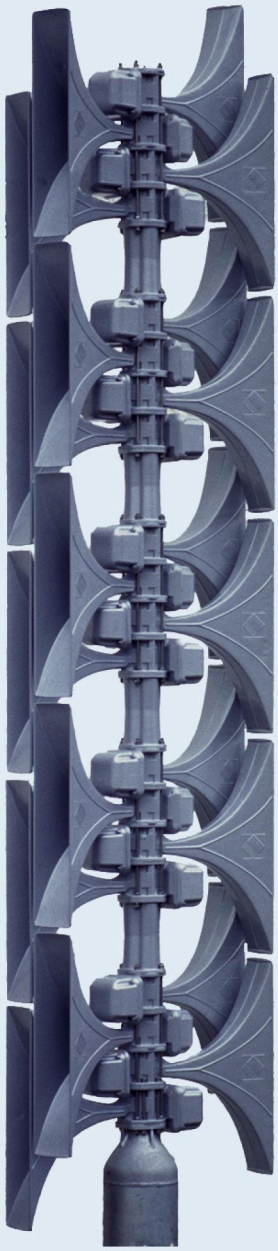
HÖRMANN

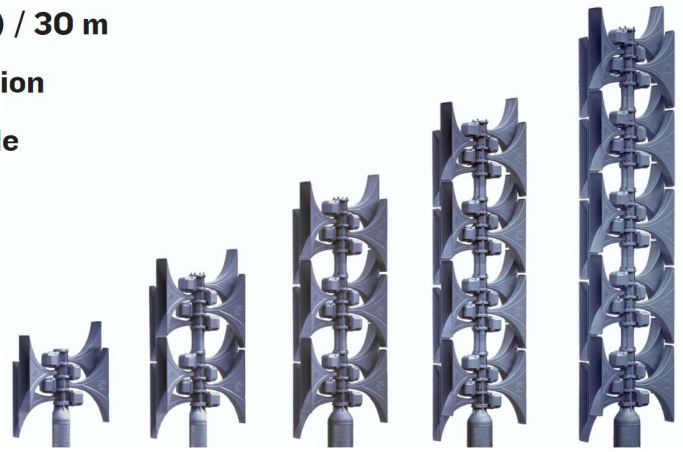
Warning and Information

Electronic Siren ECN-D

- Latest Digital Technology
- Optimum Effectiveness
- Large Product Variety
- Modular Construction
- Highest Reliability
- Longtime Proven Concept



- **Sound Pressure Level up to 123 dB (A) / 30 m**
- **360° Omnidirectional Sound Propagation**
- **Directional Sound Propagation possible**
- **Modular Siren Head Construction**
- **Weather-proof Siren Horns**
- **Use for Pole and Building Installation**



The new Electronic Siren ECN-D

Latest technology combined with our long time experience in the development of sirens have lead to the new siren generation ECN-D (electronic siren with digital amplifiers).

The digital siren ECN-D offers independence from mains power supply, a variety of inbuilt test routines, activation of up to 10 individual alert signals, activation of voice messages and live PA; advantages and features already known for the long time proven sirens of the ECN series.

Increasing the effectiveness to above 97% upon use of new digital amplifiers does result in reduced energy consumption of the siren, thus requiring less battery capacity respectively battery blocks, in overall leading to a reduced total weight of the electronic cabinet.

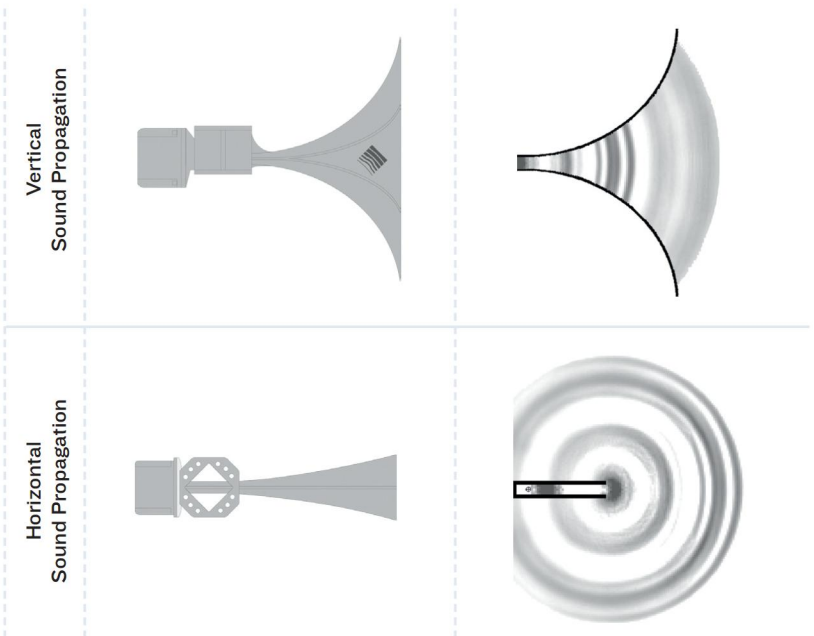
The modular construction, the variety of interfaces and the strict adherence of technical standards offer potential for consideration of customer specific needs; prerequisites for a reliable, custom-tailored siren warning system.

ECN-D Acoustic: Omnidirectional Sound Propagation

HÖRMANN designed and developed the horn for the ECN siren applying and in consideration of physical and acoustical guidelines, to achieve utmost best propagation of sound.

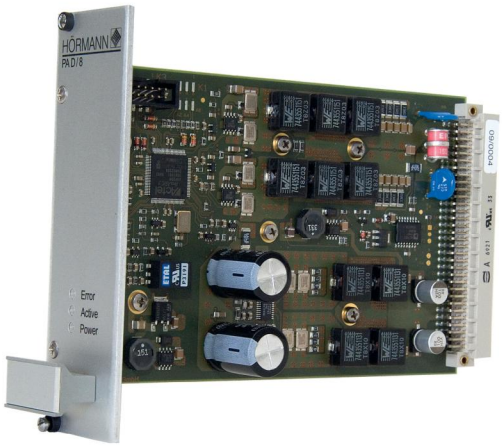
The 360° omnidirectional sound propagation pattern is created upon diffraction of sound on the slit of the siren horn. This physical mechanism allows sound penetrating the acoustic shadow.

To assure a 360° sound propagation pattern for siren head installations in the field, the siren head will be split in two channels, which are assembled in 180° opposite direction. The possibility of neutralisation due to overlap of sound waves is eliminated by generating sound signals with different fundamental frequencies for the two channels.



- Activation of Alerts, Messages and Live PA Announcements
- 19“ Technology on Swing Frame
- Easy Expansion and Adaption
- 230 V or Solar Power Supply
- Batteries for Independence from Mains
- Minimum Maintenance Requirements

Class-D Amplifier / PA-D8



- Output Power 300 Watt at 5-7 Ohm
- Bandwidth 100 Hz - 20 kHz
- Effectiveness above 97%
- Distortion less 4%
- Overload Protection
- Short Circuit Protection
- Status-LEDs
- 19“ Plug-in Module, 8 TE
- Weight 0,3 kg

Control Panel / CP1+

- Embedded ARM7 CPU with RTX-OS
- Realtime Multitasking Operating System
- HÖRMANN Process System Interface
- Interfaces: Ethernet, I²C, 600 Ohm, Serial (USART, SSP, RS232/485)
- LCD-Display for Status Information and for Operation
- Robust Foil Keypad for Local Activation and Siren Test
- Voice/Text Memory with SD-Card
- Module for Live PA Announcements

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Product Types / SPL Rating

Electronic Siren	ECN 600-D	ECN 1200-D	ECN 1800-D	ECN 2400-D	ECN 3000-D
Sound Pressure Level (SPL)	109 dB (A) / 30 m	115 dB (A) / 30 m	118 dB (A) / 30 m	121 dB (A) / 30 m	123 dB (A) / 30 m
Number of Horns / Drivers	4	8	12	16	20
Weight Siren Head*	28 kg	59 kg	89 kg	121 kg	152 kg
Head Dimensions (W x H x D)* in mm	300 x 950 x 850	300 x 1605 x 850	300 x 2260 x 850	300 x 2900 x 850	300 x 3550 x 850
Windload at 160 km/h*	522 N	1064 N	1614 N	2200 N	2650 N
Weight Cabinet incl. Batteries	84 kg	85 kg	86 kg	87 kg	88 kg

*Double Column Assembly

Standard Features

System	**Fundamental Frequency**	415 Hz / 425 Hz
	Siren Sound / Signal	Customer Specification
	Standby-time	up to 7 days
	Number of Alarms available within 48 h without Mains Power Supply	up to 20
	Material of Horns	Aluminium (Alloy)
Siren Cabinet	**Mains Power Supply**	230 V or 110 V +/- 10%
	Battery Voltage	24 V
	Max. Charging Current	4 A
	Cabinet Dimensions (W x H x D)	600 x 600 x 350 mm
	Cabinet Protection	IP65
	Ambient Temperature Range	-25°C ... +65°C
	Specifications are subject to change without notice. Further details according to product information ECN-D.