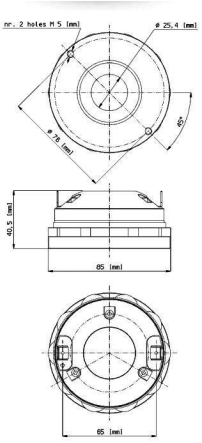
ND1020 8Ω

HF Drivers - 1.0 Inches



- 108,5 dB SPL 1W / 1m average sensitivity 1 inch exit throat
- 34,4 mm (1 1/3 inch) voice coil diameter
- Polyethylene Diaphragm
- 60W Program Power Handling
- Compact Lightweight Neodymium
- Structure Proprietary Phase Plug design

The ND1020 1-inch exit high frequency compression driver has been designed for use in situations where the highest possible sound quality is required.
Polyethylene Naphthalate (PEN) has been used for the diaphragm assembly, giving to ND1020 a superior diaphragm dimensional stability compared to conventional Mylar film (160°C as a thermal rating compared to 105°C for PET) and maintaining a constant performance during its whole working life. PEN film, with its very high value of elasticity modulus (6000MPa compared to 4000MPa for PET and 2800MPa for polyimide film), is capable of a superior transient and intermodulation distortion response. The flat punched suspension shape has been designed to maintain low stiffness for superior low mid band distortion and response.
An edge-wound copper clad aluminum voice coil wound on treated Nomex completes the diaphragm assembly. Nomex shows a 20% higher value of tensile elongation at 200°C than the value at room temperature, (in comparison, Kapton tensile elongation is 30% lower at 200°C than the value at room temperature). Hence, Nomex is capable of keeping energy transfer from the voice coil to the dome under control, especially when the voice coil reaches high temperatures. As a plus, treated Nomex former voice coil can work well even in high moisture content environments, thanks to its very low porosity.
The ND1020 is equipped with unique Phase Plug architecture, designed to give smooth coherent wave front at the horn entrance over the whole working frequency range, as well as high level manufacturing consistency. The phase plug design shows short openings and high flare rate value, assuring low distortion and demonstrates remarkable improvements in mid-high frequency reproduction.
By carefully using elementary pieces of neodymium magnets, Eighteen Sound engineers have developed a powerful neodymium magnet assembly capable of reaching 18KGauss in the gap within a compact and lightweight structure.

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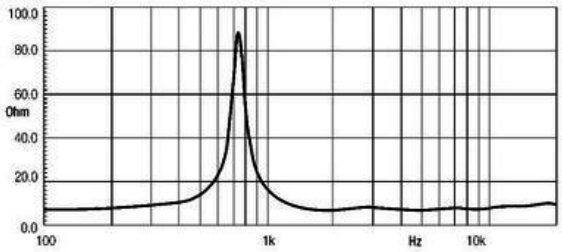

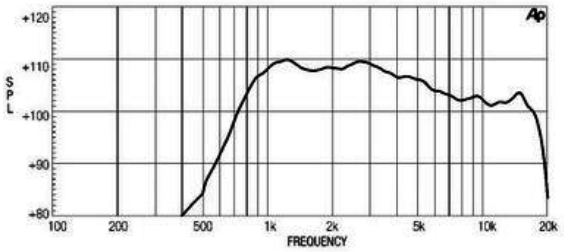

SPECIFICATIONS[1]

Throat Diameter	25 mm (1.0 in)
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
Nominal Power Handling[2]	30 W
Continuous Power Handling[3]	60 W
Sensitivity[4]	108.5 dB
Frequency Range	1.6 - 20.0 kHz
Recommended Crossover[5]	1.6 kHz
Voice Coil Diameter	34 mm (1.34 in)
Winding Material	Aluminum
Diaphragm Material	Treated polyethylene
Magnet Material	Neodymium

MOUNTING AND SHIPPING INFO

Overall Diameter	85 mm (3.35 in)
Depth	40 mm (1.57 in)
Net Weight	0.7 kg (1.54 lb)
Shipping Weight	0.75 kg (lb)
Shipping Box	97x97x58 mm (3.82x3.82x2.28 in)

1. Driver mounted on Eighteen Sound XR1064 horn
2. 2 hour test made with continuous pink noise signal within the range from the recommended crossover frequency to 20 kHz. Power calculated on rated nominal impedance.
3. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
4. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
5. 12 dB/oct. or higher slope high-pass filter.

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