



# Electronic Siren ECN 1800-D

### **SYSTEM**

Sound Pressure Level	118 dB (A) / 30 m
Fundamental Frequency	415 Hz / 425 Hz
Alarms (Warning Tones)	9 (customized)
Messages (Pre-recorded Voice)	12 (customized)
Standby Time	up to 7 days
Battery Capacity during 48h without charge	up to 20 minutes activation

## **SIREN CABINET**

Number of Class-D Amplifiers	6
Operating Voltage / Batteries	24 VDC
Mains Power Supply	230 VAC or 110 VAC +/- 10%
Maximum Charging Current	4.4
Solar Power Supply	optional / on request
Local Activation and Control	Foil Keypad with LCD Display
Live PA Announcement	Yes
Remote Activation and Control	Depending Communication Infrastructure
Cabinet Dimensions (W x H x D) in mm	600 x 600 x 350
Cabinet Design	Stainless Steel or Powder Coated
Protection Class	IP66
Weight incl. Batteries in kg	86
Cabinet Ambient Temperature Range	-25 °C +65 °C

Specifications are subject to change without notice.

## SIREN HEAD

Number of Horns / Drivers	12
Weight Siren Head in kg	89
Head Dimension (W x H x D) in mm	300 x 2260 x 850
Windload at 160km/h	1614 N
Material of Horns	Aluminium (Alloy)

### SIREN HEAD

Siren head consisting of self-supporting siren horns in modular construction. Single slit diffraction effect leads to 360° omnidirectional sound propagation.



### SIREN CABINET

Compact and clearly designed, based on 19" plug-in technology and modular construction. Robust assemblies with long design life guarantee maximum reliability.

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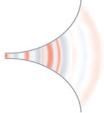
# Sound Propagation by the ECN Siren Horn

# **VERTICAL SOUND PROPAGATION**

The ECN siren horn is a specific development with exponential increase of the horn's cross sectional surface, to propagate alarms and messages with high sound intensity.

This special horn design assures optimum propagation of the sound wave within the horn, is widely in use, thoroughly tested and has proven the high perception by the public.



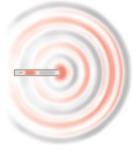


#### HORIZONTAL SOUND PROPAGATION

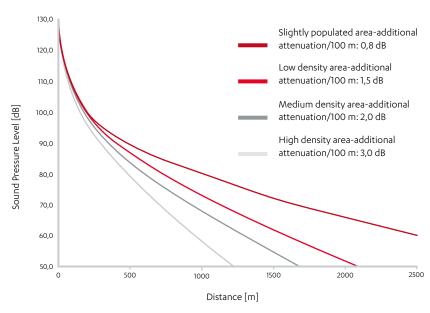
The siren horn's omnidirectional propagation of the sound wave in horizontal plane is based on the "Huygens principle".

This physical guideline explains the diffraction of a sound wave at a single slit. Diffraction of sound results in a circular sound wave of omnidirectional characteristic, which leads to 360° sound propagation.





# Propagation of Sound Pressure Level (SPL)



### HÖRMANN Warnsysteme GmbH

Hauptstraße 45–47 85614 Kirchseeon GERMANY T +49 8091 5630 300 F +49 8091 1275 info@hoermann-ws.de www.hoermann-ws.de