MODEL #: 50-WB04-01

2 INCH (50 MM), 4 OHM WIDE RANGE SPEAKER, ALUMINUM CONE

PART #: 93001

A compact, wide range speaker for voice communications, gaming cabinet enclosures, and 2.1 channel audio systems. This 2" football-shaped driver includes a powerful neodymium magnet, a high-stiffness aluminum cone, and a corrosion-resistant steel basket with zinc plating.

- Wide range speaker
- 2" (50 mm) steel basket diameter (zinc plated)
- 5 watts, 4 ohm, 81 dB SPL
- Neodymium magnet
- Anodized aluminum cone, 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)	4
Continuous Power (W)	5
Sensitivity (dB SPL) [1]	81
Frequency Range (Hz)	140 - 20, 000
Resonant Frequency (Fs) (Hz) +/- 15%	145

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More Specifications

Application	Arcade Gaming, Casino Gaming, Home Audio, Indoor, Outdoor , Voice Communications
RoHS Compliant	Yes
DC Resistance (Re) (Ω)	3.7
Program Power (W)	8
Continuous Power (W)	5

Small Signal Parameters

Nominal Impedance (Z) (Ω)	4
DC Resistance (Re) (Ω)	3.7
Voice Coil Inductance (Le) (mH)	0.06
Resonant Frequency (Fs) (Hz) +/- 15%	145
Mechanical Q Factor (Qms)	2.05
Electrical Q Factor (Qes)	0.98
Total Q Factor (Qts)	0.66
Moving Mass (Mms) (gm)	1.07
Suspension Compliance (Cms) (mm/N)	1.12
Mechanical Resistance (Rms) (kg/s)	0.48
Surface Area of Diaphragm (Sd) (cm^2)	12.57
Compliance Equivalent Volume (Vas) (L)	0.25
Maximum Linear Excursion (Xmax) (mm)	0.7
Coil Winding Height (mm)	3.3
Magnetic Gap Height (mm)	2.0
Motor Force Factor (BL) (T•M)	1.9
Efficiency (η_0) (%)	0.08
Efficiency Bandwidth Product (EBP) (Fs/Qes)	148.7

Material Descriptions

Basket Type	Zinc plated stamped steel
Terminal Size (mm)	Solder tabs
Magnet Material	Neodymium
Cone Body Material	Anodized aluminum
Cone Surround Material	Rubber
Spider Material	Cloth
Dust Cap Material	Anodized aluminum
Net Weight (kg)	0.05

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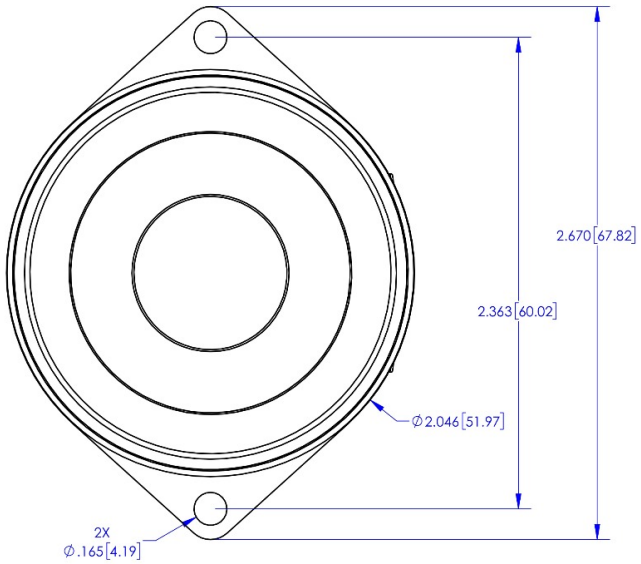

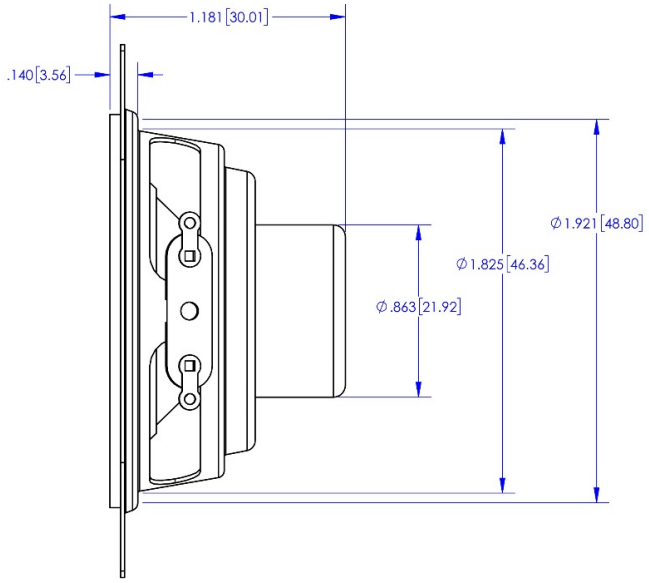

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