



## AMD-102

### WIRELESS MAGNETIC CONTACT WITH INPUT FOR ROLLER SHUTTER DETECTOR

The AMD-102 magnetic contact can detect opening of a door, window, etc. It is provided with two additional inputs: one for roller shutter detector and one of NC type. The detector is designed for use as part of the ABAX two-way wireless system. This manual applies to the magnetic contact with firmware version 5.01, which is supported by:

- ACU-120 / ACU-270 controller,
- ACU-100 / ACU-250 controller with firmware version 4.03 2014-05-15 (or newer),
- ARU-100 repeater with firmware version 2.00 2014-05-15 (or newer),
- INTEGRA 128-WRL control panel with firmware version 1.12 2013-12-20 (or newer).

## 1. Features

- Two reed switches allowing to select the magnet installation manner.
- Input for connecting a hardwired roller shutter detector.
- Input for connecting an NC type hardwired detector.
- Remote configuration.
- LED indicator enabled in test mode.
- Tamper protection against cover removal and tearing enclosure from the wall.

## 2. Specifications

Operating frequency band .....	868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area) .....	up to 500 m
NC type input sensitivity .....	312 ms
Battery .....	CR123A 3 V
Battery life expectancy .....	approx. 3 years
Standby current consumption .....	50 µA
Maximum current consumption .....	16 mA
Complied with standards ....	EN 50130-4, EN 50130-5, EN 50131-1, EN 50131-2-6, EN 50131-5-3
Security grade according to EN50131-2-6.....	Grade 2
Environmental class according to EN50130-5 .....	II
Operating temperature range .....	-10 °C...+55 °C
Maximum humidity .....	93±3%
Detector enclosure dimensions .....	26 x 112 x 29 mm
Surface mounted magnet enclosure dimensions .....	26 x 13 x 19 mm
Surface mounted magnet spacer dimensions.....	26 x 13 x 3.5 mm
Flush mounted magnet enclosure dimensions .....	28 x 10 x 10 mm
Weight .....	76 g

**Hereby, SATEL sp. z o.o., declares that this detector is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at [www.satel.eu/ce](http://www.satel.eu/ce)**

### 3. Description

The detector takes up two positions in the ABAX system (first: magnetic contact; second: additional inputs). For some alarm systems (INTEGRA, INTEGRA Plus), you can select when adding the detector, whether it will occupy one or two positions on the list of devices. If the detector occupies one position, only additional inputs are supported.

#### Electronics board

Figure 1 shows the inside of the detector.

- ① CR123A lithium battery.
- ② tamper switch.
- ③ terminals:
  - R** - roller shutter input (if no detector is connected to the input, connect the input to common ground).
  - COM** - common ground.
  - M** - NC type input (if no detector is connected to the input, connect the input to common ground).

The LED and reed switches are placed on the other side of the electronics board.

#### Alarms

The detector reports alarm in the following cases:

- opening enabled reed switch contacts after removal of magnet,
- opening the NC type input,
- recording the specified number of pulses within a defined time period by the roller shutter input,
- opening the roller shutter input (tamper alarm),
- opening the tamper contact (tamper alarm).

#### Operating modes

**Active** – information about each alarm is sent immediately.

**Passive** – information about tamper alarm is sent immediately, while information about other alarms is sent only during the polling time. This operating mode prolongs the battery life.

The detector operating mode is defined remotely. You can also remotely start the **test mode**. It has no effect on how alarm information is sent, but the LED is working when it is enabled.

#### LED

When the test mode is enabled, the LED indicates:

- polling – short flash (80 milliseconds),
- alarm – ON for 2 seconds.

#### Battery status control

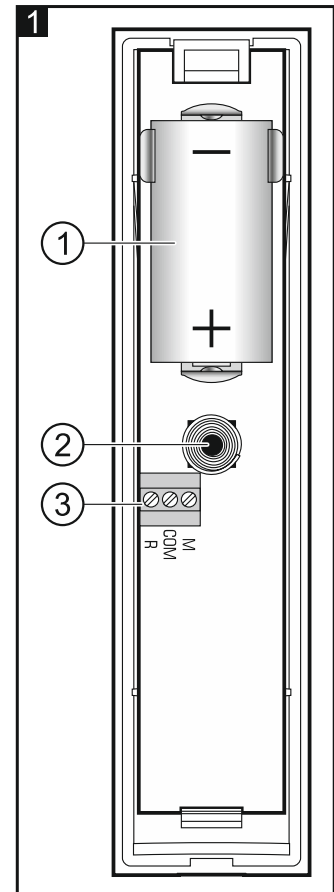
When the battery voltage is below 2.6 V, information about low battery is sent during each transmission.

**Note:** For additional information about the detector and its configuration please refer to the manual for ABAX wireless system controller.

### 4. Installation



There is a danger of battery explosion when using a different battery than recommended by the manufacturer, or handling the battery improperly.

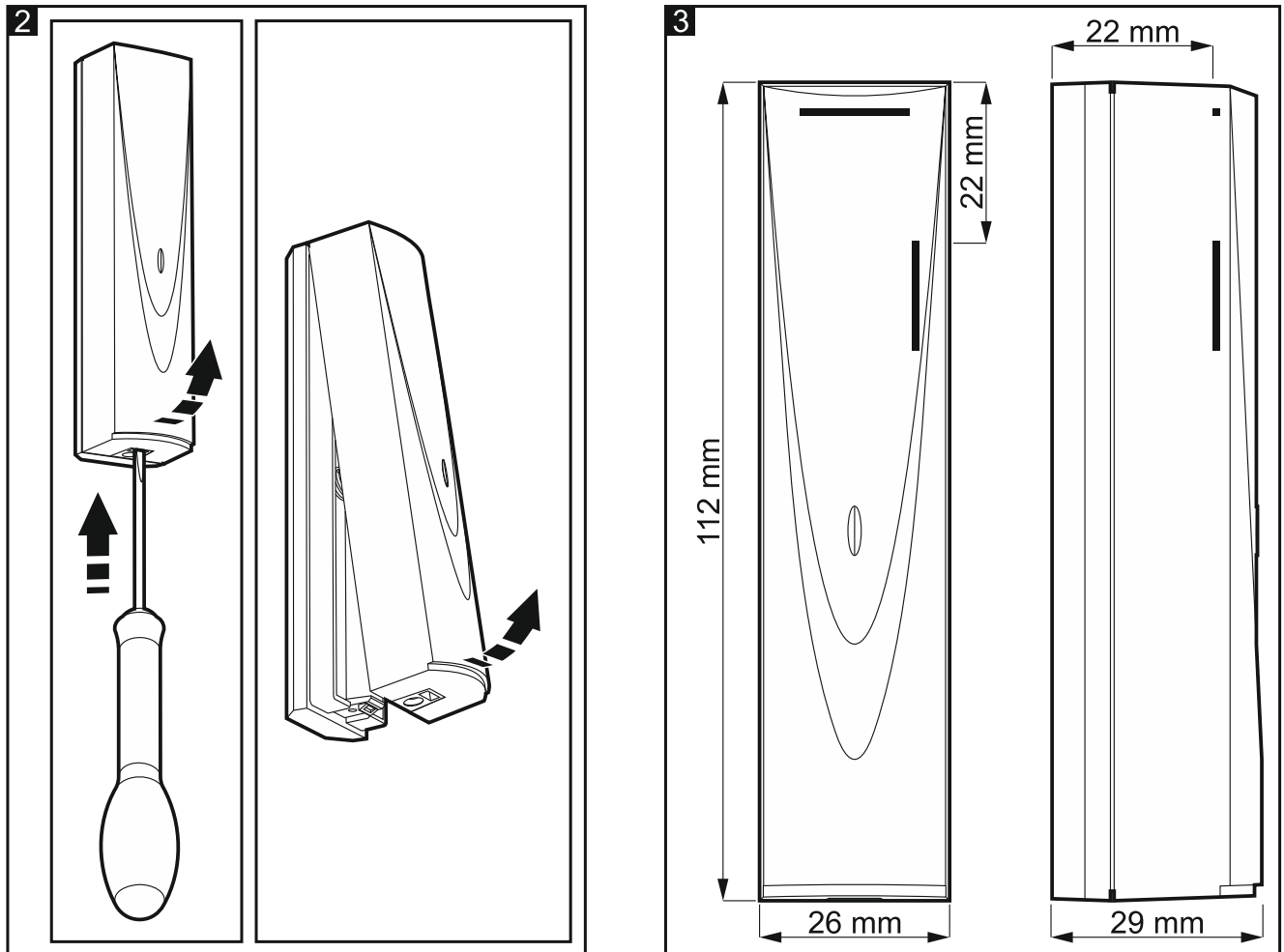


**Be particularly careful during installation and replacement of the battery. The manufacturer is not liable for the consequences of incorrect installation of the battery.**

**The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.**

The device is designed for indoor installation. The detector should be mounted on a fixed surface (e.g. window or door frame), and the magnet on a movable surface (e.g. window or door). Mounting the magnetic contact on ferromagnetic surfaces and/or near to strong magnetic and electrical fields is not advisable, because it can result in malfunctioning of the device.

1. Open the detector enclosure (Fig. 2).



2. Install the battery and add the device to the wireless system (see the ACU-100 / ACU-250 / ACU-120 / ACU-270 controller manual or the INTEGRA 128-WRL / VERSA control panel installer manual). The sticker with 7-digit serial number which shall be entered when registering the detector in the system can be found on the electronics board.

3. Close the detector enclosure.

4. Fasten the detector temporarily at the place of its future installation.

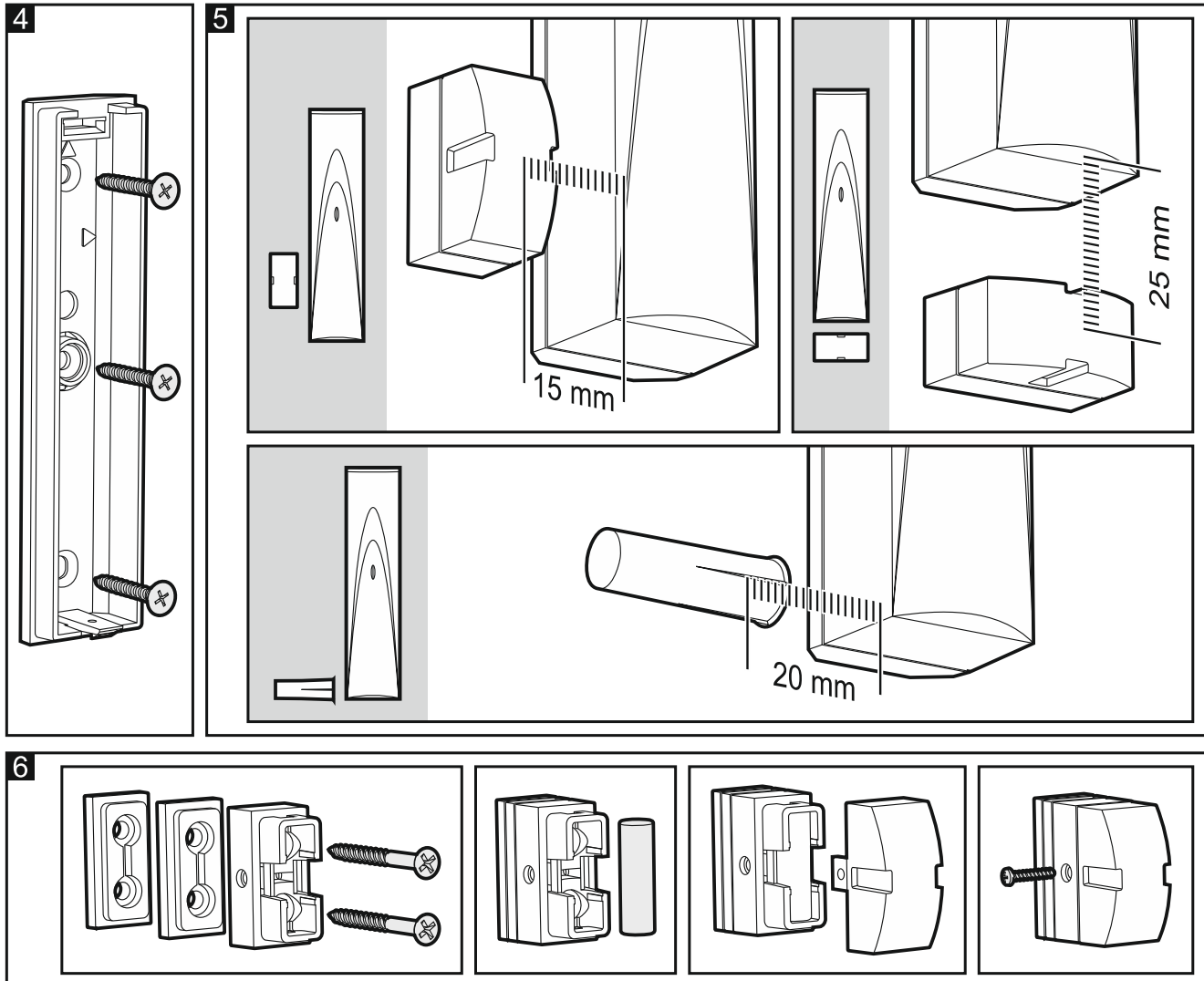
5. Check the level of signal received from the detector by the ACU-100 / ACU-250 / ACU-120 / ACU-270 controller or the INTEGRA 128-WRL control panel. If the signal level is lower than 40%, select another place for installation. Sometimes, it is sufficient to shift the device ten or twenty centimeters to obtain a considerable improvement in the signal quality.

6. Open the detector enclosure (Fig. 2).

7. Make a hole in the enclosure base and run through it the wires for roller shutter detector and/or NC type detector (the maximum permissible wire length is 3 meters).

8. Use screws to fix the enclosure base to the mounting surface (Fig. 4). Wall plugs (screw anchors) and screws are included in the detector delivery set.

9. Screw the wires for roller shutter detector and/or NC type detector to the terminals on electronics board.
10. Close the detector enclosure.
11. Secure the magnet, taking into account the maximum permissible distance from the reed switch (Fig. 5). The distance shown applies to the magnet located at the reed switch height. Location of the reed switches in the enclosure is shown in Fig. 3.



12. Configure the detector:
  - magnetic contact: define which of the two reed switches is to be enabled,
  - roller shutter input: program the pulse count (the number of pulses after which the input will be violated) and pulse validity duration (the time counted from pulse registration during which subsequent pulses must occur for the input to become violated).
 For detailed information regarding configuration of the detector, please refer to the manual for ABAX wireless system controller.
13. Start the test mode.
14. Depending on the configuration of detector, check that the LED goes on:
  - after moving the magnet away (opening the window / door),
  - after raising / lowering the roller shutters supervised by the roller shutter detector,
  - after violation of a detector connected to the M input.