

This versatile 4.5" speaker provides broad band frequency response from 80 - 13,000 Hz. The cone is carefully engineered from a proprietary paper stock to be both stiff and lightweight. The cone surround is treated cloth providing compliance and alignment. The voice coil is made of copper clad aluminum wire to provide extended response. It has a powerful 12 oz ferrite magnet with a vented pole for excellent thermal management.

- Wide band / midrange speaker
- 4.5" (114 mm) basket diameter
- 40 watts, 8 ohm, 92 dB SPL
- 1" aluminum voice coil, polyimide film former
- Ferrite magnet, stamped steel basket
- Engineered paper cone, treated cloth surround

MISCO engineers test and analyze the performance of these speakers, using world's most loudspeaker measurement systems including Klippel Analyzer and Klippel QC, which are used to validate final design. Oaktron by MISCO is the premium line of high performance, ready-to-ship transducers for a wide variety of applications including high fidelity, musical instrument, automotive 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.



#### Primary Specifications

<b>Size, Nominal (inch &amp; mm)</b>	4" (100 mm)
<b>Rated Impedance (<math>\Omega</math>)</b>	8
<b>Continuous Power (W)</b>	40
<b>Sensitivity (dB SPL) <sup>1</sup></b>	92
<b>Frequency Range (Hz)</b>	80 - 15,000
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	101

## More Specifications

<b>Application</b>	Arcade Gaming, Auto / Motorcycle, Home Audio, Indoor, Musical Instruments, Pro Sound
<b>RoHS Compliant</b>	Yes
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	6.1
<b>Program Power (W)</b>	80
<b>Continuous Power (W)</b>	40

## Small Signal Parameters

<b>Nominal Impedance (Z) (<math>\Omega</math>)</b>	8
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	6.1
<b>Voice Coil Inductance (Le) (mH)</b>	0.29
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	101
<b>Mechanical Q Factor (Qms)</b>	5.26
<b>Electrical Q Factor (Qes)</b>	0.57
<b>Total Q Factor (Qts)</b>	0.51
<b>Moving Mass (Mms) (gm)</b>	4.3
<b>Suspension Compliance (Cms) (mm/N)</b>	0.58
<b>Mechanical Resistance (Rms) (kg/s)</b>	0.52
<b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b>	73.9
<b>Compliance Equivalent Volume (Vas) (L)</b>	4.47
<b>Maximum Linear Excursion (Xmax) (mm)</b>	2.0
<b>Coil Winding Height (mm)</b>	9.9
<b>Magnetic Gap Height (mm)</b>	6.0
<b>Motor Force Factor (BL) (T•M)</b>	5.4
<b>Efficiency (<math>\eta_o</math>) (%)</b>	0.77
<b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>	176.6

## Material Descriptions

<b>Basket Type</b>	Stamped steel with black powder coat
<b>Terminal Size (mm)</b>	5.2 x 0.5 mm
<b>Voice Coil Diameter (mm)</b>	25.8
<b>Voice Coil Wire Material</b>	Aluminum
<b>Voice Coil Former Material</b>	Polyimide film
<b>Magnet Material</b>	Ferrite
<b>Magnet Weight (g)</b>	336

Cone Body Material	Engineered paper with treat
Cone Surround Material	Half roll, pre-treated cloth
Spider Material	Cloth
Dust Cap Material	Engineered paper with treat
Net Weight (kg)	0.94



