FNM-420-A-BS Base Sounder, Indoor

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Invented for life

▶ Volume of up to 92.1 dB(A)

▶ Maximum current consumption of less than 3.85 mA

▶ Up to 100 sounders per LSN loop

▶ Immediate synchronization

▶ 32 different tone types can be selected (incl. DIN tone)

The Base Sounders Indoor are used for signaling an alarm directly at the fire location. They can be employed either as base sounders or stand-alone sounders.

Functions

The device allows to select 32 types of alarm and evacuation tones (including DIN tone 33404, part 3) for different requirements.
You can adjust the sound pressure by five levels according to the operational environment. Depending on the tone type and volume set, the sound pressure varies between 65 dB(A) and 92.1 dB(A).
Sounders of the same LSN loop and with the same tone type provide immediate synchronization. The device maintains LSN loop functions in the event of wire interruption or short-circuit thanks to two integrated isolators.
Change of the device settings can be done in the FSP-5000-RPS programming software.

Certifications and approvals

Complies with
* EN 54-3:2001
* EN 54-17:2005

Region	Regulatory compliance/quality marks	
Europe	CPR	0832-CPR-F1919 FNM-420-A-BS-RD_FNM-420-A-BS-WH
Germany	VdS	G 210003 FNM-420-A-BS-WH/-RD
Europe	CE	FNM-420-A-BS-WH, FNM-420-A-BS-RD
Poland	CNBOP	0913/2011 FNM-420-A-BS-RD -A-BS-WH
Ukraine	MOE	UA1.016.0113307-11 FNM-420-A-BS-WH_FNM-420-A-BS-RD

Installation/configuration notes

* The device is intended for indoor use.
* The current consumption depends on the tone type selected and is maximum 3.85 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	EN 54-3 **
1*	Decreasing = DIN tone	1200-500 Hz at 1 Hz, pause 10 ms	90.0	84.6
2	Increasing	2400-2900 Hz at 50 Hz	90.9	
3	Increasing	2400-2900 Hz at 7 Hz	91.9	
4	Increasing	800/1000 Hz at 7 Hz	89.7	
5	Pulse tone	1000 Hz at 1 Hz	84.6	
6	Pulse tone	1000 Hz/0.25 s on, 1s off	84.1	
7	Variable tone	800/1000 Hz at 1 Hz	87.5	
8	Continuous tone	970 Hz	87.7	86.0
9	Variable tone	800/1000 Hz at 2 Hz	87.2	
10	Pulse tone	970 Hz/0.5 s on/off, 3 tones in 4 cycles	87.6	85.6
11	Pulse tone	2900 Hz/0.5 s on/off	88.9	
12	Pulse tone	1000 Hz/0.5 s on/off	84.6	
13	Increasing	800/1000 Hz at 1 Hz	91.1	
14	Variable tone	510 Hz/610 Hz/0.5 s on/off	85.4	
15	BMW tone	800 Hz/60 s on, 10 s off, 3 cycles	88.0	
16	Pulse tone	2900 Hz at 1 Hz	88.7	
17	Variable tone	2400/2900 Hz at 2 Hz	92.1	
18	Increasing	2400–2900 Hz at 1 Hz	91.4	
19	Increasing/decreasing tone	1400-2000 Hz at 10 Hz	83.6	
20	Slowly increasing/decreasing	500–1200 Hz/0.5 s	89.5	
21	Continuous tone	2900 Hz	86.5	
22	Increasing	800/1000 Hz at 50 Hz	86.5	
23	Pulse tone	554 Hz/100 ms + 440 Hz/400 ms	87.4	
24	Slowly increasing	500–1200 Hz in 3.5 s, pause 0.5 s	91.2	86.3
25	Pulse tone	2900 Hz/150 ms on, 100 ms off	88.0	
26	Continuous tone	660 Hz	88.6	
27	Pulse tone	660 Hz/1.8 s on/off	88.6	
28	Pulse tone	660 Hz/150 ms on/off	87.3	

No.	Tone type	Frequency/modulation	Volume	EN 54-3 **
29	USA temporal 3 tone ISO 8201	610 Hz	85.2	
30	US temporal pattern LF	950 Hz/0.5 s on/off x 3 then pause 1.5 s	88.5	
31	3. Hi/Lo	1000/800 Hz (0.25 s on/alternating)	87.3	
32	Thyssen Krupp tone	450/650 Hz at 2 Hz	87.1	

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

Electrical

Operating voltage	15 V DC to 33 V DC
Current consumption	
• Quiescent state	< 1 mA
• Alarm	≤ 3.85 mA

Mechanics

Connections (inputs/outputs)	0,28 mm² to 2,5 mm²
Dimensions (Ø x H)	
• With mounting plate	115 x 40 mm
• With spacer for surface cabling	115 x 50 mm
Housing	
• Material	Plastic, ABS
• Color	red, similar to RAL 3001 white, similar to RAL 9010
Weight	
• Without packaging	200 g
• With packageing	245 g

Environmental conditions

Permissible operating temperature	-10 °C to +55 °C (-25 °C to +70 °C)*
Permissible storage temperature	-25 °C to +85 °C
Protection class as per EN 60529	IP 21 C (IP 43*)

* Manufacturer's declaration, not third party approved

Special features

Sound pressure level at a distance of 1 m	max. 92.1 dB(A)
Frequency range	440 Hz up to 2,90 kHz

Ordering information

FNM-420-A-BS-WH Base sounder indoor, white
analog addressable base sounder for indoor use, white
Order number **FNM-420-A-BS-WH**

FNM-420-A-BS-RD Base sounder indoor, red
analog addressable base sounder for indoor use, red
Order number **FNM-420-A-BS-RD**

Accessories
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**