

## Zerobox 103



When it comes down to it everything is only as good as the complete system it allows. Because all expenditure would be worth only the half, if the cabinet or the crossover denies the necessary precision for the Manger® sound transducer and takes influence on a best possible result. For this it was taken care in a large extent at the development of the new version of the Zerobox® 103:

Various thickness of the cabinet walls up to 38 mm in the areas, in which longitudinal or transversal waves can cause the cabinet resonating. Adding an ingenious mechanical design of bracings inside of the cabinet, which contributes an enormous amount of the high stiffness of the cabinet. Selected and specially manufactured materials for the damping and further stabilizing of the inner side of the cabinet walls. After the proven Manger philosophy a closed cabinet is preferred without a reflex port in the lower range avoiding here also disturbing resonances.

Not even less show the Manger crossovers the expenditure in their details. Separate high pass and low pass crossovers, so-called Zero-Ohm or transformer core coils, capacitors of highest quality, as well as a cross-talk attenuation resulting from the layout of the coils.

A deep dry bass and a musical resolution into the last details closed to the original is the result. With other words, the frame in which the Manger sound transducer with its ambience, naturalness and liveliness grows to its full greatness.

And it is also be looked ahead: The Manger sound transducer with its fast rise time is able to convert the incoming standards like SACD and DVD-audio also very well.

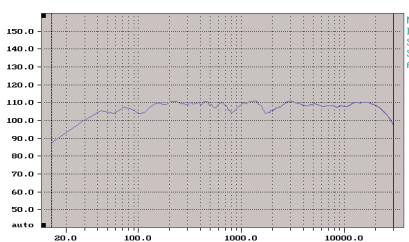
### Technical Datas

two part, acoustically decoupled cabinets  
3 Manger Sound Transducer WO5/1.2.2.16  
2 VIFA 10" woofer, customized version  
crossover frequency 160 Hz

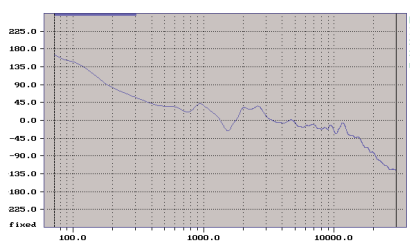
rise time 14  $\mu$ s  
sensitivity 91dB 1W/1m  
impedance 4 Ohm  
recommended amp power 50 W - 200 W

size 121 x 31 x 38 cm  
weight 57 kg

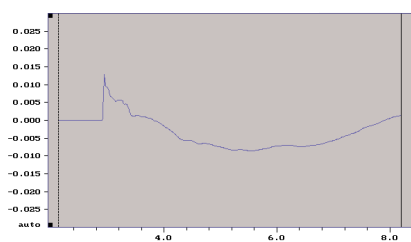
### Measurement Diagrams



linear frequency response 32 Hz - 25 kHz



minimum phase shift of 360° over the complete frequency range



nearly ideal step response without any loudspeaker ringing through the principle of bending waves and a optimum addition of the woofer

### Finishes



Our proverbial precision is also be realized in the quality of the selected veneers and finishes:

**Piano black high gloss finish:** A polyesters varnish gloss applied in several layers. A feast for the eyes and nevertheless unobtrusive, because the surrounding is reflected softly.

**Satin lacquers:** A high-quality lacquer in the most various colors. Whether soft matched to the room or as an eye-catcher, there are no limits to the imagination.

**Fine wood veneers:** The Zerobox 103 in the most beautiful kinds of wood of the world. What it would be like e.g. birds-eye maple with a cognac-colored stain? See in the figure above our standard veneer alder, on the left the veneers beech, birch and cherry.