

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

<b>Size, Nominal (inch &amp; mm)</b>	2" (50 mm)
<b>Rated Impedance (<math>\Omega</math>)</b>	8
<b>Continuous Power (W)</b>	10
<b>Sensitivity (dB SPL) <sup>1</sup></b>	80
<b>Frequency Range (Hz)</b>	125 - 20,000
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	155

### More Specifications

<b>Application</b>	Auto / Motorcycle, Casino Gaming, Indoor, Outdoor , Signal / Alarm Systems
<b>RoHS Compliant</b>	Yes
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	7.6
<b>Program Power (W)</b>	20
<b>Continuous Power (W)</b>	10

### Small Signal Parameters

<b>Nominal Impedance (Z) (<math>\Omega</math>)</b>	8
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	7.6
<b>Voice Coil Inductance (Le) (mH)</b>	0.09
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	155
<b>Mechanical Q Factor (Qms)</b>	2.76
<b>Electrical Q Factor (Qes)</b>	1.61
<b>Total Q Factor (Qts)</b>	1.01
<b>Moving Mass (Mms) (gm)</b>	1.1
<b>Suspension Compliance (Cms) (mm/N)</b>	0.99
<b>Mechanical Resistance (Rms) (kg/s)</b>	0.37
<b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b>	12.6
<b>Compliance Equivalent Volume (Vas) (L)</b>	0.22
<b>Maximum Linear Excursion (Xmax) (mm)</b>	0.7
<b>Coil Winding Height (mm)</b>	3.4
<b>Magnetic Gap Height (mm)</b>	2
<b>Motor Force Factor (BL) (T•M)</b>	2.2
<b>Efficiency (<math>\eta_0</math>) (%)</b>	0.05
<b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>	96.2

### Material Descriptions

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

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



