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PROFESSIONAL LOUDSPEAKERS
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PRO8CXNd

CUSTOM COAXIAL TRANSDUCER

KEY FEATURES

- Power handling: 250 / 50 W_{AES} (LF / HF)
- Sensitivity: 97 / 106 dB (1W / 1m) (LF / HF)
- Common neodymium magnet system design
- Low weight and mounting depth
- CONEX spider
- Shorting cup for low harmonic distortion
- Extended controlled displacement: Xmax ± 6 mm
- 24 mm peak-to-peak excursion before damage
- PM4 diaphragm
- 70º coverage horn for HF dispersion control





TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance (LF/HF)		8 / 8 Ω
Minimum impedance (LF/HF)		6,9 / 5,4 Ω
Power capacity [1] (LF/HF)		250 / 50 W_{AES}
Program power [2] (LF/HF)		500 / 100 W
Sensitivity (LF/HF [3])	97 dB	1W / 1m @ Z_N
	106 dB	1W / 1m @ Z_N
Frequency range		90 - 20.000 Hz
Recom. HF crossover		1,5 kHz or higher (12 dB/oct min slope)
Voice coil diameter (LF/HF)	63,5 mm	2,5 in
	44,4 mm	1,75 in
Bl factor		13,2 N/A
Moving mass		0,021 kg
Voice coil length		15 mm
Air gap height		7 mm
X_{damage} (peak to peak)		24 mm

THIELE-SMALL PARAMETERS [4]

Resonant frequency, f_s	85 Hz
D.C. Voice coil resistance, R_e	5 Ω
Mechanical Quality Factor, Q_{ms}	3,3
Electrical Quality Factor, Q_{es}	0,33
Total Quality Factor, Q_{ts}	0,30
Equivalent Air Volume to C_{ms}, V_{as}	11,2 l
Mechanical Compliance, C_{ms}	164 µm / N
Mechanical Resistance, R_{ms}	3,4 kg / s
Efficiency, η_0	2,1 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} [5]	6 mm
Displacement Volume, V_d	132 cm^3
Voice Coil Inductance, L_e	0,2 mH

Notes:

[1] The power capaticty is determined according to AES2-1984 (r2003) standard.

[2] Program power is defined as power capacity + 3 dB.

[3] Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 2 - 10 kHz

[4] T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

[5] The X_{max} is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

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