MODEL #: 50X90-WB08-02

2 INCH X 3.5 INCH (50 MM X 90 MM) OVAL SHAPED WIDE RANGE SPEAKER

PART #: 93018

A wide-range speaker designed for clear sound and reliability! A dual neodymium magnet provides this driver ample output for a variety of applications, including voice communications, casino and arcade cabinets, and kiosks. Hook this speaker up with ease as well, thanks to a set of polarized terminals attached to a compact yet solid steel frame. If you want strength within your sound, choose the 93018.

- Wide range speaker
- 2 inch x 3.5 inch (50 mm x 90 mm) basket diameter
- 9 watts, 8 ohms, 88 dB SPL
- Dual neodymium magnet, stamped steel frame
- Paper cone, polarized terminals

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" Oval (50 mm)
Rated Impedance (Ω)	8
Continuous Power (W)	9
Sensitivity (dB SPL) [1]	88
Frequency Range (Hz)	258 - 20, 000
Resonant Frequency (Fs) (Hz) +/- 15%	258

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More Specifications

Application	Arcade Gaming, Casino Gaming, Indoor, Drive-Thru / Kiosk, Voice Communications
RoHS Compliant	Yes
DC Resistance (Re) (Ω)	3.9
Program Power (W)	18
Continuous Power (W)	9

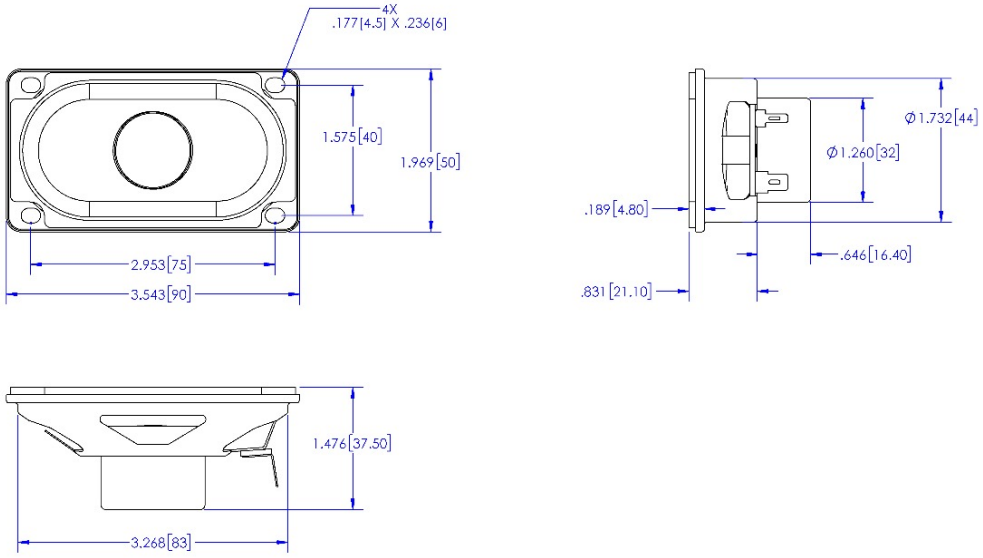
Small Signal Parameters

Nominal Impedance (Z) (Ω)	8
DC Resistance (Re) (Ω)	3.9
Voice Coil Inductance (Le) (mH)	0.10
Resonant Frequency (Fs) (Hz) +/- 15%	258
Mechanical Q Factor (Qms)	3.53
Electrical Q Factor (Qes)	1.58
Total Q Factor (Qts)	1.09
Moving Mass (Mms) (gm)	1.62
Suspension Compliance (Cms) (mm/N)	0.24
Mechanical Resistance (Rms) (kg/s)	0.75
Surface Area of Diaphragm (Sd) (cm^2)	21.49
Compliance Equivalent Volume (Vas) (L)	0.15
Motor Force Factor (BL) (T•M)	2.5
Efficiency (η_0) (%)	0.16
Efficiency Bandwidth Product (EBP) (Fs/Qes)	162.98

Material Descriptions

Basket Type	Stamped steel
Voice Coil Wire Material	Aluminum
Voice Coil Former Material	Kapton
Magnet Material	Neodymium
Cone Body Material	Paper
Net Weight (kg)	0.13

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