

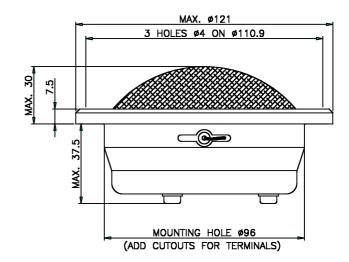
# Midrange Esotec MD 142

The MD 142 is a compact 75 mm soft dome midrange designed for high performance 3- or 4-way systems.

The driver has a smooth frequency response, thus simplifying crossover design. The MD 142 is characterized by a midrange reproduction with a high degree of clarity and detail.

The driver has both integrated enclosure and grille. Furthermore it has a small outer diameter compared to the size of the dome and a shallow mounting depth making it ideal for mounting in a car.

- Coated textile dome
- Large 75 mm voice coil ensures high power handling and low compression
- Internal magnet structure with vented pole piece
- Aluminium voice coil wire results in a low moving mass
- Shallow mounting depth
- Integrated protective grille
- Ferrofluid adds damping and increases power handling



Thiele Small Parameters					
Nominal impedance	Znom	8	Ω		
DC resistance	Re	5.3	Ω		
Voice coil inductance	Le		mΗ		
Resonance frequency	fs	475	Hz		
Mechanical Q factor	Qms	-			
Electrical Q factor	Qes	-			
Total Q factor	Qts	-			
Mechanical resistance	Rms	-	kg/s		
Moving mass (incl. air load)	Mms	-	g		
Suspension compliance	Cms	-	mm/N		
Effective dome diameter	d	-	mm		
Effective piston area	Sd	52	cm <sup>2</sup>		
Equivalent volume	Vas	_			
Force factor	BI	-	Tm		
Recommended frequency range	7	00-6000	Hz		

Magnet and Voice Coil Properties				
Voice coil diameter	dc	75 mm		
Voice coil height	hc	5.5 mm		
Voice coil layers	nc	2		
Magnetic gap height	hg	3 mm		
Linear excursion, peak to peak		2.5 mm		
Max. excursion, peak to peak		5 mm		
Magnet weight	wm	0.24 kg		

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

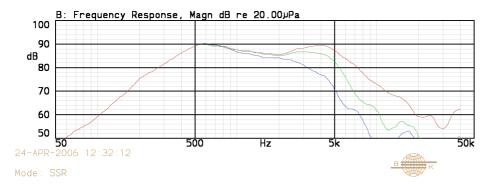
Mechanical Properties					
Net weight	0.75	kg			
Overall dimension	ø121x66	mm			

<sup>\*</sup> Depending on crossover

All specifications subject to change without notice

# Midrange Esotec MD 142

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



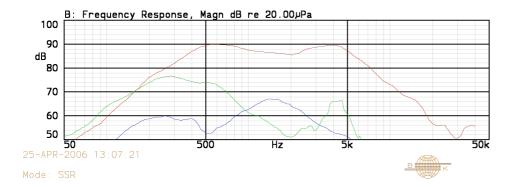
Red line: on-axis response Green line: 30° horizontal Blue line: 60° horizontal

Measurement conditions

Level: 2.83 V Distance: 1 m.

Measured in a large baffle

### Frequency response • 2nd and 3rd harmonic distortion



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

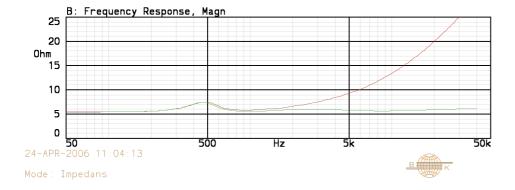
2nd and 3rd harmonic raised 30 dB

Measurement conditions

Level: 2.83 V Distance: 1 m

Measured in a large baffle

### Impedance • with and without impedance correction circuit



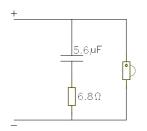
Thick line: impedance, free air Thin line: impedance, free air with compensation. See drawing below.

Measurement conditions
Level: 3.16 V, 50 ohm
Driver in free air

The curves exhibit the MD 142 as a dedicated midrange driver with an excellent frequency response and an exemplary roll-off below 500 Hz and beyond 5 kHz. Further the fine dispersion and frequency response make the MD 142 an ideal choice for high quality 3-way installations. The impedance of the MD 142 is very linear, making it an easy load for the amplifier while also simplifying crossover design.

The driver can be mounted in a wide range of locations, e.g. in the dashboard, the doors or in the hat shelf.

#### Impedance correction circuit



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