

# Quinta MU 23 V

Digital Wireless Chairman Microphone Unit with Voting Function

Order # 726.079



Supplied without gooseneck microphone

## FEATURES

- Chairman microphone unit with 3 buttons and voting function (Yes, No, Abstain for parliamentary votings, Multiple Choice or Opinion Polls)
- Direct Sequence Spread Spectrum (DSSS) provides high immunity from interference and unauthorised listening, even when using other radio systems
- Wireless transmission with integrated True Diversity antenna technology for transmitting and receiving
- Three selectable frequency bands : 2.4 / 5.2 / 5.8 GHz
- Automatic or manual silent change to an interference-free frequency response acc. to EN 3000328 ETSI
- Automatic recognition of interferences in all frequency ranges
- Processor-controlled and automatic audio channel allocation of the microphone units
- Digital 128-bit encryption and additional 24-bit PIN code against unauthorised listening
- Removable gooseneck microphone with Scudio® technology in different lengths, 5-pin XLR connector with hidden lock
- Red LED ring around the gooseneck to indicate the ready-to-talk status of the microphone
- Soft touch silicone buttons with backlit illumination in 3 colours
- Operating panel made of stainless steel
- Microphone button to switch the microphone on / off or as "No" button in the voting mode
- Clear button to switch off all activated delegate microphone units or as "Yes" button in the voting mode
- Programmable function button for different priorities or external controls or as "Abstain" button in the voting mode
- Voice-controlled activation of the microphone possible
- High-quality plastic housing with a non-glare matt black coating of Alexit soft-touch paint
- Integrated loudspeaker with voice equalisation
- Decreased loudspeaker volume when microphone is switched on
- Adjustable mini stereo jack output (3.5 mm) as documentation or headphones
- Parameters can be programmed via the control unit and the appropriate configuration software
- Automatic Power Off when the control unit is in the stand-by mode or switched off
- Power on LED
- Charging status of the battery can be monitored and transmitted to the control unit
- Operating control LED indicates the status when the minimum capacity is too low
- Charging contacts for charging the integrated rechargeable batteries in the charging unit
- Reliable processor-controlled charging electronics avoids memory effect and ensures immediate use of the microphone units
- LED ring of the gooseneck microphone indicates the charging status and the power on LED on the rear indicates the use of an external power adapter
- Maximum charging time of 2.5 hours when the battery (NiMH) is completely empty
- DC connection for battery recharging or powering via external power adapter
- Minimum operating time 20 hours

# Quinta MU 23 V

## DESCRIPTION

The Quinta MU 23 V chairman microphone unit is equipped with a clear, function and a microphone button in the housing with which the participant can switch the microphone on and off. When a voting takes place, the microphone unit is switched into the voting mode where the three buttons (Yes, No, Abstain) are available for parliamentary votings, Multiple Choice or Opinion Polls. The chairman microphone unit does not depend on the maximum number of simultaneous open microphones. Unlike the delegate microphone units the chairman microphone unit is not controlled by Automatic Channel Allocation, but has an extra transmitting channel exclusively for the chairman. The ready-to-talk status of the microphone is indicated by the red LED ring around the gooseneck microphone.

Using the clear button all switched-on microphones of the delegate microphone stations are switched off.

With the function button there are various configurations possible via the "Quinta Conference" software:

### Priority "Normal"

When the chairman switches his microphone on with the function button and the priority programming "Normal" the switched on delegate microphone units are switched off. Afterwards the delegates can switch on their microphone and take part into the discussion again, while the chairman's microphone is still switched on.

### Priority "Mute"

When the chairman switches his microphone on with the function button and the priority programming "Mute" the switched on delegate microphone units are muted as long as the chairman is speaking. If the chairman switches his microphone off, all delegate microphone units that had been switched on before, are switched on again.

### Priority "Clear"

When the chairman switches his microphone on with the function button and the priority programming "Clear" the switched on delegate microphone units are switched off. The delegates can switch on their microphone again, when the chairman has switched off his.

### "Function"

A command is sent via the RS 232, USB, TCP/IP serial interface from the Quinta CU control unit and a programmed function is carried out via a media control system for instance (e.g. light control). For the other functions there is also a command sent via the RS 232, USB, TCP/IP serial interface from the Quinta CU control unit

### Command A/B

Two different commands according to the duration of the push:  
< 1 second = command "Short press string" is transmitted  
> 1 second = command "Long press string" is transmitted  
These commands can be set individually with the "Quinta Conference" software.

### Audio Mute

An audio signal, e.g. from a wireless microphone, can be switched off. This function can be combined with a "Clear" command to switch off activated delegate microphones.

Depending on the configuration with the "Quinta Conference" software the following operating modes are available:

**Voice activation:** the microphone is switched on, when someone speaks into it.

**Push-To-Talk:** the microphone button is held down, while the participant is speaking.

The integrated loudspeaker reproduces the audio signal of the whole conference system. Depending on the audio signal routing in the control unit the loudspeaker can reproduce other audio signals such as a wireless microphone in the auditorium.

The parameters of the microphone unit are adjusted via PC by using the "Quinta Conference" software. The parameters are adjusted for all microphone units.

The volume of the loudspeaker is adjusted and can be controlled with the Quinta CU control unit or a media control system. The ducking level determines the attenuation of the loudspeaker level when the microphone of the microphone unit is switched on.

Each microphone unit has its own address. An existing system can be complemented at any time.

The DSSS transmission offers high immunity against unauthorised listening with a 128-bit encryption. In addition to this, the conference system including the appropriate microphone units can be protected with PIN code (24-bit). A microphone unit that does not have the correct PIN code will be identified by the control unit and switched off immediately.

The integrated rechargeable battery allows a minimum operation of the microphone unit of 20 hours depending on the participation in the discussion. As soon as the remaining battery time is below a certain threshold of 1 hour, the power on LED on the rear of the microphone unit will flash or if the system is controlled by PC or a media control system, the low battery capacity can be also indicated. The charging time of a completely empty battery is around 2.5 hours with the integrated processor-controlled charging electronics. Depending on the use of the microphone unit the charging time can be less.

As an option the microphone unit can be powered and charged by a DC power supply adapter.

The microphone unit is switched on by briefly pressing the microphone button once. There are several ways to switch off the microphone unit:

1. Press the microphone button for 3 seconds.
2. Press the standby button of the Quinta CU control unit for 3 seconds to switch off all activated microphone units.
3. Switch off all microphone units via an RS 232 or TCP/IP command from the PC or media control system.
4. Switch off the control unit; after approx. 3 minutes the microphone unit will be switched off.

# Quinta MU 23 V

## OPTIONAL ACCESSORIES

Classis GM 115 Q	Condenser gooseneck microphone (electret), cardioid, matt black, 500 mm [19.69"] . . . . .	Order # 726.095	CC2	Modular charging and transport case for 10 Quinta microphone units. . . . .	Order # 723.967
Classis GM 313 Q	Condenser gooseneck microphone (electret), with Scudio® technology, cardioid, matt black, 300 mm [11.81"] . . . . .	Order # 724.203	CC2/600	Charging and transport case for 10 Quinta microphone units with GM 316 Q gooseneck microphone . . . . .	Order # 724.572
Classis GM 314 Q	same as above, but 400 mm [15.75"] . . . . .	Order # 724.211	CD 2	Modular charging and transport unit for 10 Quinta microphone units with GM 313, 314 or 315 gooseneck microphone . . . . .	Order # 723.975
Classis GM 315 Q	same as above, but 500 mm [19.69"] . . . . .	Order # 724.238			
Classis GM 316 Q	same as above, but 600 mm [23.62"] . . . . .	Order # 724.351			

## TECHNICAL SPECIFICATIONS

### General

Frequency range. . . . .	2400 – 2483.5 MHz 5150 – 5250 MHz 5725 – 5875 MHz
Modulation . . . . .	DSSS (Direct Sequence Spread Spectrum) and QPSK/BPSK (Quadrature/ Binary Phase Shift Keying) digital signal processing acc. to own standard
Max. number of audio streams. . . . .	4 useable channels per system
Signal-to-noise ratio . . . . .	80 dB typ., (unweighted signal-to-noise ratio)
Range between microphone units and control unit . . . . .	> 100 m [109.36 yds]
Power supply . . . . .	100 – 240 V AC 50/60 Hz
Approval . . . . .	world-wide

### AVB

Transmission and reception of audio data . . . . .	acc. to IEC 61883-6
Format of the audio data . . . . .	AM824
Stream ID Quinta CU . . . . .	Bit 63 – 16 / MAC address Bit 15 – 0 / X

### Quinta MU Microphone Units

Transmitter power . . . . .	max. 20 dBm per channel and region (average, duty cycle ≤ 30%)*
Battery voltage . . . . .	8 NiMH cells, 2080 mAh
External DC operation . . . . .	15 V DC (±0.5 V), residual hum < 20 mV, 950 mA

Charging time with charger . . . . .	max. 2.5 hours when the battery is completely empty
with mains charger adapter . . . . .	max. 2.5 hours when the battery is completely empty
Loudspeaker. . . . .	Wide-band, integrated loudspeaker
Volume decrease when Mic On ("Ducking"). . . . .	15 dB fixed setting
Headphone output . . . . .	Jack socket (3.5 mm, stereo)
Min. impedance . . . . .	16 Ω
Power supply . . . . .	9.6 V with integrated NiMH battery (8 cells)
Operating time depending on the type of the microphone unit. . . . .	approx. 20 hours in discussion mode, operating time also depends on the volume

Temperature range (at < 90% humidity). . . . .	+10° – +40°C [+50 °F – +104 °F]
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Storage temperature (at < 90% humidity). . . . .	-20° – +55°C [-4 °F – +131 °F]
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Dimensions (without microphone)	
Length . . . . .	173 mm [6.8"]
Width. . . . .	157 mm [6.18"]
Height . . . . .	51 mm [2.01"]
Weight. . . . .	1.7 kg [3.74 lbs]

\*The transmitter power can differ from this value due to specific regulations in various countries.

# Quinta MU 23 V

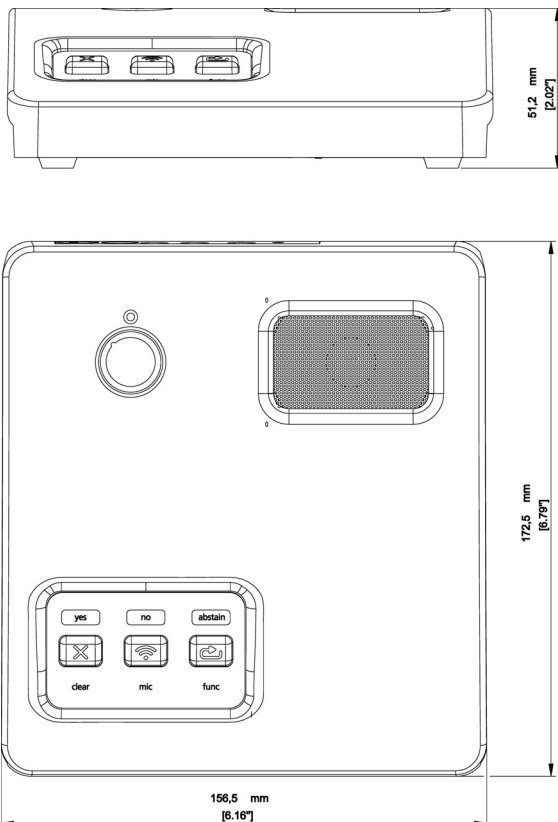
## ARCHITECT'S SPECIFICATIONS

The digital wireless microphone unit shall be available as chairman version for voting, without microphone. The microphone unit shall provide three buttons which allow the following function in the speech mode: one for turning on/off, one for clearing all active delegate microphone units and one free programmable function button for functions such as priority or functions in conjunction with a serial interface / Ethernet interface at the control unit. In the voting mode, the three buttons shall have the following functions: Yes / No / Abstain. The actual operating mode shall be displayed by coloured backlit buttons. The microphone unit shall provide a 5-pin XLR connector with hidden locking for a gooseneck microphone in different lengths. The DSSS modulation shall ensure high immunity from interference in the frequency range of 2.4 / 5.2 and 5.8 GHz. The true diversity antenna technology shall ensure highest transmission reliability. The digital 128-bit encryption shall include an additional 24-bit PIN code. There shall be an automatic recognition of interferences in all frequency ranges. The silent change to an interference-free frequency range shall be automatic or manual according the EN 300328 ETSI. The audio channel allocation of the microphone units shall be processor-controlled and automatic. The high-quality plastic housing shall feature a mat black coating with

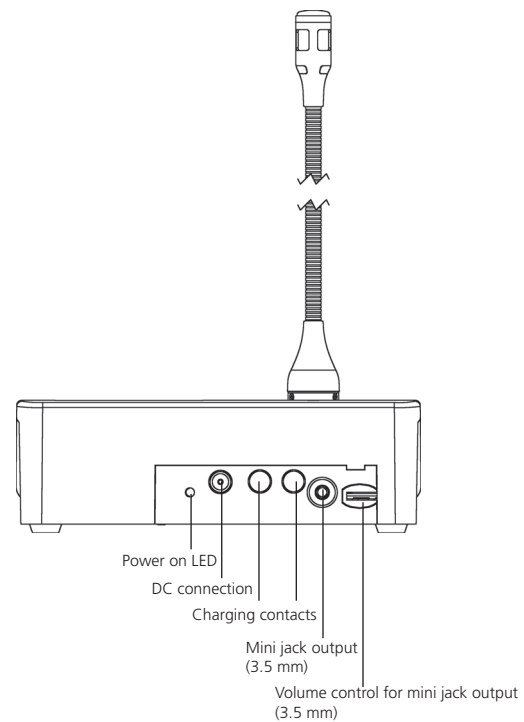
Alexit soft-touch paint. The integrated wideband loudspeaker shall be used for decentral sound reinforcement. The integrated limiter shall be used against overdrive. The silicone button shall be backlit in 3 colours and provided with Braille. The integrated rechargeable NiMH battery shall provide an operating time of max. 30 hours. The processor-controlled, intelligent charging technology shall provide a Quick-Charge function without memory effect and charge the battery within a maximum of 2.5 hours depending on the charging state. The charging status of the battery shall be monitored and transmitted to the control unit. The operating control LED shall indicate the status when the minimum capacity is too low. The microphone unit shall be provided with two nickel-plated charging contacts. The headphone output shall be a mini jack (3.5 mm) socket with adjustable control. The DC connection shall be used for battery recharging or powering via external power adapter. The dimensions (WxHxD) shall be 157x51x173mm [6.18"x2.01"x6.8"]. The weight shall be 1.7 kg [3.74 lbs].

Manufacturer: beyerdynamic  
Type: Quinta MU 23

## DIMENSIONS MICROPHONE UNIT

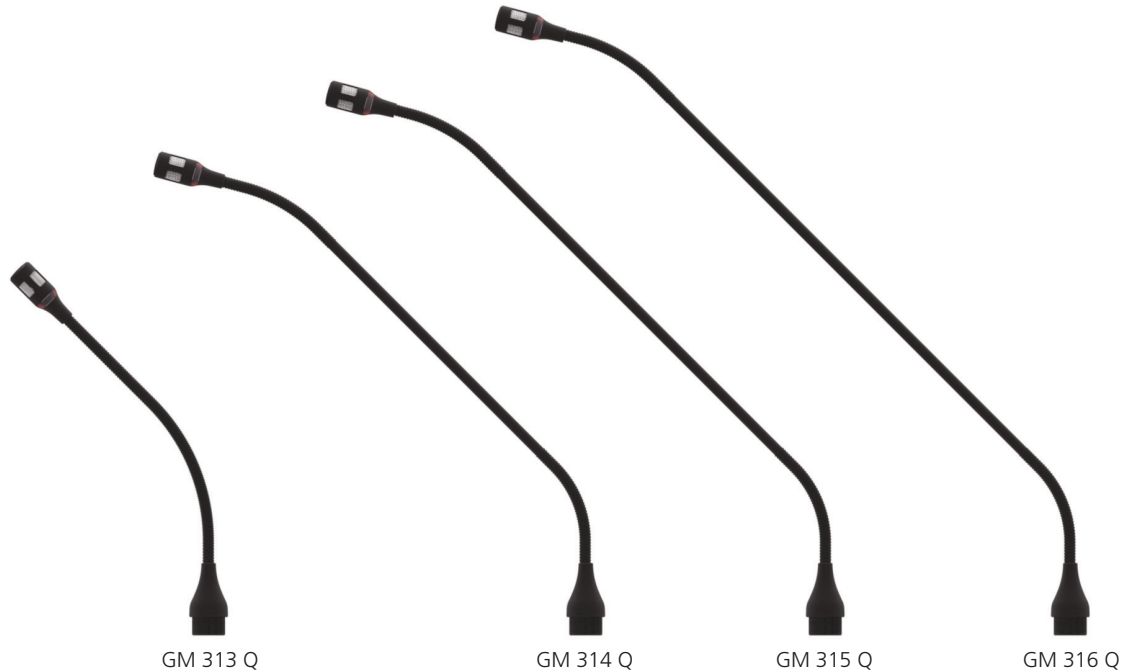


## REAR VIEW MICROPHONE UNIT



# Quinta MU 23 V

## GM 31x Q GOOSENECK MICROPHONE



### DESCRIPTION

The GM 31x gooseneck microphone is available as optional accessory to connect to the microphone unit.

Due to the cardioid polar pattern this microphone has a high gain before feedback and provides highest intelligibility of speech. The LED ring displays the ready-to-talk status of the microphone. Inside the microphone there is a filter to eliminate wind and pop noise.

The microphone features the innovative Scudio™ technology, making the microphones absolutely insensitive to wireless communication devices such as mobile phones.

The microphone is mounted on a 6 mm thick gooseneck and due to its mat black, non-glare surface almost invisible.

The following lengths are available:

GM 313 Q = 300 mm [11.81"]

GM 314 Q = 400 mm [15.75"]

GM 315 Q = 500 mm [19.69"]

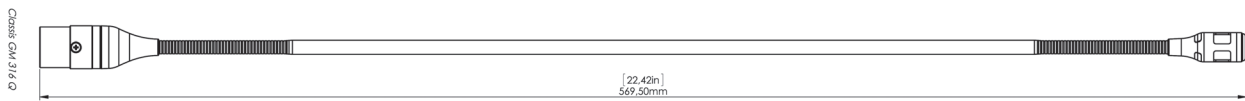
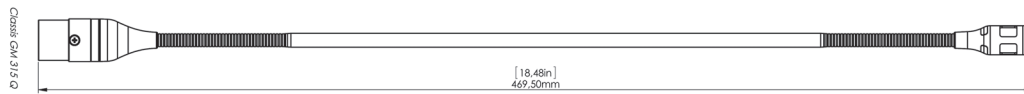
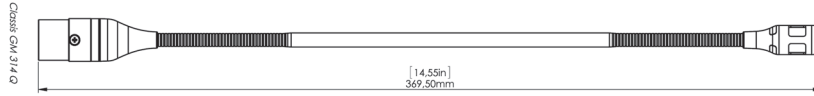
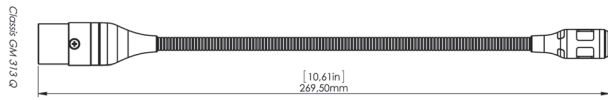
GM 316 Q = 600 mm [23.62"]

### TECHNICAL SPECIFICATIONS

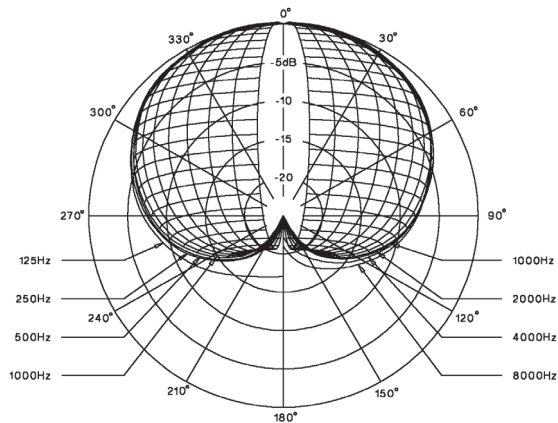
Transducer type	Condenser (electret)
Operating principle	Pressure gradient
Frequency response	50 - 19,000 Hz
Polar pattern	Cardioid
Open circuit voltage at 1 kHz	17 mV/Pa
Nominal impedance	< 200 Ohm
Load impedance	≥ 1 kOhm
Max. SPL	107 dB [SPL @ 1% THD]
Signal-to-noise ratio/Noise voltage	69 dB [A] / 6.0 μV [A]
Equivalent SPL	25 dB[A]
Microphone connection	5-pin XLR (male)
Head diameter with pop shield	approx. 26 mm [1.02"]
without pop shield	approx. 13.6 mm [0.56"]
Gooseneck diameter	6 mm [0.24"]
Total length	
GM 313 Q	270 mm [16.63"]
GM 314 Q	370 mm [14.57"]
GM 315 Q	470 mm [18.5"]
GM 316 Q	570 mm [22.44"]

# Quinta MU 23 V

## GM 31x Q MICROPHONE



## POLAR PATTERN



# Quinta MU 23 V

## ARCHITECT'S SPECIFICATIONS

The cardioid condenser gooseneck microphone (electret) shall be connected to the Quinta desktop microphone unit. The LED ring integrated in the microphone head shall indicate the ready-to-speak status. The filter in the microphone basket shall suppress wind and pop noise. The Scudio® technology shall eliminate interferences from other wireless communication devices. The housing shall be coated with a non-glare mat black paint. The gooseneck diameter shall be 6 mm [0.24"]. The total length shall be 300 mm [11.81"] when connected to the microphone unit (measured from the table's edge). The delivery shall include a wind shield.

Manufacturer: beyerdynamic  
Type: Classis GM 313 Q

The cardioid condenser gooseneck microphone (electret) shall be connected to the Quinta desktop microphone unit. The LED ring integrated in the microphone head shall indicate the ready-to-speak status. The filter in the microphone basket shall suppress wind and pop noise. The Scudio® technology shall eliminate interferences from other wireless communication devices. The housing shall be coated with a non-glare mat black paint. The microphone shall be provided of two goosenecks with a diameter of 6 mm [0.24"] and a rigid tube in between. The total length shall be 400 mm [15.75"] when connected to the microphone unit (measured from the table's edge). The delivery shall include a wind shield.

Manufacturer: beyerdynamic  
Type: Classis GM 314 Q

The cardioid condenser gooseneck microphone (electret) shall be connected to the Quinta desktop microphone unit. The LED ring integrated in the microphone head shall indicate the ready-to-speak status. The filter in the microphone basket shall suppress wind and pop noise. The Scudio® technology shall eliminate interferences from other wireless communication devices. The housing shall be coated with a non-glare mat black paint. The microphone shall be provided of two goosenecks with a diameter of 6 mm [0.24"] and a rigid tube in between. The total length shall be 500 mm [19.69"] when connected to the microphone unit (measured from the table's edge). The delivery shall include a wind shield.

Manufacturer: beyerdynamic  
Type: Classis GM 315 Q

The cardioid condenser gooseneck microphone (electret) shall be connected to the Quinta desktop microphone unit. The LED ring integrated in the microphone head shall indicate the ready-to-speak status. The filter in the microphone basket shall suppress wind and pop noise. The Scudio® technology shall eliminate interferences from other wireless communication devices. The housing shall be coated with a non-glare mat black paint. The microphone shall be provided of two goosenecks with a diameter of 6 mm [0.24"] and a rigid tube in between. The total length shall be 600 mm [23.62"] when connected to the microphone unit (measured from the table's edge). The delivery shall include a wind shield.

Manufacturer: beyerdynamic  
Type: Classis GM 316 Q

# Quinta MU 23 V

## GM 115 Q GOOSENECK MICROPHONE



Classis GM 115 Q without pop shield



Classis GM 115 Q with pop shield

### DESCRIPTION

The Classis GM 115 Q gooseneck microphone is used for direct connection to the Quinta or Orbis microphone units.

The microphone features a cardioid polar pattern with a high gain before feedback. The ready-to-speak status of the microphone is displayed by an LED ring. Inside the microphone grille there is a filter to eliminate wind or pop noise.

The microphone is mounted on a 6 mm thick gooseneck and due to its matt black, non-glare surface it discretely blends into the environment.

### ARCHITECT'S SPECIFICATIONS

The condenser gooseneck microphone (electret) with cardioid polar pattern shall be used for direct connection to Quinta and Orbis microphone units. A filter inside the microphone grille shall eliminate wind or pop noise. It shall be protected against interference from wireless communication devices. The fully metal housing shall be matt black. The two flexible goosenecks (8 mm bottom, 6 mm top) shall have a rigid tube in between. The total length when mounted to a microphone unit shall be 500 mm (measured from the edge of the table). It shall be supplied with a wind shield.

Manufacturer: beyerdynamic  
Type: Classis GM 115 Q

### TECHNICAL SPECIFICATIONS

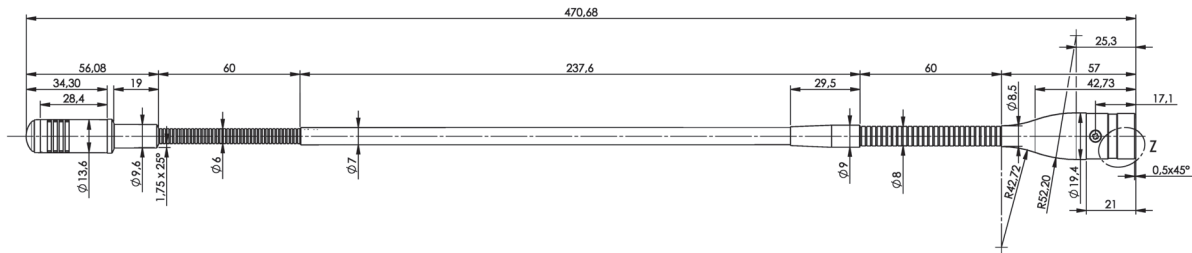
Transducer type . . . . . Condenser (electret)  
Operating principle . . . . . Pressure gradient  
Frequency response  
Close miking . . . . . 40 - 13,000 Hz  
Distant miking (distance 1 m) . . . . . 200 - 13,000 Hz  
Polar pattern . . . . . Cardioid  
Open circuit voltage at 1 kHz . . . . . -17.8 mV/Pa = -35 dBV ±3 dB\*  
Nominal impedance . . . . . 2.2 kΩ  
Max. SPL . . . . . 112 dB [SPL @ 1% THD]\*  
Signal-to-noise ratio . . . . . 62 dB [A, rms]\*  
Equivalent SPL . . . . . 32 dB [A, rms]\*  
Power supply . . . . . 1.5 - 9 V DC  
Microphone connection . . . . . 5-pin XLR (male)  
Head diameter with pop shield . . . . . approx. 25 mm [0.98"]  
without pop shield . . . . . approx. 14 mm [0.55"]  
Gooseneck diameter . . . . . approx. 7 mm [0.28"]  
Total length . . . . . approx. 470 mm [18.5"]  
Weight . . . . . approx. 110 g [3.8 oz]

\*depending on the connected electronics



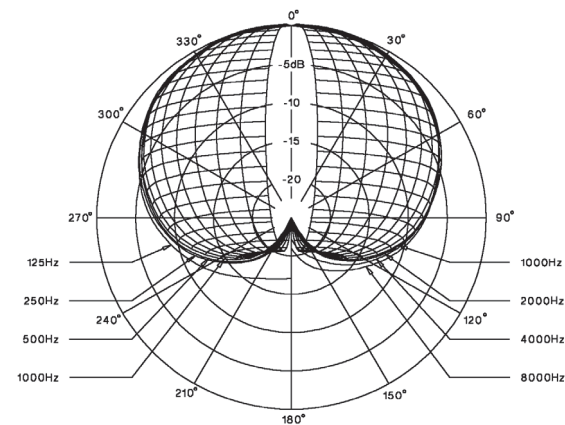
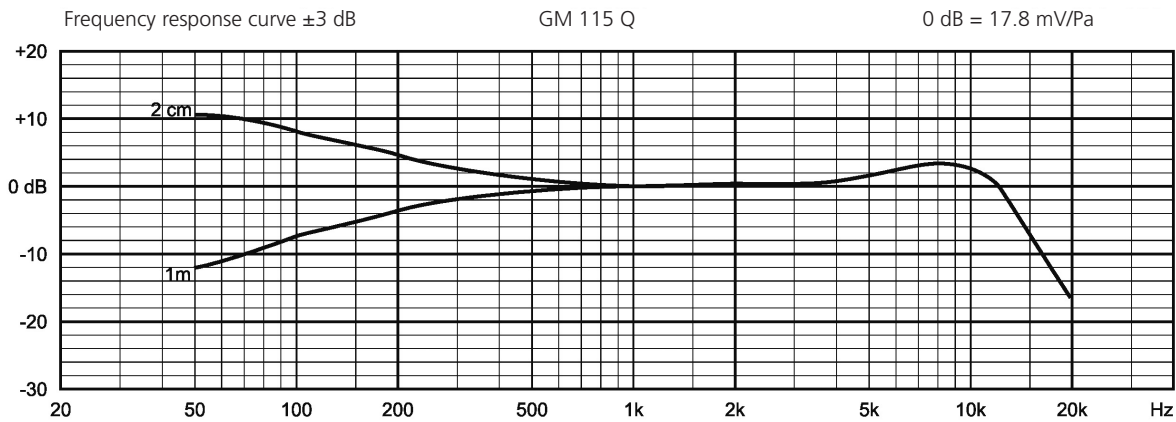
# Quinta MU 23 V

## DIMENSIONS



## FREQUENCY RESPONSE & POLAR PATTERN

This polar pattern and frequency response curve (measuring tolerance  $\pm 3$  dB) correspond to a typical production sample for this microphone.



## WIRING DIAGRAM

