

## AVENAR all-in-one 4000



AVENAR all-in-one 4000 is a single-point solution made in Germany for applications when both, visual alarm signaling and audible alarm signaling, is required. The device needs no additional external power supply. In standby mode it is powered by the loop and in alarm mode additional power is available by the inbuilt battery. The battery concept ensures a high amount of devices per loop.

### System overview

If fire detection is needed in addition, the device can be combined with any detector of the AVENAR detector 4000 series.



- ▶ Effective alarming: EN 54-3 and EN 54-23 certified
- ▶ Uninterruptible alarm signaling, even in LSN stub
- ▶ Easy and cost efficient installation and replacement
- ▶ Up to 84 elements per loop, up to 127 if operated without detector
- ▶ For combination with any detector of AVENAR detector 4000 series

### Functions

- Addressable device can be used in different applications where visual alarming in addition to audible alarming is necessary (e.g. public buildings, hotels, hospitals).
- Installation on ceiling or on wall.
- 32 different tone types including DIN tone (DIN 33404, part 3).
- Sound pressure level amounts between 65 dB(A) for maintenance and maximum of 97 dB(A).
- Synchronization is ensured for visual alarm and audible alarm signaling of AVENAR all-in-one 4000 devices.
- With 12 LEDs and 360° visibility, the required illumination according to EN 54-23 is achieved. 2 fixed flash rates and 3 different coverage volumes can be set via FSP-5000-RPS.
- Provided that the device was already activated by the fire panel, the high-performance power source ensures uninterruptible alarm signaling in line with VdS 3536. Even if a stub line interrupts or the LSN bus is damaged permanently.
- Cost-efficient and easy installation and replacement (e.g. plug terminals). Due to the modular setup of the product, installation and replacement can be performed in steps (e.g. pre-mounting and wiring of the base).

### Certifications and approvals

Region	Regulatory compliance/quality marks	
Morocco	CMIM	AVENAR all-in-one 4000
Europe	CE	AVENAR all-in-one 4000
	CPD	1438-CPR-0744 AVENAR all-in-one 4000
Poland	CNBOP	4205/2020 AVENAR all-in-one 4000

### Installation/configuration notes






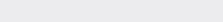

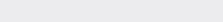

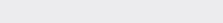
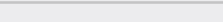
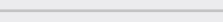



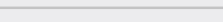




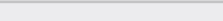

- The device is intended for indoor use. Due to the integrated base sealing it is IP42 certified.
- The device is certified regarding EN 54-23, category C (Ceiling) and category W (Wall).
- Surface and flush cabling is possible.
- For ceiling-mount installation, minimum distance from walls is 300 mm.
- 3 different intensity levels for sound and flash are certified.
- The current consumption on the LSN bus is independent from the sound and flash settings.

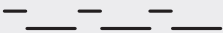
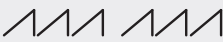

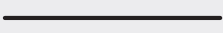
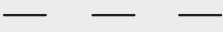
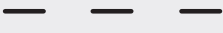
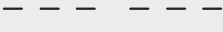
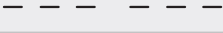


- If necessary, the device can be used exclusively for audible alarm signaling or for visual alarm signaling.
- The device can be used with any detector of the AVENAR detector 4000 series. When operated without detection function, the cover is required.
- To ensure that unauthorized persons have access to the device, the locking clip can be mounted optionally. Consult the building operator or the specialist planners for the building construction whether the locking clip has to be mounted.
- Use the Bosch Safety Systems Designer for reliable planning.

### Sound pressure levels tested according EN 54-3

	Decreasing (DIN tone) dB(A)@1m	Slowly increasing dB(A)@1m
High	94.3	97.9
Medium	86.9	88.2
Low	80.6	82.7

### Tone table

Tone table			
Number	Sound pattern	Tone type	Frequency/modulation
1		Decreasing DIN tone (DIN 33404 part 3)	1200-500 Hz at 1 Hz, pausing 10 ms
2		Increasing	2400-2900 Hz at 50 Hz
3		Increasing	2400-2900 Hz at 7 Hz
4		Increasing	800/1000 Hz at 7 Hz
5		Pulse tone	1000 Hz at 1 Hz
6		Pulse tone	1000 Hz / 0.25 s on, 1 s off
7		Variable tone	800/1000 Hz at 1 Hz
8		Continuous tone	970 Hz
9		Variable tone	800/1000 Hz at 2 Hz
10		Pulse tone	970 Hz / 0.5 s on/off, 3 tones in 4 cycles
11		Pulse tone	2900 Hz / 0.5 s on/off, 3 tones in 4 cycles
12		Pulse tone	1000 Hz / 0.5 s on/off, 3 tones in 4 cycles
13		Increasing	800/1000 Hz at 1 Hz
14		Variable tone	510 Hz / 610 Hz, 0.5 s on/off
15		BMW tone	800 Hz / 60 s on, 10 s off, 3 cycles
16		Pulse tone	2900 Hz at 1 Hz
17		Variable tone	2400/2900 Hz at 2 Hz
18		Increasing	2400-2900 Hz at 1 Hz
19		Increasing	1400-2000 Hz at 10 Hz
20		Slowly increasing	500 -1200 Hz / 0.5 s
21		Continuous tone	2900 Hz
22		Increasing, fast sweeping	800/1000 Hz at 50 Hz

Tone table			
Number	Sound pattern	Tone type	Frequency/modulation
23		Pulse tone	554 Hz / 100 ms + 440 Hz / 400 ms
24		Slowly increasing	500-1200 Hz in 3.5 s, pausing 0.5 s
25		Pulse tone	2900 Hz / 150 ms on, 100 ms off
26		Continuous tone	660 Hz
27		Pulse tone	660 Hz / 1.8 s on/off
28		Pulse tone	660 Hz / 150 ms on/off
29		USA temporal pattern	610 Hz / 0.5 s on/off x 3 then pausing 1.5 s
30		USA temporal pattern	950 Hz / 0.5 s on/off x 3 then pausing 1.5 s
31		3 x HF/LF	1000/800 Hz (0.25 s on / alternating)
32		Thyssen Krupp tone	450/650 Hz at 2 Hz

### White flash

	Ceiling	Wall
High	C-3-9.8	W-2.4-6.0
Medium	C-3-7.5	W-2.4-4.2
Low	C-3-4.9	W-2.4-3.5

### Red flash

	Ceiling	Wall
High	C-3.0-5.6	W-2.4-3.0
Medium	C-3.0-4.8	W-2.4-2.8
Low	C-3.0-3.2	W-2.4-2.3

## Technical specifications

### Dimensions

Ø x H, with cover	145 x 78 mm
Ø x H, with detector	145 x 111 mm

### Electrics

Operating voltage	15 to 33 V
Current consumption	max. 865 µA

### Mechanics

Wire gauge	0.14 to 1.5 mm <sup>2</sup>
Housing material	Plastic, ABS
Housing color	Red, similar to RAL 3001 White, similar to RAL 9010
Weight (without detector, with cover)	473 g

### Environmental conditions

Operating temperature	-10 to +55 °C
Storage temperature	-30 to +75 °C
Protection category (EN 60529)	IP42

### Power source

Battery	1 x Lithium battery pack
Battery life cycle* (years)	10

\* The typical battery life cycle depends on application behavior, operating temperature and environmental conditions. Incorrect handling leads to deviations. For more information about the typical battery life cycle, contact the manufacturer. Only use the device with Bosch battery pack (FNX-425U-BAT). Battery state shown on fire panel.

## Features

Sound pressure level at 1 m distance	Max. 97 dB(A)
Frequency range	440 to 2900 Hz
Flash rate	0.5 or 1.0 Hz
Flash color	white or red

## Ordering information

### **FNX-425U-WFWH Acoustic/visual alarm wh, wh**

uninterruptible analog addressable combination of base sounder (EN 54-3) and visual alarm (EN 54-23) for indoor use, white housing, white flash. A battery pack is included in the delivery. For use without detector, order the cover separately.

Order number **FNX-425U-WFWH | F.01U.359.432**

### **FNX-425U-RFWH Acoustic/visual alarm rd, wh**

uninterruptible analog addressable combination of base sounder (EN 54-3) and visual alarm (EN 54-23) for indoor use, white housing, red flash. A battery pack is included in the delivery. For use without detector, order the cover separately.

Order number **FNX-425U-RFWH | F.01U.359.433**

### **FNX-425U-WFRD Acoustic/visual alarm wh, rd**

uninterruptible analog addressable combination of base sounder (EN 54-3) and visual alarm (EN 54-23) for indoor use, red housing, white flash. A red cover and a battery pack are included in the delivery.

Order number **FNX-425U-WFRD | F.01U.359.434**

### **FNX-425U-RFRD Acoustic/visual alarm rd, rd**

uninterruptible analog addressable combination of base sounder (EN 54-3) and visual alarm (EN 54-23) for indoor use, red housing, red flash. A red cover and a battery pack are included in the delivery.

Order number **FNX-425U-RFRD | F.01U.359.435**

## Accessories

### **FNX-425U-BAT Battery for AVENAR all-in-one 4000**

Battery pack for AVENAR all-in-one 4000, 30 battery packs per order unit.

Order number **FNX-425U-BAT | F.01U.359.438**

### **FNX-425U-COVWH Cover white for AVENAR all-in-one 4000**

white cover for AVENAR all-in-one 4000, 10 covers per order unit.

Order number **FNX-425U-COVWH | F.01U.359.436**

### **FNX-425U-COVRD Cover red for AVENAR all-in-one 4000**

red cover for AVENAR all-in-one 4000, 10 covers per order unit.

Order number **FNX-425U-COVRD | F.01U.359.437**

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