

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

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Invented for life



- ▶ Uninterruptible alarm signaling – even in the 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 as a standalone device or in conjunction with an automatic detector from the 420 series or an FNS-420-R LSN Strobe.

## 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.

## Certifications and approvals

Region	Regulatory compliance/quality marks	
Germany	VdS	G 212005 FNM-420U-A-BS
Europe	CE	FNM-420U-A-BS
	CPD	0786-CPD-21133 FNM-420U-A-BSWH_FNM-420U-A-BSRD
Poland	CNBOP	1573/2013 FNM-420U-A-BS

## 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 Bosch Planning Software 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.
- The base sounder requires a cover when used without a detector or strobe.
- This device cannot be used with the FPA-5000 type A panel controller.
- The locking clip has to be mounted if the device is installed within reach. Consult the building operator or the specialist planners for the building infrastructure whether the removal lock 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	

No.	Tone type	Frequency/modulation	Volume dB(A)	EN 54-3** dB(A)
29	USA temporal 3 tone ISO 8201	610 Hz	86.2	
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  $\pm 3$  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 <sup>2</sup> to 2.5 mm <sup>2</sup>
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)*
Permissible storage temperature	-20°C to +70°C

#### 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  
Order number **FNM-420U-A-BSWH**

**FNM-420U-A-BSRD Base sounder uninterruptible indoor, red**  
uninterruptible analog addressable base sounder for indoor use, red  
Order number **FNM-420U-A-BSRD**

#### Accessories

**FNM-BATTERIES Batteries for uninterruptible sounders**  
1 order unit = 20 batteries  
Order number **FNM-BATTERIES**

**FNM-COVER-RD Cover for base sounder, red**  
1 order unit = 10 covers  
Order number **FNM-COVER-RD**

**FNM-COVER-WH Cover for base sounder, white**  
1 order unit = 10 covers  
Order number **FNM-COVER-WH**

**FNM-SPACER-WH Spacer for surface cabling, white**  
1 order unit = 10 mounting bases  
Order number **FNM-SPACER-WH**

**FNM-SPACER-RD Spacer for surface cabling, red**  
1 order unit = 10 mounting bases  
Order number **FNM-SPACER-RD**

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