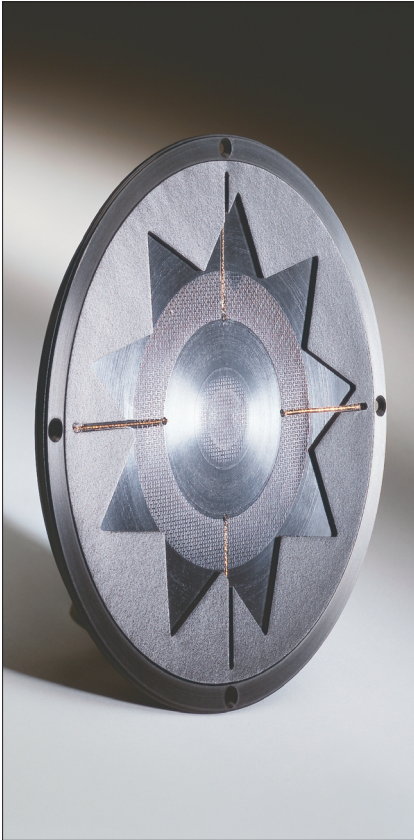


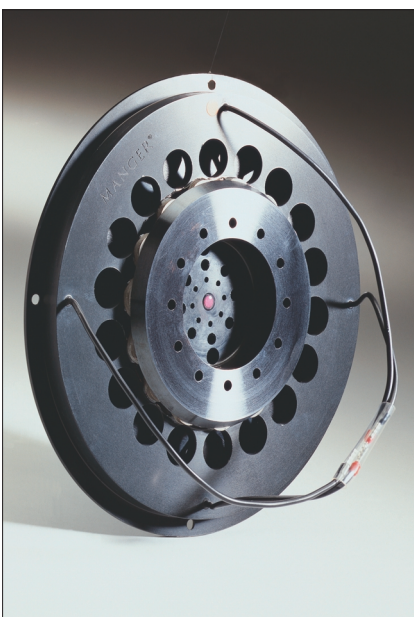
Manger Sound Transducer

The Manger Sound Transducer (MSW) is a bending-wave transducer which works similar to the human inner ear basilar membrane. The MSW is a full range driver from 80 Hz to 35 kHz and follows precisely the electrical Input through no energy storing by a resistive-like, flat, flexible membrane.



Technical data	
Frequency range	80 Hz - 35 kHz
Rise time t_r	13 μ s
Sensitivity 1W/1m	91 dB
Max. SPL long/short term	110 dB / 116 dB
Recommended amp. outp. power	10 W - 400 W
Nominal impedance	4 Ohm / 8 Ohm
DC resistance	4,2 Ohm / 7,2 Ohm
Resonance frequency f_s	88 Hz
Induction B	1,32 T
Voice-coil inductance	27 μ H
Air-gap energy	560 mWs
Air-gap volume	1043 mm ³
Air-gap height	5 mm
Air-gap width	0,95 mm
Voice-coil diameter	70 mm
Max. voice-coil amplitude	\pm 3,5 mm
Dimensions	\varnothing 210 mm x 22 mm

Please note that the application range of the Thiele-Small-Parameter is extremely limited. Above 150 Hz, the MSW is a bending wave transducer, so that the TSPs no longer apply.



Thiele-Small-Parameter (80hm)	
Mechanical quality Q_{ms}	2,94
Electrical quality Q_{es}	1,25
Total quality Q_{ts}	0,88
Mechanical resistance R_{me}	23,9 Ohm
Compliance C_{ms}	0,4 mm/N
Equivalent Volume V_{as}	1,5 l
Force factor Bl	4,31 Tm
Effective surface area S_d	220 cm ²
Elements of the mechanical equivalent circuit diagram	
R	23,9 Ohm
L	7,44 mH
C	650 μ F

Manger Sound Transducer

Four different types of Manger Sound Transducers are available:

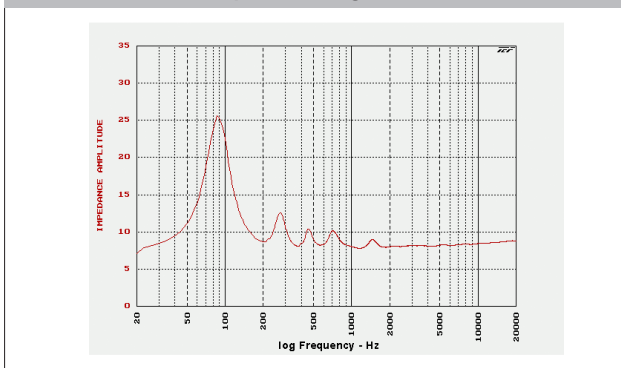
Type attributes		
Design	W04	Aluminium basket - bright aluminium
	W05	Aluminium basket - anodised black
Magnet	1,2	Neodymium
Impedance	2.8	4 Ohm, both voice-coils switched in parallel
	2.16	8 Ohm, both voice-coils switched in parallel
E.g. W04/1,2.2.16: bright aluminium basket, neodymium magnet, 8 Ohm impedance		



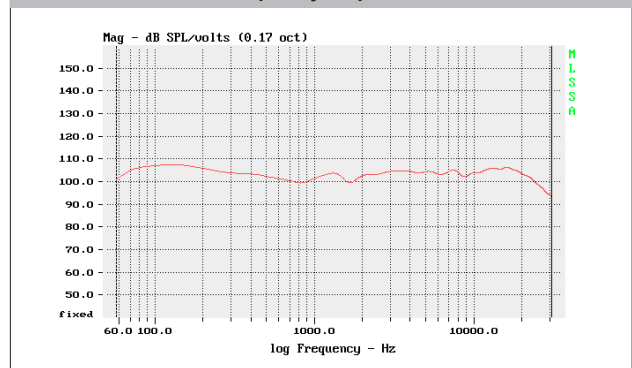
Note: All MSW are manufactured with the patented two voice-coil-drive. Mechanically in series and electrically in parallel switched, a rapid rise-time coupled with high deflection amplitude is guaranteed. An important prerequisite of a true wide-range transducer.

Measurement Diagrams

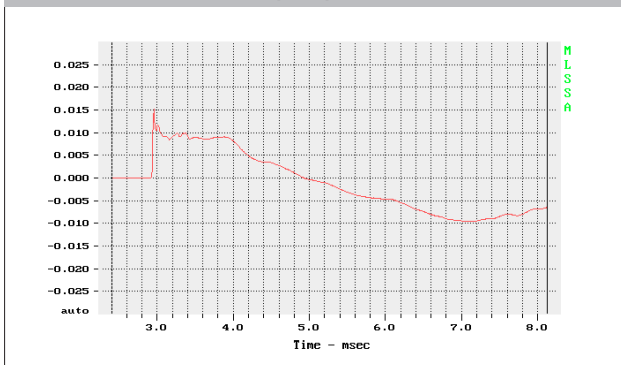
impedance magnitude



frequency response



step response



phase response

