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| |  |  |  |  | | --- | --- | --- | --- | |  | | 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** | |  | | |  |  |  |  | | --- | --- | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | Wavecor-TW030WA09_10-tweeter | |  | |  | | | | |  | | [Frequency resp.](http://www.wavecor.com/html/tw022wa05.html" \l "Freq.resp) [Specifications](http://www.wavecor.com/html/tw022wa05.html" \l "Specs) [Dimensions](http://www.wavecor.com/html/tw022wa05.html" \l "Dims)[Ordering info](http://www.wavecor.com/html/tw022wa05.html" \l "Order) | | |

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| http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif |
|  | * 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 dome/edge 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 |

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| http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif |
|  | **FREQUENCY RESPONSE** | | |  | |
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|  | | | |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | TW030WA09_SPL_&_IMP_respons |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | Measuring conditions, SPL Driver mounting: Flush in infinite      baffle, back side open  (no cabinet) Microphone distance: 1.0 m Input level: 2.83 VRMS Smoothing: 1/6 oct. | | |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | Measuring conditions, impedance Driver mounting: Free air, no baffle,      back side open (no cabinet) Input signal: Semi-current-drive,       nominal current 2 mA Smoothing: None | | | | | |
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|  | | | |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | TW030WA10_SPL_&_IMP_respons |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | Measuring conditions, SPL Driver mounting: Flush in infinite      baffle, back side open  (no cabinet) Microphone distance: 1.0 m Input level: 2.83 VRMS Smoothing: 1/6 oct. | | |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | Measuring conditions, impedance Driver mounting: Free air, no baffle,      back side open (no cabinet) Input signal: Semi-current-drive,       nominal current 2 mA Smoothing: None | | | | | |
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|  | | **NOMINAL SPECIFICATIONS** | | |  |

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| http://www.wavecor.com/assets/images/autogen/clearpixel.gif |  |
|  | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **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, Sd | 11.5 | 11.5 | [sq.cm] | | *3, 4, 6* | Resonance frequency (free air, no baffle), Fs | 725 | 750 | [Hz] | |  | Moving mass, incl. air (free air, no baffle), Mms | 0.45 | 0.42 | [g] | | *3* | Force factor, Bxl | 2.0 | 2.4 | [N/A] | | *3, 4, 6* | Suspension compliance, Cms | 0.11 | 0.11 | [mm/N] | | *3, 4, 6* | Equivalent air volume, Vas | 0.020 | 0.020 | [lit.] | | *3, 4, 6* | Mechanical resistance, Rms | 0.25 | 0.25 | [Ns/m] | | *3, 4, 6* | Mechanical Q, Qms | 8.1 | 7.8 | [-] | | *3, 4, 6* | Electrical Q, Qes | 1.74 | 2.17 | [-] | | *3, 4, 6* | Total Q, Qts | 1.43 | 1.70 | [-] | | *4* | Voice coil resistance, RDC | 3.4 | 6.3 | [ohm] | | *5* | Voice coil inductance, Le (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* | Krm |  |  | [mohm] | | *3, 4, 5* | Erm |  |  | [-] | | *3, 4, 5* | Kxm |  |  | [mH] | | *3, 4, 5* | Exm |  |  | [-] | |

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|  | |  |  | | --- | --- | | *Note 1* | *Measured in infinite baffle.* | | *Note 2* | *Tested in free air (no cabinet).* | | *Note 3* | *Measured using a semi-constant current source, nominal level 2 mA.* | | *Note 4* | *Measured at 25 deg. C* | | *Note 5* | *It is generally a rough simplification to assume that loudspeaker transducer voice coils exhibit the characteristics of an inductor. Instead it is a far more accurate approach to use the more advanced model often referred to as the “Wright empirical model”, also used in LEAP-4 as the TSL model (www.linearx.com), involving parameters Krm, Erm, Kxm, and Exm. This more accurate transducer model is described in a technical paper (PDF) [here](http://www.wavecor.com/Transducer_equivalent_circuit.pdf" \t "NewWindow).* | | *Note 6* | *Measured before burn in* | |

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| |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | http://www.wavecor.com/assets/images/autogen/clearpixel.gif | |  | **OUTLINE DRAWING AND NOMINAL DIMENSIONS (mm)** | | |  |  | | --- | --- | | http://www.wavecor.com/assets/images/autogen/clearpixel.gif |  | |  | [TW030WA09_10 outline drawing](http://www.wavecor.com/TW030WA09_10_outline_drawing_PDF.pdf) | |

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| http://www.wavecor.com/assets/images/autogen/clearpixel.gif | TW030WA09-outline |

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|  | **TERMINAL NOMINAL DIMENSIONS (mm)** | | | | |  | |
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|  | | | | Wavecor-TW030WA09_10-terminals | | |  |
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|  | | | **Thickness, both terminals: 0.5 mm Terminal plating: Gold** | |  | | |