

# M Series PRO X

**Wired Microphones**

**M 70 PRO X**

**M 90 PRO X**

Operating Manual

**beyerdynamic**



English.....13

# **M series PRO X**

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USER MANUAL

English

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Thank you for choosing a product from beyerdynamic.

This user manual contains important information about using your product. Links with further information on the use of microphones or headphones from beyerdynamic can be found under "Further information" on page 21.

## Safety instructions

- Please read this user manual and the safety instructions carefully and completely before using the product.
- Do not give the product to anyone else without the user manual.
- Do not use the product if it is damaged.
- Please observe the relevant country-specific regulations before using the product.
- Take care to lay the connection cable in such a way that no one can trip over it and damage the product.
- Repairs must only be carried out by authorised specialist personnel. Under no circumstances should you open the microphone yourself. The warranty is void for devices that have been opened by the customer.
- Do not expose the product to rain, snow, liquids or moisture.
- Only use the product under the conditions specified in the technical data.
- Only use accessories and spare parts approved by the manufacturer.
- Reduce the volume on connected playback devices to prevent hearing damage, acoustic feedback and damage to speakers.

### Intended use

Only use the product as described in this product manual. beyerdynamic does not assume any liability for improper use of the product and accessories.

### Liability

- The company beyerdynamic GmbH & Co. KG accepts no liability for damage to the product or injury to persons caused by careless, improper or incorrect use of the product, or by use for purposes not specified by the manufacturer.
- beyerdynamic is not liable for damage to USB devices that do not comply with the USB specifications.

## Product descriptions

### M 70 PRO X

#### Scope of delivery

- 1x M 70 PRO X microphone
- Elastic suspension
- Pop filter
- Protective bag

#### Product overview



**Applications**

The M 70 PRO X dynamic microphone with extended and balanced frequency response has been designed for high-quality recording of speech, vocals and instruments. Unwanted sound waves are effectively suppressed by the pronounced cardioid characteristic, and the precisely tuned proximity effect guarantees consistent sound clarity. An extended frequency response provides a differentiated and high-resolution sound image.

The robust design of the M 70 PRO X ensures durability. The integrated elastic system suspension protects the microphone against structure-borne noise, and the pop filter supplied largely suppresses plosive sounds.

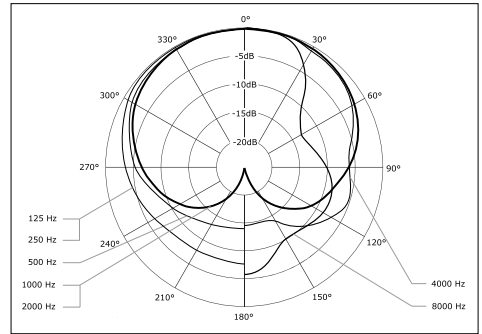
The M 70 PRO X is particularly suitable for the following sources:

- Speech for broadcast applications (radio, podcast, streaming)
- Vocals (rock, pop music)
- Guitar and bass amps

**Technical data**

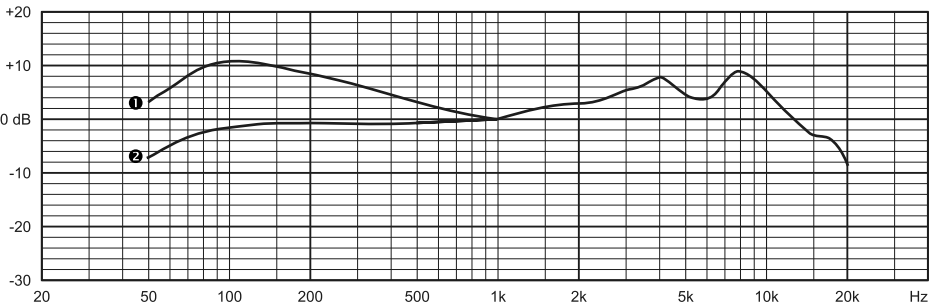
Converter principle .....	Dynamic
Operating principle .....	Pressure gradient receiver
Polar pattern .....	Cardioid
Frequency response:	
Near field .....	25–18,000 Hz
Far field (distance 1 m) .....	40–18,000 Hz
Open-circuit sensitivity .....	1.8 mV/Pa (-55.0 dBV) ±3 dB
Nominal impedance .....	350 Ω
Nominal terminating impedance .....	≥ 1.5 kΩ
Connection .....	XLR, 3-pin, male
Length .....	185 mm
Diameter .....	52 mm
Weight .....	320 g

**Polar pattern**



**Target frequency response curve (±3 dB)**

0 dB = 1,8 mV/Pa



Curves for distance ① = 2 cm and ② = 1 m

## M 90 PRO X

### Scope of delivery

- 1x M 90 PRO X microphone
- Elastic suspension
- Pop filter
- Protective bag

### Product overview





**Applications**

With its 34-mm true condenser capsule, the M 90 PRO X condenser microphone has been specially developed for high-quality recording of vocals and instruments but is also suitable for the natural-sounding recording of speech during broadcasts. While unwanted sound waves are suppressed effectively by the pronounced cardioid characteristic, the low-noise circuit specially developed by beyerdynamic ensures that the electrical signals are processed to the highest standard. The integrated elastic system suspension protects the microphone against structure-borne noise, and the pop filter supplied largely suppresses plosive sounds.

The M 90 PRO X is particularly suitable for the following sources:

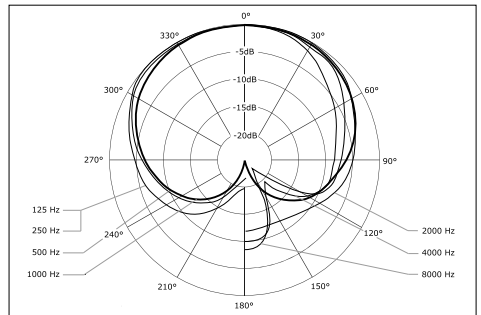
- Vocals
- Acoustic guitar
- Piano
- Strings
- Speech for broadcast applications
- Universal use (percussion, room miking, choir and orchestra)

**Technical data**

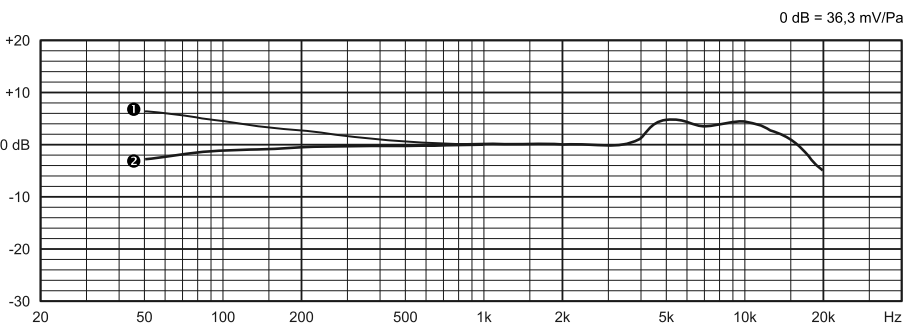
Converter principle .....Condenser  
 Operating principle ..... Pressure gradient receiver  
 Frequency response..... 20–20,000 Hz  
 Polar pattern..... Cardioid  
 Open-circuit sensitivity at 1 kHz (0 dB = 1 V/Pa).....36.3 mV/Pa = -28.8 dBV ± 2 dB  
 Nominal impedance ..... < 180 Ω  
 Nominal terminating impedance.....≥ 1,000 Ω  
 Maximum sound pressure level (at 1 kHz).....133 dB  
 S/N ratio (referenced to 1 Pa)..... 88.4 dBA  
 Equivalent sound pressure level (A-weighted)..... 5,6 dB  
 Power supply .....20–52 V (phantom)  
 Current consumption..... < 62 mA  
 Connection..... XLR, 3-pin, male

Length .....197 mm  
 Diameter .....52 mm  
 Weight.....296 g

**Polar pattern**



**Target frequency response curve (±2 dB)**



Curves for distance ① = 2 cm and ② = 1 m

## Installation and commissioning



### CAUTION

#### Cable trip hazard

**Carelessly laid cables pose a trip hazard. This can injure people and damage the microphone.**

- ▶ Always lay cables so that no one can trip over them.

## Attaching the microphone

1. Unscrew the mounting nut from the microphone thread.
2. Insert the microphone into the spider with the bottom side first.
3. Tighten the mounting nut on the thread.
4. Attach the microphone to the stand with the stand connector.
5. Attach the microphone to the stand with the stand connector.

## Connecting the microphone

- The **M 70 PRO X** has a 3-pin XLR connector. It can be connected to any microphone input with a suitable microphone cable.
- The **M 90 PRO X** has a 3-pin XLR connector. It can be connected to any microphone input with phantom power (24–52V) with a suitable microphone cable. You therefore need to activate the phantom power.

## Aligning the microphone

### WARNING

#### Unstable stand

**An unstable stand can fall and damage the microphone mounted on it.**

- ▶ Make sure that the stand used and the microphone mounted on it are stable.
- ▶ Position the microphone so that the speech direction is opposite that of the source of interference to achieve the best possible noise suppression.

## Disposal

At the end of its life, this product should not be disposed of with normal household waste but should be taken to a recycling facility for electric and electronic devices. This symbol on the product, instructions for use or packaging indicates this.



WEEE

## Troubleshooting

If you have technical problems while using the microphones or need further guidance, please visit our FAQ website at [support.beyerdynamic.com](https://support.beyerdynamic.com)

## Service

- ▶ If service is required, please contact an authorised specialist. Never open the microphone yourself. You could lose all warranty claims otherwise.

Please refer to our website **[www.beyerdynamic.de](http://www.beyerdynamic.de)** for information about service and spare parts.

## Further information

If you require further information, please visit our website at

**[www.beyerdynamic.com/microphones.html](http://www.beyerdynamic.com/microphones.html)**.

For tutorials and instructions on using your microphone, please visit our YouTube channel at

**[www.youtube.com/beyerdynamic](http://www.youtube.com/beyerdynamic)**.

## Cleaning

- ▶ Use a soft cloth moistened with water to clean the surface.
- ▶ Make sure that no water enters the microphone.
- ▶ Do not use cleaning agents containing solvents.

## Warranty

beyerdynamic provides a limited warranty of 2 years on the purchased beyerdynamic product. The exact warranty conditions can be found on our website at

**[www.beyerdynamic.de/service/garantie](http://www.beyerdynamic.de/service/garantie)**.

## Compliance

Information about the product's compliance can be found on our website at

**[www.beyerdynamic.com/downloads](http://www.beyerdynamic.com/downloads)**.