

# Voice Alarm

## LEN-220

Passive 100 V line source speaker, EN 54-24 certified, 18 × 4", 130° × 14°, approx. 130 × 2200 × 120 mm, weatherproof



# Voice Alarm LEN-220

The LEN-220 is a passive 100 volt line source speaker certified according to EN 54-24 Type B for use in voice alarm systems. Like all products in the Voice Alarm series, it is equipped with a weatherproof, steel-reinforced aluminum housing, making it equally suitable for indoor and outdoor use. The LEN column loudspeakers guarantee excellent speech intelligibility and long ranges even in difficult acoustic environments.

## Main features

- 18 × coated 4" chassis
- Uniform directivity
- Suppression of unwanted side lobes thanks to Fohhn Source Division Waveguide
- Weatherproof without additional protection (degree of protection IP54 according to IEC 529 / EN 60529)
- 8 × M6 thread for safe installation
- Available in different colors (RAL Classic, Pantone, NCS) or with Fohhn Texture Design
- In order to ensure performance and operational safety, Fohhn system amplifiers including the correct speaker preset are required.

Available with the following color options



Black



White

Equipped with the following Fohhn technologies



Fohhn Texture Design



Fohhn Source Division Waveguide



100 V optional



Special colors optional



Weatherproof execution

# Technical data

## Electroacoustic features

acoustic design	weatherproof passive line source speaker system, closed, passive 2-way CD crossover and filter, suppression of side lobes by Source Division Waveguides
components	18 × 4" drivers with treated cones
sensitivity 1 W @ 4 m in accordance with EN 54-24	87 dB SPL
SPLmax 100 V @ 4 m in accordance with EN 54-24 (trafo S/M/L)	102 dB SPL / 105 dB SPL / 108 dB SPL
transformer options, power handling in acc. with EN 54-24 100 V (trafo S/M/L)	77.5 W / 155 W / 310 W
transformer options, power handling in acc. with EN 54-24 70 V (trafo S/M/L)	38 W / 75.4 W / 153.1 W
impedance 100 % tap (trafo S/L/M)	129 ohm / 65 ohm / 32 ohm
impedance 50 % tap (trafo S/M/L)	258 ohm / 129 ohm / 65 ohm
impedance 25 % tap (trafo S/M/L)	516 ohm / 258 ohm / 129 ohm
2-way design	yes
nominal directivity (h × v) (-6 dB, average @ 1-4 kHz)	130° × 14°
directivity (h × v) (octave band) in acc. with EN-54-24 @ 500 Hz	360° × 25°
directivity (h × v) (octave band) in acc. with EN 54-24 @ 1000 Hz	190° × 15°
directivity (h × v) (octave band) in acc. with EN 54-24 @ 2000 Hz	120° × 14°
directivity (h × v) (octave band) in acc. with EN 54-24 @ 4000 Hz	95° × 8°

## Physical features

enclosure	weatherproof aluminium housing, powder coated, steel bracings
front design	ball impact resistant grille, galvanized and powder coated in housing colour backed by acoustically transparent foam
weight (trafo S/M/L)	approx. 17 kg / 18 kg / 19.5 kg
standard colours	black (RAL 9005) or white (RAL 9016), powder-coated
mounting points	10 × M6 screw threads
certificates	EN 54-24 type B
EN 54-24	1
connectors	terminal connectors capable of receiving up to 4 mm <sup>2</sup> , two per pin, terminal cover with dual cable gland for up to 10 mm cable diameter

### Optional features

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optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
optional weather protection	as standard (protection class IP54, in accordance with IEC 529 / EN 90529)
optional connectors	ceramic terminals capable of receiving up to 2.5 mm <sup>2</sup>

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### CAAD simulation data

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simulation data	EASE, CLF, Ulysses, Fohhn Designer
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weight: net weight without optional equipment

sensitivity 1 W / SPLmax 100 V @ 4 m in accordance with EN 54-24: measured in the far field of the speaker, count back to 4 m distance

impedance 100 / 50 / 25 % tap: measured at a voltage producing 1 W per speaker system

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