

ND4015BE

HF Neodymium Driver - Pure Beryllium Diaphragm

KeyFeatures

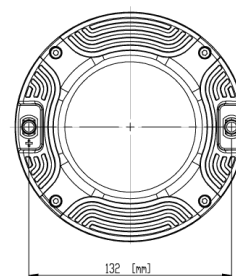
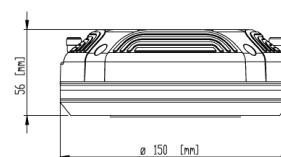
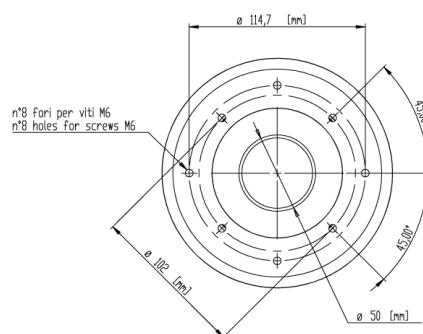
- 113 dB 1W / 1m average sensitivity
- 1,5 inch exit throat
- 4 inch edgewound aluminium voice coil
- 280W max. program power handling
- 4 inch pure Beryllium dome - polymer surround diaphragm
- Copper plated pole piece reduces inductance modulation distortion and increases HF output
- Ultra high precision diaphragm centering system for improved performances and lifespan
- BEM optimized 4 slot phaseplug design
- Extreme sound clarity even at very high SPL

Description

ND4015BE is a 1.5 inch exit, 4" voice coil neodymium compression driver that has been designed for uncompromised quality sound systems application. The 100mm (4in) diameter composite material diaphragm is made with a beryllium dome positioned on a polymer surround. With its very high value of elasticity modulus, beryllium is capable of double the stiffness of titanium or aluminum with great benefits in transient response and reduced distortion. The piston frequency range motion extends frequency by 25%, showing a predictable, ideal frequency response decay and avoiding high frequency spurious resonances. The edge-wound aluminum voice coil, wound on Nomex former, completes diaphragm assembly. Thanks to its physical properties, the Nomex former shows 30% higher value of tensile elongation at working operative temperature (200°C) when compared to Kapton. The ND4015BE extremely powerful neodymium magnet assembly has been designed to obtain 22 KGauss in the gap for major benefits in transient response. The motor structure, throughout the precisely coherent phase plug with 4 circumferential slots and copper ring on the pole piece, reduces inductance effect and distortion. Four top plate air ducts have been designed to act as a loading chamber for the diaphragm, implementing mid band distortion and response figures. The custom designed O-ring creates a tight seal between the plate and the cover assuring air chamber loading. Excellent heat dissipation and thermal exchange are guaranteed by the direct contact between the magnetic structure and the aluminum cover which gives a lower power compression value. A special epoxy coating is applied to the ring magnet and the top and back plates of the magnetic structure making the driver more resistant to the corrosive effects of salts and oxidation.

Models

Model	Code	Information
0424B8N000	0424B8N000	8 Ohm

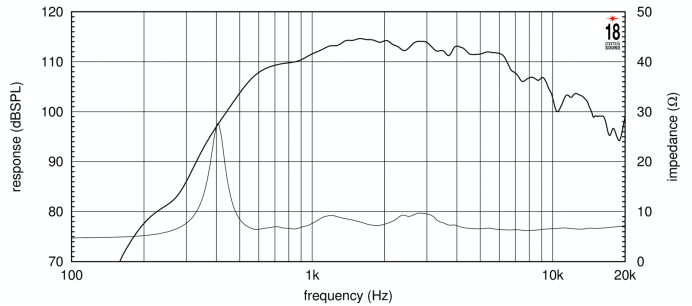


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General Specifications

Throat Diameter	39 mm (1,5 in)
Rated Impedance	8 Ohm
DC Resistance	4,2 Ohm
Minimum Impedance	6,4 Ohm
Le (at 1kHz)	N/A
Sensitivity	113 dB
Frequency Range	900 Hz ÷ 20 kHz
Diaphragm Material	Pure beryllium dome on polymer surround
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	13,4 Tm
Polarity	Positive voltage on red terminal gives positive pressure in the throat

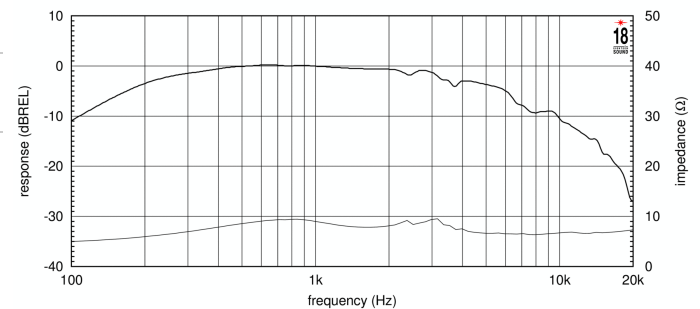


FREQUENCY RESPONSE MEASURED WITH 2.83V AT 1MT DISTANCE ON CENTRAL FORWARD AXIS FROM THE MOUTH OF XR1564 HORN. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.

Thiele Small Parameters

Mounting information

Overall diameter	150 mm (6 in)
N. of mounting holes and bolt	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102 - 114,7 mm (4 - 4.52 in)
Total depth	57 mm (2,2 in)
Net weight	3.2 Kg (7 lb)
Shipping weight	3.7 Kg (8.14 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)



FREQUENCY RESPONSE MEASURED WITH 1W INPUT ON RATED IMPEDANCE ON CENTRAL FORWARD AXIS IN A PLANE WAVE TUBE. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.

Notes

- 1) Continuous Power is defined as 3 dB greater than the one measured with the new AES2-2012 standard, using continuous pink noise having 12 dB crest factor for 2 hours, mounted on 1.5" horn, from 1.2kHz to 12kHz.
- 2) Max. program power rating is defined as 3 dB greater than continuous power rating and is a conservative expression of the transducer ability to handle music program material
- 3) Sensitivity represent the averaged value of acoustic output as measured at 1 mt distance on axis from the mouth of XR1564 horn, when connected to 2,83V sine wave swept between 1000 and 4000 Hz.