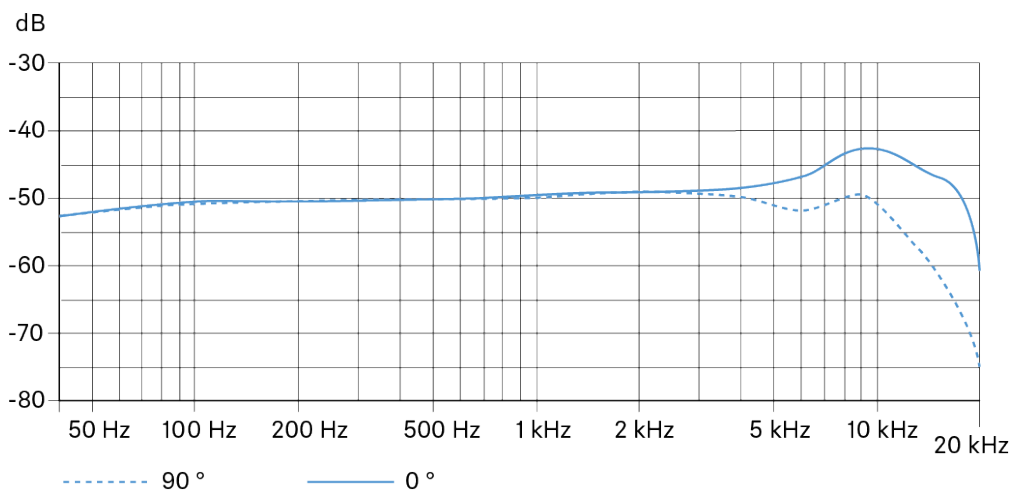
- A-weighted: 32 / 18* dB(A)
- CCIR-weighted: 45 / 31* dB

*with switched-off attenuation

Polar pattern



Frequency response



ME 9004

Transducer principle

- pressure gradient transducer, pre-polarized condenser microphone

Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- Cardioid



Sensitivity (at 1 kHz)

- 1.88 / 18.8* mV/Pa
- -54.5 / -34.5* dBV/Pa

Max. SPL

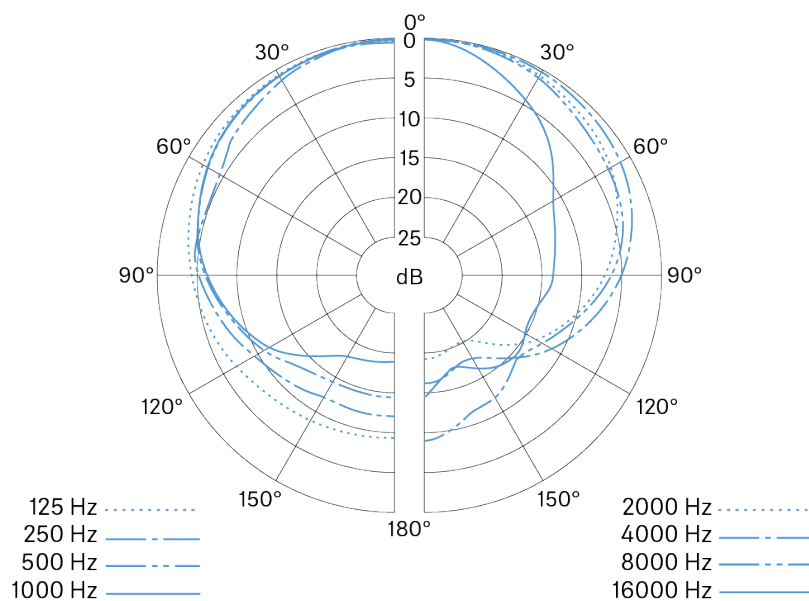
- 145/ 136* dB

Equivalent noise level

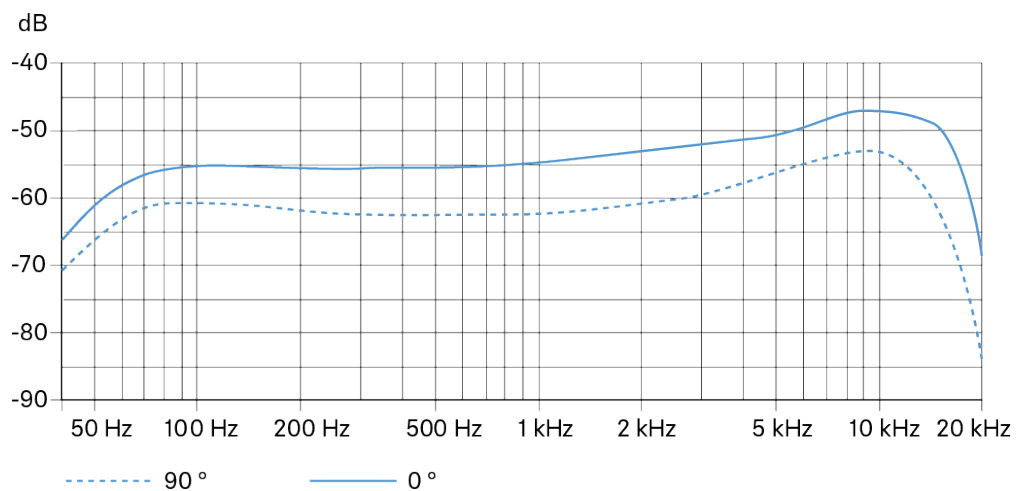
- A-weighted: 31 / 19* dB(A)
- CCIR-weighted: 44 / 29* dB

*with switched-off attenuation

Polar pattern



Frequency response





ME 9005

Transducer principle

- pressure gradient transducer, pre-polarized condenser microphone

Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- Super-cardioid

Sensitivity (at 1 kHz)

- 2.0 / 20* mV/Pa
- -54 / -34* dBV/Pa

Max. SPL

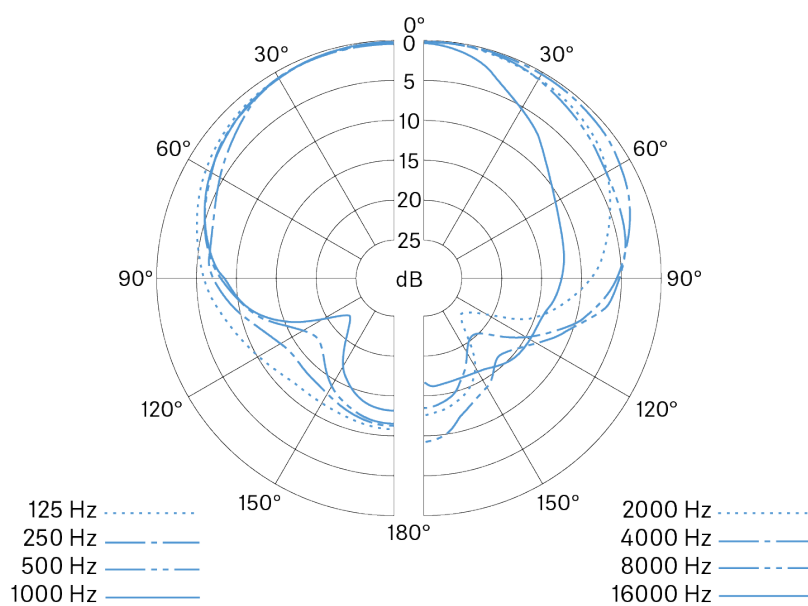
- 145/ 135* dB

Equivalent noise level

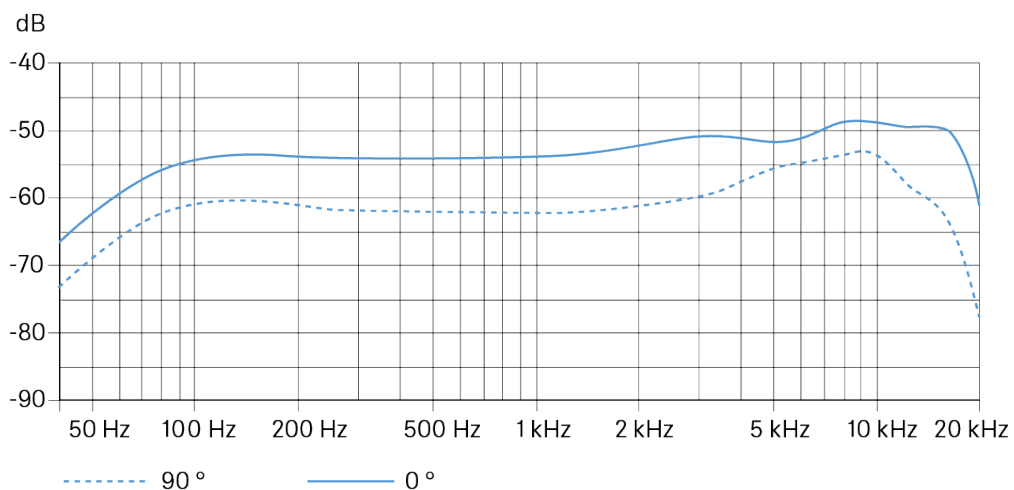
- A-weighted: 31 / 18* dB(A)
- CCIR-weighted: 43 / 27* dB

*with switched-off attenuation

Polar pattern



Frequency response



MM 435

Transducer principle

- dynamic

Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- Cardioid

Sensitivity (free field, at 1 kHz)

- 1.8 mV/Pa -54.9 dBV/Pa

Max. SPL (at 1 kHz)

- 163 dB

Equivalent noise level

- A-weighted: 17 dB(A)

Dynamic range

- 146 dB(A)

Nominal impedance (at 1 kHz)

- 245 Ω



Min. terminating impedance

- 1 k Ω

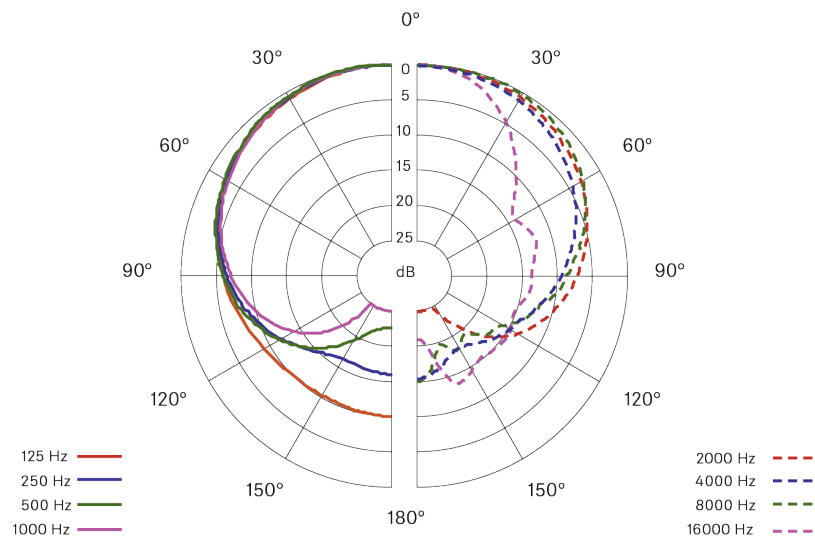
Dimensions

- \varnothing 51 x 72.5 mm

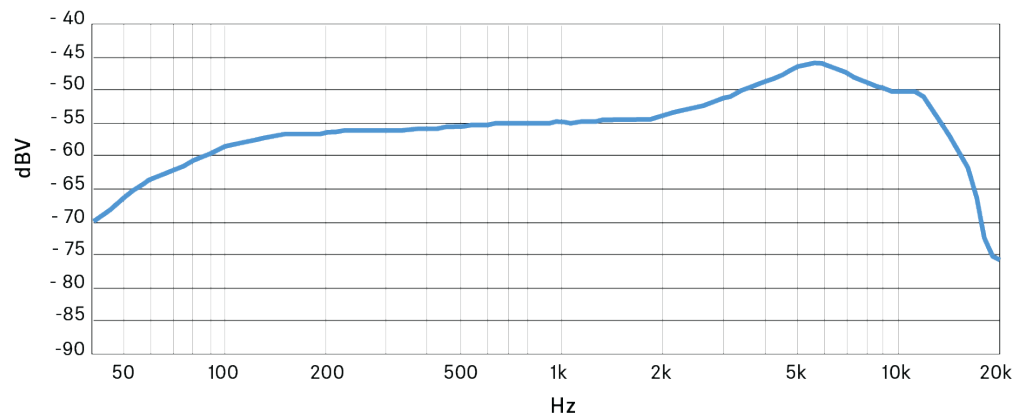
Weight

- 119 g

Polar pattern



Frequency response



MM 445

Transducer principle

- dynamic



Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- High-Rejection-Super-cardioid

Sensitivity (free field, at 1 kHz)

- 1.6 mV/Pa

Max. SPL (at 1 kHz)

- 163 dB

Equivalent noise level

- A-weighted: 18 dB(A)

Dynamic range

- 145 dB(A)

Nominal impedance (at 1 kHz)

- 245 Ω

Min. terminating impedance

- 1 k Ω

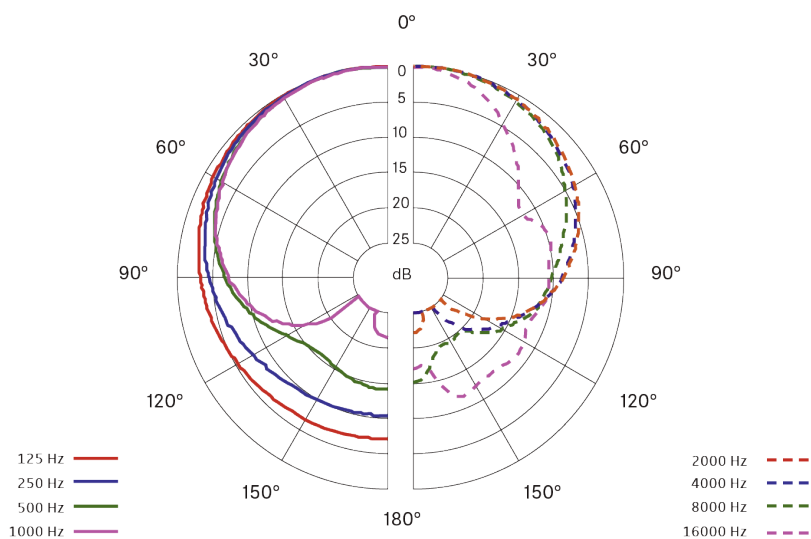
Dimensions

- \varnothing 51 x 67.5 mm

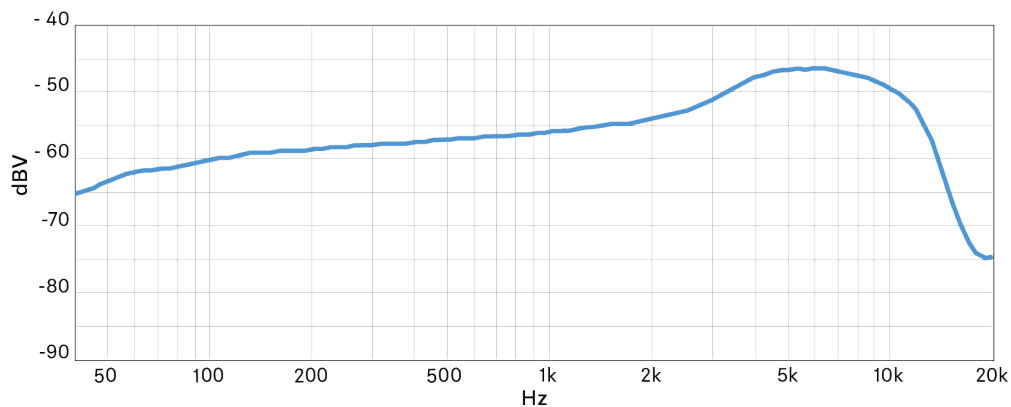
Weight

- 114 g

Polar pattern



Frequency response



MMD 42-1

Transducer principle

- dynamic

Pick-up pattern

- omni-directional

Sensitivity

- 1.8 mV/Pa +/-2.5 dB

Max. SPL at 1 kHz

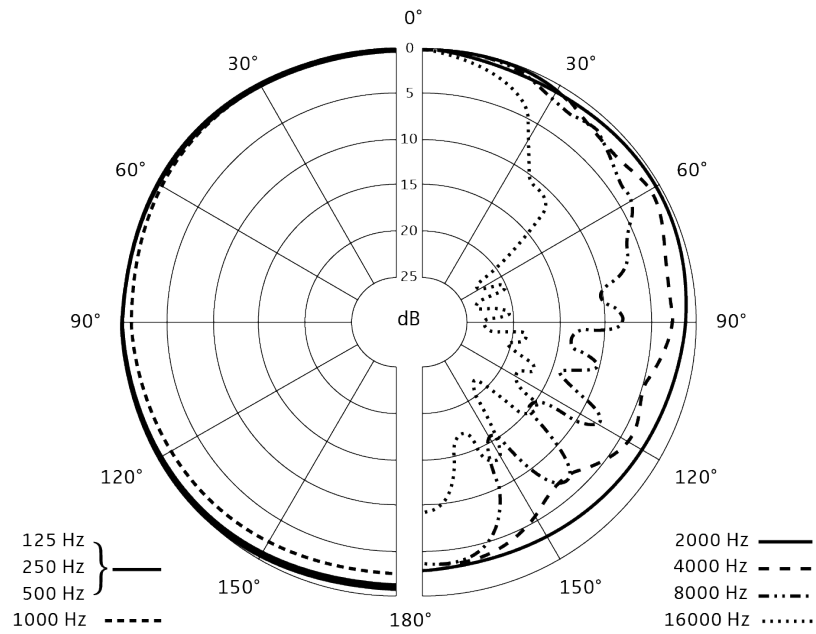
- 154 dB



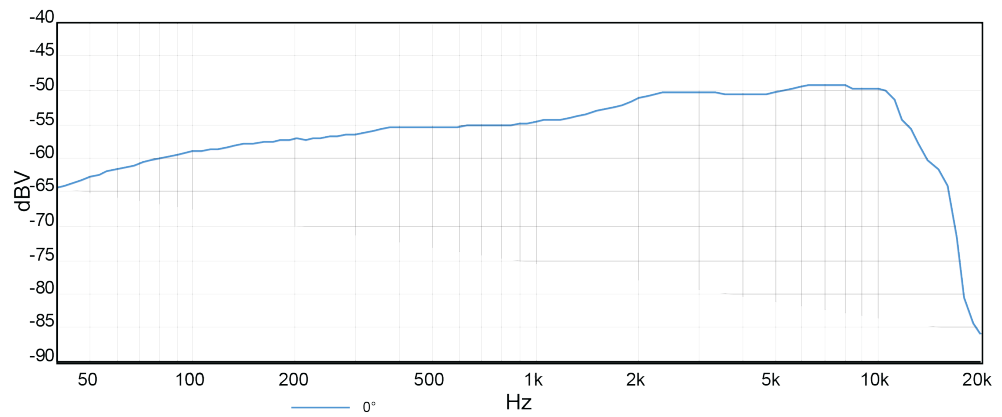
Weight

- 112 g

Polar pattern



Frequency response



MMD 835

Transducer principle

- dynamic

Frequency response

- 40 to 16,000 Hz



Pick-up pattern

- Cardioid

Sensitivity

- 2.1 mV/Pa

Max. SPL (at 1 kHz)

- 154 dB

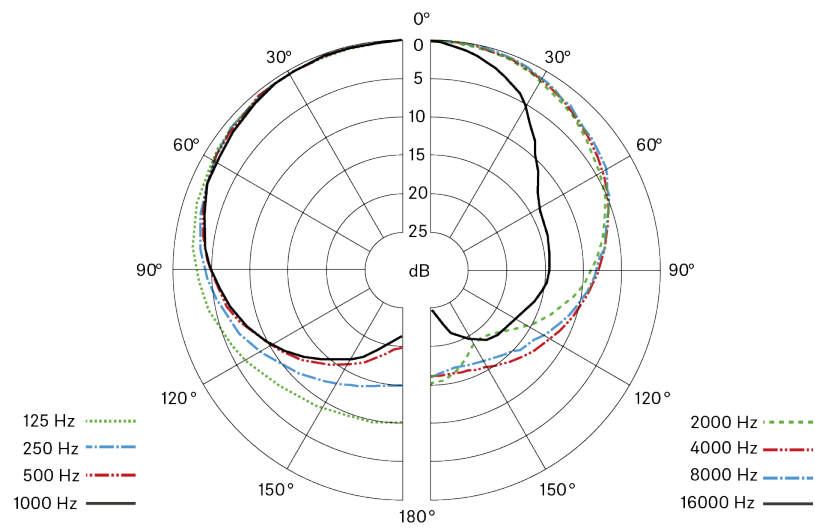
Dynamic range

- 139 dB(A)

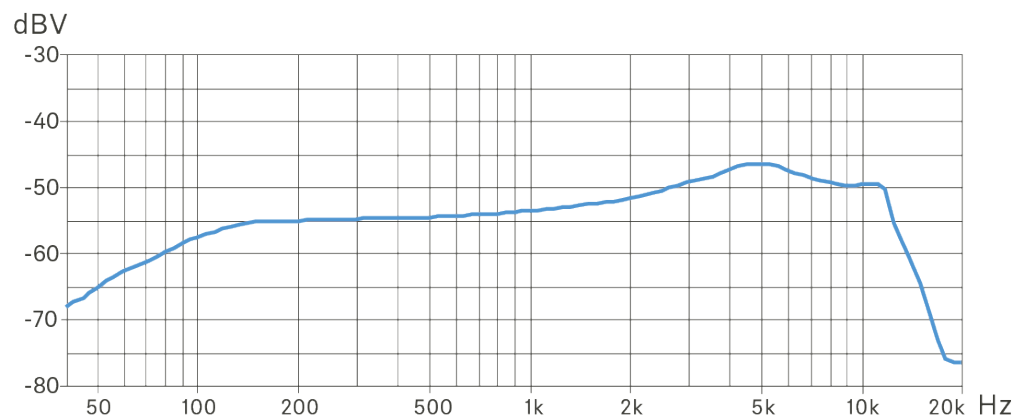
Weight

- 112 g

Polar pattern



Frequency response





MMD 845

Transducer principle

- dynamic

Frequency response

- 40 to 16,000 Hz

Pick-up pattern

- Super-cardioid

Sensitivity

- 1.6 mV/Pa

Max. SPL (at 1 kHz)

- 154 dB

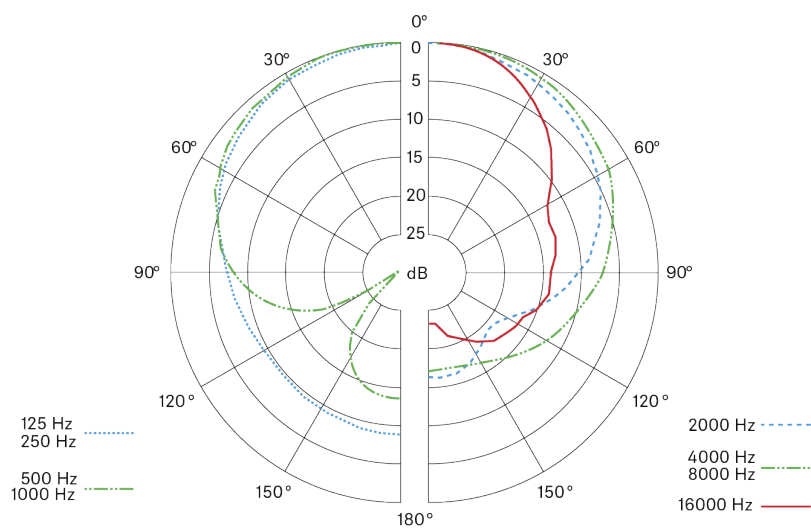
Dynamic range

- 136 dB(A)

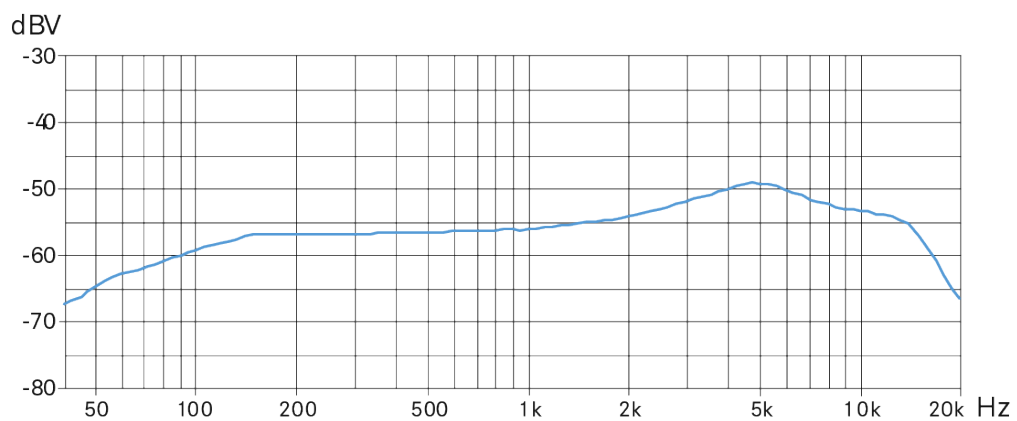
Weight

- 119 g

Polar pattern



Frequency response



MME 865

Transducer principle

- pre-polarized condenser

Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- Super-cardioid

Sensitivity

- 1.6 mV/Pa

Max. SPL (at 1 kHz)

- 154 dB

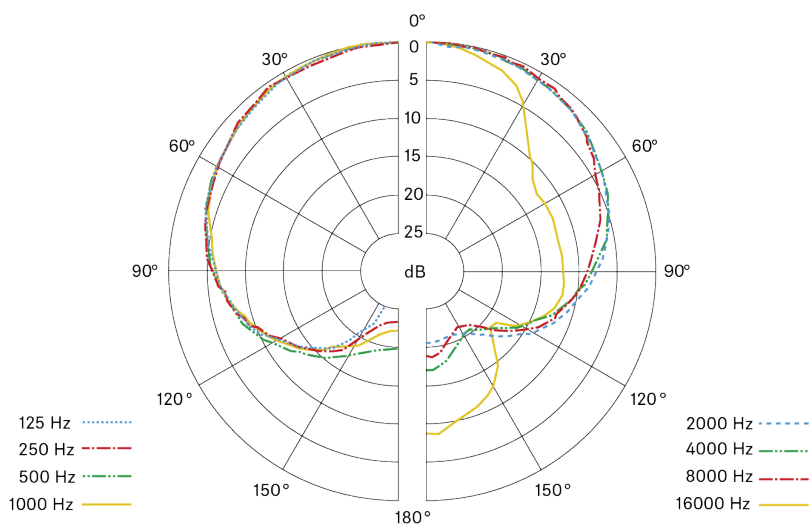
Dynamic range

- 120 dB(A)

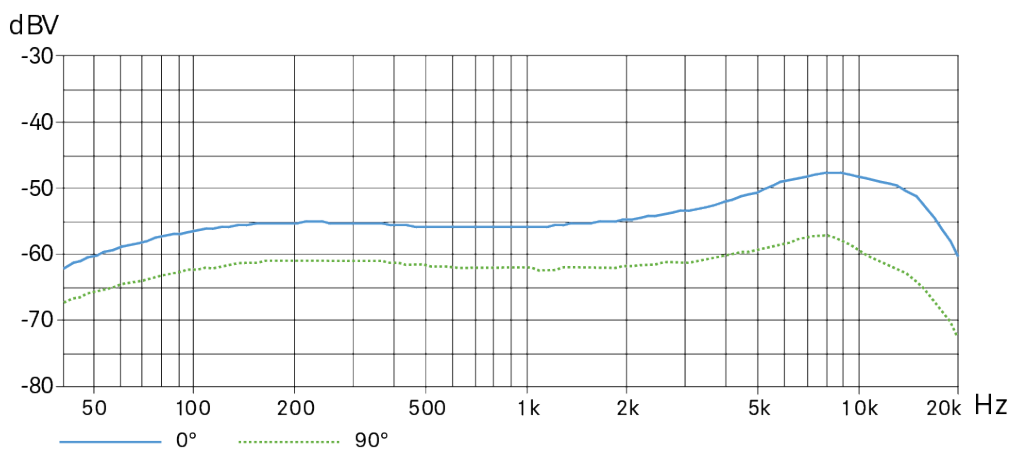
Weight

- 92 g

Polar pattern



Frequency response



MMD 935

Transducer principle

- dynamic

Frequency response

- 40 to 18,000 Hz

Pick-up pattern

- Cardioid

Sensitivity

- 2.5 mV/Pa



Max. SPL (at 1 kHz)

- 154 dB

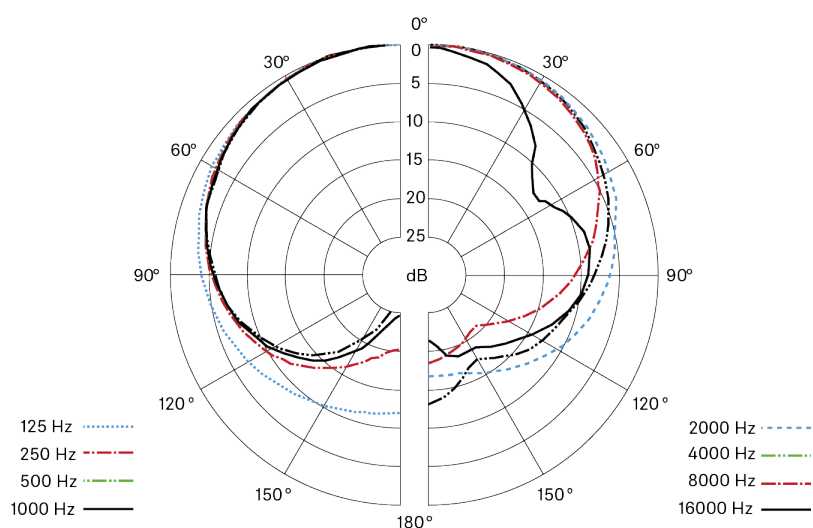
Dynamic range

- 139 dB(A)

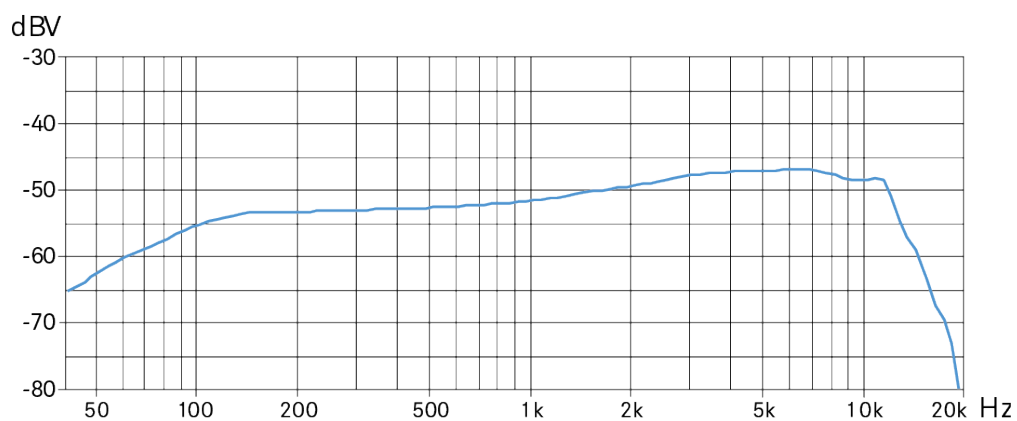
Weight

- 119 g

Polar pattern



Frequency response



MMD 945

Transducer principle

- dynamic



Frequency response

- 40 to 18,000 Hz

Pick-up pattern

- Super-cardioid

Sensitivity

- 1.8 mV/Pa

Max. SPL (at 1 kHz)

- 154 dB

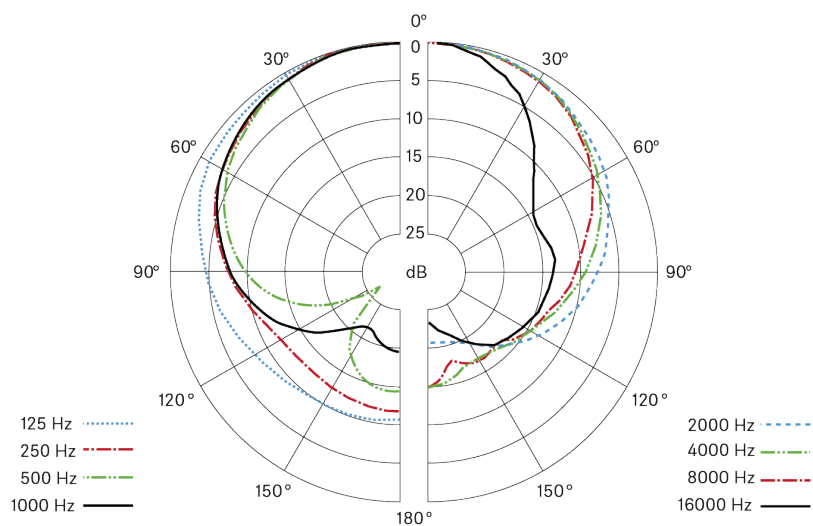
Dynamic range

- 136 dB(A)

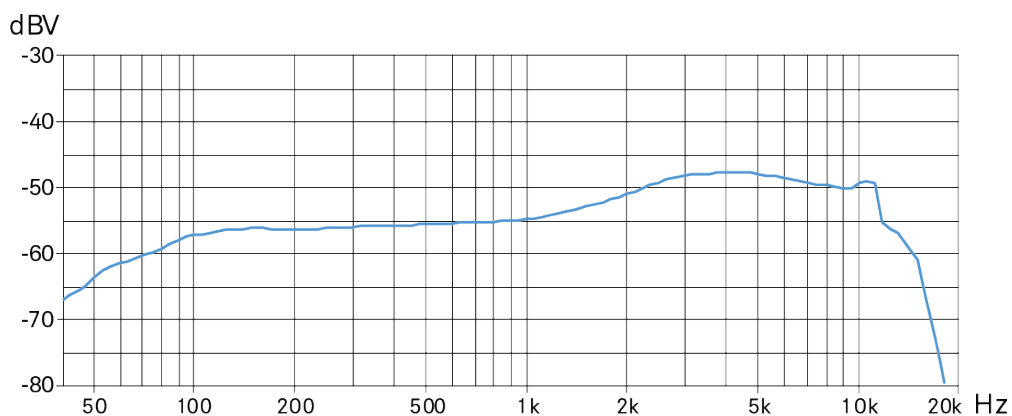
Weight

- 119 g

Polar pattern



Frequency response



MMK 965

Transducer principle

- externally polarized dual diaphragm condenser microphone

Frequency response

- 40 to 20,000 Hz

Pick-up pattern

- Cardioid/Super-cardioid, switchable

Sensitivity

- 7.0 mV/Pa
- with preattenuation: 2.2 mV/Pa (factory setting)

Max. SPL at 1 kHz

- 144 dB
- with preattenuation: 154 dB (factory setting)

Dynamic range

- 126 dB(A)

Diameter of diaphragm

- 2.54 cm (1")

Equivalent noise level

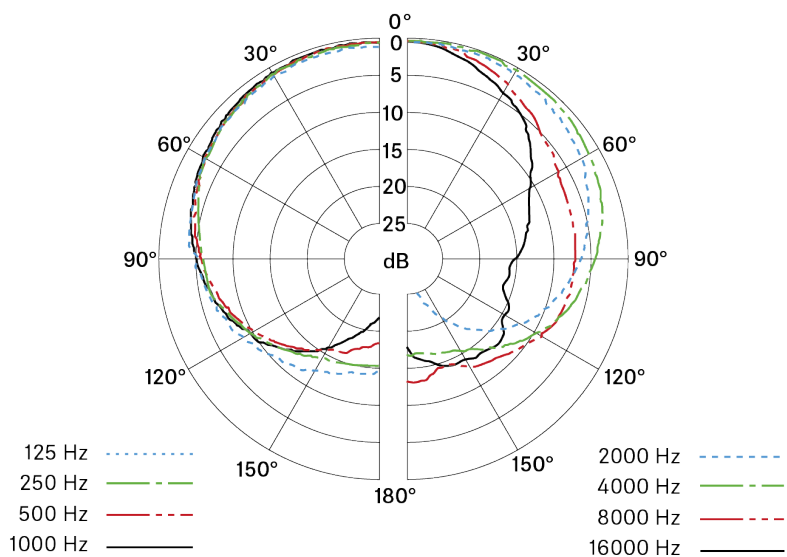
- A-weighted: 18 dB



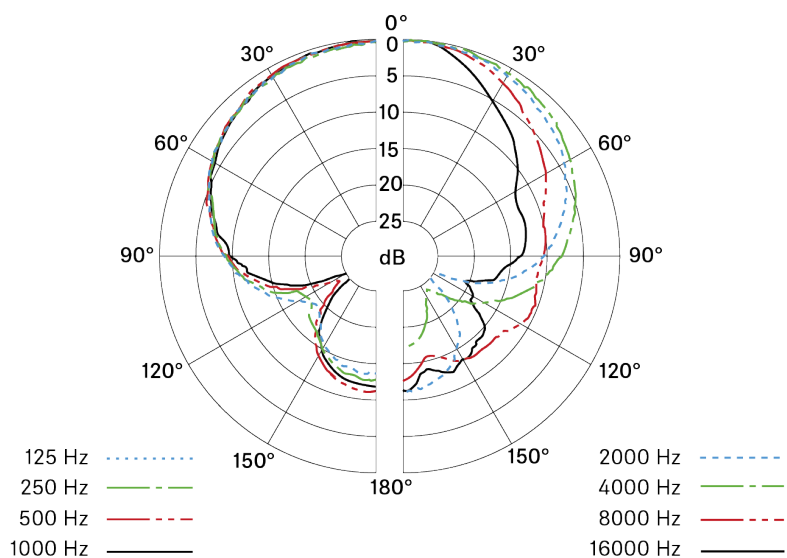
Weight

- 162 g

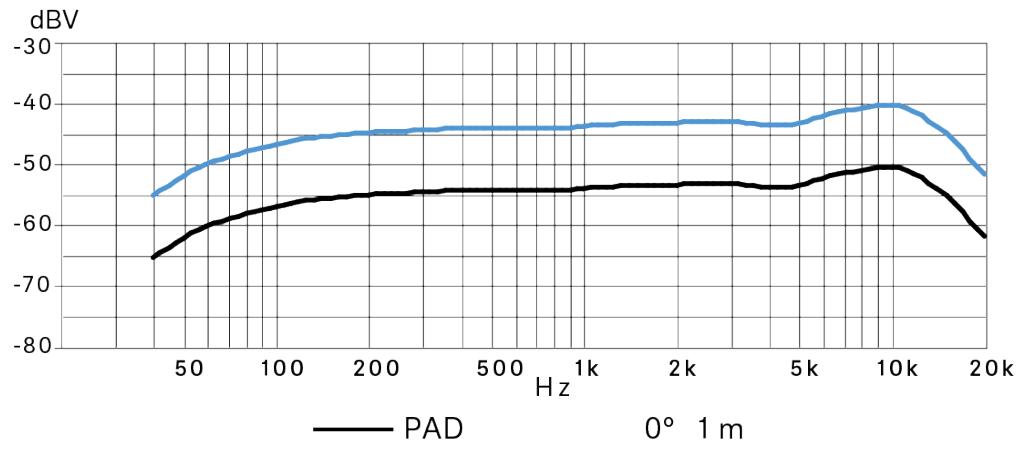
Polar pattern - Cardioid



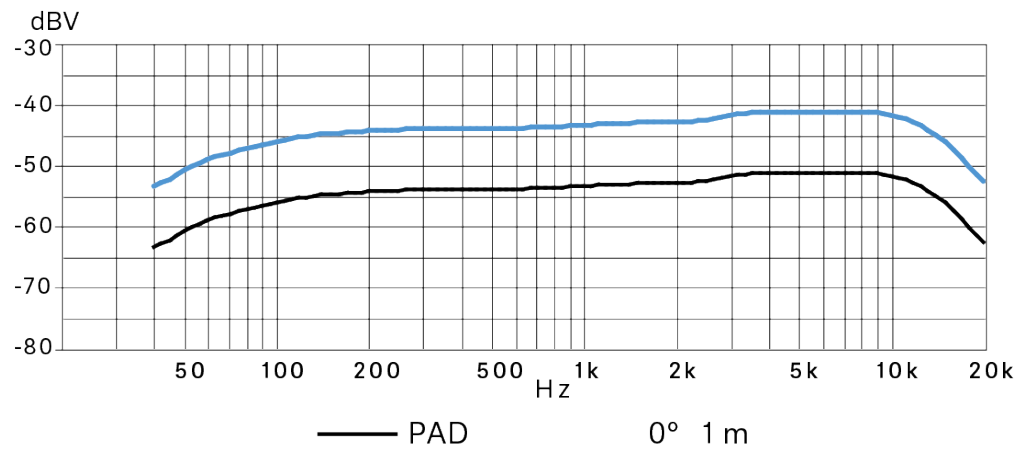
Polar pattern - Super-cardioid



Frequency response - Cardioid



Frequency response - Super-cardioid





5. Regulatory Information

Information on manufacturer declarations, environmental and disposal notices, and terms of use.

Model: ME 9002, ME 9004, ME 9005, MM 435, MM 445, MMD 42-1, MMD 835-1 BK, MMD 845-1 BK, MME 865-1 BK, MMD 935-1 BK, MMD 945-1 BK, MMK 965-1 BK, MMK 965-1 NI

ME = ME 9002, ME 9004, ME 9005

MM = MM 435, MM 445

MMD = MMD 42-1, MMD 835-1 BK, MMD 845-1 BK, MMD 935-1 BK, MMD 945-1 BK

MME = MME 865-1 BK

MMK = MMK 965-1 BK, MMK 965-1 NI

Warranty

Sennheiser electronic SE & Co. KG gives a warranty of 24 months on these products.

For the current warranty conditions, please visit our website at sennheiser.com or contact your Sennheiser partner.

In the US please contact:

Sennheiser Electronic Corporation

1 Enterprise Drive, Old Lyme, CT 06371

www.sennheiser.com

Warranty for Australia and New Zealand only

Sennheiser Australia Pty Ltd provides a warranty of 24 months on these products. For the current warranty conditions, visit Sennheiser website: Australia: sennheiser.com, New Zealand: sennheiser.com

Sennheiser goods come with guarantees that cannot be excluded under Australian and New Zealand Consumer law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is in addition to other rights or remedies under law. Nothing in this warranty excludes, limits or modifies any remedy available to be consumer which is granted by law.

To make a claim under this contract, raise a case via Sennheiser website. Australia: sennheiser.com/support, New Zealand: sennheiser.com/support

All expenses of claiming the warranty will be borne by the person making the claim.



Sennheiser international warranty is provided by: Sennheiser Australia Pty Ltd (ABN 68 165 388 312) Level 14, Tower A Zenith Building, 821 Pacific Highway, Chatswood NSW 2067, Australia

Europe



In compliance with the following requirements

- Regulation (EU) 2023/988 on general product safety
- WEEE Directive (2012/19/EU)



Italy:

ME

Raccolta carta

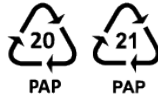


Raccolta plastica



MM, MMD, MME, MMK

Raccolta carta




France:

ME

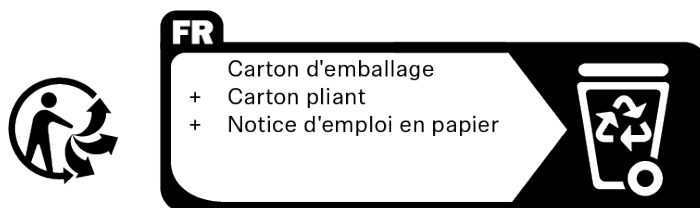


FR

Carton d'emballage
 + Sac plastique PE
 + Notices d'emploi en papier



MM, MMD, MME, MMK



Notes on disposal

The symbol of the crossed-out dumpster on the product, the (rechargeable) battery (if applicable) and/or the packaging indicates that these products must not be disposed of with normal household waste, but must be disposed of separately at the end of their service life. For the packaging, follow the regulations in your country for separating waste. Improper disposal of packaging materials can be harmful to your health and the environment.

The separate collection of waste electrical and electronic equipment, (rechargeable) batteries (if applicable) and packaging is intended to promote reuse and recycling and to prevent negative impacts on public health and the environment, for example due to hazardous substances contained in these products. At the end of their service life, recycle electrical and electronic equipment and (rechargeable) batteries so that their materials can be reused and to prevent environmental pollution.

If (rechargeable) batteries can be removed without destroying them, you are obliged to dispose of them separately (see the product's operating instructions for information on how to remove the batteries safely). Be especially careful when handling (rechargeable) batteries containing lithium, as these pose special hazards, such as the risk of fire and/or health risks if button cells are swallowed. Reduce battery waste as much as possible by using longer-life batteries or rechargeable batteries.

Further information on the recycling of these products can be obtained from your municipal administration, from the municipal collection points, or from your Sennheiser partner. You may also be able to return electrical or electronic equipment to your distributor, if they are legally required to do so. By disposing of your batteries properly, you are helping to protect public health and the environment.

EU Declaration of conformity

- RoHS Directive (2011/65/EU)
- ME, MME, MMK EMC Directive (2014/30/EU)

The full text of the EU declaration of conformity is available at the following internet address: [sennheiser.com/download](https://www.sennheiser.com/download).

United Kingdom



In compliance with the following requirements



- WEEE Regulations (2013)



UK Declaration of conformity

- RoHS Regulations (2012)
- ME, MME, MMK EMC Regulations (2016)

Importer: Sennheiser UK Ltd.

Pacific House, Third Avenue, Globe Park, Marlow

Buckinghamshire SL7 1EY, United Kingdom

Australia / New Zealand

MM, MMD 835, MMD 845, MMD 935, MMD 945, MME, MMK



Vietnam

Kể từ ngày 1 tháng 12 năm 2012, các sản phẩm được sản xuất bởi Sennheiser tuân thủ Thông tư 30/2011/TT-BCT quy định về giới hạn cho phép đối với một số chất độc hại trong các sản phẩm điện và điện tử.

China

ME, MMD 42-1

China RoHS

部件名称 (Parts)	有害物质										
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	邻苯二甲酸二 (2-乙基己)酯 (DEHP)	邻苯二甲 酸丁苄酯 (BBP)	邻苯二甲 酸二丁酯 (DBP)	邻苯二甲 酸二异丁酯 (DIBP)	产品环保年限 EFUP
金属部件 (Metal parts)	x	o	o	o	o	o	o	o	o	o	15
电路模块 (Circuit Modules)	x	o	o	o	o	o	o	o	o	o	15

本表格依据 SJ/T 11364 的规定编制。
 o: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
 x: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

MM, MMD 835, MMD 845, MMD 935, MMD 945, MME, MMK



China RoHS 

部件名称 (Parts)	有害物质										产品环保年限 EFUP
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	邻苯二甲酸二 (2-乙基己)酯 (DEHP)	邻苯二甲 酸丁苯酯 (BBP)	邻苯二甲 酸二丁酯 (DBP)	邻苯二甲 酸二异丁酯 (DIBP)	
金属部件 (Metal parts)	x	o	o	o	o	o	o	o	o	o	15
电路模块 (Circuit Modules)	x	o	o	o	o	o	o	o	o	o	15
电缆及电缆组件 (Cables & Cable Assemblies)	x	o	o	o	o	o	o	o	o	o	15

本表格依据 SJ/T 11364 的规定编制。
 o: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
 x: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

