

# REVOLUTO MICROPHONES FOR MAXIMUM FREEDOM OF MOVEMENT

CONFERENCE TECHNOLOGY

MADE IN GERMANY



# REVOLUTO TECHNOLOGY

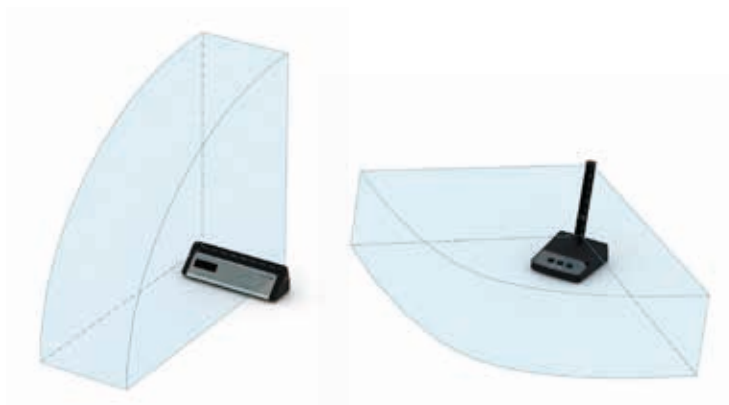
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**The Revoluto principle** – The Revoluto principle is based on patented microphone array technology, where microphone capsules are arranged in either a horizontal or vertical row.

Compared to gooseneck microphones this creates a much greater distance for voice pick up. As a result, the speaker is not restricted to the typical pick up pattern or usual compact speaking distance offered by most gooseneck microphones and therefore does not need to concentrate on talking directly into the microphone. The speaker has maximum freedom of movement with a consistent intelligibility of speech.



Recording area of a gooseneck microphone compared to a horizontal and vertical array microphone.



The horizontal and vertical arrangements of the microphone arrays differentiate in design as well as in the alignment of the corridor characteristic, which is displayed above. Depending on the request for design, room acoustics and sound reinforcement the appropriate variant can be selected to make optimal use of the advantages of the Revoluto technology.

# ALIGNMENT OF MICROPHONE ARRAY

## Horizontal Array



The horizontal arrangement of the microphone array results in a vertical corridor characteristic, which allows enhanced freedom of movement. Whether the speaker is sitting or standing, the volume and audio quality always remain the same. People on the left and right from the speaker are faded out.



The speaker can be close to the microphone or further away. Due to the array technology, sound fluctuations are minimised by different speech distances.



No fading in and out when you move your head to the left or right.



The high number and array of the microphone capsules ensures optimal voice recording when installing the array on the ceiling, minimising background noise.

## Vertical Array



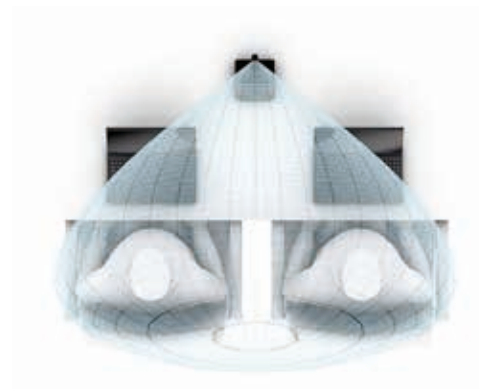
The vertical arrangement of the microphone array results in a horizontal corridor characteristic allowing maximum freedom of movement to the right and left without large volume fluctuations. The attenuation above and below the microphone limits the recording of signals and noises from the ceiling and table.



The speaker can be close to the microphone or further away. Due to the array technology sound fluctuations are minimised by different speech distances.



No fading in and out when you move your head to the left or right.



Due to the wide voice pickup two people can share one microphone. The microphone can also be used for video conferencing with several people. Due to the lateral placement of the microphone the workplace is free for laptops.

## MPR 210 / 211

Unique Design – with Horizontal Microphone Array



### Horizontal Revoluto technology

The horizontal microphone array allows maximum freedom of movement. Whether you are standing, leaning back or turning your head, the sound level and quality remains consistent.



#### No cables cluttering the table

For a discreet installation the cable can be positioned to the rear or downwards.



#### Versatile use

Depending on the application, the button of the MPR 211 can be used for different operating modes and operation with an external control contact (operator-controlled).



#### RFI proof

The microphone is equipped with Scudio technology making it RFI proof so that no mobile phone interference will occur.



#### Display of the ready-to-speak status

The MPR 211 desktop microphone features an LED strip to display the ready-to-speak status. In the standard setting the LED strip illuminates red. As an option it can illuminate green or red and green.



#### High-quality material

The black microphones have a special coating developed for the automotive industry, which is impervious to finger prints, very robust and scratch-resistant. On request an individual finish such as a special colour or wooden look is available.



#### Made in Germany

Benefit from superior audio quality due to high manufacturing standards. The Revoluto technology has been developed and produced in Germany.

## Classis RM 30

Elegant Design –  
with Vertical Microphone Array



reddot award 2015  
winner



### Vertical Revoluta technology

The vertical microphone array results in a horizontal corridor characteristic (horizontal cardioid, vertical lobar). This gives the speaker maximum freedom of movement with a consistent volume optimising the gain before feedback with ceiling installations.



#### Reclinable microphone

The microphone can be reclined backwards to adapt the reclination and thus the alignment of the polar pattern to the situation and size of the speaker.



#### Gain before feedback

The vertical microphone array enables high gain before feedback in ceiling installations.



#### RFI proof

The microphone is equipped with Scudio technology making it RFI proof so that no mobile phone interference will occur.



#### Filter

The integrated second-order filter prevents impact noise from tables.



#### Programmable

The Classis RM 31 SP/RC is provided with a rotary switch to select different operating modes. In addition to the button functions a low-cut filter can be enabled and the LED ring can be deactivated.



#### Remote control

The Classis RM 31 RC can be remotely controlled with an external device. In addition to this, it is possible to send a command by operating the microphone button.



#### LED ring

The Classis RM 31 has an LED ring indicating the ready to speak status by a red illumination. If necessary, it can be deactivated.



#### Made in Germany

Benefit from superior audio quality due to high manufacturing standards. The Revoluta technology has been developed and produced in Germany.

## Microphones with Optimum Intelligibility of Speech and Maximum Freedom of Movement – Typical Advantages in different Applications.

### Conferences and Meetings

- + Freedom of movement
- + Wider audio pick up
- + Consistant volume

H

**Horizontal**  
Array Microphone



- + Flat design
- + Less impact on room design
- + Sitting and standing use possible

V

**Vertical**  
Array Microphone



- + Maximum freedom of movement to the back, right and left
- + Two people can share one microphone
- + Placing at the side allows the use of laptops





Due to the array of microphone capsules the signal-to-noise ratio is high, so that noise is low when the sensitivity is set high. The array of microphone capsules ensures audio pick up at different distances with an almost consistent volume level.

### Tele and Video Conferences

- + Freedom of movement
- + Wider audio pick up
- + Consistant volume

### Tele and Video Conferences with Ceiling Installations\*

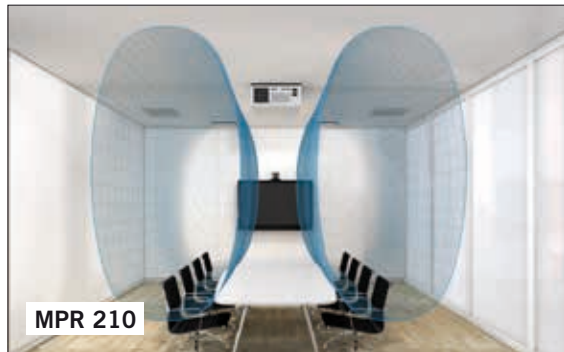
- + No microphones on the table
- + Freedom of movement
- + Wider audio pick up
- + Consistant volume

H



- + Average to large-sized conferences
- + Speaker clearly audible
- + Each participant has a microphone which minimises background noise

H



- + Medium-sized conferences
- + Several people are picked up with two microphones

V



- + Small conferences
- + Several people are picked up with one microphone

V



- + Small conferences
- + Several people are picked up with two microphones

## Microphones with Optimum Intelligibility of Speech and Maximum Freedom of Movement – Typical Advantages in different Applications.

### Panel Discussions and Press Conferences

H

**Horizontal**  
Array Microphone



- + Lean backwards and speak to the side
- + Consistent volume
- + Direct eye contact without a visible microphone in the picture
- + Only the speaker is picked up, acoustical separation from the neighbour

### Lectern and Education

V

**Vertical**  
Array Microphone



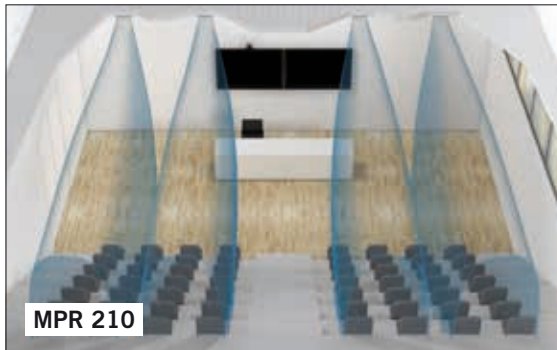
- + Maximum freedom of movement
- + Consistent volume
- + Free sight
- + Placing at the side allows the use of laptops

### Education (Auditorium, Smartboard)

- + Freedom of movement
- + Wider audio pick up
- + Consistant volume

**H**

**Horizontal**  
Array Microphone



- + With a few microphones you can pick up a whole auditorium
- + The array of microphone capsules ensures a consistant audio pick up over different distances and due to a high signal-to-noise ratio the noise is low when the sensitivity is set high



- + The speaker can move freely in front of the smartboard with a consistent volume

### Room Acoustics and Signal Processing

The characteristics in the application images are displayed in a simple way in order to illustrate the possibilities and differences. As with any other microphone, the behaviour also depends on the individual room acoustics, the selected sensitivity and the PA system. In order to achieve an optimal result, it might make sense to adjust the sensitivity of the microphone individually to the appropriate room situation.

## Product Overview



### MPR 210 B

Order # 725145  
Array microphone,  
3-pin XLR connector,  
connecting cable,  
black



### MPR 210 W

Order # 725080  
Array microphone,  
3-pin XLR connector,  
connecting cable,  
white



### MPR 211 B

Order # 725099  
Desktop microphone with  
programmable micropho-  
ne button and connec-  
tions for external control,  
3 m long bare-ended  
connecting cable, black



### MPR 211 W Ceiling

Order # 710520  
Ceiling microphone,  
3-pin XLR connector,  
connecting cable,  
rope holder kit for  
ceiling installation,  
white



### Classis RM 30 B

Order # 729388  
Array Microphone with  
filter, pre-amplifier and  
3-pin XLR connector,  
black



### Classis RM 30 W

Order # 729701  
Array Microphone with  
filter, pre-amplifier and  
3-pin XLR connector,  
white



### Classis RM 31 SP

Order # 729396  
Array Microphone with  
programmable button  
(PTT, PTM, ON/OFF) with  
braille, switchable low-  
cut filter, switchable LED  
ring and 3-pin male XLR  
connector, black



### Classis RM 31 RC

Order # 729825  
Array Microphone with  
programmable button  
(PTT, PTM, ON/OFF)  
with braille, switchable  
low-cut filter, switchable  
LED ring, remote control  
function and 5-pin male  
XLR connector, black

## Accessories



### ZSH 20

Order # 454559  
Shock-mount for  
Classis RM 30 / 31



### ZSH 210

Order # 721832  
Stand plate for  
MPR 210 / 211



### GMS 32

black: Order # 729582  
white: Order # 729760  
Shock-mounted  
installation holder for  
Classis RM 30 / 31 SP  
microphones with 3-pin  
XLR male connector



### GMS 52

black: Order # 729434  
white: Order # 729779  
Shock-mounted  
installation holder for  
Classis RM 31 RC  
microphones with 5-pin  
XLR male connector

For more product information on Revoluto technology visit [www.beyerdynamic.com.au](http://www.beyerdynamic.com.au)

