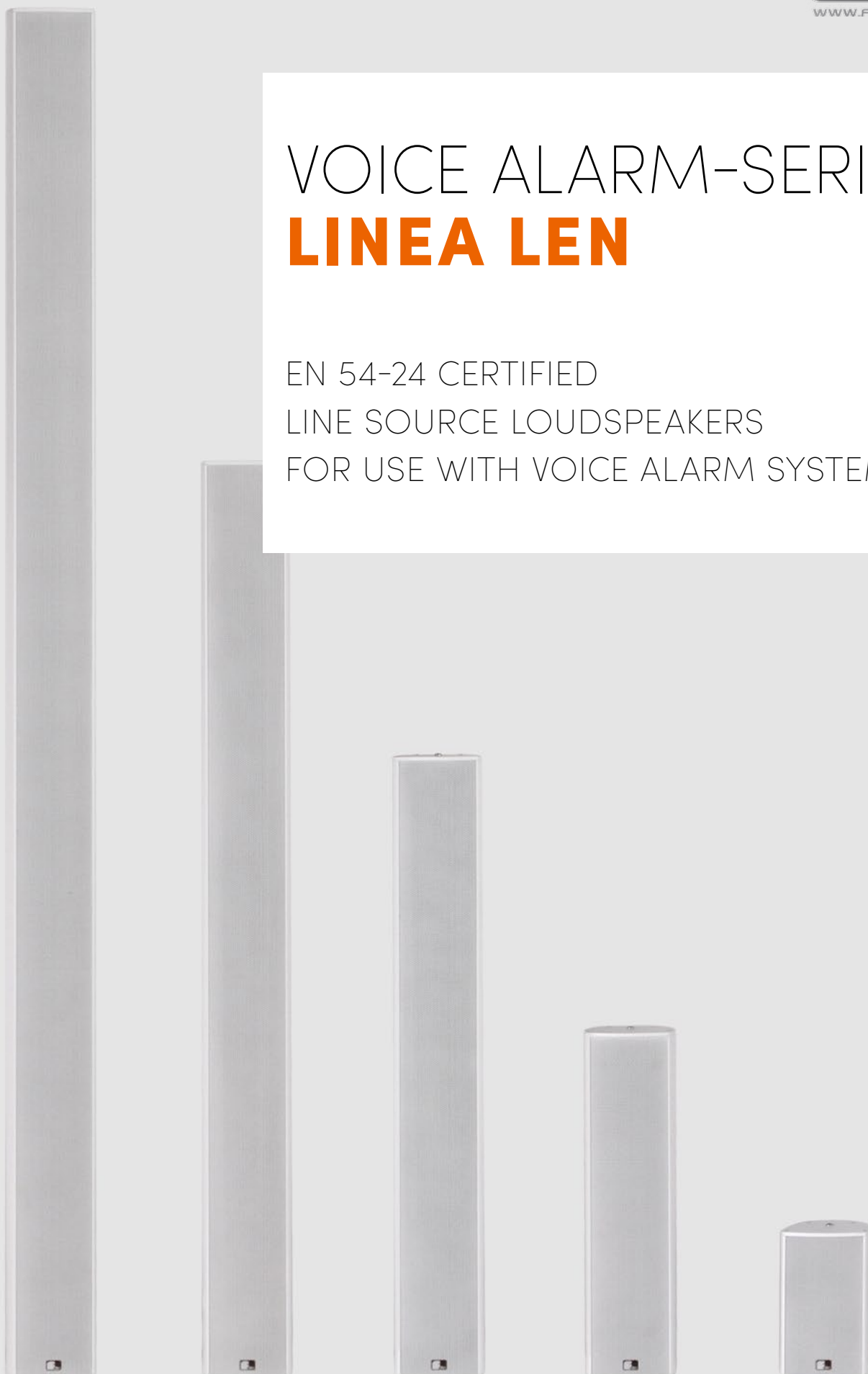


VOICE ALARM-SERIES: **LINEA LEN**

EN 54-24 CERTIFIED
LINE SOURCE LOUDSPEAKERS
FOR USE WITH VOICE ALARM SYSTEMS.



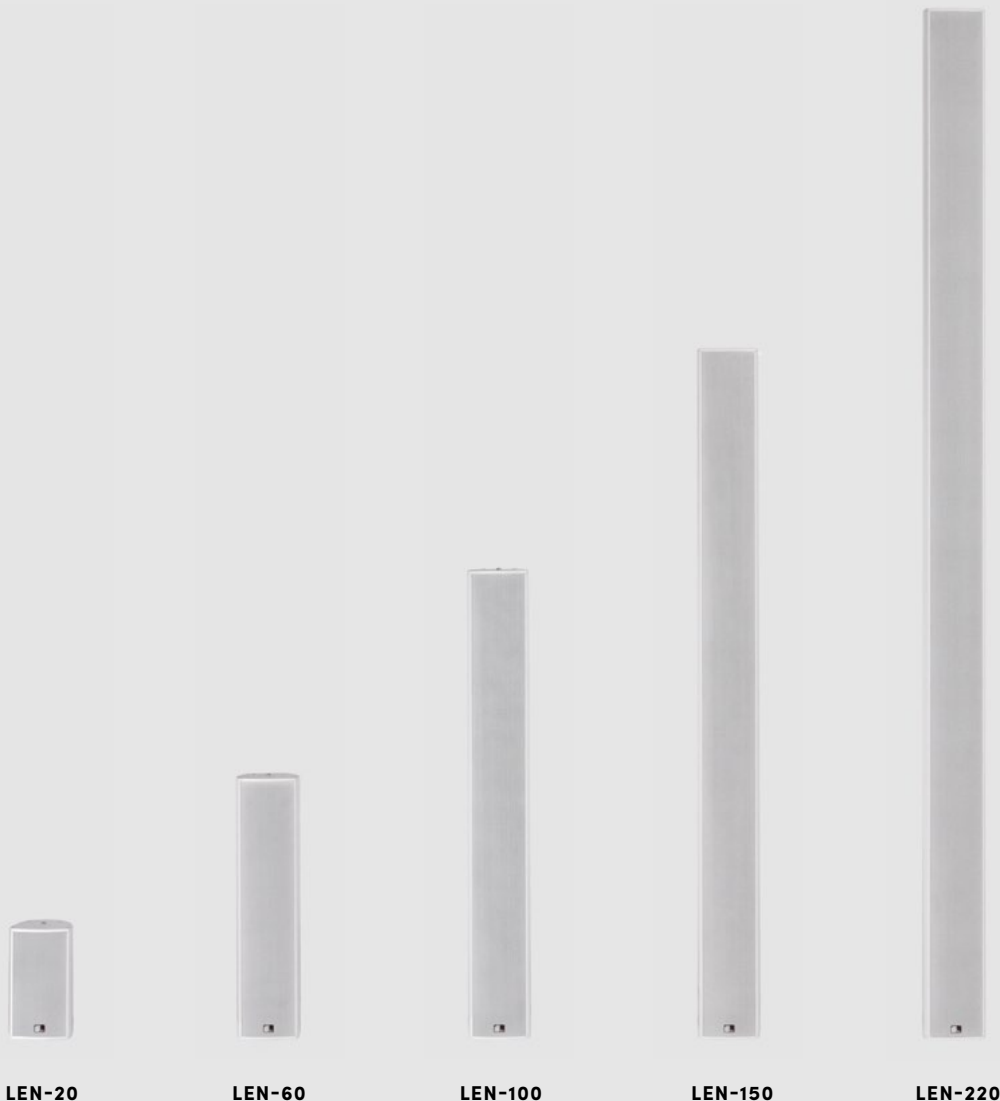
LINEA LEN LOUDSPEAKER SYSTEMS – EN 54-24 TYP B CERTIFIED.

FOHNN'S new **LEN** line source loudspeakers have been specially developed for use with voice alarm systems. The passive, 100V, **EN 54-224 TYPE B** certified loudspeakers have extruded aluminium housings with steel reinforcements, making them suitable for both indoor and outdoor use without requiring any additional weatherproofing.

All **LEN** loudspeaker systems are equipped with high-quality, full range, 4" treated drivers to provide optimal levels of efficiency in speech reproduction. An innovative, in-house developed waveform system (**FOHNN® Source Division Waveguide**), a multi-zone crossover and a special loudspeaker chassis configuration guarantee coherent vertical

sound dispersion and increased sound pressure levels, as well as the suppression of unwanted side lobes. The result: highly directional sound coverage, long reach, great sound quality and excellent levels of speech intelligibility – even in acoustically challenging venues with long reverberation times (such as airports, railway stations, shopping centres, lecture theatres or conference rooms).

LINEA LEN line source loudspeakers are available in five models, with lengths ranging from 20 cm to 220 cm. All **RAL** Classic colours can be supplied, with special colours and photo-realistic decorative surfaces also available on request (**FOHNN® Texture Design**).



LINEA LEN AT A GLANCE:

- **EN 54-24** certified, 100V line source loudspeakers for use with voice alarm systems
- innovative technology by **FOHNN®**
- exceptionally even sound dispersion
- **SIDE LOBE FREE** – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality, as well as a long reach
- weatherproof without requiring additional protection (protection class **IP54** in accordance with **IEC529/EN60529**)
- ball impact resistant front grille made from galvanised sheet steel
- supplied in all **RAL Classic** colours, special colours or exclusive photo-realistic decorative surfaces available on request (**FOHNN® Texture Design**)

Possible applications for **FOHNN®S VOICE ALARM-SERIES**: Shopping centres such as the Trinity Mall in Leeds (UK).

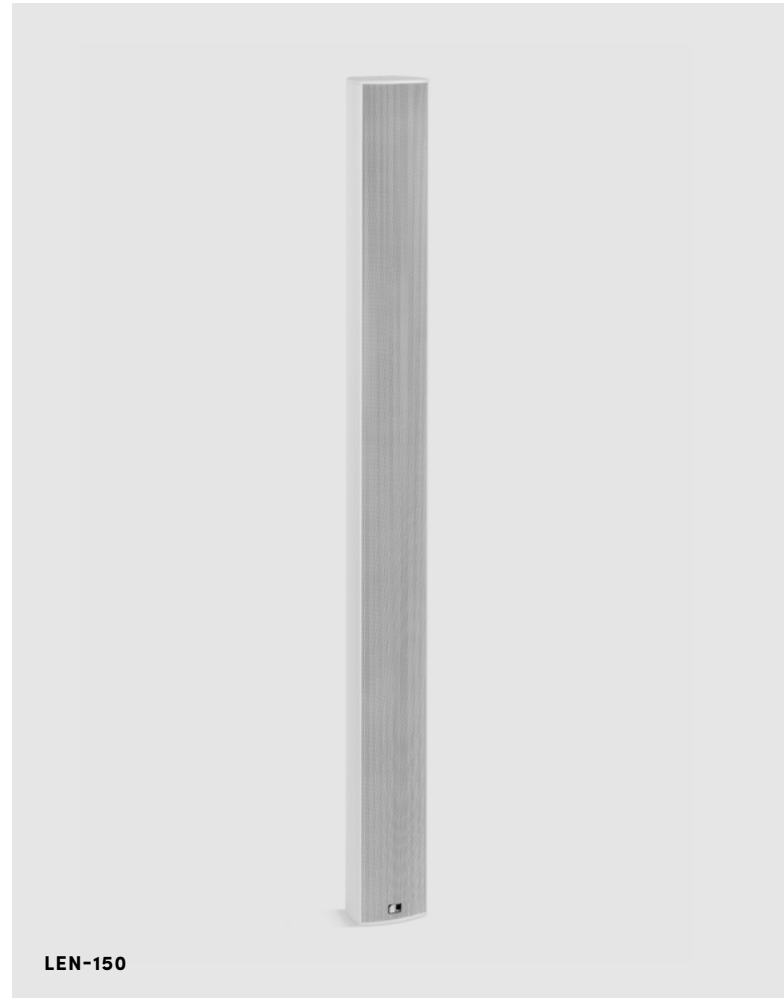


VOICE ALARM SYSTEMS FOR ALL ROOM SIZES

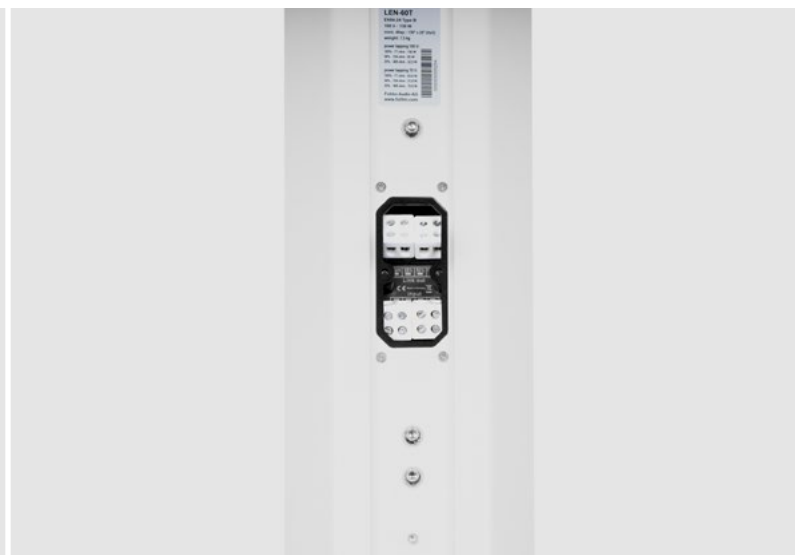
With loudspeakers of up to 150 cm and 220 cm in length, **LINEA LEN** offers exceptional solutions for voice alarm system installation. Using **LEN-150** and **LEN-220** loudspeakers, projects can be realized in just about any size of room. Both loudspeaker systems are notable for their extremely long ranges.

EASIER CONNECTION

All **LEN** loudspeakers are passive systems intended for use with external power amplifiers. They have identical connections for loudspeaker cabling and can be supplied with one of two connector types: The standard connector has 2 x 4 plastic terminal blocks, which are suitable for use with cable cross sections of up to 4 mm². As an option, the loudspeaker can also be ordered with 2 x 4 ceramic terminal blocks, which are suitable for use with cable cross sections of up to 2.5 mm².



Standard connector with plastic terminal blocks



Optional connector with ceramic terminal blocks

Fohhn Linea LEN

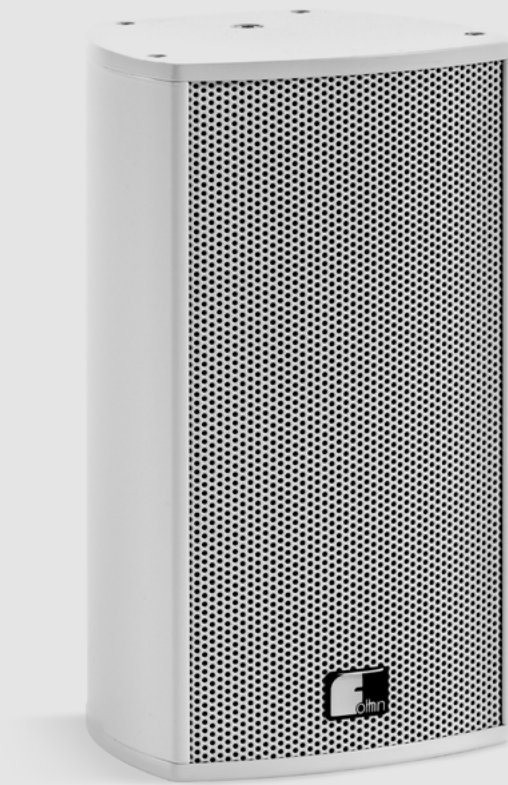
Passive column speakers for voice alarm systems



Datasheet

Model	LEN-20 T	LEN-60 T	LEN-100 T	LEN-150 T	LEN-220 T							
Certificates	EN 54-24 Type B											
Electroacoustical 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 (SDW)											
Number of 4" drivers with treated cones	2	6	8	12	18							
2-way design	No	Yes	Yes	Yes	Yes							
Sensitivity 1W @ 4m acc. EN54-24 [2]	79	83	84	86	87							
SPLmax 100V @ 4m acc. to EN54-24 [2]	92	97	100	99	102	100	103	106	102	105	108	
Transformer options, power handling acc. to EN54-24 100V	50	65	130	80	160	65	130	260	77,5	155	310	
Transformer options, power handling acc. to EN54-24 70V	24,5	31,8	63,6	39,2	77,8	31,8	63,6	128,9	38	75,4	153,1	
Impedance 100% tap [1]	200	154	77	125	63	154	77	38	129	65	32	
Impedance 50% tap [1]	400	308	154	250	125	308	154	77	258	129	65	
Impedance 25% tap [1]	800	615	308	500	250	615	308	154	516	258	129	
Nominal directivity HxV (-6dB, average@1-4kHz)	Deg	130 x 60	130 x 25	130 x 15		130 x 14			130 x 14			
Directivity horizontal (octave band) acc. to EN54-24												
500 Hz	Deg	360	360	360		360			360			
1000 Hz	Deg	190	190	190		190			190			
2000 Hz	Deg	120	120	120		120			120			
4000 Hz	Deg	95	95	95		95			95			
Directivity vertical (octave band) acc. to EN54-24												
500 Hz	Deg	360	90	55		35			25			
1000 Hz	Deg	120	40	25		20			15			
2000 Hz	Deg	60	25	15		14			14			
4000 Hz	Deg	30	13	8		8			8			
Mechanical features												
Housing	weatherproof aluminium housing, powder coated, steel bracings											
Mounting points	4xM6	8xM6	8xM6	8xM6	10xM6							
Front design	ball impact resistant steel grille, galvanized and powder coated in enclosure colour backed by acoustically transparent foam											
Protection class acc. to IEC529/EN60529	IP54											
Terminal	terminal connectors capable of receiving up to 4mm ² , two per pin, terminal cover with dual cable gland for up to 10mm cable diameter											
weight	kg	3	6,5	7,5	9	9,5	12,5	13	14,5	17	18	19,5
Width	mm	130	130	130	130	130	130	130	130	130	130	130
Depth	mm	120	120	120	120	120	120	120	120	120	120	120
Height	mm	230	640	990	990	1460	1460	1460	2200	2200	2200	2200
Standard colours	black (RAL 9005) or white (RAL 9016)											
Optional features												
Custom colours	all RAL Classic colours											
Weather protection	weatherproof without further protection as standard											
Terminal	ceramic terminals capable of receiving up to 2,5mm ²											
CAAD Simulation data	EASE											
Optional accessories												
Wallbracket WAL-1	x	x	x	x	x	x	x	x	x	x	x	x
Wallbracket WAL-03	x											
Wallbracket WLX-100		x	x	x	x	x	x	x	x	x	x	x
Wallbracket WLX-220												x

All measurements normalized to freefield full-space conditions
 [1] impedance measured at a voltage producing 1W per speaker system
 [2] measured in far field of the speaker, calculated to 4m distance



LEN-20

For more information on our loudspeaker systems for voice alarms, please visit our website or contact our planning engineers directly.

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