

# HD125

## Ferrite High Frequency Driver

### Key Features

- 109 dB SPL 1W / 1m average sensitivity
- 1 inch exit throat
- 25,4 mm (1 in) edgewound aluminum voice coil
- 50W continuous program power handling
- Low weight, easy mounting and handling structure
- Usable in two way or multiway systems



### General Description

The HD125 1" exit HF unit has been designed as the natural evolution of the industry standard HD120 compression driver. It delivers an unmatched combination of extended linear frequency response and very high efficiency. With a 1-inch exit throat, the HD125 is developed to match our XT120 and XT1086 elliptical shape constant directivity horns.

The major advancement in HD125 compression driver consists in a new innovative diaphragm assembly made in proprietary treated Polyethylene material. This design maintains the minimum resonance frequency point value at 1600Hz, extending the frequency response in the mid region when compared to HD120 compression driver.

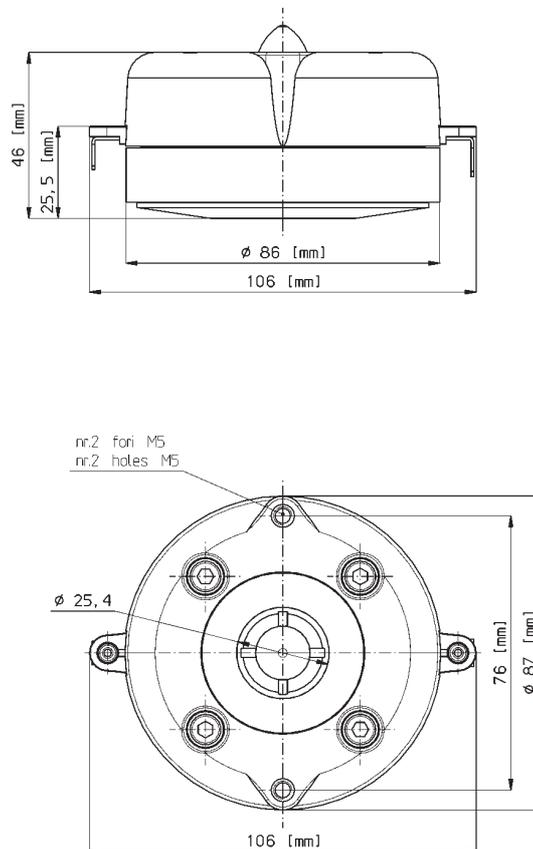
The design of diaphragm and its surround in polyester material allow a best movement and stress control; the special radial ribs increase stiffness avoiding uncontrolled vibration modes in the usable frequency range.

An edge-wound aluminum voice coil, wound on proprietary treated Nomex, completes diaphragm assembly. Thanks to its physical properties, the HD125 former shows 30% higher value of tensile elongation at working operative temperature (200°C) when compared to Kapton. This plus is capable to keep properly energy transfer control to the dome in real working conditions. Moreover, this particular former material is suitable to work also in higher moisture contents environments.

The polypropylene phase plug is the result of a meticulous design exercise. Its shape assures the correct acoustic impedance of the radiating dome, reducing distortion levels across a very wide frequency range. At the end, it results in a smooth coherent wavefront in the horn entrance, high thermal stability and manufacturing consistency.

The HD125 compact size and lightweight ceramic magnet assembly has been designed to obtain 16KGauss in the gap.

0421M8H100 8 Ohm  
0421M6H100 16 Ohm



FERRITE HF DRIVERS

### GENERAL SPECIFICATIONS

THROAT DIAMETER	25,4 mm (1 in)
RATED IMPEDANCE	8 ohm
DC RESISTANCE	5,7 Ohm
MINIMUM IMPEDANCE	8 ohms 5000Hz
POWER HANDLING	
CONTINUOUS PINK NOISE (1)	25 W above 2 kHz
CONTINUOUS PROGRAM (2)	50 W above 2 kHz
SENSITIVITY(1W@1M) (3)	109 dB
FREQUENCY RANGE	2 kHz ÷ 18 kHz
RECOMM. XOVER FREQUENCY	2500 Hz (12dB/oct slope)
DIAPHRAGM MATERIAL	Polyester
VOICE COIL DIAMETER	25,4 mm (1 in)
VOICE COIL WINDING MATERIAL	Edge-wound aluminum
MAGNET MATERIAL	Ferrite
FLUX DENSITY	1,65 T
BL FACTOR	3,5 N/A
POLARITY	Positive voltage on + terminal gives positive pressure in the throat

### MOUNTING INFORMATION

Overall diameter	87 mm (3,4 in)
Mounting holes diameter	2 M5 at 180 degrees
Bolt circle diameter	76 mm (3 in)
Total depth	46 mm (1,8 in)
Net weight	0,8 Kg (1,77 lb)
Shipping weight	0,9 Kg (1,99 lb)
CardBoard Packaging dimensions	90x90x70 mm (3,5x3,5x2,8 in)

HD 125 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF HORN XT120



#### NOTES

- (1) Continuous pink noise power rating is tested with a pink noise input having a 6 dB crestfactor for two hours duration, per AES standard
- (2) Continuous program power is defined as 3 dB greater than continuous pink noise and is a conservative expression of the transducer ability to handle music program material
- (3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of XT 120 horn averaged in the 3 kHz octave band

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.