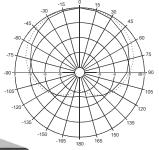
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Studio Reference Monitor Loudspeaker RL903K

with cardioid radiation characteristic in bass range





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The Reference Class - Active Studio-Monitors made by musikelectronic geithain

RL Series

From a compact two-way monitor up to large loudspeakersystems - we provide you with the best solutions for all kinds of professional use. The RL series' studio-monitors are the result of consequent development that needed many years and pursued only one aim: the highest degree of precise sound without any coloration regardless of genres. Hearing and measuring are the basis of our work. We build on profound musical comprehension and the knowledge of unalterable physical laws - not on magic tricks, new fashioned ideas nor marketing-strategies.

You have to do it you yourself!

We produce loudspeaker in accordance to our conviction. That is why we develop and construct all monitors ourselves - from A to Z, from the electronics of the amplifier to the voice coil of the transducer. A product, which components all come from our own manufacturing, has noticeable advantages for you as a professional customer. We are independent of third parties products and build our components just the way we require them - this proceeding can't be beaten in quality by mass-production. This strategy also leads to high continuity and a fixed (stable) value of our product range as well as it ensures that replacement parts

will be available for long-term. We believe that this is the only way to create a product which is worth your investment and satisfies your professional needs for many years.

Active and Coaxial

Active multi-way technique with internal crossovers, power amplifier, and our special coaxial arranged transducers are the basis of all professional monitors of our RL series. As a result of this technology our speaker reveal a great depth and precise focus and low harmonic distortion. We used physiological effects of hearing to optimize the power concentration and directivity of sound. This degree of accuracy of sound is unmatched by any other.

Made from one piece

All RL-loudspeaker from the compact RL 906 to the RL 900 A are tonal compatible with each other. Therefore it is your choice where you prefer to work; even within the same production you are independent from the studio environment. No matter if you work in a broadcast van or in a studio - the loudspeaker will not differ in sound, but only in their low-frequency cutoff and the maximum acoustic output.

Active Studio Loudspeaker RL 903K

RL 903K is a main studio control room monitor with cardioid radiation characteristic from 35 Hz through 100 Hz for universal application. Main operational areas are audio, video and motion picture studios. By the cardiod characteristic those reflections caused by the wall behind the speakers are minimized. To enhance the low-frequency range we combined the coaxial arranged high- and midfrequency driver unit with a powerful long-voice coil bass driver unit. Its coaxial arranged transducers ensure a sound impression with a high degree of homogeneity to a point source. We spend much effort in developing constructive ways to ensure a low degree of non-linear distortion. To keep short-term reflections small and achieve a high fidelity of sound we used a special arrangement for the high- and mid-frequency drivers and also designed the front side of the speaker asymmetrical. Although the cabinets dimensions a very compact, the system obtains a lowfrequency cut-off at 35 Hz.

The three-way MOSFET-amplifier with active crossover is situated at the back of the cabinet and is easily accessible for maintenance. An intermittent LED indicates sound pressure levels within the overload margin of 3 dB and warns of clipping. Beyond this limit the output level of the high- and mid-frequency drivers get damped by 20 dB to protect the speaker's components.

The coaxial arranged high- and mid-frequency driver unit can be revolved by 90 degrees, that way the speaker can be installed either in vertical or horizontal position. To compensate their placement the speaker features two controllers to continuously adjust the low-frequency response.

There are various stands available as optional extras, which fit in the integrated appliance. We also offer this monitor magnetically shielded.

Specifications

General active three-way reference monitor for use

in large audio-,video- and film production studios

and in mobile broadcast vans

Maximum SPL

from 100 Hz ... 6 kHz $110 ext{ ... } 115 ext{ dB } / ext{ r} = 1 ext{ m}$

Bandwidth $35 \text{ Hz...} 20 \text{ kHz} \pm 3 \text{ dB}$

Calibration:

Acoustic output level / $P_E = -14 \text{ dBu}$ 89 dB / r = 1 m

Directivity index

from 200 Hz...10kHz increasing from 4 to 12 dB

Inherent noise sound level < 7dB(A) / r = 1m

Total harmonic distortion

/ measured at 96 dB, r = 1m,

from 80 Hz...10 kHz <-45 dB

Nominal input level +6 dBu adjustable

Input impedance > 10 kOhm / symmetrically

Nominal output power of the MOSFET-amplifier

LF 180 Watt / 4 Ohm
MF 100 Watt / 4 Ohm
HF 100 Watt / 4 Ohm

Electronic crossover frequencies 250 Hz and 2.6 kHz

Operation and clipping indicator LED on front side

Input connector XLR 3F

Loudspeaker systems

Woofer 200 mm cone
Mid-range unit 160 mm cone
Tweeter 25 mm dome

Power requirements Europe 230 Volt ($\pm 10\%$), AC, 50 Hz

U.S.A. & Canada 127 Volt, AC, 60 Hz

Japan 100 Volt, AC, 60 Hz

Power consumption max. 300 Watt at full load

Temperature requirements

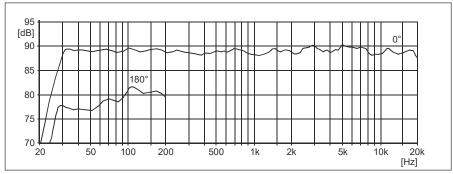
 $\begin{array}{ll} \text{for use} & +15^{\circ}\text{C to } +35^{\circ}\text{C} \\ \text{for storage} & -25^{\circ}\text{C to } +45^{\circ}\text{C} \\ \text{Humidity} & 45 - 75 \% \end{array}$

Dimensions (H x W x D)[mm] 480 x 285 x 293

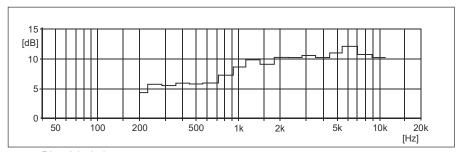
Weight 28 kg

Design of the Cabinet MDF wood, black veneer, different colors optional

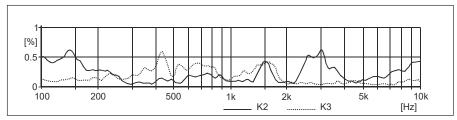
Magnetic shield optional



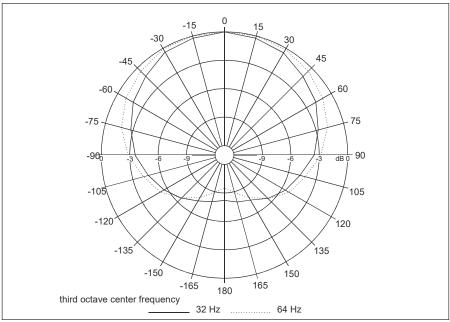
Free field frequency response



Directivity index



Total harmonic distortion P_A = 96 dB



directional characteristic



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studio techniques - sound reinforcement systems

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