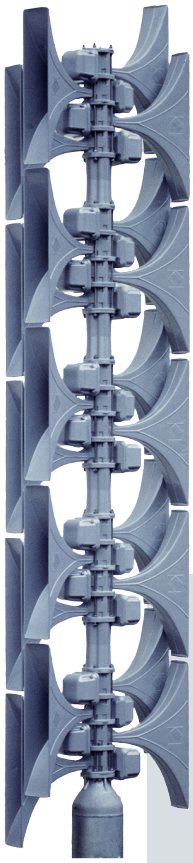
HÖRMANN Warnsysteme

WARNING AND INFORMATION

Electronic Siren ECN-D



Siren Head

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

SIREN HEAD
Siren head consisting of self-supporting siren horns in modular construction. By slit-diffraction of the sound at the horn opening 360° omnidirectional sound propagation is achieved.

Siren Cabinet

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

SIREN CABINET
Compact and clearly designed siren cabinet thanks to 19" plug-in technology and modular construction. Robust assemblies and no moving parts such as fans guarantee maximum reliability.

ECN-D Product Types

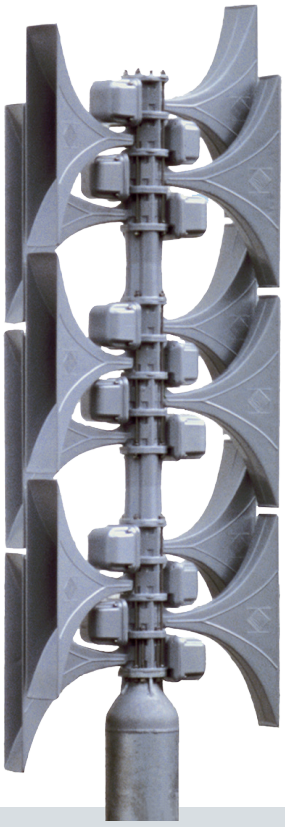
ELECTRONIC SIREN	ECN 600-D	ECN 1200-D	ECN 1800-D	ECN 2400-D	ECN 2400-D
Sound Pressure Level (SPL)	109 dB (A) / 30 m	115 dB (A) / 30 m	118 dB (A) / 30 m	121 dB (A) / 30 m	123 dB (A) / 30 m
Number of Horns / Drivers	4	8	12	16	20
Head Dimension (W x D x H) in mm*	300 x 850 x 950	300 x 850 x 1605	300 x 850 x 2260	300 x 850 x 2900	300 x 850 x 3550
Weight Siren Head*	28 kg	59 kg	89 kg	121 kg	152 kg
Windload (160km/h)*	522 N	1064 N	1614 N	2200 N	2650 N
Number of Class-D Amplifiers	2	4	6	8	10
Weight Siren Cabinet (Incl. Batteries)	84 kg	85 kg	86 kg	87 kg	88 kg

*Double Column Assembly.

SYSTEM	
Fundamental Frequency	415 Hz / 425 Hz
Siren Sound / Signal	Customer Specification
Digital Textmessages	Customer Specification
Standby-time	up to 7 days
Number of Alarms available within 48h without Mains Power Supply	up to 20
Material of Horns	Aluminium (Alloy)

SIREN CABINET	
Mains Power Supply	230 V or 110 V
Battery Voltage	24 V
Max Charging Current	4 A
Cabinet Dimensions (W x D x H)	600 x 600 x 350 mm
Protection Class	IP65
Ambient Temperature Range	-25°C ... +65°C

Specifications are subject to change without notice.



ECN1800-D SIREN HEAD
Double column siren head construction - This horn arrangement allows an almost perfect omnidirectional sound propagation.

Class-D Amplifier / PA-D8

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

CLASS-D AMPLIFIER
The extremely powerful and reliable Class-D amplifier ensures efficient operation of the siren.

Control Panel / CP1+

- Embedded ARM7 CPU
- RTX-OS Realtime Multitasking Operating System
- HÖRMANN Process System Interface
- Interfaces: Ethernet, leased line, USART, SSP, I2C, SSP, RS232, RS485
- LCD Display for Status Information and for Operation
- Robust Foil Keypad for Local Activation and Test of the Siren
- Text Memory with SD-Card
- Module for Live PA Announcements

CP1+ SIREN CONTROL PROCESSOR
The CP1+ processor monitors and controls the ECN-D Siren and offers a wide range of interfaces for different communication units.

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ECN-D Advantages and Key Features

The Concept of the Electronic Siren

Latest technology combined with our long time experience in siren development has led 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 text messages and live PA; advantages and features already known for the long time proven sirens of the ECN series.

Use of new fully digital amplifiers increases the efficiency to above 97% At the same time, energy consumption, weight and space requirement of the electronic cabinet are significantly reduced.

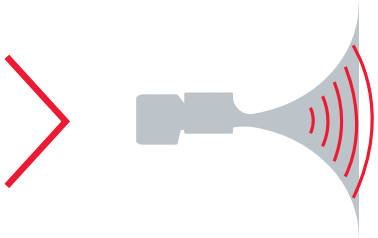
The modular design, diverse interfaces and the strict compliance with technical standards; make it possible to take special customer requirements into account and offer the best prerequisites for a reliable, customized siren warning system.

Acoustic – 360° Omnidirectional Sound Propagation

VERTICAL SOUND PROPAGATION

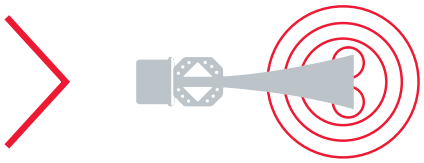
HÖRMANN designed and developed the horn for the ECN siren using and taking into consideration physical and acoustic laws, to achieve best propagation of the sound.

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



HORIZONTAL SOUND PROPAGATION

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



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