

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 |

| Region | Regulatory compliance/quality marks | |
|--|-------------------------------------|--|
| 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 ± 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 | ≤ 4.05 mA |

Mechanics

| | |
|------------------------------|--|
| Connections (inputs/outputs) | 0,28 mm ² to 2,5 mm ² |
| 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)* |
|-----------------------------------|---------------------------------------|

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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