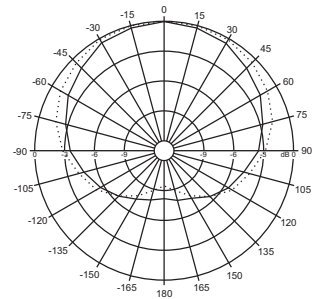


musikelectronic geithain



Studio Reference Monitor Loudspeaker **RL 903BK**

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 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 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 903BK

The Loudspeaker of the type RL903BK is a main control room loudspeaker with cardioids irradiation characteristic within the range of 35 Hz to 250 Hz which can be applied universally in broadcast vans of medium and large size. By means of the cardioids irradiation characteristic reflections at the backside wall behind the loudspeaker are minimized. The coaxial mid- and high-frequency unit is combined with a highly efficient long deviation chassis. By construction of the loudspeaker in coaxial technology we can reach excellent localization behaviour and optimum imaging of phantom sources. Additionally, by means of various constructive methods the loudspeaker produces extreme low nonlinear distortions. With the special geometric arrangement of the mid- and high-frequency driver unit as well as with the relatively small asymmetric designed front the result gives excellent sound colour neutrality, i.e. sound coloration at a minimum level. In spite of compact dimensions of the box a lower frequency of 35 Hz could be reached.

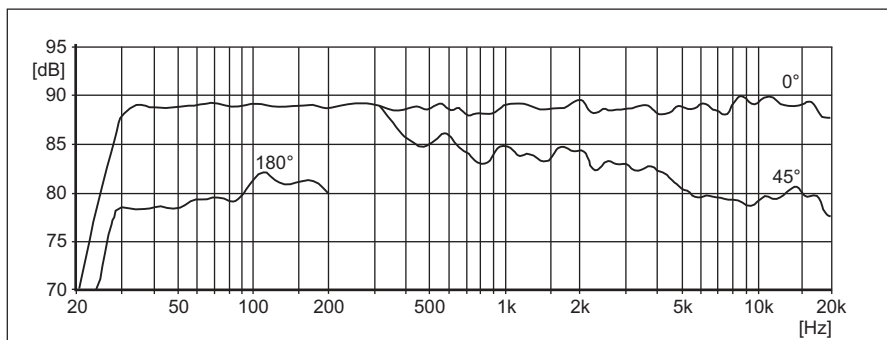
The three-way power amplifier of the RL903BK with electronic crossover are contained in an external case. For service purposes it can be turned out during operation. The mid- and high-frequency driver unit can be protected by an electronic circuit which reduces the level by 20 dB if the maximum level is overridden. This status will be signaled by an intermittent shining LED on the front side.

Optionally, the mid- and high-frequency unit can be supplied revolved by 90 degrees, that way the speaker can be installed either in vertical or horizontal position. For matching the monitor to the room-acoustical situation within the listening room and its position, the frequency response can be corrected at higher and lower frequencies.

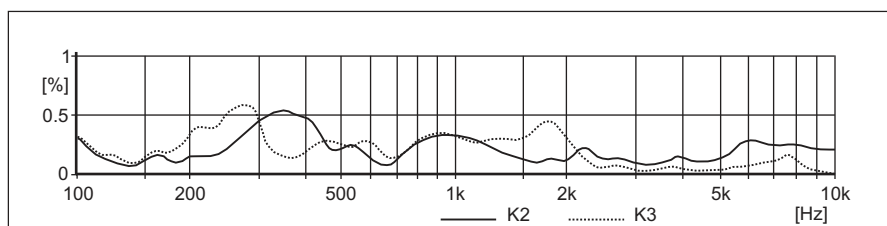
As extras various special stands and mounting supports are deliverable; corresponding mounting elements are integrated to the loudspeaker case.

Specifications

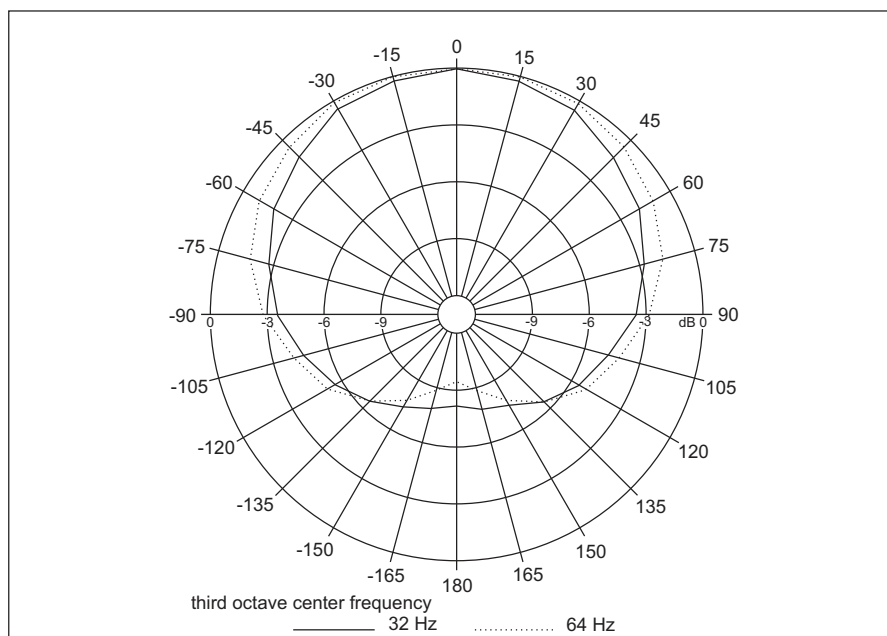
General	active three-way monitor for use in middle and large mobile broadcast vans	
Maximum SPL from 100 Hz ... 6 kHz	113 dB dB/ r =1m	
Bandwidth	35 Hz...20 kHz \pm 3 dB	
Calibration: Acoustic output level / $P_E = -14$ dBu	89 dB / r =1m	
Directivity index from 200 Hz...10kHz	increasing from 2 to 11 dB	
Inherent noise sound level	< 7dB(A) / r =1m	
Total harmonic distortion / measured at 96 dB, r =1m, from 100 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	130 mm cone	
Tweeter	25 mm dome	
connecting cable loudspeaker - amplifier	Speakon; desired length	
Power requirements	Europe 230 Volt ($\pm 10\%$), AC, 50 Hz USA & Canada 115 Volt ($\pm 10\%$), AC, 60 Hz Japan 100 Volt ($\pm 10\%$), AC, 60 Hz	
Power consumption	max. 300 Watt at full load	
Temperature requirements		
for use	+15°C to +35°C	
for storage	-25°C to +45°C	
Humidity	45 - 75 %	
Dimensions (H x W x D)		
loudspeaker	415 x 254 x 275 mm (16.34 x 10 x 10.83 inch)	
amplifier	475 x 279 x 120 mm (18.7 x 10 x 4.7 inch)	
Weight		
loudspeaker	15 kg	(33 lb)
amplifier	11 kg	(24.2 lb)
Design of the cabinet		
loudspeaker	MDF wood, black veneer, different colors optional	
amplifier	MDF structure lacquered; black	



Free field frequency response



Total harmonic distortion $P_A = 96$ dB



directional characteristic



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studio techniques - sound reinforcement systems

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