

FNM-420U Sounders, 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 101.3 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.

Functions

There are 32 different tones available (including DIN tone 33404, part 3) and the sound level can be set to between 65 and 101 dB(A). Devices with the same tone type offer immediate synchronization within a loop.

Change of the device settings can be done in the FSP-5000-RPS programming software.

Certifications and approvals

Region	Regulatory compliance/quality marks	
Germany	VdS	G 212006 FNM-420U-A-WH/-RD_FNM-420U-B-RD
Europe	CE	FNM-420U-A/-B

Region	Regulatory compliance/quality marks	
	CPD	0786-CPD-21134 FNM-420U-A-WH_FNM-420U-A-RD_FNM-420U-B-RD
Poland	CNBOP	1572/2013 FNM-420U-A_-B

Installation/configuration notes

- 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.
- 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	93.0
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, 1 s off	100.5	
7	Variable tone	800/1000 Hz at 1 Hz	101.3	
8	Continuous tone	970 Hz	99.1	93.1
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	92.6
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	94.0
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	
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 ± 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

H x W x D	
<ul style="list-style-type: none"> FNM-420U-A for indoor areas 	105 x 105 x 95 mm
<ul style="list-style-type: none"> FNM-420U-B for outdoor areas 	110 x 110 x 95 mm

Electrics

Operating voltage	15 V DC to 33 V DC
Current consumption	
<ul style="list-style-type: none"> Standby 	< 1 mA
<ul style="list-style-type: none"> 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, RAL 9010
Weight	Approx. 295 g

Environmental conditions

Permissible operating temperature	FNM-420U-A for indoor areas -10°C to +55°C (-20°C to +70°C)* FNM-420U-B for outdoor areas -25°C to +70°C
Permissible storage temperature	-25°C to +85°C

Special features

Max. sound pressure level at a distance of 1 m away	101.3 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

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Permissible operating temperature	-25°C to +70°C
Permissible storage temperature	-25°C to +85°C

Protection category (EN 60529)

FNM-420U-A for indoor areas	IP 21 C (IP42*)
FNM-420U-B for outdoor areas	IP 33 C (IP66*)

* Manufacturers specification, not third party verified

Ordering information

FNM-420U-A-WH Sounder uninterruptible indoor, white
uninterruptible analog addressable stand-alone
sounder for indoor use, white
Order number **FNM-420U-A-WH**

FNM-420U-A-RD Sounder uninterruptible indoor, red
uninterruptible analog addressable stand-alone
sounder for indoor use, red
Order number **FNM-420U-A-RD**

FNM-420U-B-RD Sounder uninterruptible outdoor, red
uninterruptible analog addressable stand-alone
sounder for outdoor use, red
Order number **FNM-420U-B-RD**

Accessories

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