

10WRS300

LOW FREQUENCY TRANSDUCER

**WRS Series** 

## **KEY FEATURES**

- High power handling: 600 W program power
- 2" copper voice coil
- High sensitivity: 95 dB (1W / 1m)
- Optimized pressed steel frame

- FEA optimized ceramic magnetic circuit
- Weatherproof cone treatment for both sides of the cone
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies





### **TECHNICAL SPECIFICATIONS**

Nominal diameter	250 r	nm	10 in
Rated impedance			8 Ω
Minimum impedance			7,5 Ω
Power capacity <sup>1</sup>		300	W <sub>AES</sub>
Program power <sup>2</sup>			600 W
Sensitivity	95 dB	1W / 1n	n @ Z <sub>N</sub>
Frequency range		55 - 5.	000 Hz
Recom. enclosure vol.	15 / 50 I	0,53 /	1,77 ft <sup>3</sup>
Voice coil diameter	50,8 r	nm	2 in
BI factor		1:	3,9 N/A
Moving mass		0,	039 kg
Voice coil length			15 mm
Air gap height			8 mm
X <sub>damage</sub> (peak to peak)			30 mm

# THIELE-SMALL PARAMETERS<sup>3</sup>

Resonant frequency, f <sub>s</sub>	52 Hz
D.C. Voice coil resistance, R <sub>e</sub>	6,1 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	5,5
Electrical Quality Factor, Q <sub>es</sub>	0,40
Total Quality Factor, Q <sub>ts</sub>	0,38
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	42
Mechanical Compliance, C <sub>ms</sub>	242 μm / N
Mechanical Resistance, R <sub>ms</sub>	2,3 kg / s
Efficiency, η <sub>0</sub>	1,4 %
Effective Surface Area, S <sub>d</sub>	0,035 m²
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	6 mm
Displacement Volume, V <sub>d</sub>	210 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub>	1 mH

Notes

<sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>2</sup> Program power is defined as power capacity + 3 dB.

<sup>3</sup> 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).

<sup>4</sup> The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>ag</sub>)/2 + (H<sub>ag</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>ag</sub> is the air gap height.





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[dB]  $\underline{c}$ 1k 10 k

[Hz]

Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Overall diameter	258 mm	10,2 in
Bolt circle diameter	241 mm	9,5 in
Baffle cutout diameter:		
- Front mount	230 mm	9,0 in
Depth	114 mm	4,5 in
Net weight	3,5 kg	7,7 lb
Shipping weight	3,9 kg	8,6 lb

### MOUNTING INFORMATION

#### **DIMENSION DRAWING**



