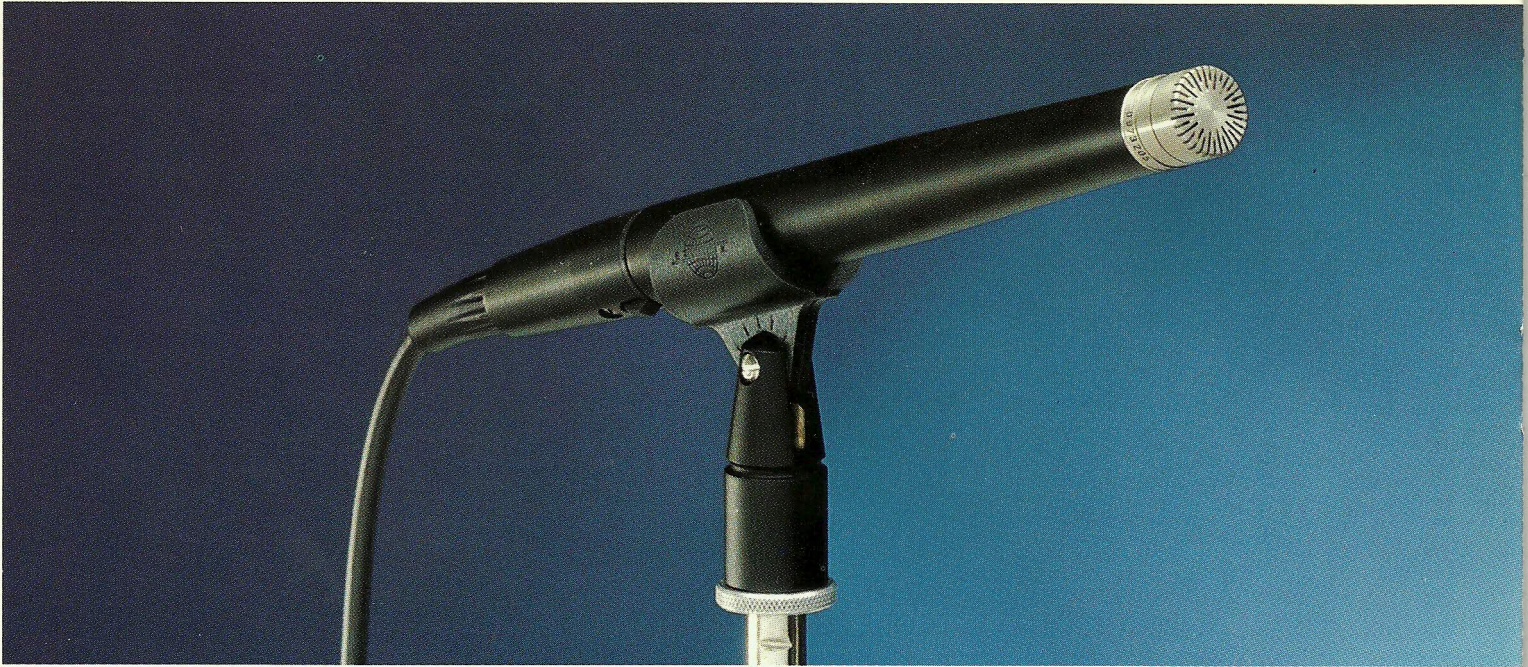


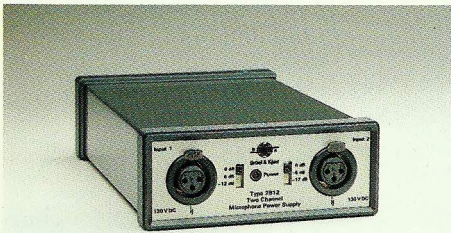
Low Noise Studio Microphones

Type 4003 (Powering via Type 2812.
Transformerless, Line Level Output)

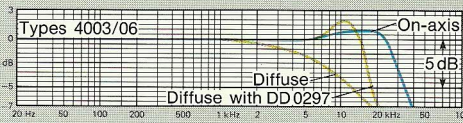


For Low Noise Recordings **Type 4003** becomes an obvious choice. On-axis, the frequency response ranges from 20Hz to 20kHz ± 2 dB with a very smooth high frequency roll off and extremely linear phase response (to 35kHz on-axis, 20kHz at 90° incidence). The sensitivity is nominally 50 mV/Pa (-26 dB re 1 V/Pa) and is individually measured and stated on the accompanying calibration chart. Typical noise floor for the microphone is very low at 15dB(A) and it will handle levels up to 135dB with less than 1% THD.

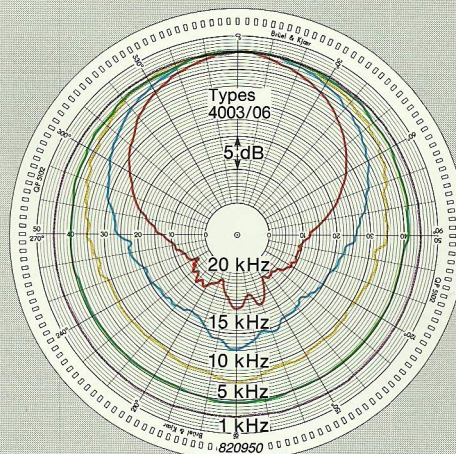
Type 4003 is externally powered from the B&K Two Channel Microphone Supply Type 2812 giving a wider dynamic range than would be possible with Phantom powering. The 4003/2812 combination is fully compatible with standard symmetrical, transformer or transformerless microphone inputs and line inputs (balanced or single-ended).



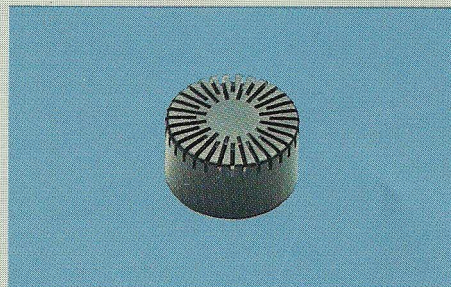
Two Channel Microphone Power Supply for use with Type 4003



Frequency response of Types 4003 and 4006



Directional characteristics of the Microphones



Additional protection grid supplied with the Microphones for use under predominantly reverberant conditions

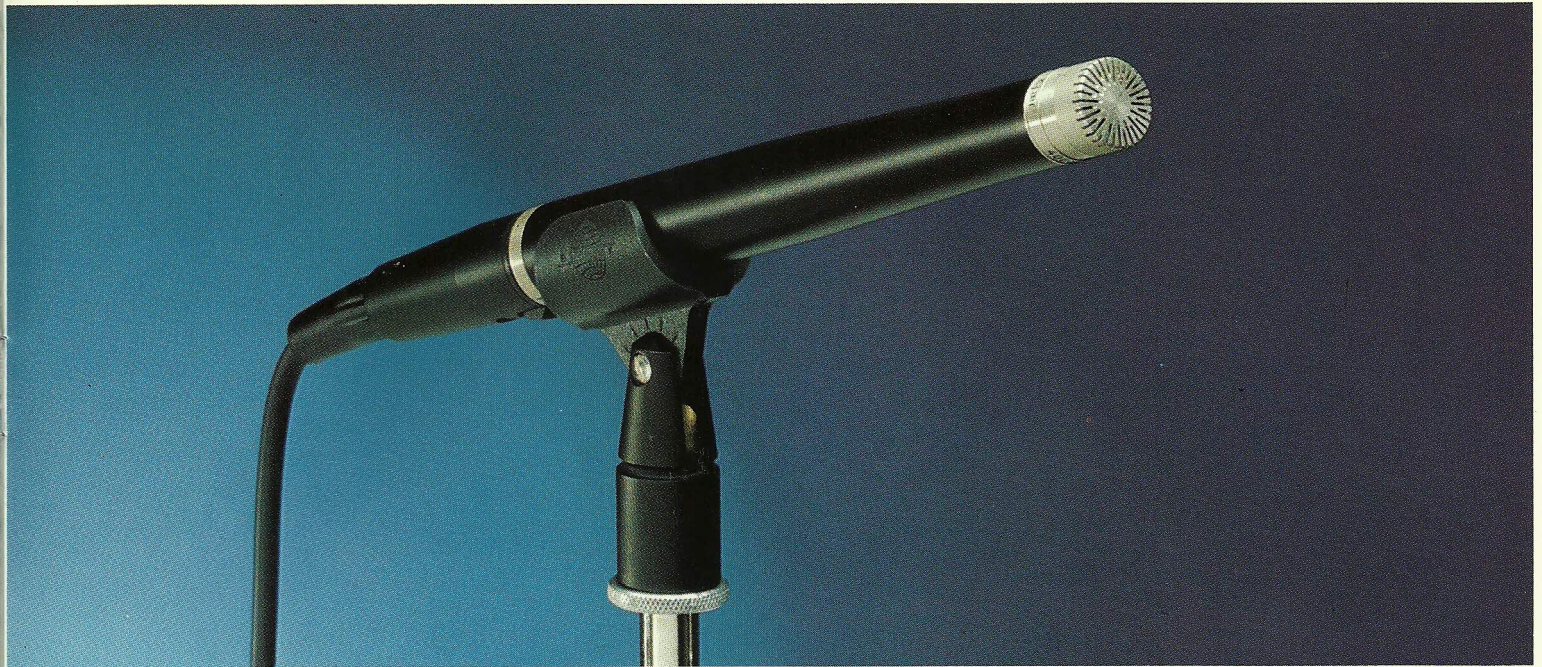
Types 4003 & 4006

These microphones are specially designed for low-level applications and are ideal for general recordings of soloists and ensembles. For use under predominantly reverberant conditions the Microphones are supplied with an additional protection grid which gives a linear diffuse field response up to 15kHz by boosting the on-axis response approximately 5dB in the range 10 to 12kHz. The additional grid is fitted to the microphone in place of the normal protection grid. In close-miking situations Types 4003 and 4006 are inherently insensitive to the "vocal pops" caused by consonant sounding, do not exhibit any proximity effect and are therefore well suited for vocals, strings, woodwind and plucked instruments.

Both cartridge types are 16mm diameter, prepolarized condenser microphones. The Microphones are delivered in a mahogany case together with a handbook and calibration chart. In addition to the black protection grid, the microphones are supplied with an expanded foam windscreens, microphone clamp and 5m cable AO0182.



Types 4003 and 4006 are supplied in a mahogany case together with a handbook, individual calibration chart, additional protection grid, windscreens and microphone clamp



Specifications

On-axis Frequency Response*:
20Hz to 20kHz \pm 2dB

Phase Response:
See figure. Phase Matching between any two microphones \pm 10° (50Hz to 20kHz)

Sensitivity at 250Hz*:
Type 4003: 50mV/Pa, unloaded
Type 4006: 12,5mV/Pa, unloaded

Equivalent Noise Level*:
Typically 15dB(A) (max. 17dB(A))

Harmonic Distortion:**
Type 4003: \leq 1% at 135dB peak SPL
 \leq 0,01% at 94dB (extrapolated)
Type 4006: \leq 1% at 135dB peak SPL, $f >$ 100 Hz
 \leq 0,01% at 94dB (extrapolated)

Difference Frequency Distortion:**
Type 4003: \leq 1% at 135dB peak SPL
Type 4006: \leq 1% at 135dB peak SPL, $f >$ 500 Hz

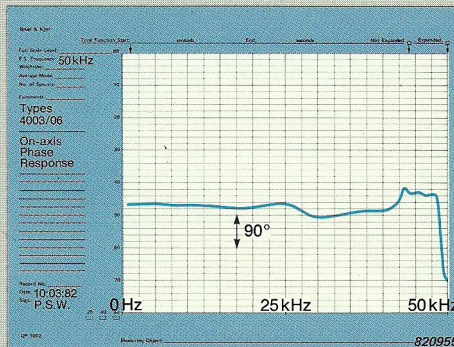
Maximum Sound Pressure Level:
Type 4003: 154dB peak SPL, $f \leq$ 4kHz
Type 4006: 143dB peak SPL, $f >$ 200Hz

Weight: 150g

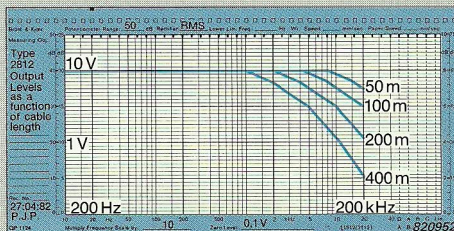
Dimensions:
Length: 165mm excluding connector
Cartridge Diameter: 16mm

Accessories Included:
Protection Grid DD0297
Input Cable AO0182
Windscreen UA0638
Microphone Clamp UA0639

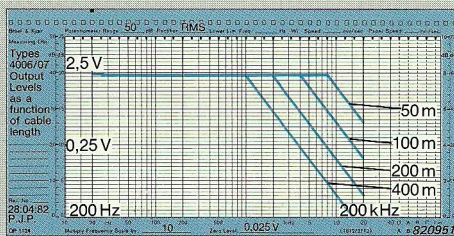
* individually measured
** individually checked



Phase response of Types 4003 and 4006



Output levels of Power Supply Type 2812 as a function of capacitive loading (cable length). Short cable lengths should be used for connecting Microphone Type 4003 to the 2812



Output levels of Microphone Type 4006 as a function of capacitive loading (cable length)

Type 4006 is specifically designed for powering from standard P48 Phantom supplies and is distinguished from Type 4003 by the silver ring at the base of the main body housing. It is acoustically identical to the 4003 and has the same signal-to-noise ratio, although the sensitivity is a factor of four lower (nominally 12,5mV/Pa unloaded) due to the integral transformer circuitry. Like the 4003, Type 4006 is ideally suited for low noise applications.

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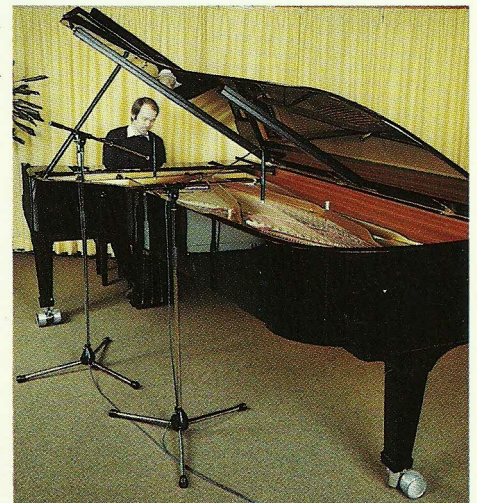


Photo courtesy of Bredr. Jørgensen Musikinstrumenter, Copenhagen

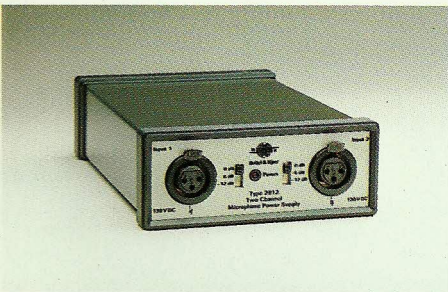
High Intensity Studio Microphones

Type 4004 (Powering via Type 2812.
Transformerless, Line Level Output)

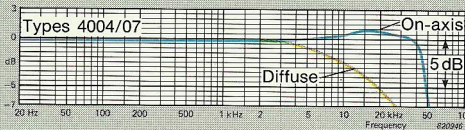


For applications dominated by very high peak levels, high frequencies or requiring a high degree of spatial resolution, **Type 4004** is recommended. The unloaded sensitivity is nominally 10mV/Pa. This microphone is ideally suited for handling the highest levels encountered with the minimum of distortion. The on-axis frequency response is very broad, ranging from 20Hz to 40kHz ± 2 dB. At 90° incidence omnidirectivity is retained within 3,5dB up to 10kHz. Dynamic range is from a noise floor of 24dB(A) to 148dB (1% distortion level).

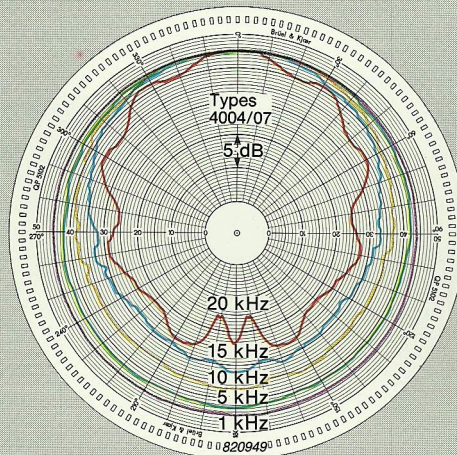
Type 4004 is powered from Power Supply Type 2812. Peak levels as high as 168dB can be handled before clipping occurs. This capacity for faithfully reproducing such high intensity levels makes the 4004 an ideal choice for close-miking brass and percussion instruments. Increased head-room and improved low frequency response and distortion performance are achieved using the 4004/2812 combination.



Two Channel Microphone Power Supply for use with Type 4004



Frequency responses for Types 4004 and 4007



Directional characteristics of the Microphones

Types 4004 & 4007

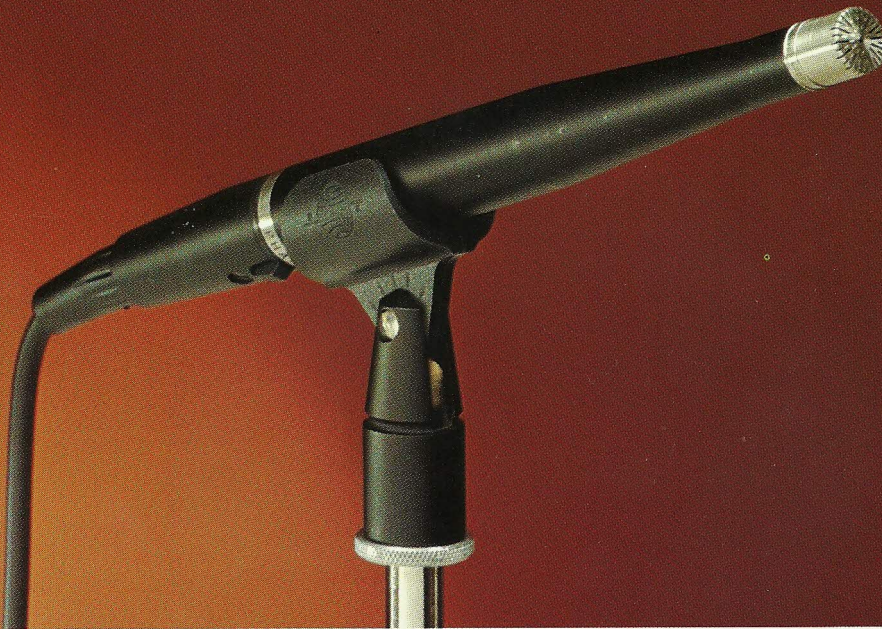
Types 4004 and 4007 are 12mm diameter, prepolarized condenser microphones of essentially the same design and construction as Types 4003 and 4006. The smaller cartridge diameter results in extended frequency and phase responses and a considerably higher degree of omnidirectivity.

The Microphones have been specifically designed with the emphasis on a capacity for handling very high levels such as percussion instruments where levels up to 150dB are commonplace. The broad frequency range (20Hz to 40kHz ± 2 dB) and linear phase response (to 50kHz on-axis, 30kHz at 90° incidence) ensures the timbre of both high frequency transients (such as percussive and plucked instruments) and low frequency transients (such as the onset of tones or rapid sequences) remains unaltered.

Types 4004 and 4007 are delivered in a mahogany case together with a handbook, individual calibration chart, expanded foam windscreen and microphone clamp.



Types 4004 and 4007 as supplied in a mahogany case



Specifications

On-axis Frequency Response*:
20 Hz to 40 kHz ± 2 dB

Phase Response:
See figure. Phase Matching between any two microphones $\pm 5^\circ$ (50 Hz to 20 kHz)

Sensitivity at 250 Hz*:
Type 4004: 10 mV/Pa, unloaded
Type 4007: 2.5 mV/Pa, unloaded

Equivalent Noise Level*:
Typically 24 dB(A) (max. 26 dB(A))

Harmonic Distortion:**
Type 4004: $\leq 1\%$ at 148 dB peak SPL, $f < 20$ kHz
 $\leq 0,002\%$ at 94 dB (extrapolated)
Type 4007: $\leq 1\%$ at 148 dB peak SPL $f > 100$ Hz
 $\leq 0,002\%$ at 94 dB (extrapolated)

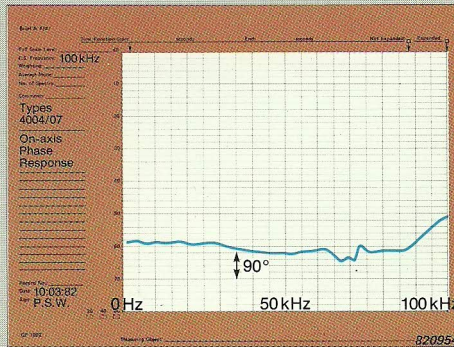
Difference Frequency Distortion:**
Type 4004: $\leq 1\%$ at 153 dB peak SPL
Type 4007: $\leq 1\%$ at 153 dB peak SPL, $f > 500$ Hz

Maximum Sound Pressure Level:
Type 4004: 168 dB peak SPL, $f \leq 4$ kHz
Type 4007: 155 dB peak SPL, $f > 200$ Hz

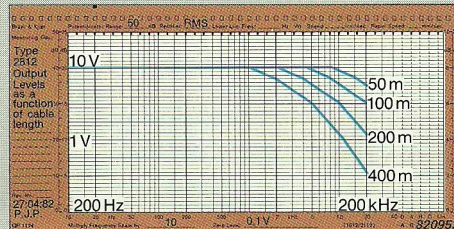
Weight: 150 g

Dimensions:
Length: 165 mm excluding connector
Cartridge Diameter: 12 mm

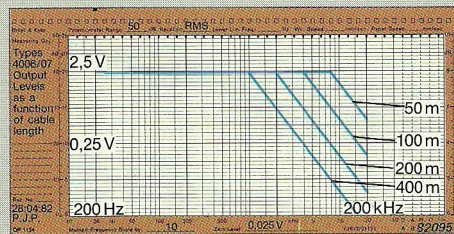
Accessories Included:
Input Cable AO0182
Windscreen UA 0658
Microphone Clamp UA 0639



Phase response of Types 4004 and 4007



Output levels of Power Supply Type 2812 as a function of capacitive loading (cable length). Short cable lengths should be used for connecting Microphone Type 4004 to the 2812



Output levels of Microphone Type 4007 as a function of capacitive loading (cable length)

Type 4007 is specifically designed for powering from standard P48 Phantom supplies and is distinguished from Type 4004 by the silver ring at the base of the main body housing. It is acoustically identical to the 4004, although of lower sensitivity (nominally 2,5 mV/Pa unloaded) due to the built-in transformer. Like the 4004, Type 4007 is ideally suited for very high level, high frequency applications.

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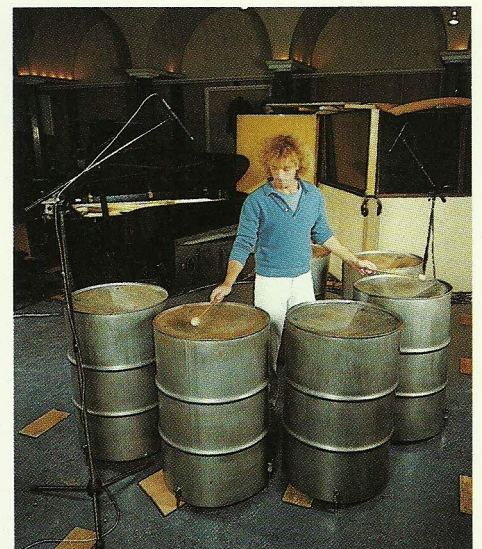


Photo courtesy of Easy Sound Recording, Copenhagen

* individually measured

** individually checked



Photo courtesy of Easy Sound Recording, Copenhagen



Photo courtesy of Sound Track Studio, Copenhagen



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