MODEL #: 50-WB08-02

2 INCH (50 MM) ALUMINUM CONE, WIDE RANGE SPEAKER

PART #: 93003

From voice communications to 2.1 channel set-ups, the 93003 is a great choice for indoor and outdoor systems that need a wide range of sound solutions. A high-power neodymium magnet and an aluminum cone create clear outputs while maintaining a high stiffness-to-mass ratio. Solder lug terminals and two-hole mountings make this driver an easily installed choice for compact spaces and enclosures.

- Wide range speaker
- 2 inch (50 mm) basket diameter
- 10 watts, 8 ohms, 80 dB SPL
- 1/2 in. copper voice coil, aluminum former
- Neodymium magnet, stamped steel basket
- Aluminum cone, natural rubber surround

Oaktron by MISCO is a premium line of high-performance, ready-to-ship transducers and drivers for a wide variety of applications, including high fidelity, arcade and casino games, automotive, aerospace, and many more. From elegantly simple to highly specialized designs for unique and demanding applications, there is an Oaktron loudspeaker perfectly suited for your needs.

MISCO engineers use the world's most sophisticated loudspeaker measurement systems, including the Klippel Analyzer, to maximize and validate the speaker's design, as well as the Klippel QC module to ensure perfect unit-to-unit consistency and reliability.



Primary Specifications

Size, Nominal (inch & mm)	2" (50 mm)
Rated Impedance (Ω)	8
Continuous Power (W)	10
Sensitivity (dB SPL) [1]	80
Frequency Range (Hz)	125 - 20, 000
Resonant Frequency (Fs) (Hz) +/- 15%	155

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More Specifications

Application	Auto / Motorcycle, Casino Gaming, Indoor, Outdoor , Signal / Alarm Systems
RoHS Compliant	Yes
DC Resistance (Re) (Ω)	7.6
Program Power (W)	20
Continuous Power (W)	10

Small Signal Parameters

Nominal Impedance (Z) (Ω)	8
DC Resistance (Re) (Ω)	7.6
Voice Coil Inductance (Le) (mH)	0.09
Resonant Frequency (Fs) (Hz) +/- 15%	155
Mechanical Q Factor (Qms)	2.76
Electrical Q Factor (Qes)	1.61
Total Q Factor (Qts)	1.01
Moving Mass (Mms) (gm)	1.1
Suspension Compliance (Cms) (mm/N)	0.99
Mechanical Resistance (Rms) (kg/s)	0.37
Surface Area of Diaphragm (Sd) (cm^2)	12.6
Compliance Equivalent Volume (Vas) (L)	0.22
Maximum Linear Excursion (Xmax) (mm)	0.7
Coil Winding Height (mm)	3.4
Magnetic Gap Height (mm)	2
Motor Force Factor (BL) (T•M)	2.2
Efficiency (η_0) (%)	0.05
Efficiency Bandwidth Product (EBP) (Fs/Qes)	96.2

Material Descriptions

Basket Type	Stamped steel
Terminal Size (mm)	Solder lugs
Voice Coil Diameter (mm)	13
Voice Coil Wire Material	Copper
Voice Coil Former Material	Aluminum
Magnet Material	Neodymium
Magnet Weight (g)	11.6235
Cone Body Material	Aluminum dome

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Cone Surround Material	Natural rubber
Spider Material	Cotton
Dust Cap Material	Aluminum
Net Weight (kg)	0.05



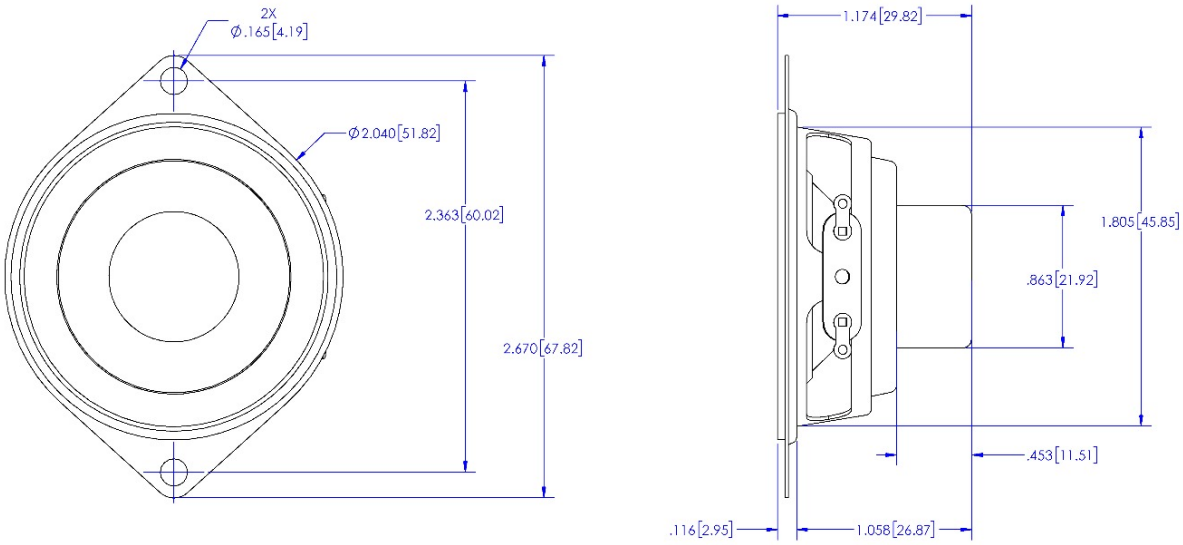


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MODEL: 50-WB08-02 **P/N: 93003** **REV. A**

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