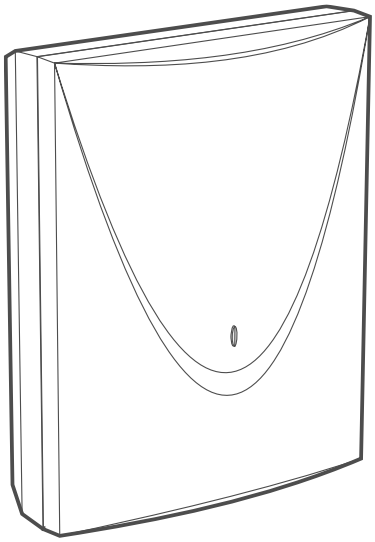
Multi Extender

ACX-220

EN

Firmware version 1.02



CE

acx-220_BW_en 08/26

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IMPORTANT

The device should be installed by qualified personnel.

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

Description of symbols on the device:

The device meets the requirements of the applicable EU directives.

The device must not be disposed of with other municipal waste. It should be disposed of in accordance with the existing rules for environment protection (the device was placed on the market after 13 August 2005).

The device is designed for indoor installation.

The device meets the technical regulations of the Eurasian Customs Union.

Direct current (DC).

SATEL aims to continually improve the quality of its products, which may result in changes in their technical specifications and software. Current information about the changes being introduced is available on our website.
Please visit us at:
https://support.satel.pl

Hereby, SATEL sp. z o.o. declares that the radio equipment type ACX-220 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.satel.pl/ce

Signs in this manual

Caution – information on the safety of users, devices, etc.

Note – suggestion or additional information.

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The ACX-210 expander (Multi Extender) allows you to use wired detectors in a wireless system and to control wired devices. The manual applies to the expander installed in the BE WAVE system.

1. Features

- 4 programmable zones:
  - support for NO and NC type detectors,
  - support for Single EOL and Double EOL configuration.
- 4 relay outputs.
- Operation in the 868 MHz frequency band.
- AES encrypted two-way radio communication.
- Transmission channel diversity – 4 channels for automatic selection of the one that will enable transmission without interference with other signals.
- Remote settings programming.
- Remote firmware update.
- Powered by 12 VDC.
- Connector for SATEL power supply (e.g. APS-412).
- Tamper protection against enclosure opening.

2. Description

1

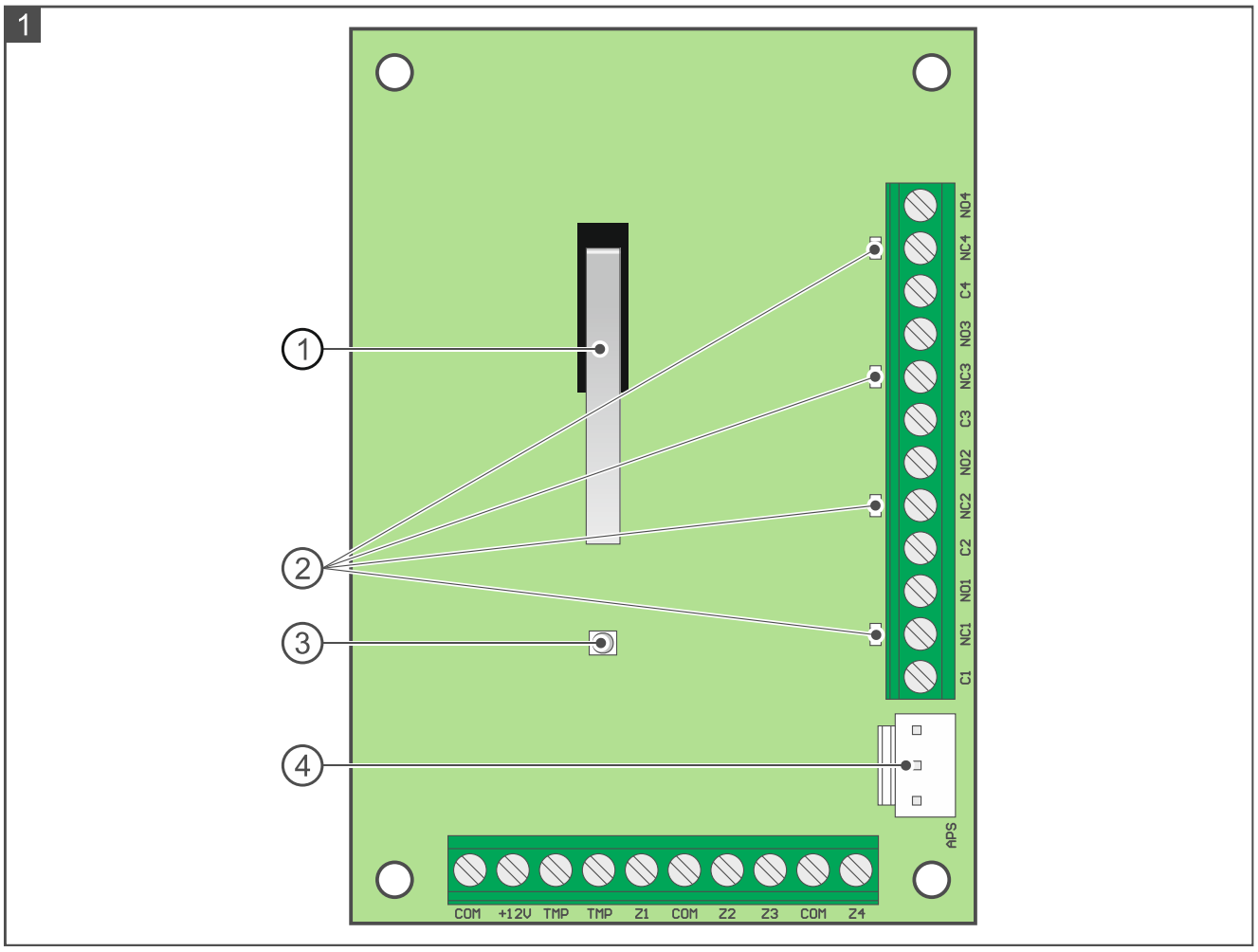


Figure 1 shows the expander electronics board.

① tamper switch.

② LED indicators to indicate the status of relay outputs:
OFF – output turned off,
ON – output turned on.

③ LED indicator to indicate the communication with controller / control panel (single flash).

④ APS connector to connect a SATEL power supply (e.g. APS-412).

If a power supply is connected to the APS connector, the expander will send information about the following power supply troubles:
- loss of 230 VAC power supply,
- battery trouble (no battery, low battery, etc.),
- power supply overload.

Terminals

COM - common ground.
+12V - +12 VDC power input / power output when the expander is powered by a power supply connected to the APS connector.
TMP - tamper output (NC).
Z1…Z4 - zone.
C1...C4 - relay output common contact,
NC1...NC4 - relay output normally closed contact.
NO1...NO4 - relay output normally open contact.

Given the specific character of radio communication, it is not recommended that the expander be used in applications where quick switching of the output status is required.

3. Installation

Disconnect power before making any electrical connections.

To power the expander, use a 12 VDC power supply (e.g. the SATEL APS-412 power supply).

Never connect power supply to the APS connector and terminals at the same time.

3.1 Tips for installation

- The expander should be installed indoors, in spaces with normal air humidity.
- Do not install the expander outdoors.
- When selecting a place of installation, consider the radio communication range.
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- To connect devices to the expander terminals, use flexible wires with a cross-section of 0.5-0.75 mm^2.

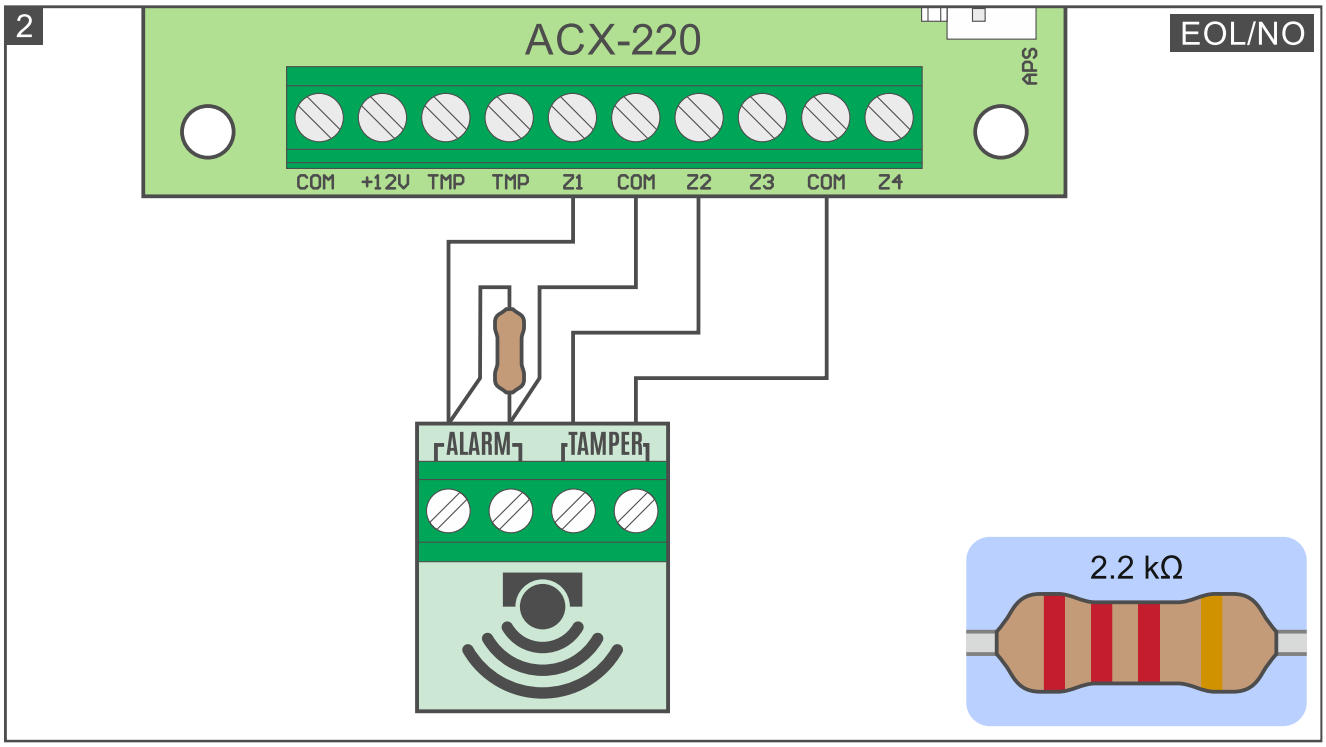
3.2 Mounting

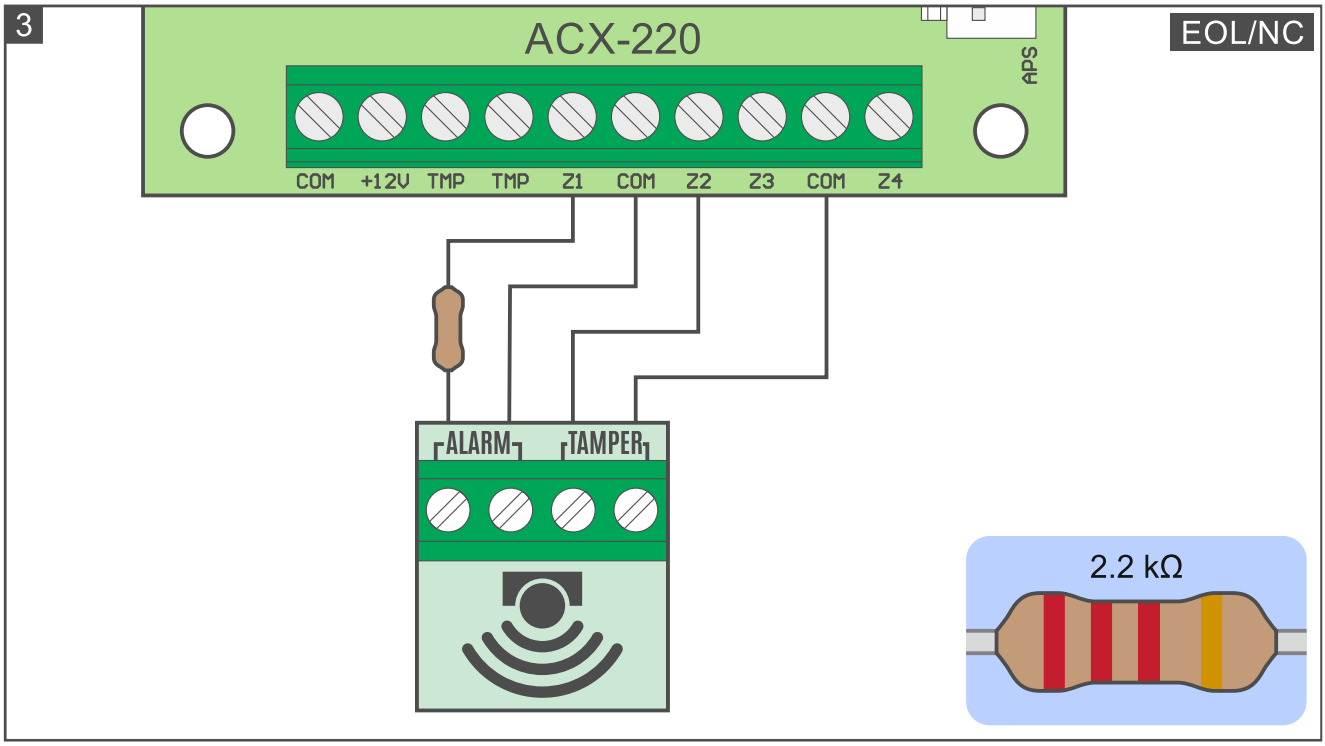
1. Loosen the enclosure cover locking screws and remove the cover.
2. Place the enclosure base against the wall and mark the location of mounting holes.
3. Drill the holes in the wall for wall plugs (anchors). Use wall plugs specifically intended for the mounting surface (different for concrete or brick wall, different for plaster wall, etc.).
4. Make the opening(s) for cable(s) in the enclosure base.
5. Pass the cable(s) through the opening(s).
6. Secure the enclosure base to the wall with screws.
7. If the expander is to report enclosure opening (tamper), connect the tamper output to one of the expander zones (connect one TMP terminal to the zone terminal and the other TMP terminal to the COM terminal). Remember to properly configure the zone settings in the Be Wave app / BE WAVE Soft program.

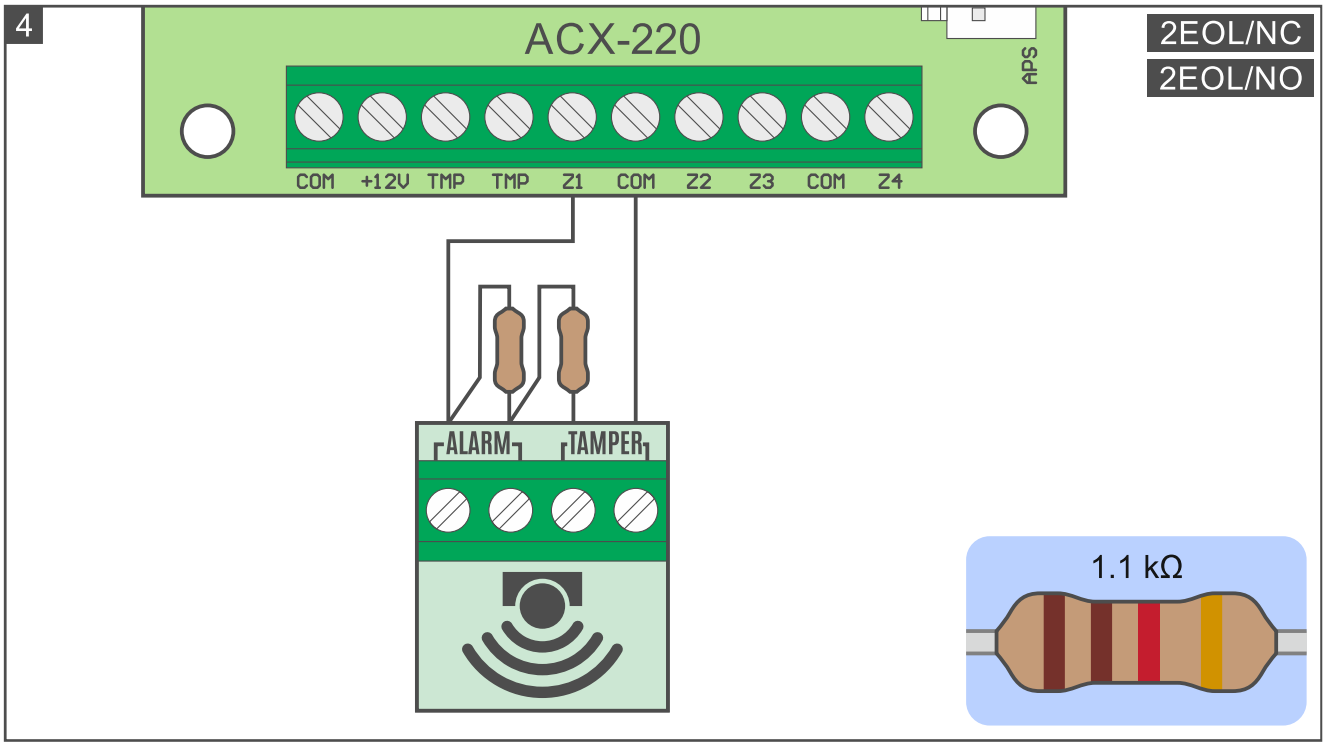
The expander must report enclosure opening (tamper) if it is to meet the requirements of Standard EN 50131 for Grade 2.

8. Connect detectors to the expander zones. If the detector is to operate in the Single EOL configuration, use a 2.2 kΩ resistor (Fig. 2 and 3). If the detector is to operate in the Double EOL configuration, use two 1.1 kΩ resistors (Fig. 4).
9. Connect the devices to the expander outputs.
10. Depending on the selected method of expander powering, connect the power supply to the APS connector or connect the power wires to the +12V and COM terminals.
11. Add the expander to the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel). When a request to turn on the device will be displayed, power up the expander.
12. Replace the cover and lock it with screws.

Taking into account the requirements of the EN 50131-3 standard, select 400 ms when programming the sensitivity of alarm zones.







4. Specifications

Operating frequency band .....868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area) ..... up to 1300 m
Supply voltage ..... 12 VDC ±15%
Standby current consumption .....35 mA
Maximum current consumption.....120 mA
Relay outputs (resistive load)..... 1000 mA / 24 VDC
Complied with standards..EN 50130-4, EN 50130-5, EN 50131-1, EN 50131-3, EN 50131-5-3

Environmental class according to EN50130-5	II
Operating temperature range	-10°C...+55°C
Maximum humidity	93±3%
Enclosure dimensions	126 x 158 x 32 mm
Weight	204 g