

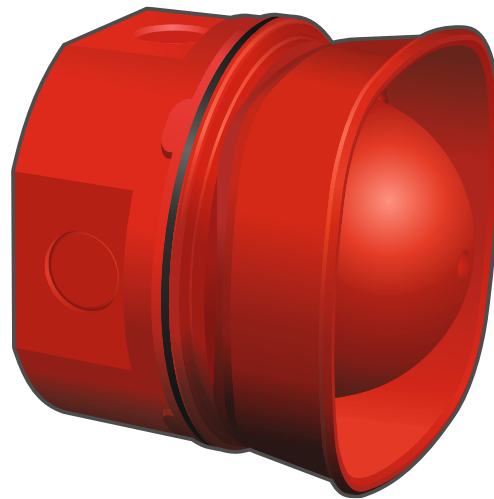


Conventional fire alarm sounder
for outdoor use

SPP-111

Firmware version 1.00

EN



spp-111_en 04/24

Satel®

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IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual in order to avoid mistakes that can lead to malfunction or even damage to the equipment.

Disconnect power before making any electrical connections.

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

The following symbols may be used in this manual:



- note,



- caution.

The SPP-111 outdoor sounder is used for acoustic alarm signaling. It is designed to work with the SATEL fire alarm control panels (conventional: CSP-104, CSP-108, CSP-204, CSP-208; addressable: ACSP-402).

1. Features

- Acoustic signaling by means of piezoelectric transducer.
- 32 selectable tones.
- Selectable volume level.

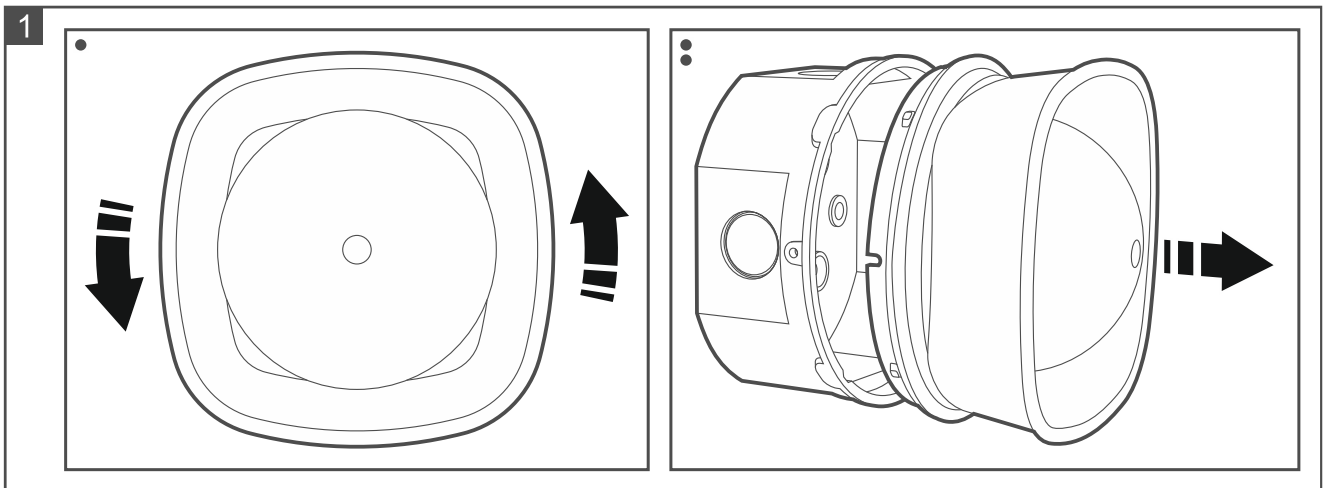
2. Installation



Disconnect power before making any electrical connections.

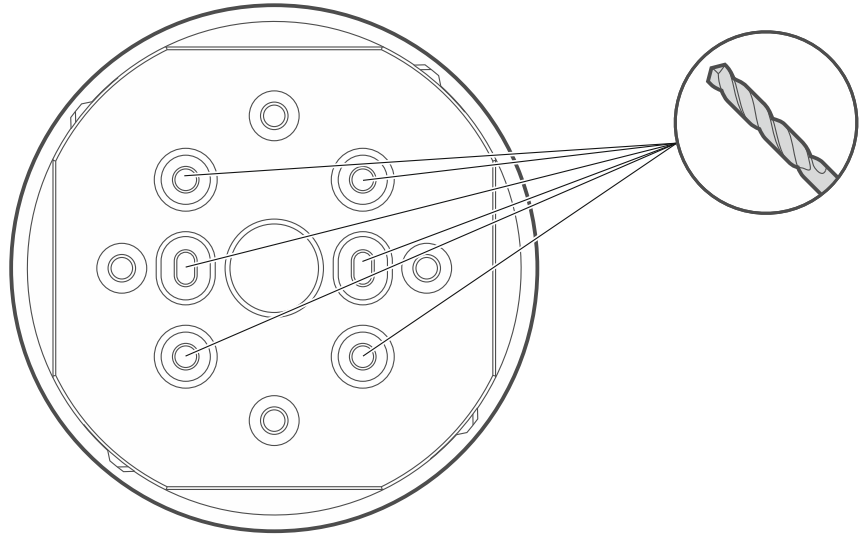
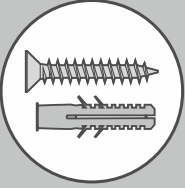
The SPP-111 sounder is designed for installation outdoors and indoors in places where condensation of water vapor may occur.

1. Turn the cover counter-clockwise and remove it (Fig. 1).

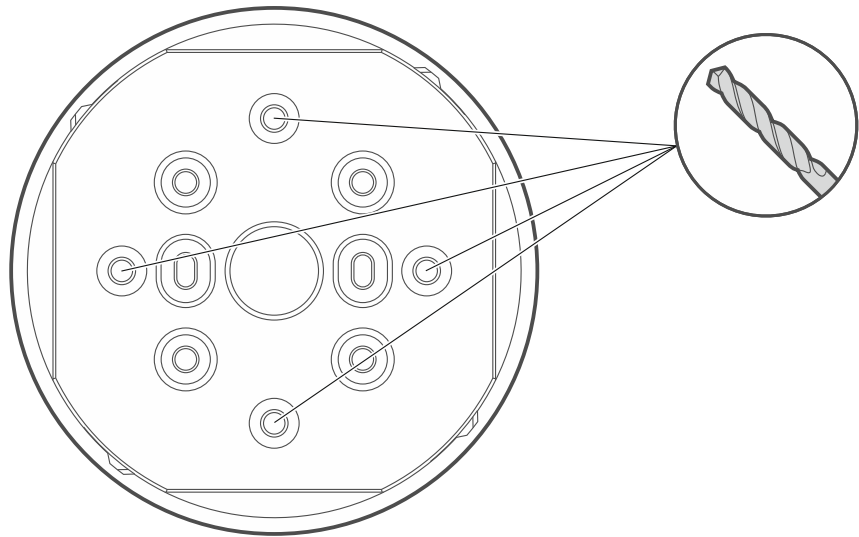
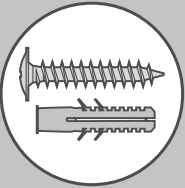


2. Drill the holes for screws in the enclosure base. Use the countersunk screws (Fig. 2) or the non-countersunk screws (Fig. 3) to fasten the enclosure base to the wall.
3. Drill the hole(s) for cables in the enclosure base. The markings for the holes are provided on the bottom (Fig. 4) and on the sides (Fig. 5) of the base. If you drill the holes in the sides of the base, use cable glands (recommended cable gland: PG-11).
4. Place the enclosure base against the wall and mark the location of mounting holes.
5. Drill the holes for wall plugs (screw anchors) in the wall.
6. Run the cables inside the enclosure base.
7. Use wall plugs and screws to secure the enclosure base to the wall. Select wall plugs specifically intended for the mounting surface (different for concrete or brick wall, different for plaster wall, etc.). If you drilled the holes for wires and/or wall plugs on the bottom of the base, seal them using silicone.
8. Use the DIP switches to configure the sounder settings (see: “Configuring the sounder settings” p. 4).

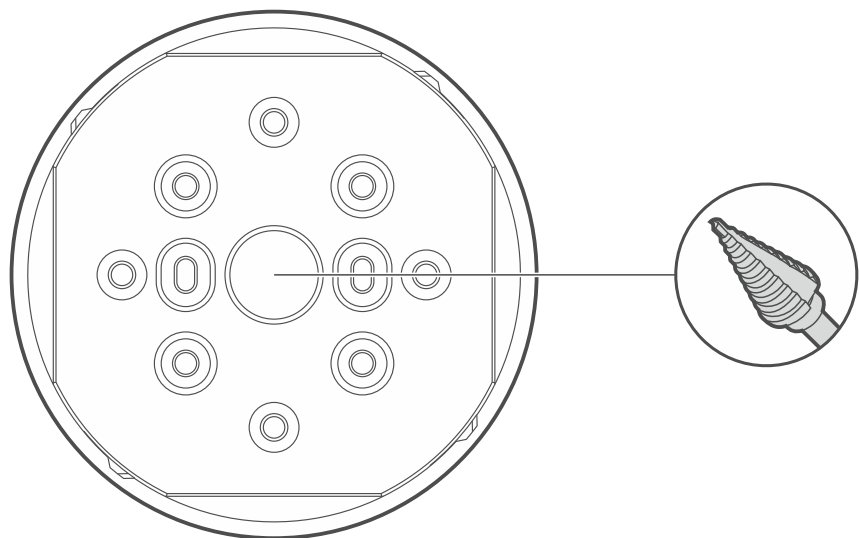
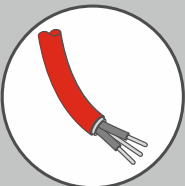
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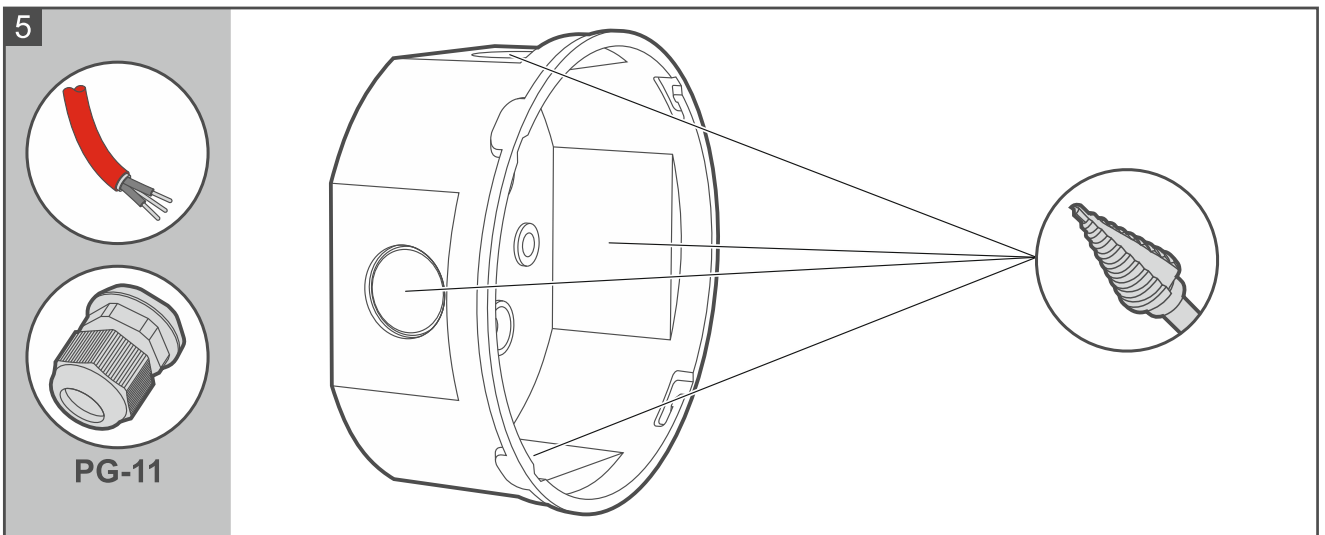


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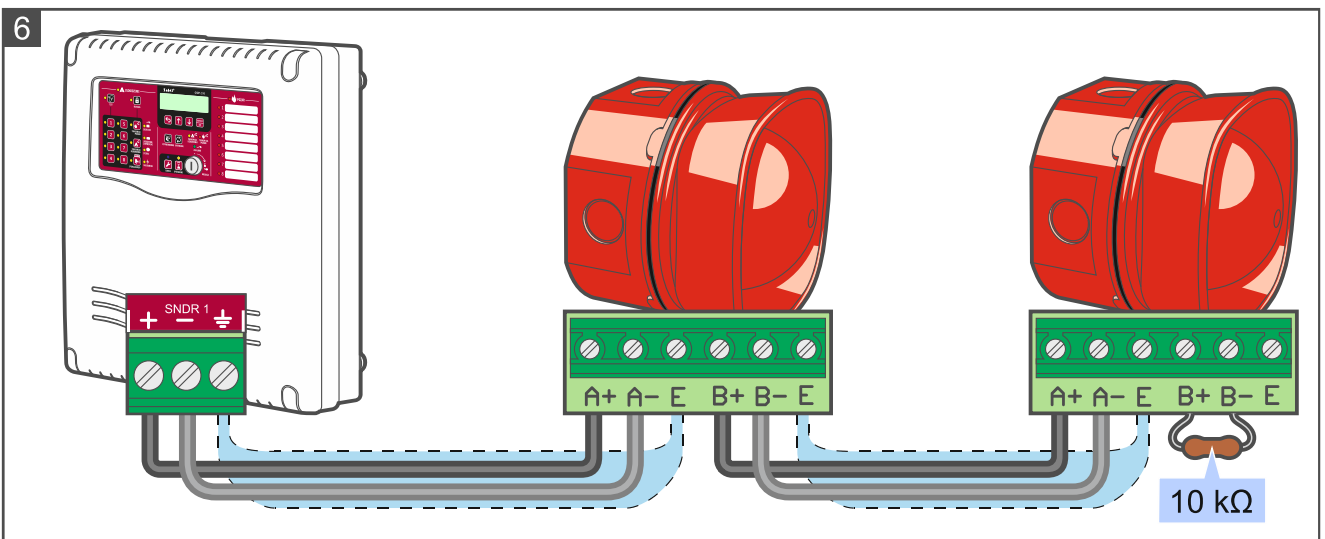


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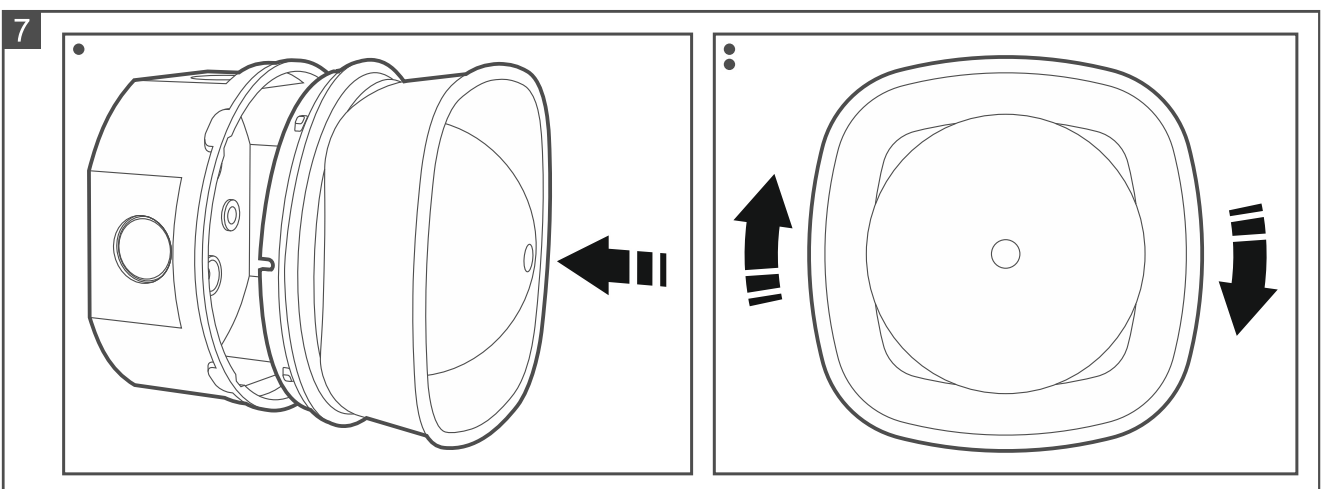


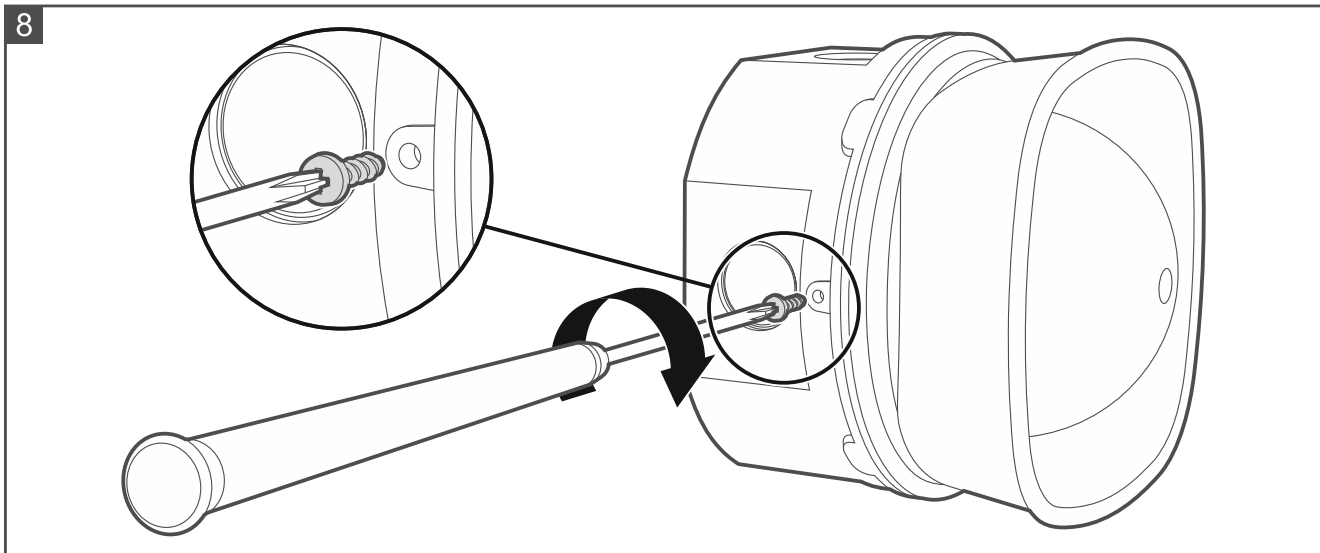
9. Connect the zone circuit wires to the sounder (Fig. 6). If the sounder is connected to the zone circuit at the end of line, screw a 10 kΩ resistor to its terminals. You can connect the cable shields to the E / \perp terminals (using a shielded cable is not required).



10. Replace the cover and turn it clockwise (Fig. 7).

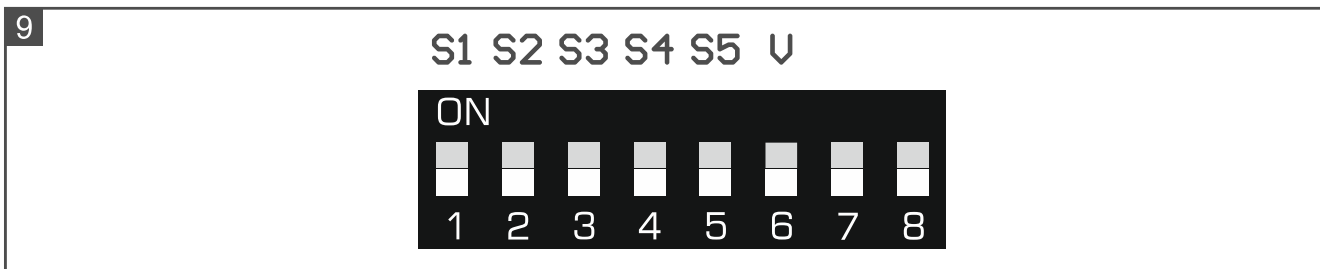
11. Lock the cover with a screw (Fig. 8).





2.1 Configuring the sounder settings

Use the DIP switches on the electronics board (Fig. 9) to configure the sounder settings.



2.1.1 Selecting the tone

To select the tone, use the switches 1-5, marked as S1-S5 on the electronics board. The tones and their corresponding switch settings are described in Table 1 (where: switch in ON position = 1; switch in OFF position = 0).

| N | DIP switch | Acoustic signaling | | |
|----|------------|--------------------|--------------|------------------------------------|
| | 12345 | | Frequency Hz | Description |
| 1 | 00000 | | 800 & 970 | 2 Hz (250 ms – 250 ms) |
| 2 | 10000 | | 800-970 | 7 Hz (7/s) |
| 3 | 01000 | | 800-970 | 1 Hz (1/s) |
| 4 | 11000 | | 2850 | Continuous |
| 5 | 00100 | | 2400-2850 | 7 Hz |
| 6 | 10100 | | 2400-2850 | 1 Hz |
| 7 | 01100 | | 500-1200 | 3 s sound, 0.5 s silence, repeated |
| 8 | 11100 | | 1200-500 | 1 Hz |
| 9 | 00010 | | 2400-2850 | 2 Hz (250 ms – 250 ms) |
| 10 | 10010 | | 970 | 0.5 Hz (1 s) |
| 11 | 01010 | | 800 & 970 | 1 Hz (500 ms – 500 ms) |
| 12 | 11010 | | 2850 | 0.5 Hz (1 s) |
| 13 | 00110 | | 970 | 0.8 Hz (250 ms / 1 s) |
| 14 | 10110 | | 970 | Continuous |
| 15 | 01110 | | 554 & 440 | 100 ms – 400 ms |
| 16 | 11110 | | 660 | 3.3 Hz (150 ms) |




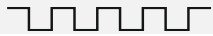

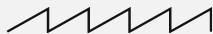

| No | DIP switch | Acoustic signaling | | |
|----|------------|---|--------------|---|
| | 12345 | | Frequency Hz | Description |
| 17 | 00001 | — — — | 660 | 0.28 Hz (1.8 s) |
| 18 | 10001 | — — — | 660 | 0.05 Hz (13 s / 6.5 s) |
| 19 | 01001 | ————— | 660 | Continuous |
| 20 | 11001 |  | 554 & 440 | 0.5 Hz (1 s) |
| 21 | 00101 | — — — | 660 | 1 Hz (500 ms – 500 ms) |
| 22 | 10101 | — — — | 2850 | 4 Hz (150 ms – 100 ms) |
| 23 | 01101 |  | 800-970 | 50 Hz |
| 24 | 11101 |  | 2400-2850 | 50 Hz |
| 25 | 00011 | - - - - - | 970 | 3 x 500 ms sound, 1.5 s silence, repeated |
| 26 | 10011 | - - - - - | 800-970 | 3 x 500 ms sound, 1.5 s silence, repeated |
| 27 | 01011 | - - - - - | 970 & 800 | 3 x 500 ms sound, 1.5 s silence, repeated |
| 28 | 11011 | ————— | 2400 | Continuous |
| 29 | 00111 |  | 990 & 650 | 2 Hz (250 ms – 250 ms) (Symphoni Tones) |
| 30 | 10111 |  | 510 & 610 | 2 Hz (250 ms – 250 ms) (Squashni Micro Tones) |
| 31 | 01111 |  | 300-1200 | 1 Hz |
| 32 | 11111 |  | 510 & 610 | 1 Hz (500 ms – 500 ms) |

Table 1.

| Tone / supply voltage | Angle-dependent [°] minimum sound level [dBA] | | | | | |
|-----------------------|---|------|-------|------|------|------|
| | 15° | 45° | 75° | 105° | 135° | 165° |
| 1 / 18 VDC | 74.3 | 85.7 | 89.9 | 89.4 | 84.2 | 77.0 |
| 1 / 28 VDC | 77.0 | 87.2 | 91.4 | 90.9 | 85.8 | 80.0 |
| 2 / 18 VDC | 78.0 | 85.7 | 89.1 | 88.8 | 83.5 | 78.0 |
| 2 / 28 VDC | 79.6 | 87.5 | 90.7 | 90.4 | 85.4 | 79.9 |
| 3 / 18 VDC | 78.9 | 86.1 | 90.0 | 89.7 | 83.9 | 78.2 |
| 3 / 28 VDC | 80.9 | 87.8 | 91.3 | 91.0 | 85.8 | 80.3 |
| 4 / 18 VDC | 71.0 | 81.0 | 83.5 | 82.0 | 79.7 | 69.6 |
| 4 / 28 VDC | 71.3 | 81.4 | 84.04 | 82.6 | 79.7 | 69.7 |
| 5 / 18 VDC | 75.3 | 83.4 | 85.6 | 85.0 | 81.1 | 75.0 |
| 5 / 28 VDC | 75.2 | 83.4 | 85.5 | 85.0 | 81.0 | 74.5 |
| 6 / 18 VDC | 76.6 | 84.7 | 86.7 | 86.4 | 82.6 | 75.1 |
| 6 / 28 VDC | 76.4 | 84.6 | 86.4 | 86.1 | 82.6 | 75.1 |
| 7 / 18 VDC | 79.8 | 87.2 | 91.8 | 91.5 | 85.8 | 81.5 |
| 7 / 28 VDC | 80.9 | 88.6 | 92.8 | 92.6 | 87.3 | 82.9 |
| 8 / 18 VDC | 78.6 | 86.5 | 90.5 | 90.3 | 84.6 | 80.7 |
| 8 / 28 VDC | 80.2 | 88.3 | 92.1 | 91.8 | 86.5 | 82.6 |
| 9 / 18 VDC | 77.0 | 81.0 | 86.9 | 86.1 | 80.2 | 75.8 |
| 9 / 28 VDC | 77.0 | 81.3 | 87.0 | 86.2 | 80.1 | 75.7 |
| 10 / 18 VDC | 73.2 | 86.3 | 90.6 | 90.3 | 84.9 | 76.6 |
| 10 / 28 VDC | 74.2 | 87.2 | 91.6 | 91.3 | 85.9 | 77.6 |
| 11 / 18 VDC | 74.6 | 86.5 | 90.7 | 90.3 | 85.0 | 77.2 |
| 11 / 28 VDC | 77.3 | 87.8 | 91.9 | 91.5 | 86.5 | 80.2 |
| 12 / 18 VDC | 73.4 | 84.1 | 86.9 | 88.4 | 85.9 | 73.8 |
| 12 / 28 VDC | 77.5 | 87.8 | 90.5 | 91.9 | 89.4 | 76.6 |
| 13 / 18 VDC | 72.7 | 85.7 | 90.0 | 89.7 | 84.1 | 75.9 |

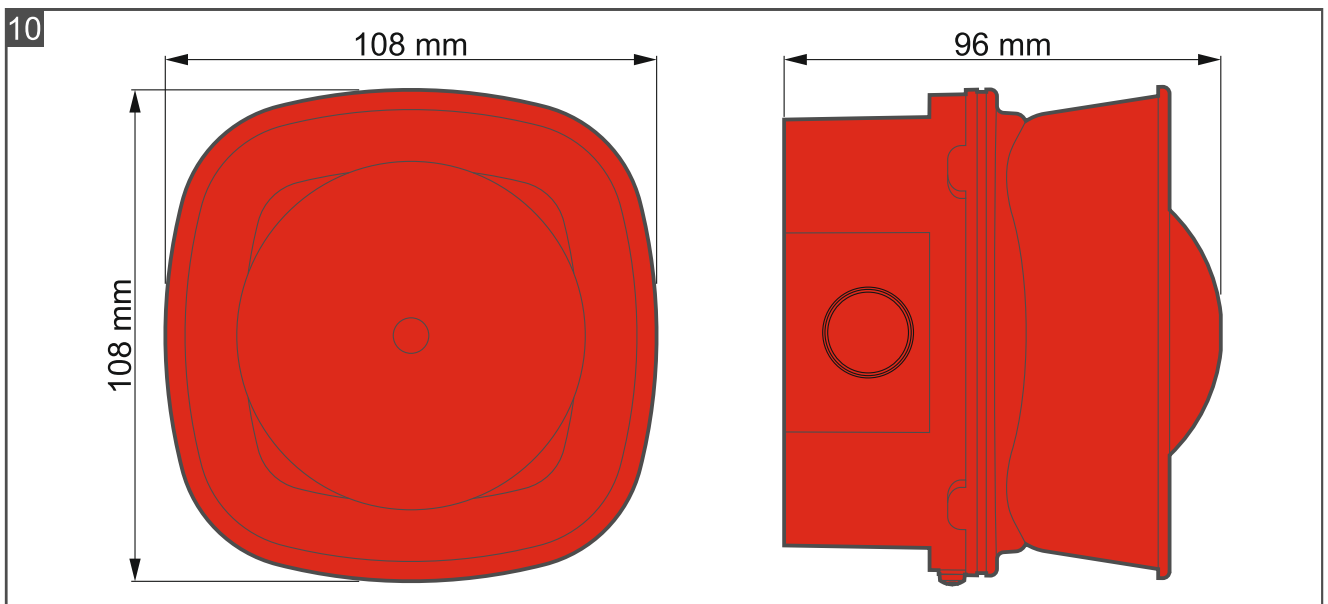
| Tone / supply voltage | Angle-dependent [°] minimum sound level [dBA] | | | | | |
|-----------------------|---|------|------|------|------|------|
| | 15° | 45° | 75° | 105° | 135° | 165° |
| 13 / 28 VDC | 73.9 | 86.7 | 91.1 | 90.9 | 85.3 | 77.2 |
| 14 / 18 VDC | 73.1 | 86.2 | 90.5 | 90.2 | 84.8 | 76.5 |
| 14 / 28 VDC | 73.4 | 86.2 | 90.8 | 90.3 | 84.8 | 76.5 |
| 15 / 18 VDC | 75.9 | 83.6 | 86.9 | 86.4 | 80.1 | 77.6 |
| 15 / 28 VDC | 77.5 | 84.8 | 88.4 | 87.9 | 81.0 | 79.3 |
| 16 / 18 VDC | 75.9 | 84.9 | 87.4 | 87.0 | 81.7 | 74.8 |
| 16 / 28 VDC | 77.4 | 86.3 | 89.0 | 88.6 | 83.0 | 76.3 |
| 17 / 18 VDC | 76.8 | 86.0 | 88.5 | 88.2 | 83.0 | 75.8 |
| 17 / 28 VDC | 78.6 | 87.4 | 90.2 | 89.7 | 84.3 | 77.4 |
| 18 / 18 VDC | 77.2 | 86.1 | 88.6 | 88.2 | 82.9 | 76.0 |
| 18 / 28 VDC | 78.7 | 87.4 | 90.3 | 89.9 | 84.3 | 77.5 |
| 19 / 18 VDC | 77.0 | 85.9 | 88.4 | 88.2 | 83.0 | 75.8 |
| 19 / 28 VDC | 78.7 | 87.4 | 90.2 | 89.8 | 84.3 | 77.4 |
| 20 / 18 VDC | 76.0 | 84.1 | 87.4 | 87.0 | 80.2 | 77.9 |
| 20 / 28 VDC | 77.5 | 85.4 | 88.6 | 88.3 | 81.5 | 79.5 |
| 21 / 18 VDC | 76.9 | 85.9 | 88.4 | 88.1 | 82.7 | 75.7 |
| 21 / 28 VDC | 78.5 | 87.3 | 90.0 | 89.5 | 84.1 | 77.2 |
| 22 / 18 VDC | 74.0 | 84.0 | 86.0 | 85.6 | 82.8 | 73.0 |
| 22 / 28 VDC | 74.8 | 84.6 | 86.5 | 85.6 | 83.4 | 73.5 |
| 23 / 18 VDC | 77.4 | 85.4 | 88.5 | 88.0 | 83.1 | 77.5 |
| 23 / 28 VDC | 79.4 | 87.3 | 90.4 | 90.0 | 85.0 | 79.5 |
| 24 / 18 VDC | 75.6 | 83.3 | 85.4 | 84.9 | 80.6 | 74.4 |
| 24 / 28 VDC | 75.4 | 83.4 | 85.6 | 84.7 | 80.3 | 74.4 |
| 25 / 18 VDC | 73.3 | 86.5 | 90.8 | 90.5 | 85.1 | 76.6 |
| 25 / 28 VDC | 74.6 | 87.6 | 91.9 | 91.5 | 86.1 | 77.6 |
| 26 / 18 VDC | 78.0 | 85.8 | 89.7 | 89.3 | 83.4 | 77.6 |
| 26 / 28 VDC | 80.0 | 87.1 | 91.2 | 90.7 | 84.8 | 79.2 |
| 27 / 18 VDC | 74.7 | 86.0 | 90.3 | 90.0 | 84.4 | 77.3 |
| 27 / 28 VDC | 77.4 | 87.5 | 91.5 | 91.3 | 86.1 | 80.0 |
| 28 / 18 VDC | 75.4 | 79.6 | 85.6 | 87.0 | 80.9 | 76.3 |
| 28 / 28 VDC | 75.5 | 79.7 | 85.8 | 87.1 | 80.9 | 76.3 |
| 29 / 18 VDC | 78.9 | 88.2 | 91.1 | 90.7 | 85.2 | 77.6 |
| 29 / 28 VDC | 79.9 | 89.2 | 91.9 | 91.7 | 86.0 | 78.4 |
| 30 / 18 VDC | 76.4 | 84.9 | 87.6 | 87.3 | 81.8 | 76.1 |
| 30 / 28 VDC | 77.9 | 86.3 | 89.0 | 88.8 | 83.1 | 77.7 |
| 31 / 18 VDC | 77.8 | 86.0 | 89.8 | 89.5 | 83.9 | 79.4 |
| 31 / 28 VDC | 78.4 | 86.6 | 90.4 | 90.1 | 84.6 | 80.1 |
| 32 / 18 VDC | 76.4 | 85.1 | 87.6 | 87.4 | 81.9 | 76.2 |
| 32 / 28 VDC | 77.9 | 86.5 | 89.2 | 89.0 | 83.0 | 77.8 |

Table 2.

2.1.2 Volume setting

Use the switch 6 (marked as V on the electronics board) to change the volume of the following tones: 4, 5, 6, 9, 12, 14, 22 and 28. The switch in ON position – maximum volume

(recommended). The switch in OFF position – lower volume. For other tones, it is recommended to set the switch to OFF position.



3. Maintenance

The fire alarm system elements require regular maintenance. The periodic checks of the SPP-111 sounder should be carried out at least every 6 months. In spaces where working conditions are difficult (e.g. dust, aggressive environment that may cause corrosion, etc.), the periodic checks should be carried out more often.

As part of maintenance, start a test in the control panel and make sure the acoustic signaling is working. Please go to the fire alarm control panel manuals to find out how to start the test.

4. Specifications

| | |
|----------------------------------|-------------------|
| Supply voltage | 18...28 VDC |
| Alarm current consumption | 15 mA |
| Operating temperature range..... | -25°C...+70°C |
| Maximum humidity | 95% |
| Protection rating..... | IP65 |
| Operating environment type..... | B |
| Dimensions | 108 x 108 x 96 mm |
| Weight..... | 228 g |

The SPP-111 fire alarm sounder conforms to the essential requirements of the EU Regulations and Directives:

CPR 305/2011 Regulation of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products and repealing the Council Directive 89/106/EEC on construction products;

EMC 2014/30/UE Electromagnetic Compatibility Directive;

LVD 2014/35/EU Low Voltage Directive.

The CNBOP-PIB Certification Body in Józefów issued the Certificate of Constancy of Performance **1438-CPR-0880** for the construction product SPP-111 fire alarm sounder, confirming its compliance with the requirements of EN 54-3:2003+A1:2002+A2:2006.

The Certificate and the Declaration of Performance can be downloaded from the www.satel.pl website.

The SPP-111 fire alarm sounder has been granted the Certificate of Admittance **No 4833/2023** by the CNBOP-PIB in Józefów.

The Certificate of Admittance can be downloaded from the www.satel.pl website.



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1438

1438-CPR-0880

DOP/CPR/0880

EN 54 3:2003+A1:2002+A2:2006

Fire safety.

SPP-111 fire alarm sounder (type B).

Declaration of Performance DOP/CPR/0880

Application – fire safety.

Technical specifications – please refer to this manual.