

# Classis RM 30 | RM 31

Revoluto Microphone



Classis RM 30



Classis RM 31 SP / RC



Classis RM 31 Q with  
Orbis MU 21 delegate  
microphone unit



Classis RM 31 Q

## FEATURES

- Horizontal corridor characteristic for picking up two speakers
- Large speaking distance
- Large freedom of movement
- Revoluto technology with vertical microphone array
- RFI-proof due to Scudio technology
- High gain before feedback
- Modern metal housing

## VERSIONS

Classis RM 30	3-pin male XLR connector, filter, black . . . . .	Order # 729.388
Classis RM 31 SP	3-pin male XLR connector, phantom power adapter, programmable button (PTT, PTM, ON/OFF) with braille, switchable low-cut filter, switchable LED ring . . . . .	Order # 729.396
Classis RM 31 RC	5-pin male XLR connector, phantom power adapter, programmable button (PTT, PTM, ON/OFF) with braille, switchable low-cut filter, switchable LED ring remote control function . . . . .	Order #. 729.825
Classis RM 31 Q	5-pin male XLR connector, LED ring . . . . .	Order # 729.302

## APPLICATIONS

The Classis RM 30 or Classis RM 31 is a new desktop microphone for round table discussions, podiums, tele/video conferencing, announcements and lecterns. The Revoluto technology with five integrated microphone capsules provides a so-called corridor characteristic which ensures a wide range of good voice quality. Within this range up to two speakers can move freely, i.e. they can stand up or sit down, move their head and move towards or away from the microphone. The microphone features the innovative Scudio technology, making it absolutely insensitive to wireless communication devices such as mobile phones. The microphone is available in four versions. The Classis RM 30 and Classis RM 31 SP or RC versions can be installed into tabletops when using shock-mounted holders. The Classis RM 31 Q version is used with the microphone units of the Quinta and Orbis conference systems. With the SP variants you can select via the programmable button between the operating modes ON/OFF, Push-To-Talk and Push-To-Mute. The microphone button can also be disabled. The frequency response can be set with a separate switch in two stages: Linear or with low-cut filter to suppress low-frequency interference. The illuminated ring indicating the microphone status can be deactivated. In addition to the features of the SP variants, the RC variant provides the option of external control. Furthermore, when operating the microphone button, an external device can be controlled via the control output. The LED ring of the Classis RM 31 variants displays the ready-to-talk status of the microphone.

# Classis RM 30 | RM 31

## TECHNICAL SPECIFICATIONS

Microphone . . . . . Revolutio microphone array, patented

Transducer type . . . . . Electret condenser

Operating principle . . . . . Pressure gradient

Polar pattern . . . . . Corridor

    Horizontal . . . . . Cardioid

    Vertical . . . . . Lobar

Optimal distance to the speaker . . . . . 40 - 80 cm [15.75" - 31.5"]

Frequency response

    Classis RM 31 Q/SP/RC . . . . . 110 - 20.000 Hz

    Classis RM 30 . . . . . 90 - 20.000 Hz

Sensitivity

    Classis RM 31 Q . . . . . 28.7 mV/Pa = -30.9dBV ±2dB

    Classis RM 30/31SP/31RC . . . . . 28.5 mV/Pa = -30.9dBV ±2dB

Nominal impedance

    Classis RM 31 Q . . . . . < 20 Ω

    Classis RM 30/31SP/31RC . . . . . < 200 Ω

Load impedance

    Classis RM 31 Q . . . . . ≥ 100 Ω

    Classis RM 30/31SP/31RC . . . . . ≥ 1 kΩ

Signal-to-noise ratio / noise voltage

    Classis RM 31 Q . . . . . 68 dB [A] / 11.5 μV [A]

    Classis RM 30/31SP/31RC . . . . . 67.2 dB [A] / 12.5 μV [A]

Max. SPL . . . . . 107 dB [SPL @ 1% THD]

Equivalent SPL . . . . . 26.8 dB [A]

Connector

    Classis RM 31 Q . . . . . unbal. with 5-pin male XLR connector

    Classis RM 30/31SP . . . . . bal. with 3-pin male XLR connector

    Classis RM 31RC . . . . . bal. with 5-pin male XLR connector

Supply voltage / supply current

    Classis RM 31 Q . . . . . 5 V / 8.5 mA (with LED)

    Classis RM 30 . . . . . Phantom power

        P48 (+48 VDC ±4 VDC, 6.8 kΩ ±20%, < 4.5 mA)

        P24 (+24 VDC ±4 VDC, 1.2 kΩ ±20%, < 4.5 mA)

        P12 (+12 VDC ±1 VDC, 680 Ω ±20%, < 4.5 mA)

    Classis RM 31SP/31RC . . . . . Phantom power

        P48 (+48 VDC ±4 VDC, 6.8 kΩ ±20%, < 9.5 mA)

        P24 (+24 VDC ±4 VDC, 1.2 kΩ ±20%, < 9.5 mA)

        P12 (+12 VDC ±1 VDC, 680 Ω ±20%, < 9.5 mA)

Temperature range . . . . . -10 °C bis +40 °C [14 °F to 104 °F]

Dimensions	RM 30	RM 31 SP	RM 31 RC	RM 31 Q
Length (mm)	260	300	300	219
[inch]	[10.24"]	[11.81"]	[11.81"]	[8.62"]
Capsuleø (mm)	25	25	25	25
[inch]	[0.98"]	[0.98"]	[0.98"]	[0.98"]
Weight (g)	153	186	186	107
[pounds]	[0.34 lbs]	[0.41 lbs]	[0.41 lbs]	[0.23 lbs]

## OPTIONAL ACCESSORIES

GMB 33 S Microphone base with button, 3-pin XLR connection, for Classis RM 30 and RM 31 S only . . . . . Order # 725.242

GMS 32 Shock-mounted holder for table installations, for Classis RM 30 and RM 31 S, 3-pin female XLR connector, black . . . . . Order # 729.582

GMS 32 W same as above, but white . . . . . Order # 729.760

GMS 52 Shock-mounted holder for table installations, for Classis RM 31 Q, 5-pin female XLR connector, black . . . . . Order # 729.434

GMS 52 W same as above, but white . . . . . Order # 729.779

ZSH 20 Shock-mounted holder for desktop installation . . . . . Order # 454.559

# Classis RM 30 | RM 31

## ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The array microphone with a corridor characteristic shall be used for high-quality conference, paging and PA applications. The microphone shall be connected to the Quinta or Orbis microphone unit. The LED ring integrated in the microphone shall indicate the ready-to-speak status. The vertical lobar and a horizontal cardioid microphone characteristic shall provide a maximum freedom of movement without acoustic losses of the recording quality. The filter in the microphone grille shall eliminate wind and pop noise. The RFI shield technology shall eliminate interferences of other wireless communication devices. The electret condenser microphone shall provide an unobtrusive and modern full metal housing for discreet positioning. The housing shall be coated with a non-glare mat black textile and paint. The microphone diameter shall be 25 mm [0.98"]. The total length shall be 230 mm [9.05"] when connected to the microphone unit (measured from the table's edge). It shall be suitable for discussions, podiums, tele and video conferences, announcements and lecterns. The frequency response shall be 110 - 20,000 Hz. The open circuit voltage shall be 28.7 mV/Pa. The nominal impedance shall be <20 ohms. The microphone shall be provided with a 5-pin male XLR connector. The net weight shall be 0.107 kg [0.23 lbs].

Manufacturer: beyerdynamic  
Type: Classis RM 31 Q

The array microphone with a corridor characteristic shall be used for high-quality conference, paging and PA applications. The vertical lobar and a horizontal cardioid microphone characteristic shall provide a maximum freedom of movement without acoustic losses of the recording quality. The filter in the microphone grille shall eliminate wind and pop noise. The RFI shield technology shall eliminate interferences of other wireless communication devices. The electret condenser microphone shall provide an unobtrusive and modern full metal housing for discreet positioning. The housing shall be coated with a non-glare mat black textile and paint. The gooseneck diameter shall be 25 mm [0.98"]. The total length shall be 261 mm [10.28"]. The phantom power shall be between 8 and 52 V (P12, P24, P48). A pre-amplifier shall be integrated in the base and provided with a balanced signal output. It shall be suitable for discussions, podiums, tele and video conferences, announcements and lecterns. The frequency response shall be 90 - 20,000 Hz. The open circuit voltage shall be 28.7 mV/Pa. The nominal impedance shall be 200 ohms. The microphone shall be provided with a 3-pin male XLR connector. The net weight shall be 0.153 kg [0.34 lbs].

Manufacturer: beyerdynamic  
Type: Classis RM 30

The array microphone with a corridor characteristic shall be used for high-quality conference, paging and PA applications. The vertical lobar and a horizontal cardioid microphone characteristic shall provide a maximum freedom of movement without acoustic losses of the recording quality. The filter in the microphone grille shall eliminate wind and pop noise. A programmable button shall operate in the operating modes ON/OFF, Push-To-Talk and Push-To-Mute. The microphone button shall be disabled when needed. The

frequency response shall be selectable in two stages: linear or with low-cut filter to suppress low-frequency noise. The LED ring to display the microphone status shall be deactivated when needed. The microphone shall have an excellent RFI shielding and is immune to wireless communication devices. The electret condenser microphone shall have a discreet and modern metal housing, which shall be coated with a non-glare mat black textile and paint. The microphone diameter shall be 25 mm [0.98"]. The total length shall be 300 mm [11.81"]. The conference microphone shall operate with a phantom power of 8 - 52 V (P12, P24 P48). A preamp with electronically balanced signal output shall be integrated in the base. It shall be used for round table discussions, panel discussions, tele/video conferences, paging and lecterns. The frequency response shall be 110 - 20,000 Hz. The open circuit voltage shall be 28.7 mV/Pa. The nominal impedance shall be 200 ohms. The microphone shall be provided with a 3-pin XLR connector (male). The net weight shall be 0.186 kg [0.41 lbs].

Manufacturer: beyerdynamic  
Type: Classis RM 31 SP

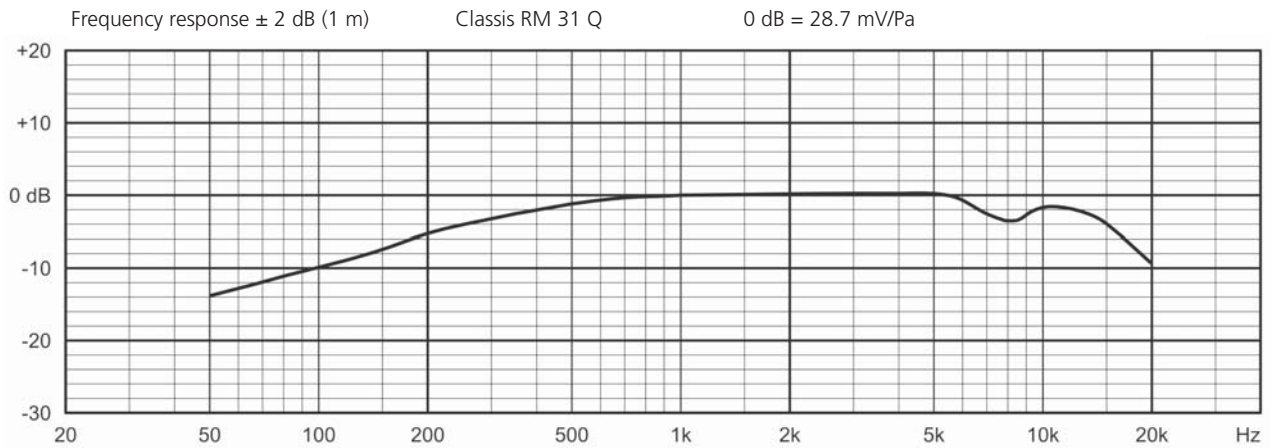
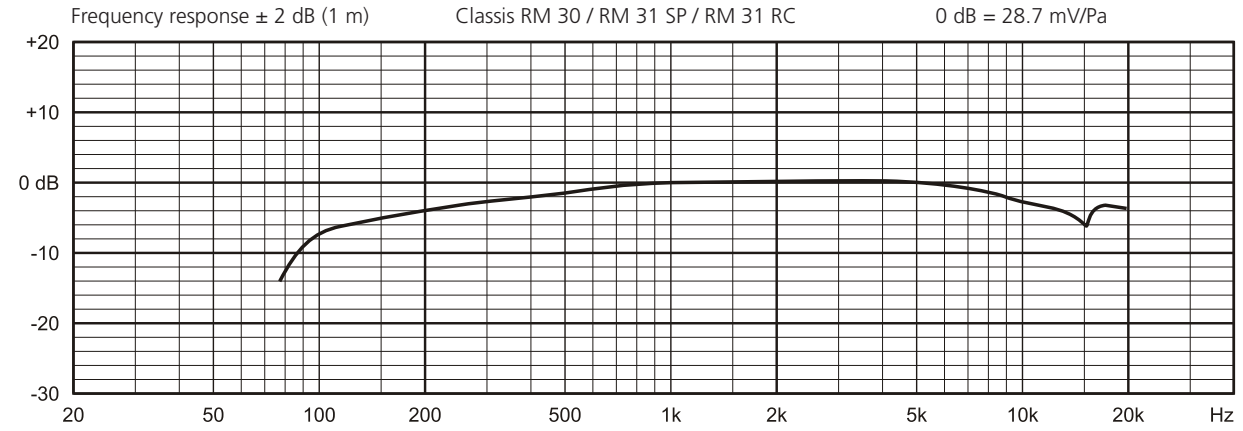
The array microphone with a corridor characteristic shall be used for high-quality conference, paging and PA applications. The vertical lobar and a horizontal cardioid microphone characteristic shall provide a maximum freedom of movement without acoustic losses of the recording quality. The filter in the microphone grille shall eliminate wind and pop noise. A programmable button shall operate in the operating modes ON/OFF, Push-To-Talk and Push-To-Mute. The microphone button shall be disabled when needed. The frequency response shall be selectable in two stages: linear or with low-cut filter to suppress low-frequency noise. The LED ring to display the microphone status shall be deactivated when needed. The microphone shall be externally turned on or off. Another control output shall control an external device when operating the button. The LED ring of the Classis RM 31 variants shall indicate by a red illumination the ready-to-speak status. The microphone shall have an excellent RFI shielding and is immune to wireless communication devices. The electret condenser microphone shall have a discreet and modern metal housing, which shall be coated with a non-glare mat black textile and paint. The microphone diameter shall be 25 mm [0.98"]. The total length shall be 300 mm [11.81"]. The conference microphone shall operate with a phantom power of 8 - 52 V (P12, P24 P48). A preamp with electronically balanced signal output shall be integrated in the base. It shall be used for round table discussions, panel discussions, tele/video conferences, paging and lecterns. The frequency response shall be 110 - 20,000 Hz. The open circuit voltage shall be 28.7 mV/Pa. The nominal impedance shall be 200 ohms. The microphone shall be provided with a 3-pin XLR connector (male). The net weight shall be 0.186 kg [0.41 lbs].

Manufacturer: beyerdynamic  
Type: Classis RM 31 RC

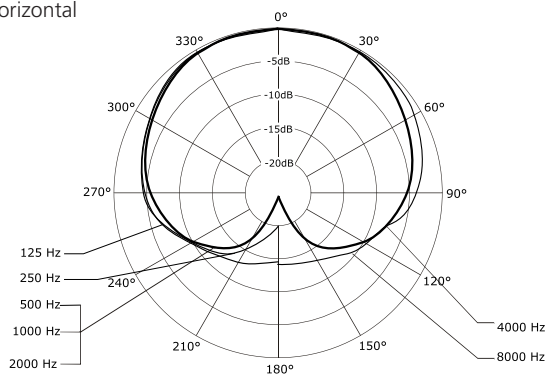
# Classis RM 30 | RM 31

## FREQUENCY RESPONSE & POLAR PATTERN

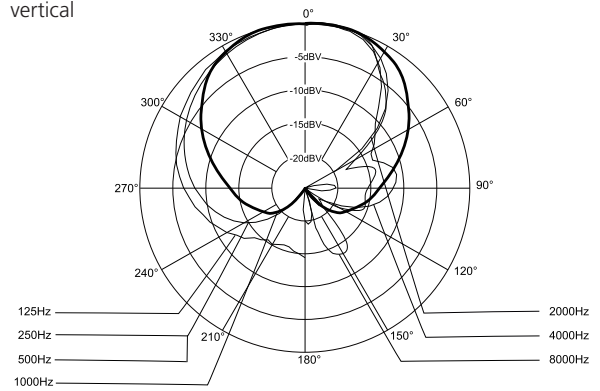
This polar pattern and frequency response curve (measuring tolerance  $\pm 2$  dB) correspond to a typical production sample for this microphone.



horizontal



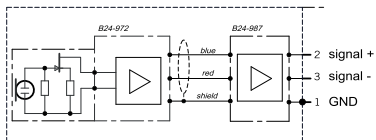
vertical



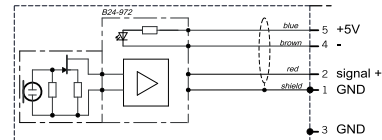
# Classis RM 30 | RM 31

## WIRING DIAGRAMS

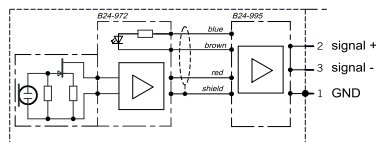
Classis RM 30



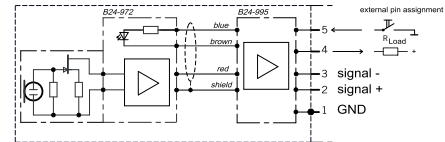
Classis RM 31 Q



Classis RM 31 SP

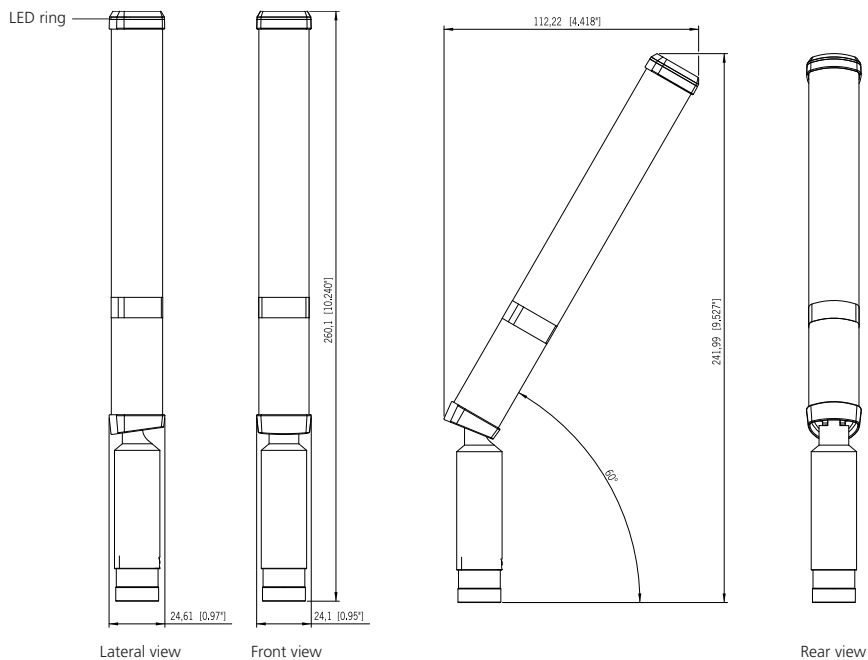


Classis RM 31 RC



## DIMENSIONS

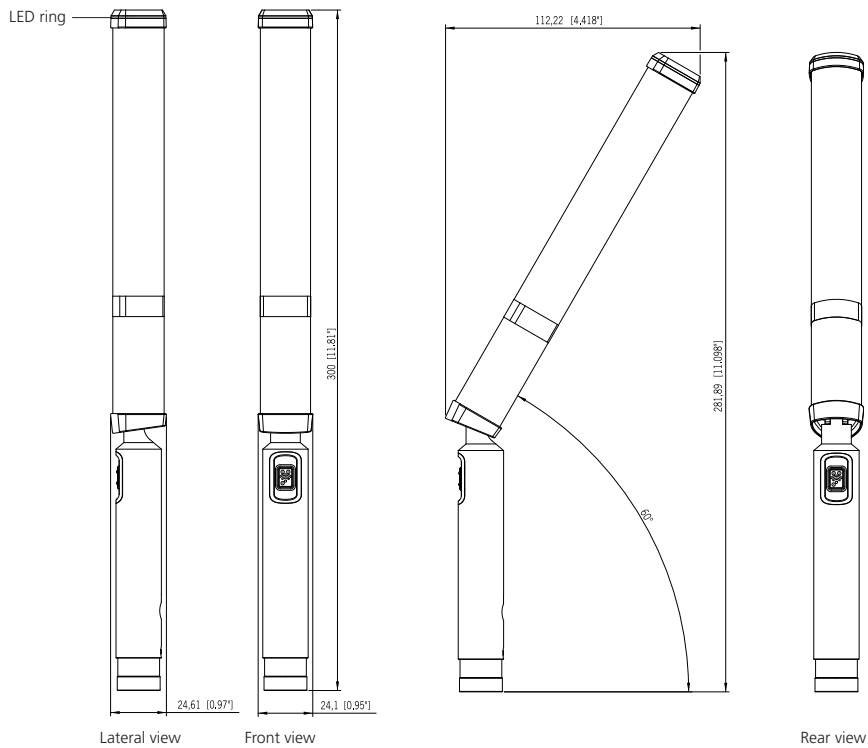
Classis RM 30



# Classis RM 30 | RM 31

## DIMENSIONS

Classis RM 31 SP / RC



Classis RM 31 Q

