

## FNM-420-A Sounder Indoor



- ▶ Volume of up to 101.3 dB(A)
- ▶ Maximum current consumption of less than 4.05 mA
- ▶ Up to 100 sounders per LSN loop
- ▶ Immediate synchronization
- ▶ 32 different tone types can be selected (incl. DIN tone)

The indoor sounders are used independently for signaling an alarm directly at the fire location.

### System overview

### 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 101dB(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.

### Regulatory information

Complies with

- EN 54-3:2001
- EN 54-17:2005

Region	Regulatory compliance/quality marks	
Europe	CE	FNM-420-A-WH, FNM-420-A-RD

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Macao Special Administrative Region Government	CB	0783/DT/SEL/2011
Morocco	CMIM	FNM-420-A
Poland	CNBOP	0912/2011 FNM-420-A-RD -B-RD -A-WH
Europe	CPR	0786-CPR-21617 FNM-420-A-RD_FNM-420-A-WH
Ukraine	MOE	UA1.016.0113309-11 FNM-420-A-WH_FNM-420-A-RD
Hungary	TMT	TMT-54/2009 FNM-420-A, FNM-420-B
Germany	VdS	G 210002 FNM-420-A-WH/-RD

### Installation/configuration notes

- The device is intended for indoor use.
- The current consumption depends on the tone type selected and is maximum 4.05 mA.
- 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.
- This device cannot be used with the FPA-5000 type A panel controller.

### 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	99.0	93.9
2	Increasing	2400-2900 Hz at 50 Hz	98.7	
3	Increasing	2400-2900 Hz at 7 Hz	99.6	
4	Increasing	800/1000 Hz at 7 Hz	99.0	
5	Pulse tone	1000 Hz at 1 Hz	101.2	
6	Pulse tone	1000 Hz/0.25 s on, 1s off	100.5	
7	Variable tone	800/1000 Hz at 1 Hz	101.3	
8	Continuous tone	970 Hz	99.1	94.7
9	Variable tone	800/1000 Hz at 2 Hz	101.0	
10	Pulse tone	970 Hz/0.5 s on/off, 3 tones in 4 cycles	99.0	94.0
11	Pulse tone	2900 Hz/0.5 s on/off	100.1	
12	Pulse tone	1000 Hz/0.5 s on/off	101.2	
13	Increasing	800/1000 Hz at 1 Hz	100.3	
14	Variable tone	510 Hz/610 Hz/0.5 s on/off	97.8	
15	BMW tone	800 Hz/60 s on, 10 s off, 3 cycles	95.0	
16	Pulse tone	2900 Hz at 1 Hz	99.2	
17	Variable tone	2400/2900 Hz at 2 Hz	99.4	
18	Increasing	2400–2900 Hz at 1 Hz	101.2	
19	Increasing/decreasing tone	1400-2000 Hz at 10 Hz	97.3	
20	Slowly increasing/decreasing	500–1200 Hz/0.5 s	98.5	
21	Continuous tone	2900 Hz	98.1	
22	Increasing	800/1000 Hz at 50 Hz	99.8	
23	Pulse tone	554 Hz/100 ms + 440 Hz/400 ms	95.7	
24	Slowly increasing	500–1200 Hz in 3.5 s, pause 0.5 s	100.1	96.0
25	Pulse tone	2900 Hz/150 ms on, 100 ms off	99.6	
26	Continuous tone	660 Hz	97.6	
27	Pulse tone	660 Hz/1.8 s on/off	97.6	
28	Pulse tone	660 Hz/150 ms on/off	96.4	
29	USA temporal 3 tone ISO 8201	610 Hz	97.7	

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	95.8	
31	3. Hi/Lo	1000/800 Hz (0.25 s on/alternating)	100.7	
32	Thyssen Krupp tone	450/650 Hz at 2 Hz	96.5	

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.

Permissible storage temperature -25 °C to +85 °C

Protection class as per EN 60529 IP 21 C (IP 42 \*)

\* Manufacturer's declaration, not third party approved

### Special features

Sound pressure level at a distance of 1 m max. 101.3 dB(A)

Frequency range 440 Hz up to 2,90 kHz

## Technical specifications

### Electrical

Operating voltage	15 V DC to 33 V DC
Current consumption	
• Quiescent state	< 1 mA
• Alarm	$\leq 4.05$ mA

### Mechanics

Connections (inputs/outputs)	0,28 mm <sup>2</sup> to 2,5 mm <sup>2</sup>
Dimensions (H x W x D)	105 x 105 x 95 mm
Housing	
• Material	Plastic, ABS
• Color	red, similar to RAL 3001 white, similar to RAL 9010
Weight	
• Without packaging	250 g
• With packaging	300 g

### Environmental conditions

Permissible operating temperature	-10°C to +55°C (-25 °C to +70 °C)*
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## Ordering information

### FNM-420-A-WH Sounder indoor, white

analog addressable stand-alone sounder for indoor use, white

Order number **FNM-420-A-WH | F.01U.064.689**

### FNM-420-A-RD Sounder indoor, red

analog addressable stand-alone sounder for indoor use, red

Order number **FNM-420-A-RD | F.01U.064.690**

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