

UM 70 S

Condenser microphone with switchable polar patterns.

The UM 70 S condenser microphone is a studio microphone highlighted by excellent recording properties, a series of special advantages such as a higher sensitivity, a improved signal-to-noise ratio and a new design. Microphone capsule and microphone amplifier are a unit adjusted to optimum transmission properties. A well-balanced frequency response characteristic guarantees a life-like recording at acoustic different situations.

The microphone capsule functions as a pressure gradient transducer. The large electrode is provided with two goldplated plastic diaphragms. By application of the appropriate polarisation voltages, the three directional characteristics omnidirectional, cardioid and figure-8 can be selected as required. This is effected by a selector ring at the bottom of the capsule head. The direction of maximum sensitivity is radial, i.e. vertical to the microphone axis.

The three directional characteristics have frequency response characteristics differing little from each other. The frequency response shows a boost rising to about 6 dB in the range around 7 kHz at the position cardioid and fig-8 whereas at the position omni the frequency response is linear, apart from a light 2 dB rise at 10.5 kHz. Besides the directioned characteristics have a little descend at low frequencies.

The integrated microphone amplifier serves as an impedance transformer for adapting the LF high-impedance condenser microphone capsule to the low impedance of the connected amplifier. A low-noise FET input stage and a balanced output transformer are some of its advantages.

Two switches permit respectively 10 dB preattenuation for the handling of very high sound pressure levels and a reduction of the sensitivity factor for low frequencies. The latter provides compensation for the proximity effect. The amplifier CB is accommodated in a tubular housing 25 mm in diameter. At its lower end a 3-pin XLR connector is placed for the C 70 microphone cable. The power supply is provided by 48 V phantom powering, which is internationally standardized as P 48 in DIN 45 596 and IEC 268-15.

The sound character of the UM 70 S is similar to that of older tube microphones and possesses a well-balanced recording property at low frequencies. So a rounded off total sound image is reached without loosing presence.



Technical Data UM 70 S

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Polar patterns omni, cardioid, fig-8

Acoustical

operating principle Pressure gradient transducer

Frequency range 40 ... 18000 Hz

Switch position "reduced bass roll-off"
at 60 Hz -10 dB ± 1 dB

Sensitivity 7/13/8 mV/Pa ± 3 dB

Rated impedance 200 Ω

Nominal load impedance 1 kΩ

Equivalent loudness level CCIR 468-4 27 dB

due to inherent noise IEC 651 16 dB-A

Signal-to-noise ratio CCIR-weighted 67 dB

(re 1 Pa at 1 kHz) A-weighted 78 dB

Max. SPL for THD ≤ 0.5% 128/123/128 dB

with 10 dB preattenuation 135/133/135 dB

Total dynamic range of the microphone
amplifier 107 dB

Current consumption 2 mA

Output connector 3-pin XLR connector

goldplated contacts

Special connectors can be made to order

Weight 285 g

Dimensions (Lx φ) 220 mm x 42/25 mm

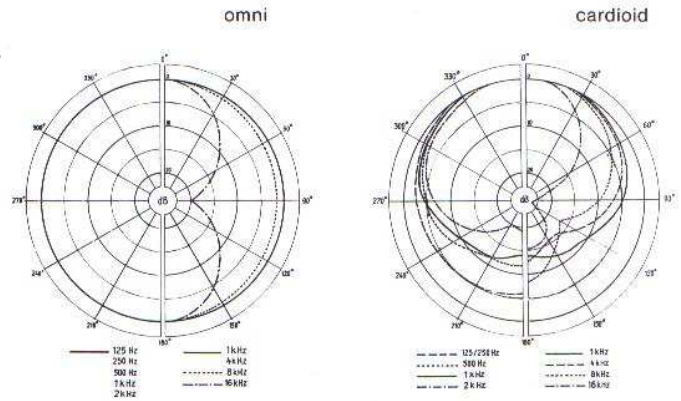
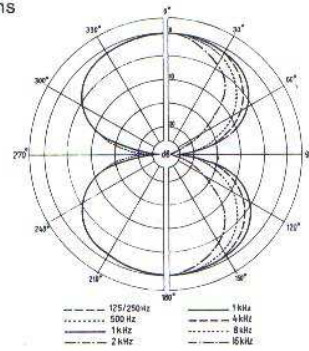


fig - 8

Polar patterns



Frequency responses

