TourGroup microphones typify Beyer's comprehensive experience and sophisticated technology in the design of precision microphones for live performance use.

From the warm, transparent sound and low noise of our vocal mics to the comprehensive flexibility of our wireless stage systems, Beyer TourGroup mics faithfully capture the significant nuances that set leading vocalists and instrumentalists apart.

Respected artists like Phil Collins, Paul Young, J.R. Robinson, Robert Cray, Kim Wilson, Charles Aznavour, Bobby McFerrin, Suzanne Vega, Udo Juergens, Howard Carpendale and others rely on TourGroup mics for unrivaled performance: no matter what style of music or size of venue.

Employing the most up-to-date moving coil, ribbon and condenser technologies, each TourGroup microphone is engineered for total accuracy and dependable performance, even under the most adverse conditions.

**Moving Coil**

**M 700**

Beyer's newest performance microphone technology has led to the development of the M 700, a remarkably precise dynamic mic that delivers exceptional performance in vocal and instrumental miking situations. A true Hypercardioid polar pattern maximizes directionality and insures extremely low feedback. A sturdy brass mesh basket protects the mic element from damage. The M 700 features built-in protection against stray magnetic fields caused by stage equipment. It is also available with a noise-free lockable On/Off switch.

**Technical Specifications**

- **Transducer type:** Dynamic, moving coil, pressure gradient
- **Frequency response:** 40-16,000 Hz
- **Polar pattern:** Hypercardioid
- **Side attenuation at 120° and 1 kHz:** > 24 dB
- **Open circuit voltage at 1 kHz (0 dB = 1 V/Pa):** 1.4 mV/Pa = 57 dB
- **IA sensitivity rating:** -199 dB
- **Hum compensation:** > 20 dB at 50 Hz
- **Nominal impedance:** > 1000 ohms
- **Dimensions**
  - **Length:** 180 mm
  - **Shaft diameter:** 23/33 mm (conical)
  - **Head diameter:** 54 mm
  - **Weight:** approx 265 g
- **Models**
  - M700 TG
  - M700 TG S

**Vocal Microphones**
**Moving Coil**

**M 300TG**

The M 300TG is a rugged and natural-sounding dynamic performance microphone. Its efficient cardioid characteristic provides greater directionality and reduces feedback. A wide frequency response delivers exceptional performance in different vocal and instrumental applications. Built tough, the M 300TG features a rugged stainless steel wire mesh basket, built-in pop filter and a user-replaceable mic element for easy servicing. It is also available with noise-free lockable On/Off switch.

**Technical Specifications**
- **Transducer type:** Dynamic, moving coil, pressure gradient
- **Frequency response:** 50-18,000 Hz
- **Cardioid attenuation at 150°:** > 20 dB
- **1 kHz:**
  - Open circuit voltage: 1.2 mV/Pa @ 58 dBV
  - EIA Cw output: -150 dB
  - (0 dB = 1 mW/2 x 10⁻⁴ Pa)
- **Nominal output impedance:** 250 ohms
- **Load impedance:** 1000 ohms

**Ribbon**

**M 500TG**

Beyer's singular commitment to modern ribbon mic technology is embodied in our popular M 500 vocal microphone. Characterized by an unusually warm and "natural" sound, this high-quality dynamic ribbon mic has a Hypercardioid characteristic with a rising frequency response curve to maintain optimum intelligibility and presence for vocals. A built-in filter reduces "pops". The M 500TG is finished in matte black and is also available with a noise-free, lockable On/Off switch.

**Technical Specifications**
- **Transducer type:** Dynamic, ribbon
- **Frequency response:** 40-18,000 Hz
- **Hypercardioid side attenuation at 120°:** 60 dB
- **1 kHz:**
  - Open circuit voltage: 1.2 mV/Pa @ 58 dBV
  - EIA Cw output: -150 dB
  - (0 dB = 1 mW/2 x 10⁻⁴ Pa)
- **Nominal output impedance:** 200 ohms
- **Load impedance:** ≥ 1000 ohms

**Vocal Microphones**

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<table>
<thead>
<tr>
<th>Model</th>
<th>M 300TG S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>169.5 mm</td>
</tr>
<tr>
<td>Shaft diameter</td>
<td>24/37 mm (conical)</td>
</tr>
<tr>
<td>Head diameter</td>
<td>51 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 240 g</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>M 500 TG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>182 mm</td>
</tr>
<tr>
<td>Shaft diameter</td>
<td>24/37 mm (conical)</td>
</tr>
<tr>
<td>Head diameter</td>
<td>56.5 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>approx 250 g</td>
</tr>
</tbody>
</table>
**Condenser**

**MCE 80**

The MCE 80's precisely balanced frequency response and consistent Supercardioid characteristic insures accurate reproduction without unwanted noise and feedback. The MCE 80 withstands high SPL without distortion. Handling and popping noise is effectively eliminated. A built-in footfall filter reduces unwanted frequencies under 100 Hz. This versatile mic can either be powered by a 4.5 V battery located in the mic shaft or a phantom power supply (12-48 V). It features a rugged design and a handsome matte black finish.

**Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transducer type</td>
<td>Electrostatic, pressure gradient</td>
</tr>
<tr>
<td>Frequency response</td>
<td>50-18,000 Hz</td>
</tr>
<tr>
<td>Side attenuation at</td>
<td>-120° and 1 kHz</td>
</tr>
<tr>
<td>Open circuit voltage at</td>
<td>1 kHz (0 dB ± 1 V Pa)</td>
</tr>
<tr>
<td>Nominal impedance</td>
<td>80ohms</td>
</tr>
<tr>
<td>Load impedance</td>
<td>1000 ohms</td>
</tr>
<tr>
<td>Max SPL at 1 kHz and THD 1%</td>
<td>126 dB</td>
</tr>
<tr>
<td>a) with battery</td>
<td>138 dB</td>
</tr>
<tr>
<td>b) with phantom power supply</td>
<td>26 dB</td>
</tr>
<tr>
<td>Signal-to-noise ratio rel to 1 Pa</td>
<td>60 dB typical</td>
</tr>
<tr>
<td>A-weighted equivalent SPL</td>
<td>26 dB</td>
</tr>
<tr>
<td>Current consumption</td>
<td>1.2 mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>210 mm</td>
</tr>
<tr>
<td>Shaft diameter</td>
<td>25 mm</td>
</tr>
<tr>
<td>Head diameter</td>
<td>54 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>236 g</td>
</tr>
</tbody>
</table>

**MCE 81**

A rugged “studio-quality” unidirectional condenser, the MCE 81's Cardioid polar pattern insures excellent gain-before-feedback and isolation from off-axis sound sources. The mic's wide range frequency response has been optimized to achieve maximum vocal intelligibility. A sophisticated internal shock mount dramatically reduces hand-hold or stand borne noise and vibration. The MCE 81 uses a specially designed Multi-Stage pop filter to reduce unwanted wind noise in outdoor or close miking situations. The mic's transducer is housed in a sturdy case weight-balanced for added comfort.

**Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transducer type</td>
<td>Electrostatic pressure gradient</td>
</tr>
<tr>
<td>Frequency response</td>
<td>50-18,000 Hz</td>
</tr>
<tr>
<td>Polar pattern</td>
<td>Cardioid</td>
</tr>
<tr>
<td>Attenuation at 180° and 1 kHz</td>
<td>approx. 20 dB</td>
</tr>
<tr>
<td>Open circuit voltage at</td>
<td>1 kHz (0 dB ± 1 V Pa)</td>
</tr>
<tr>
<td>Nominal impedance</td>
<td>80ohms</td>
</tr>
<tr>
<td>Load impedance</td>
<td>1000 ohms</td>
</tr>
<tr>
<td>Max SPL at 1 kHz and THD 1%</td>
<td>138 dB</td>
</tr>
<tr>
<td>Signal-to-noise ratio rel to 1 Pa</td>
<td>60 dB</td>
</tr>
<tr>
<td>A-weighted equivalent SPL</td>
<td>26 dB</td>
</tr>
<tr>
<td>Current consumption</td>
<td>3 mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>177 mm</td>
</tr>
<tr>
<td>Shaft diameter</td>
<td>23/31 mm (conical)</td>
</tr>
<tr>
<td>Head diameter</td>
<td>45 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 265 g</td>
</tr>
</tbody>
</table>

**MC 734 PA**

The MC 734 PA is designed to accurately reproduce vocals and instrumental music with a clear, uncolored sound and high output. The true Cardioid pickup pattern is consistent, allowing high gain levels without feedback and producing a uniform off-axis response. The MC 734 PAs improved cartridge suspension system withstands extremely high SPLs and shortens the “speech distance” increasing output by 6.8 dB. A footfall filter and 3-position bass rolloff switch attenuate unwanted low end stage resonances. An integral breath filter suppresses pop and hiss. The mic's detachable leather handle further reduces handling noise and its matte black chromiun finish reduces reflectivity.

**Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transducer type</td>
<td>Condenser</td>
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<tr>
<td>Supply voltage</td>
<td>48 ± 4 V</td>
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<tr>
<td>Current consumption</td>
<td>approx. 0.5 mA</td>
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<tr>
<td>Frequency response</td>
<td>20-20,000 Hz</td>
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<tr>
<td>Polar pattern</td>
<td>Cardioid</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>5 mV/Pa ± 46 dB</td>
</tr>
<tr>
<td>Source impedance</td>
<td>45 ohms</td>
</tr>
<tr>
<td>Minimum load impedance</td>
<td>5000 ohms</td>
</tr>
<tr>
<td>Max SPL for 6%</td>
<td>138 dB</td>
</tr>
<tr>
<td>THD at 1 kHz</td>
<td>45 dB</td>
</tr>
<tr>
<td>Noise voltage (DIN 45 510)</td>
<td>1.7 V</td>
</tr>
<tr>
<td>S/N ratio according to DIN 45 590 (ref level 1 Pa)</td>
<td>69 dB</td>
</tr>
<tr>
<td>A-weighted equivalent noise level due to inherent noise (IEC 179):</td>
<td>approx. 18 dB</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>175 mm</td>
</tr>
<tr>
<td>Shaft diameter</td>
<td>25 mm (conical)</td>
</tr>
<tr>
<td>Head diameter</td>
<td>45 mm</td>
</tr>
<tr>
<td>Head length</td>
<td>80 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>270 g</td>
</tr>
</tbody>
</table>
Instrumental Microphones

Capable of reproducing the sound of electronic and acoustic instruments with a warm, transparent sound and remarkable accuracy, the Beyer TourGroup instrumental mics are designed and constructed to set new miking standards in contemporary live sound reinforcement applications. All of these mics are highly directional to eliminate feedback and extraneous noise, and feature the ability to withstand extremely high decibel levels of today’s concert situations.
Moving Coil

M 201

Ideal for miking vocals, acoustic stringed instruments, snare drums and wind instruments, the M 201 studio-quality dynamic mic has an exceptionally wide frequency response and high output. An effective Hypercardioid characteristic endows the mic with greater directionality and reduces feedback to minimum levels. A special “hum buck” coil protects against hum from stray magnetic fields. The M 201 is especially recommended for situations where highly accurate reproduction and inconspicuous size are required.

Technical Specifications
- Transducer type: Dynamic, moving coil, pressure gradient
- Frequency response: 40-18,000 Hz
- Hypercardioid
- Polar pattern:
- Side attenuation at 120°, 1 kHz:
- >20 dB
- Open circuit voltage at 1 kHz (0dB Δ IV/Pa):
- 1.2 mV/Pa Δ – 58 dB
- EIA Gm output:
- 150 dB

- Magnetic field suppression:
- > 18 dB at 50 Hz
- Nominal output impedance:
- 200 ohms
- Load impedance: ≈ 1000 ohms

Dimensions
- Length: 160 mm
- Shaft diameter: 24 mm
- Head diameter: 24 mm
- Weight: approx. 220 g

M 88TG

Considered by sound engineers as one of the finest microphones of its type, the M 88 represents the ultimate “step up” choice for virtually any miking situation. A truly professional moving-coil with a very wide frequency response and high output, the M 88 features an extremely efficient Hypercardioid characteristic. The M 88’s low end capability and extended response produce a clear, warm “natural” sound unique to this mic. Its standard setting transient response and front-to-back ratio reduces feedback. The M 88’s moving-coil transducer is supported by a special suspension system to suppress noises transmitted from the mic body. Because it withstands high SPL, the M 88 is an ideal choice for miking electric instruments in high volume situations.

Technical Specifications
- Transducer type: Dynamic, moving coil, pressure gradient
- Frequency response: 30-20,000 Hz
- Hypercardioid
- Polar pattern:
- Side attenuation at 120°, 1 kHz:
- > 23 dB
- Open circuit voltage at 1 kHz (0dB Δ IV/Pa):
- 2.3 mV/Pa Δ – 53 dB
- EIA Gm output:
- 145 dB

- Magnetic field suppression:
- > 20 dB at 50 Hz
- Nominal output impedance:
- 200 ohms
- Load impedance: ≈ 1000 ohms

Dimensions
- Length: 175 mm
- Shaft diameter: 25.5 mm
- Head diameter: 48.5 mm
- Weight: approx. 320 g

Instrumental Microphones
Moving Coil

**M 380TG**

Specifically designed with a large overload capacity to pick up instruments producing low frequencies at high sound pressure levels, the M 380TG is ideal for miking bass drum, acoustic stringed bass, tuba, trombones and electric bass guitar. Very directional, the M 380TG has a special bi-directional characteristic to maximize its effectiveness in instrument miking situations. It is fully protected against wind and mechanical vibration and has a special hum compensation filter. The M 380TG also reduces feedback to an absolute minimum.

**Model**
M 380TG

**Dimensions**
- Length: 160 mm
- Width: 66 mm
- Height: 60 mm
- Shaft diameter: 24/30 mm (conical)
- Weight: approx. 370 g

**Technical Specifications**
- Transducer type: Dynamic, moving coil, pressure gradient
- Frequency response: 15-20,000 Hz
- Polar pattern: Figure 8
- Open circuit voltage at 1 kHz: 5 mV/Pa Δ -46 dB
- EIA C 4 output: (0 dB, Δ 1 mW/2 × 10^-3 Pa)
- Max. SPL at <0.5% at 1 kHz: 140 dB
- Nominal impedance: 600 ohms
- Rated load impedance: >1000 ohms
- Hum compensation: >20 dB at 50 Hz

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Condenser

**MC 713**

The MC 713 high-quality studio-level condenser combines high output and sensitivity for superior results when used as an overhead mic for drums and cymbals. The MC 713 is actually comprised of the CV 710 powering handle and the CK 703 interchangeable microphone capsule. Its Cardioid characteristic and nearly frequency-independent directional pattern enhance its effectiveness while reducing feedback.

**Technical Specifications**
- Transducer type: Condenser
- Frequency response: 40-20,000 Hz
- Polar pattern: Cardioid
- Attenuation at 180° and 1 kHz: >20 dB
- Open circuit voltage at 1 kHz (0 dB & 0 V/4 Pa):
  - EIA C 4 output: 10 mV/Pa Δ -40 dB
    - (0 dB, Δ 1 mW/2 × 10^-3 Pa)
- Nominal output impedance: 200 ohms
- Load impedance:
  - Max. SPL for 0.5%
  - THD:
    - with pre-attenuation: 120 dB
    - Weighted noise voltage: 0 dB
- Signal-to-noise ratio: 3.6 µV
- A-weighted equivalent SPL: 18 dB
- Temperature range: -40°...+70°C

**Models**
- CK 703 Condenser
- CV 710N (C) Condenser

**Powering Handle**
- Length: 165 mm
- Shaft diameter: 19.2 mm
- Head diameter: 19.2 mm
- Weight: approx. 125 g
Diversity Wireless System

As specialists in microphones and RF technology, Beyer is particularly equipped to create a reliable, high-performance wireless system ideal for live vocal and instrumental use.

The peerless Beyer S 185 and TS 185 Transmitters are the very heart of the system. Fully interchangeable mic capsules and multifaceted adapters allow a wide variety of possibilities for different applications.

There is also an exceptional variety of quiet and efficient Beyer true diversity receivers designed for superior performance in any wireless application.

Extremely versatile, our wireless systems use the full low to high range VHF band. "Pocket" or body pack and hand-held transmitters are available for guitars and wind instruments as well as vocals.

The Beyer Wireless System can also be connected to our MCM Condenser Microphone System, affording the freedom of movement implicit in wireless to a number of specialized condenser designs.

Superlative wireless lavalier mic performance is also provided as part of the system’s flexible, multi-option design scheme.

In addition to unlimited freedom of movement on stage, the system makes our most important asset available to vocalists and musicians—Beyer Sound. Warm, natural and transparent, it lends a distinctive textural richness to program material, bearing the unmistakable stamp of beyerdynamic.
Diversity Wireless System

S 185 Transmitter

The S 185 wireless transmitter is engineered to insure maximum operational flexibility and technical excellence in any situation. Operating in the 174-216 MHz bandwidth (VHF), it can be used in virtually any professional on stage mixing situation when combined with Beyer’s totally modular system of mic capsules and adapters.

To insure that the Beyer sound is faithfully preserved during transmission, we developed a natural-sounding low-noise (LN) compander system that effectively extends usable dynamic range by 32 dB without “pumping” or artificial signal coloration.

EM 81 Mic Capsule

A rugged condenser design capable of studio-quality audio performance, the EM 81 capsule employs a cardioid polar pattern to insure superior gain-before-feedback and isolation from off-axis sound sources. The EM 81’s extended frequency response has been maximized to achieve maximum vocal intelligibility. A built-in Multistage™ pop filter is included for more effective results and low noise in live concert use.

NE 185.11 Diversity Wireless Receiver

A model of flexibility, the NE 185.11 true diversity wireless receiver is available in several one- and three-channel models, either as “stand alone” equipment or in single/multiple 19” rack-mountable formats.

To achieve the truest diversity, the NE 185.11 actually uses two separate receiver circuits, each employing an antenna. A special integrated monitoring circuit constantly scans the receiver for incoming signal strength, instantaneously switching to the circuit receiving the strongest, clearest signal. Our circuitry eliminates any noise or glitching during the switching process.

The second “expander” stage of our compander system extends usable dynamic range without “pumping.” Noise that occurs in conjunction with faded carrier signals is effectively suppressed by a squelch control with a threshold adjustment variable between 6 and 50 dB.

*NB: Please see specialized literature (“Professional Wireless Microphone Systems”) for technical specifications.

Wireless Microphones
With the advent of electronic percussion, sampled acoustic sounds and special effects treatments, the drumset is rapidly evolving into a more expressive and wide-ranging instrument. The Beyer Percussion Mic Group is performance-matched to every acoustic element of the drumset. Demanding drummers and sound engineers are using these specially designed and selected mics because they impart totally accurate drumset reproduction for sampling, recording and live reinforcement. Every Beyer Percussion Microphone is built rugged enough to withstand the punishment a drumset absorbs.

**Overhead Mics**
Drums and cymbals generate every frequency in the audible spectrum. The extended frequency response of the M 713 condenser and other Beyer Percussion mics accurately reproduces all of them.

**Snare Drum**
The M 422 has a small diaphragm for the instantaneous response that produces a crisp, articulate sound.

**Floor Toms**
The M 201 combines a carefully regulated proximity effect with a precisely controlled polar pattern. By varying placement and distance, the user can capture each drum's character and personalize the player's sound.

**Rack Toms**
The M 420's tightly controlled polar pattern is designed to better isolate individual drums and cymbals when a variety of mics are used on the drumset. "Top of the set" mics of this type also employ a precisely tailored frequency response to minimize leakage for the bass drum and floor toms.

**Bass Drum**
Beyer Percussion Mics like the M 380TG handle the extreme SPLs of close-miking without overload while capturing the full dynamic range of the bass drum for maximum impact and detail.