TW030WA09/10 30 mm textile tweeter, 4/8 ohm

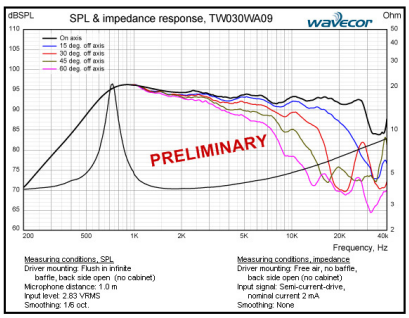
TW030WA09 and TW030WA10 are tweeters designed for applications requiring the highest level of performance, with extended and linear high frequency response and best consistency.

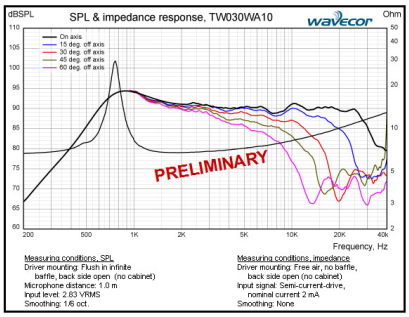
Innovation
Tweeters used to feature a separate rear chamber in order to obtain low resonance frequency. Not any longer. By designing the internal parts to accommodate new larger internal volumes, the TW030WA09/10 offer an unusually low resonance frequency.

FEATURES

- 30 mm design with controlled off-axis and power response, high power handling, and low resonance frequency
- Internal volumes for low resonance frequency and distortion
- Precision-coated textile diaphragm for improved consistency and high-frequency extension
- Optimized dome shape for ultra high frequency cutoff
- Vented voice coil former for reduced distortion and compression
- Copper-clad aluminium voice coil wire offering lower moving mass for improved efficiency and transient response
- Build-in cavities under domeledge to equalize pressure for lower distortion and lower resonance frequency
- Flexible lead wires for higher power handling and larger excursion
- Gold plated terminals to prevent oxidation and ensure long-term reliable connection
- Delivered with foam gasket attached for hassle-free mounting and secure cabinet sealing

FREQUENCY RESPONSE

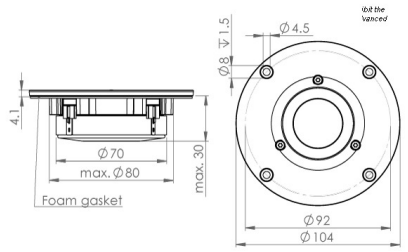




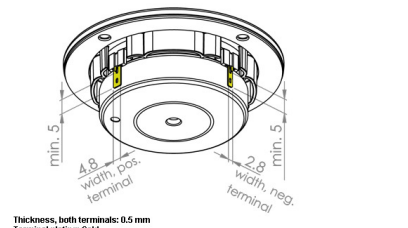
NOMINAL SPECIFICATIONS

Notes	Parameter	TW030WA09	TW030WA10	Unit
	Nominal size	30	30	[mm]
	Nominal impedance	4	8	[ohm]
	Recommended frequency range	2 - 27	2 - 27	[kHz]
1, 4	Sensitivity, 2.83V/1m (average SPL in range 2 - 20 kHz)	92.5	90	[dB]
2	Power handling, short term, IEC 268-5, 2.5 kHz@12dB/oct.			[W]
2	Power handling, long term, IEC 268-5, 2.5 kHz@12dB/oct.			[W]
2	Power handling, continuous, IEC 268-5, 2.5 kHz@12dB/oct.			[W]
	Effective radiating area, S_d	11.5	11.5	[sq.cm]
3, 4, 6	Resonance frequency (free air, no baffle), F_s	725	750	[Hz]
	Moving mass, incl. air (free air, no baffle), M_{ms}	0.45	0.42	[g]
3	Force factor, Bxl	2.0	2.4	[N/A]
3, 4, 6	Suspension compliance, C_{ms}	0.11	0.11	[mm/N]
3, 4, 6	Equivalent air volume, V_{as}	0.020	0.020	[lit.]
3, 4, 6	Mechanical resistance, R_{ms}	0.25	0.25	[Ns/m]
3, 4, 6	Mechanical Q, Q_{ms}	8.1	7.8	[-]
3, 4, 6	Electrical Q, Q_{es}	1.74	2.17	[-]
3, 4, 6	Total Q, Q_{ts}	1.43	1.70	[-]
4	Voice coil resistance, R_{DC}	3.4	6.3	[ohm]
5	Voice coil inductance, L_e (measured at 20 kHz)			[µH]
	Voice coil inside diameter	30.4	30.4	[mm]
	Voice coil winding height	1.7	1.7	[mm]
	Air gap height	2.5	2.5	[mm]
	Theoretical linear motor stroke, Xmax	±0.40	±0.40	[mm]
	Magnet weight			[g]
	Total unit net weight excl. packaging			[kg]
3, 4, 5	K_{ym}			[mohm]
3, 4, 5	E_{ym}			[-]
3, 4, 5	K_{xm}			[mH]
3, 4, 5	E_{xm}			[-]

OUTLINE DRAWING AND NOMINAL DIMENSIONS (mm)



TERMINAL NOMINAL DIMENSIONS (mm)



Thickness, both terminals: 0.5 mm
Terminal plating: Gold

PACKAGING AND ORDERING INFORMATION

Part no. TW030WA09-01	4 ohm version, individual packaging (one piece per box)
Part no. TW030WA09-02	4 ohm version, bulk packaging
Part no. TW030WA10-01	8 ohm version, individual packaging (one piece per box)
Part no. TW030WA10-02	8 ohm version, bulk packaging