

FNM-420U-A-BS Base Sounders (Indoor), uninterruptible



- ▶ Uninterruptible alarm signaling, even in LSN stub
- ▶ Maximum current consumption of less than 4.35 mA
- ▶ Volume of up to 93.1 dB(A)
- ▶ Immediate synchronization
- ▶ Long life cycle and modern design

This device, if operated with an industrial, high-performance power source for bypassing the power supply ensures uninterruptible alarm signaling in line with VdS 3536, even if a stub line is broken or the bus system is permanently damaged (e.g. by fire). The power source is laser-welded, making it leak proof. The gold contacts allow the devices to be used in adverse environmental conditions. The control panel enables continuous and reliable monitoring of the power source.

The base sounders can be installed in conjunction with an automatic detector from the 420 series or an FNS-420-R LSN Strobe.

System overview

Functions

There are 32 different tones available (including DIN tone 33404, part 3) and the sound level can be set to between 65 and 93 dB(A). Devices with the same tone type offer immediate synchronization within a loop.

Regulatory information

Region	Regulatory compliance/quality marks	
Europe	CE	FNM-420U-A-BS
Morocco	CMIM	FNM-420U-A-BS
Poland	CNBOP	4932/2023 FNM-420U-A-BS

Region	Regulatory compliance/quality marks	
Europe	CPD	0786-CPD-21133 FNM-420U-A-BSWH_FNM-420U-A-BSRD
Germany	VdS	G 212005 FNM-420U-A-BS
	VdS	G 212005 MLAR-Bestaetigung FNM-420U-A-BSWH/-BSRD

Installation/configuration notes

- The device is intended for indoor use.
- The current consumption depends on the tone type selected and is maximum 4.35 mA.
- Devices with different LSN settings (classic and improved) cannot be synchronized.
- The maximum number of devices on each loop depends on the cable diameter and the total current of the loop.
Use the SSD Safety Systems Designer for reliable loop planning.
- The base sounder can be operated with an FNS-420-R LSN Strobe or an automatic detector from the 420/425 series.
- For installation scenarios involving surface-mounted cable routing, an FNM-SPACER Mounting Base is required for surface cabling.
- This device cannot be used with the FPA-5000 type A panel controller.
- To prevent 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.

Tone types

No.	Tone type	Frequency/modulation	Volume dB(A)	EN 54-3** dB(A)
1*	Decreasing = DIN tone	1200-500 Hz at 1 Hz, pause 10 ms	91.0	86.8
2	Increasing	2400-2900 Hz at 50 Hz	91.9	
3	Increasing	2400-2900 Hz at 7 Hz	92.9	
4	Increasing	800/1000 Hz at 7 Hz	90.7	
5	Pulse tone	1000 Hz at 1 Hz	85.6	
6	Pulse tone	1000 Hz/0.25 s on, 1s off	85.1	
7	Variable tone	800/1000 Hz at 1 Hz	88.5	
8	Continuous tone	970 Hz	88.7	84.7
9	Variable tone	800/1000 Hz at 2 Hz	88.2	
10	Pulse tone	970 Hz/0.5 s on/off, 3 tones in 4 cycles	88.6	85.2
11	Pulse tone	2900 Hz/0.5 s on/off	89.9	
12	Pulse tone	1000 Hz/0.5 s on/off	85.6	
13	Increasing	800/1000 Hz at 1 Hz	92.1	
14	Variable tone	510 Hz/610 Hz/0.5 s on/off	86.4	
15	BMW tone	800 Hz/60 s on, 10 s off, 3 cycles	89.0	
16	Pulse tone	2900 Hz at 1 Hz	89.7	
17	Variable tone	2400/2900 Hz at 2 Hz	93.1	
18	Increasing	2400–2900 Hz at 1 Hz	92.4	
19	Increasing/decreasing tone	1400-2000 Hz at 10 Hz	84.6	
20	Slowly increasing/decreasing	500–1200 Hz/0.5 s	90.5	
21	Continuous tone	2900 Hz	87.5	
22	Increasing	800/1000 Hz at 50 Hz	87.5	
23	Pulse tone	554 Hz/100 ms + 440 Hz/400 ms	88.4	
24	Slowly increasing	500–1200 Hz in 3.5 s, pause 0.5 s	92.2	87.4
25	Pulse tone	2900 Hz/150 ms on, 100 ms off	89.0	
26	Continuous tone	660 Hz	89.6	
27	Pulse tone	660 Hz/1.8 s on/off	89.6	
28	Pulse tone	660 Hz/150 ms on/off	88.3	
29	USA temporal 3 tone ISO 8201	610 Hz	86.2	

No.	Tone type	Frequency/modulation	Volume dB(A)	EN 54-3** dB(A)
30	US temporal pattern LF	950 Hz/0.5 s on/off x 3 then pause 1.5 s	89.5	
31	3. Hi/Lo	1000/800 Hz (0.25 s on/alternating)	88.3	
32	Thyssen Krupp tone	450/650 Hz at 2 Hz	88.1	

The sound levels were measured with the device mounted on a shallow mounting plate (supplied with the device). If mounted with FNM-SPACER the stated volumes must be reduced by 5 dB.

Sound pressure level specified with a tolerance of ± 3 dB(A), measured at a distance of 1 m. Constant sound pressure level between 22 V and 33 V operating voltage.

* Default setting: tone in line with DIN 33404, part 3

** Results from EN54-3 testing: lowest value at 15 V at maximum volume level, measured on the measurement axis with the highest results. All other measurements are taken 'on axis' and are not third party verified.

Technical specifications

Dimensions

Ø x H	
• With mounting plate	115 x 40 mm
• With mounting base	115 x 50 mm

Electrics

Operating voltage	15 V DC to 33 V DC
Current consumption	
• Standby	< 1 mA
• Alarm	≤ 4.35 mA

Mechanics

Connections (inputs/outputs)	0.28 mm ² to 2.5 mm ²
Housing material	Plastic, ABS
Housing color	Red, similar to RAL 3001 White, similar to RAL 9010
Weight	Approx. 240 g

Environmental conditions

Permissible operating temperature	-10°C to +55°C (-20°C to +70°C)*
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Permissible storage temperature	-20°C to +70°C
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Special features

Max. sound pressure level at a distance of 1 m away	93.1 dB(A)
Frequency range	440 Hz to 2.90 kHz

Power source

Type	3 V lithium
Capacity	2.6 Ah
Typical life cycle	> 10 years
Permissible operating temperature	-25 °C to +70°C
Permissible storage temperature	-25 °C to +85 °C

Protection category (EN 60529)

FNM-420U-A-BS for indoor areas	IP 21 C (IP42*)
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* Manufacturer's declaration, not third party approved

Ordering information

FNM-420U-A-BSWH Base sounder uninterruptible, white

uninterruptible analog addressable base sounder for indoor use, white, delivered without cover

Order number **FNM-420U-A-BSWH | F.01U.168.575**

FNM-420U-A-BSRD Base sounder uninterruptible indoor, red

uninterruptible analog addressable base sounder for indoor use, red, delivered with cover

Order number **FNM-420U-A-BSRD | F.01U.168.576**

Accessories

FNM-BATTERIES Batteries for uninterruptible sounders

1 order unit = 20 batteries

Order number **FNM-BATTERIES | F.01U.168.622**

FNM-COVER-RD Cover for base sounder, red

1 order unit = 10 covers

Order number **FNM-COVER-RD | F.01U.064.694**

FNM-COVER-WH Cover for base sounder, white

1 order unit = 10 covers

Order number **FNM-COVER-WH | F.01U.064.695**

FNM-SPACER-WH Spacer for surface cabling, white

1 order unit = 10 mounting bases

Order number **FNM-SPACER-WH | F.01U.064.692****FNM-SPACER-RD Spacer for surface cabling, red**

1 order unit = 10 mounting bases

Order number **FNM-SPACER-RD | F.01U.064.693****Represented by:****Europe, Middle East, Africa:**

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