MODEL #: 50-WB08-01

2 INCH (50 MM) WIDE RANGE SPEAKER, SHIELDED MAGNET

PART #: 93002

A football-shaped wide-range speaker with a shielded magnet—ideal for voice communications and signal/alarm systems like medical devices, gaming cabinets, and measurement hardware requiring a high-reliability audio solution. This 8 ohm, 2" driver includes a 0.8 Oz ferrite magnet, a paper composite cone, and a treated cloth surround.

- Wide range speaker
- 2 inch (50 mm) steel basket diameter
- 3 watts, 8 ohm, 83 dB SPL
- 0.8 Oz shielded ferrite magnet
- Paper cone, treated cloth surround

Oaktron by MISCO is a premium line of high-performance, ready-to-ship transducers and drivers for various 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, an Oaktron loudspeaker perfectly suits 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 and 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)	3
Sensitivity (dB SPL) [1]	83
Frequency Range (Hz)	90 - 20, 000
Resonant Frequency (Fs) (Hz) +/- 15%	187

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More Specifications

Application	Arcade Gaming, Casino Gaming, Medical, Voice Communications
RoHS Compliant	Yes
DC Resistance (Re) (Ω)	7.6
Program Power (W)	5
Continuous Power (W)	3

Small Signal Parameters

Nominal Impedance (Z) (Ω)	8
DC Resistance (Re) (Ω)	7.6
Voice Coil Inductance (Le) (mH)	0.15
Resonant Frequency (Fs) (Hz) +/- 15%	187
Mechanical Q Factor (Qms)	3.93
Electrical Q Factor (Qes)	2.19
Total Q Factor (Qts)	1.41
Moving Mass (Mms) (gm)	0.93
Suspension Compliance (Cms) (mm/N)	0.59
Mechanical Resistance (Rms) (kg/s)	0.32
Surface Area of Diaphragm (Sd) (cm^2)	12.57
Compliance Equivalent Volume (Vas) (L)	0.13
Motor Force Factor (BL) (T•M)	2.08
Efficiency (η_0) (%)	0.06
Efficiency Bandwidth Product (EBP) (Fs/Qes)	85.23

Material Descriptions

Basket Type	Stamped Steel
Terminal Size (mm)	2.8 X 0.5
Voice Coil Wire Material	Copper clad steel
Magnet Material	Ferrite
Magnet Weight (g)	21.55
Cone Body Material	Paper
Cone Surround Material	Treated cloth
Spider Material	Cotton
Dust Cap Material	Paper
Net Weight (kg)	0.11

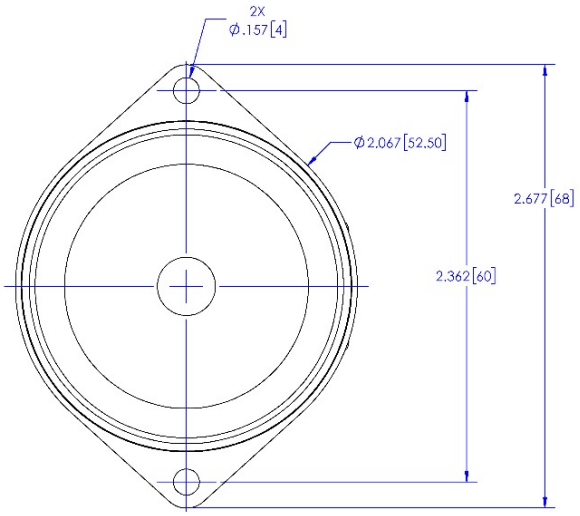
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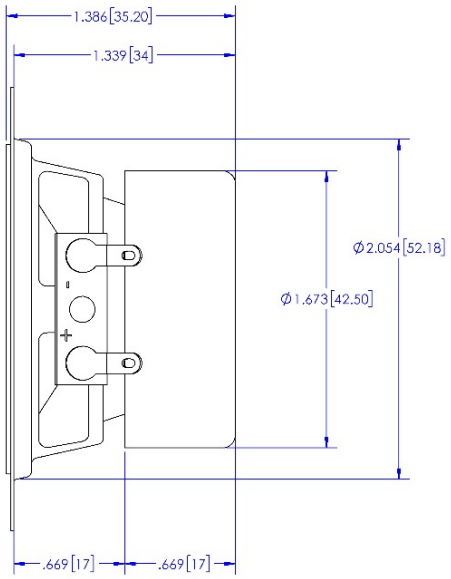
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MODEL: 50-WB08-01 **P/N: 93002** **REV. A**

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