

The 93090 wide-range speaker serves as a durable replacement driver for car audio systems. This Oaktron speaker delivers crisp upper frequencies thanks to its secondary high-frequency paper cone and a large ferrite magnet.

- Wide range speaker
- 5 in. x 7 in. (127 mm x 179 mm) basket diameter
- 15 watts, 4 ohms, 95 dB SPL
- 1 in. copper voice coil, aluminum former
- Ferrite magnet, stamped-steel basket
- Paper cone, treated cloth 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>         | 5" Oval (127 mm) |
| <b>Rated Impedance (<math>\Omega</math>)</b> | 4                |
| <b>Continuous Power (W)</b>                  | 15               |
| <b>Sensitivity (dB SPL) <sup>1</sup></b>     | 95               |
| <b>Frequency Range (Hz)</b>                  | 75 - 12, 000     |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>  | 121              |

### More Specifications

|   |            |
|---|------------|
| <b>Application</b>                              | Home Audio |
| <b>RoHS Compliant</b>                           | Yes        |
| <b>DC Resistance (Re) (<math>\Omega</math>)</b> | 3.4        |
| <b>Program Power (W)</b>                        | 30         |
| <b>Continuous Power (W)</b>                     | 15         |

### Small Signal Parameters

|  |       |
|--|-------|
| <b>Nominal Impedance (Z) (<math>\Omega</math>)</b>     | 4     |
| <b>DC Resistance (Re) (<math>\Omega</math>)</b>        | 3.4   |
| <b>Voice Coil Inductance (Le) (mH)</b>                 | 0.14  |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>            | 121   |
| <b>Mechanical Q Factor (Qms)</b>                       | 3.71  |
| <b>Electrical Q Factor (Qes)</b>                       | 1.04  |
| <b>Total Q Factor (Qts)</b>                            | 0.81  |
| <b>Moving Mass (Mms) (gm)</b>                          | 6.4   |
| <b>Suspension Compliance (Cms) (mm/N)</b>              | 0.27  |
| <b>Mechanical Resistance (Rms) (kg/s)</b>              | 1.30  |
| <b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b> | 124.1 |
| <b>Compliance Equivalent Volume (Vas) (L)</b>          | 5.96  |
| <b>Maximum Linear Excursion (Xmax) (mm)</b>            | 0.8   |
| <b>Coil Winding Height (mm)</b>                        | 6     |
| <b>Magnetic Gap Height (mm)</b>                        | 4.5   |
| <b>Motor Force Factor (BL) (T•M)</b>                   | 4.0   |
| <b>Efficiency (<math>\eta_0</math>) (%)</b>            | 0.97  |
| <b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>     | 116.5 |

### Material Descriptions

|                                   |               |
|-----------------------------------|---------------|
| <b>Basket Type</b>                | Stamped steel |
| <b>Terminal Size (mm)</b>         | 14.3 x 3.2    |
| <b>Voice Coil Diameter (mm)</b>   | 25.8          |
| <b>Voice Coil Wire Material</b>   | Copper        |
| <b>Voice Coil Former Material</b> | Aluminum      |
| <b>Magnet Material</b>            | Ferrite       |
| <b>Magnet Weight (g)</b>          | 283.5         |
| <b>Cone Body Material</b>         | Paper         |
| <b>Cone Surround Material</b>     | Treated cloth |

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|                          |       |
|--------------------------|-------|
| <b>Dust Cap Material</b> | Paper |
| <b>Net Weight (kg)</b>   | 0.85  |

