

The 93031 Neo-Rite Woofer uses a compound magnet to operate in high-power music systems. Install this driver into small enclosures meant for home theaters, pro-sound, and gaming cabinets.

- Woofer
- 5.25 inch (133 mm) basket diameter
- 50 watts, 4 ohms, 87 dB SPL
- 1 in. copper voice coil, aluminum former
- Neodymium/ferrite magnet, stamped-steel basket
- Polypropylene cone, Santoprene surround

MISCO engineers test and analyze the performance of these speakers using the world's most sophisticated loudspeaker measurement systems, including the Klippel Analyzer and the Klippel QC, which are used to validate the 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 instruments, automotive applications, 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.

Pair this woofer with one of our [MISCO Amplifiers](#).



#### Primary Specifications

|  |             |
|--|-------------|
| <b>Size, Nominal (inch &amp; mm)</b>         | 5" (127 mm) |
| <b>Rated Impedance (<math>\Omega</math>)</b> | 4           |
| <b>Continuous Power (W)</b>                  | 50          |
| <b>Sensitivity (dB SPL) <sup>1</sup></b>     | 87          |
| <b>Frequency Range (Hz)</b>                  | 40 - 7, 500 |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>  | 56          |

### More Specifications

|   |                               |
|---|-------------------------------|
| <b>Application</b>                              | Auto / Motorcycle, Home Audio |
| <b>RoHS Compliant</b>                           | Yes                           |
| <b>DC Resistance (Re) (<math>\Omega</math>)</b> | 3.3                           |
| <b>Program Power (W)</b>                        | 100                           |
| <b>Continuous Power (W)</b>                     | 50                            |

### Small Signal Parameters

|  |       |
|--|-------|
| <b>Nominal Impedance (Z) (<math>\Omega</math>)</b>     | 4     |
| <b>DC Resistance (Re) (<math>\Omega</math>)</b>        | 3.3   |
| <b>Voice Coil Inductance (Le) (mH)</b>                 | 0.35  |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>            | 56    |
| <b>Mechanical Q Factor (Qms)</b>                       | 11.74 |
| <b>Electrical Q Factor (Qes)</b>                       | 0.56  |
| <b>Total Q Factor (Qts)</b>                            | 0.53  |
| <b>Moving Mass (Mms) (gm)</b>                          | 18.5  |
| <b>Suspension Compliance (Cms) (mm/N)</b>              | 0.43  |
| <b>Mechanical Resistance (Rms) (kg/s)</b>              | 0.56  |
| <b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b> | 86.6  |
| <b>Compliance Equivalent Volume (Vas) (L)</b>          | 4.59  |
| <b>Maximum Linear Excursion (Xmax) (mm)</b>            | 3.8   |
| <b>Coil Winding Height (mm)</b>                        | 12.2  |
| <b>Magnetic Gap Height (mm)</b>                        | 4.5   |
| <b>Motor Force Factor (BL) (T•M)</b>                   | 6.3   |
| <b>Efficiency (<math>\eta_0</math>) (%)</b>            | 0.14  |
| <b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>     | 101.1 |

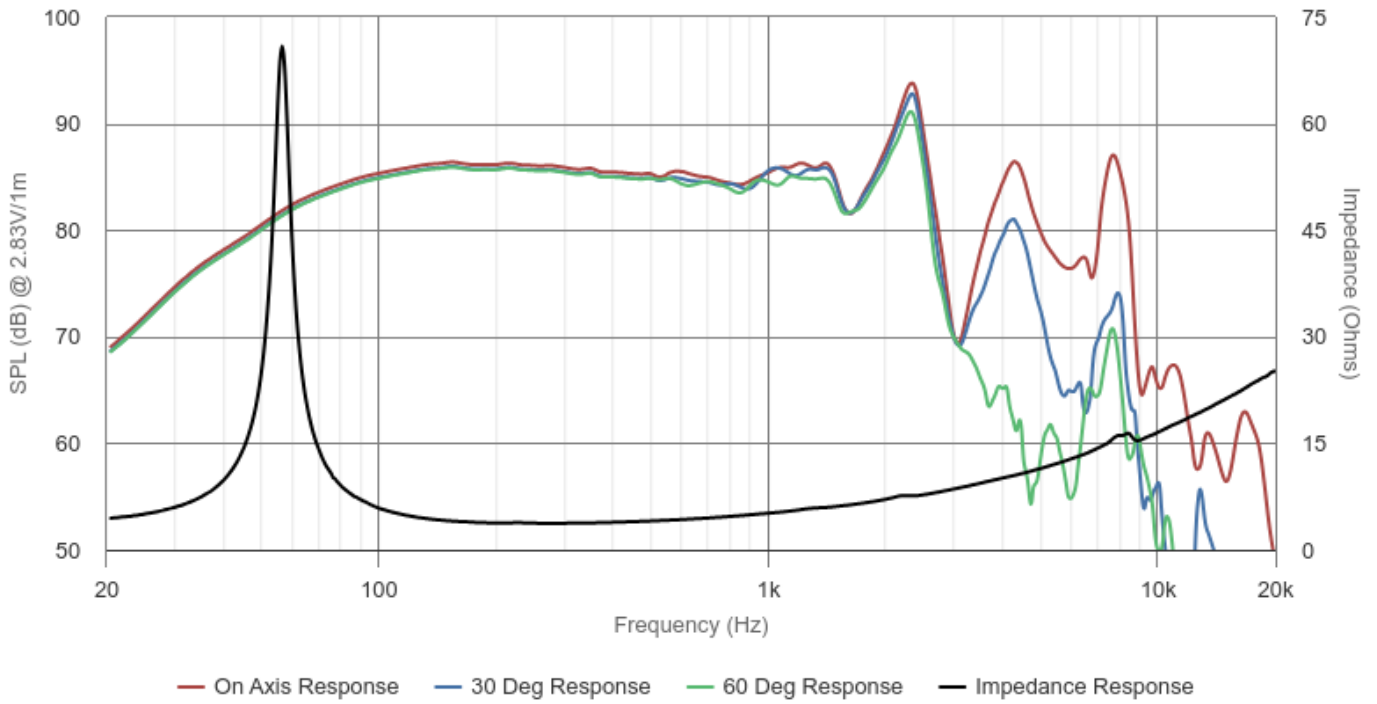
### Material Descriptions

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| <b>Basket Type</b>                | Stamped steel with black powder coat |
| <b>Terminal Size (mm)</b>         | 4.7 x 0.5 mm                         |
| <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>            | Neodymium / ferrite                  |
| <b>Magnet Weight (g)</b>          | 12 oz ferrite + 1 oz neodymium       |
| <b>Cone Body Material</b>         | Mica filled polypropylene            |

|                               |                           |
|-------------------------------|---------------------------|
| <b>Cone Surround Material</b> | Santoprene                |
| <b>Spider Material</b>        | Woven cloth               |
| <b>Dust Cap Material</b>      | Mica filled polypropylene |
| <b>Net Weight (kg)</b>        | 0.96                      |



## Frequency & Impedance Response



Highcharts.com

