

**musikelectronic geithain**



Studio Reference  
Monitor Loudspeaker  
RL 904



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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 loudspeaker-systems - 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 Monitors RL 904

The RL 904 is an all purpose main loudspeaker for middle size or smaller audio-, video- and film production studios. Its coaxial arranged transducers ensure a sound impression with a high degree of homogeneity to a point source. The power concentration is designed for middle distance monitoring situation, at which a great differentiation in depth and a high fidelity of sound is guaranteed. Non-linear distortion remains small even at high sound pressure levels. The bass reflex system obtains a low-frequency cut-off at 40 Hz and provides a high degree of sound accuracy. We designed the whole system to achieve an optimum group delay.

The two-way MOSFET-amplifier with active crossover is situated at the back of the cabinet and is easily accessible for maintenance. An intermittent LED

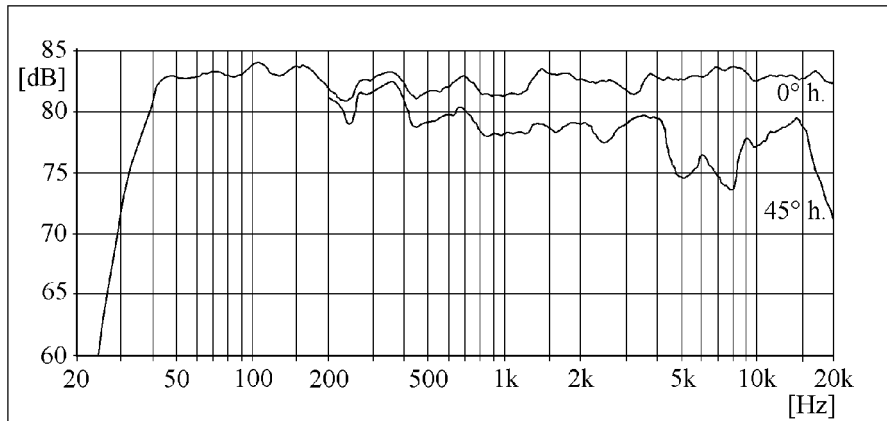
indicates sound pressure levels within the overload margin of 3 dB and warns of clipping. Beyond this limit the output level gets damped by 20 dB to protect the speaker's components.

The coaxial driver system 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.

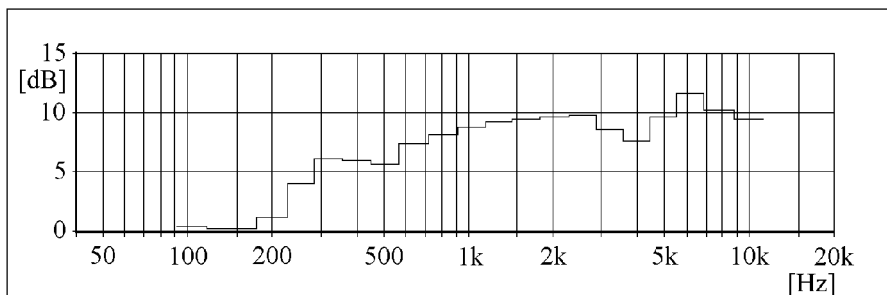
There are various stands available as optional extras, which fit in the integrated appliance. We also offer this monitor magnetically shielded.

## Specifications

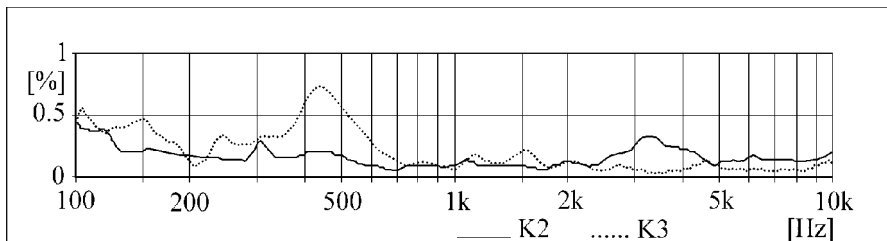
General	active two-way monitor for use in small and middle audio-, video production studios, in mobile broadcast vans, and for multi-channel and near-field purposes
Maximum SPL	106 dB / r = 1m
Bandwidth	40 Hz...20 kHz $\pm$ 3 dB
Calibration: Acoustic output level / $P_E = -14$ dBu	83 dB / r = 1m
Directivity index from 100 Hz...10kHz	increasing from 1 to 8 dB
Inherent noise sound level	7dB(A) / r = 1m
Total harmonic distortion / measured at 90 dB, r=1m, from 100 Hz...10 kHz	-40 dB
Nominal input level	+6 dBu adjustable
Input impedance	10 kOhm / symmetrically
Nominal output power of the MOSFET-amplifier LF HF	100 Watt / 4 Ohm 100 Watt / 4 Ohm
Electronic crossover frequencies	2.5 kHz
Operation and clipping indicator	LED on front side
Input connector	XLR 3F
Loudspeaker systems Woofer Tweeter	160 mm cone 25 mm dome
Temperature requirements for use for storage Humidity	+15°C to +35°C -25°C to +45°C 45 - 75 %
Power requirements	Europe 230 Volt ( $\pm$ 10%), AC, 50 Hz U.S.A. & Canada 127 Volt, AC, 60 Hz
Power consumption	max. 160 Watt at full load
Dimensions (H x W x D)	398 x 254 x 345 [mm]
Weight	16 kg
Design of the Cabinet	MDF wood, black veneer, different colors optional
Magnetic shield	optional



Free field frequency response



Directivity index



Total harmonic distortion  $P_A = 90$  dB



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studio techniques - sound reinforcement systems

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