



FNM-420-A Sounder Indoor



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

Functions

The sounder allows to select 32 types of alarm and evacuation tones (incl. 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 and 101.3 dB. Sounders of the same LSN loop and with the same tone type provide synchronization without delay. The sounders can be programmed easily via the fire panel.

Certifications and Approvals

Complies with

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

- ▶ Volume up to 101.3 dB(A)
- ▶ Maximum current consumption less than 3,9 mA
- ▶ Up to 100 sounders per loop
- ▶ Constant sound pressure level between 22 V and 33 V operating voltage
- ▶ Synchronization without delay
- ▶ Easy to install
- ▶ Long lifetime and modern design
- ▶ 32 different tone variants can be selected (incl. DIN tone)
- ▶ Maintains LSN loop functions in the event of wire interruption or short-circuit thanks to two integrated isolators

Region	Certification	
Germany	VdS	G 210002 FNM-420-A-WH/-RD
Europe	CE	FNM-420-A-WH, FNM-420-A-RD
	CPD	0832-CPD-1006 FNM-420-A-RD_FNM-420-A-WH
Poland	CNBOP	0912/2011 FNM-420-A-RD-B-RD-A-WH
	MOE	UA1.016.0113309-11 FNM-420-A-WH_FNM-420-A-RD

Installation/Configuration Notes

- You can use this device only with the Panel Controller MPC-xxxx-B or the FPA-1200. The Panel Controller MPC-xxxx-A cannot be used.
- The signaling devices are intended for indoor use.
- The current consumption depends on the tone type selected and is maximum 3,9 mA.
- The maximum quantity of sounders on a loop depends on the cable diameter and overall loop current. Please refer to the Fire System Designer for a safe loop configuration.

Tone type table

Nr	Signal type (Tone type)	Frequency / modulation	Sound pres- sure level dB(A)	EN 54-3 **
1*	Sweeping tone = DIN tone	1200-500 Hz at 1 Hz, off 10 ms	99.0 dB(A)	93.9 dB(A)
2	Sweeping tone	2400-2900 Hz at 50 Hz	98.7 dB(A)	
3	Sweeping tone	2400-2900 Hz at 7 Hz	99.6 dB(A)	
4	Sweeping tone	800/1000 Hz at 7 Hz	99.0 dB(A)	
5	Intermittent tone	1000 Hz at 1 Hz	101.2 dB(A)	
6	Intermittent tone	1000 Hz / 0.25 s on, 1 s off	100.5 dB(A)	
7	Alternating tone	800/1000 Hz at 1 Hz	101.3 dB(A)	
8	Continuous tone	970 Hz	99.1 dB(A)	94.7 dB(A)
9	Alternating tone	800/1000 Hz at 2 Hz	101.0 dB(A)	
10	Intermittent tone	970 Hz / 0.5 s on/ off, 3 tones per 4 cycles	99.0 dB(A)	94.0 dB(A)
11	Intermittent tone	2900 Hz / 0.5 s on/off	100.1 dB(A)	
12	Intermittent tone	1000 Hz / 0.5 s on/off	101.2 dB(A)	
13	Sweeping tone	800/1000 Hz at 1 Hz	100.3 dB(A)	
14	Alternating tone	510 Hz/610 Hz / 0.5 s on/off	97.8 dB(A)	
15	BMW tone	800 Hz / 60 s on, 10 s off, 3 cycles	95.0 dB(A)	
16	Intermittent tone	2900 Hz at 1 Hz	99.2 dB(A)	
17	Alternating tone	2400/2900 Hz at 2 Hz	99.4 dB(A)	
18	Sweeping tone	2400-2900 Hz at 1 Hz	101.2 dB(A)	
19	Sweeping tone	1400-2000 Hz at 10 Hz	97.3 dB(A)	
20	Sweeping tone	500-1200 Hz / 0.5 s	98.5 dB(A)	
21	Continuous tone	2900 Hz	98.1 dB(A)	
22	Sweeping tone	800/1000 Hz at 50 Hz	99.8 dB(A)	
23	Alternating tone	554 Hz/100 ms + 440 Hz/400 ms	95.7 dB(A)	
24	Slow Whoop	500-1200 Hz in 3.5 s, off 0.5 s	100.1 dB(A)	96.0 dB(A)
25	Intermittent tone	2900 Hz / 150 ms on, 100 ms off	99.6 dB(A)	

Nr	Signal type (Tone type)	Frequency / modulation	Sound pres- sure level dB(A)	EN 54-3 **
26	Continuous tone	660 Hz	97.6 dB(A)	
27	Intermittent tone	660 Hz; 1.8 s on/ off	97.6 dB(A)	
28	Intermittent tone	660 Hz / 150 ms on/off	96.4 dB(A)	
29	USA temporal 3 tone ISO 8201	610 Hz	97.7 dB(A)	
30	US Temporal Pattern LF	950 Hz / 0.5 s on/ off x 3 then 1.5 s off	95.8 dB(A)	
31	3. Hi/Lo	1000/800 Hz (0.25 s on/alter- nate)	100.7 dB(A)	
32	Thyssen Krupp tone	450/650 Hz at 2 Hz	96.5 dB(A)	

* Delivery state: Tone in accordance with DIN 33404

** Results taken from EN 54-3 test results: Min SPL @ 15V @ max. volume @ loudest node dB(A). All other SPL measurements are taken 'on axis' and are not third party verified.

Sound pressure level tolerance is ± 3 dB(A).

Parts Included

Qty.	Components
1	Sounder Indoor
1	Key to open the housing

Technical Specifications

Electrical

Operating voltage 15 V DC to 33 V DC

Current consumption

- Quiescent state < 1 mA
- Alarm < 3.9 mA

Mechanics

Connections (inputs/outputs) 0.28 mm² to 2.5 mm²

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 packageing 300 g

Environmental conditions

Permissible operating temperature	-25 °C to +70 °C
Permissible storage temperature	-25 °C to +85 °C
Protection class as per EN 60529	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

Ordering Information

FNM-420-A-WH Sounder Indoor, white for signaling an alarm directly at the fire location, for LSN improved technology	FNM-420-A-WH
FNM-420-A-RD Sounder Indoor, red for signaling an alarm directly at the fire location, for LSN improved technology	FNM-420-A-RD

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