

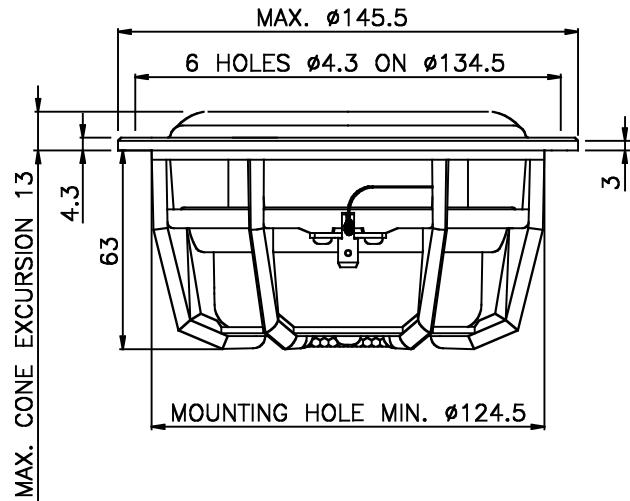
Woofers Esotec MW 152

The MW 152 is a small woofer suitable for 2-way or 3-way systems or combined with a subwoofer in a high quality full range installation.

The driver achieves optimum results in sealed enclosures or in free air applications, e.g. mounted in a hat shelf or in a door.

Due to the smooth frequency response, the MW 152 is also suitable as a dedicated midrange unit in a high performance 3-way system.

- Diaphragm and dust cap moulded as one piece
- Large 75 mm voice coil ensures high power handling
- Internal double magnet system with vented pole piece
- Aluminium voice coil wire provides for a low moving mass
- Rigid die-cast chassis with aerodynamically shaped ribs
- Materials and parameters are optimized for the harsh environmental conditions in a car
- Smooth high-frequency roll-off



| Thiele Small Parameters | | |
|-------------------------------|------------|--------------------|
| Nominal impedance | Znom | 4 Ω |
| DC resistance | Re | 3.0 Ω |
| Voice coil inductance | Le | 0.24 mH |
| Resonance frequency | fs | 70 Hz |
| Mechanical Q factor | Qms | 1.9 |
| Electrical Q factor | Qes | 0.63 |
| Total Q factor | Qts | 0.47 |
| Mechanical resistance | Rms | 3.1 kg/s |
| Moving mass (incl. air load) | Mms | 14 g |
| Suspension compliance | Cms | 0.38 mm/N |
| Effective cone diameter | d | 105 mm |
| Effective piston area | Sd | 87 cm ² |
| Equivalent volume | Vas | 4 l |
| Force factor | Bl | 5.4 Tm |
| Recommended frequency range | 55-3500 Hz | |
| Recommended closed box volume | 6-14 l | |

| Magnet and Voice Coil Properties | | |
|----------------------------------|----|---------|
| Voice coil diameter | dc | 75 mm |
| Voice coil height | hc | 10.9 mm |
| Voice coil layers | nc | 2 |
| Magnetic gap height | hg | 5 mm |
| Linear excursion, peak to peak | | 6 mm |
| Max. excursion, peak to peak | | 15 mm |
| Magnet weight | wm | 0.53 kg |

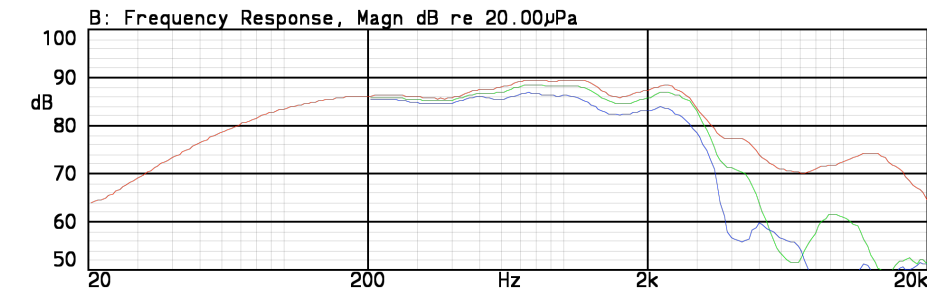
| Power Handling | |
|-----------------------|--------|
| Nominal long term IEC | 100 W |
| Transient (10 ms) | 1000 W |

| Mechanical Properties | |
|-----------------------|--------------|
| Net weight | 1.1 kg |
| Overall dimension | Ø145.5x70 mm |

All specifications subject to change without notice

Woofers Esotec MW 152

Frequency response • on-axis, 30° and 60° off-axis



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Mode: SSR

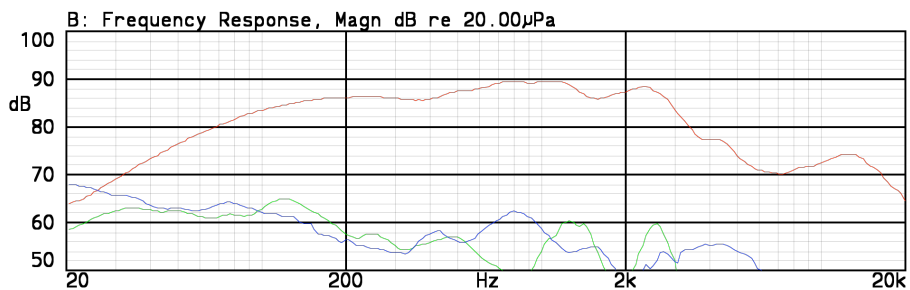


Red line: on-axis response
Green line: 30° horizontal
Blue line: 60° horizontal

Measurement conditions

Level: 2.83 V
Distance: 1 m
Box volume: 8.4 l

Frequency response • 2nd and 3rd harmonic distortion



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Mode: SSR



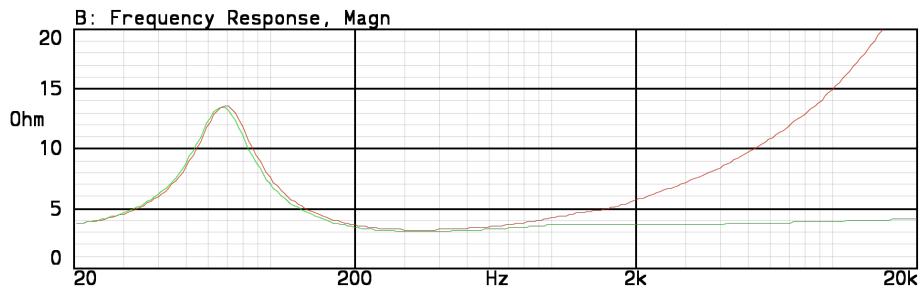
Red line: on-axis response
Green line: 2nd harmonic
Blue line: 3rd harmonic

2nd and 3rd harmonic raised 20 dB

Measurement conditions

Level: 2.83 V
Distance: 1 m
Box volume: 8.4 l

Impedance • with and without impedance correction circuit



21-APR-2006 12:58:35

Mode: Impedans



Red line: impedance, free air
Green line: impedance, free air with compensation. See drawing below.

Measurement conditions

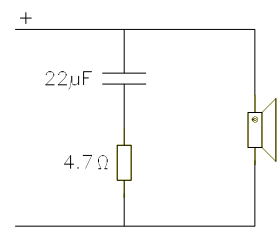
Level: 2 V, 10 ohm
Driver in free air

The frequency response curves show the MW 152 as a well behaved driver with a smooth frequency response both on- and off-axis. Further the distortion is quite low, especially the 3rd harmonic distortion, which is considered to be the most disturbing. These qualities enable the user to build a small high quality system with excellent midrange reproduction.

The impedance curves show that the driver is a simple load for the amplifier. The use of an impedance correction circuit will make it even more simple.

The low suspension compliance makes the driver suitable for small enclosures normally used in cars while also allowing for mounting without a dedicated enclosure, e.g. in the hat shelf or in the door.

Impedance correction circuit



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