Satel® CE 1471

MMD-300

WIRELESS MAGNETIC CONTACT

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The MMD-300 magnetic contact can detect opening of a door, window, etc.. It can be used in conjunction with the MICRA alarm module. This manual applies to the device with electronics version 1.2 or later.

1. Features

- Two reed switches allowing to select the magnet installation manner.
- Input for connecting external wired detector.
- LED indicator enabled in test mode.
- Tamper protection in 2 ways – cover removal and tearing enclosure from the wall.

2. Specifications

Operating frequency band	433,05 ÷ 434,79 MHz
Radio communication range (in open area)	up to 200 m
Battery	CR123A 3 V
Battery life expectancy (energy save mode)	approx. 3 years
Additional input sensitivity	312 ms
Standby current consumption	80 µA
Maximum current consumption	27 mA
Environmental class according to EN50130-5	II
Operating temperature range	-10 °C...+55 °C
Maximum humidity	93±3%
Enclosure dimensions	24 x 110 x 27 mm
Weight	64 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

3. Description

Opening the reed switch contacts after the magnet is moved away, opening the additional input, or opening the tamper contact will trigger an alarm. Information on the alarm is send by radio to the MICRA alarm module.

The magnetic contact can work in the following modes:

normal – each alarm results in sending a radio transmission.

energy save – after sending information about the alarm caused by opening the reed switch contacts or opening the additional input, the next transmission containing information on this alarm will be sent after 3 minutes at the earliest. Tamper alarms are always sent.

test – the magnetic contact operates like in the normal mode, but the alarms are signaled by the LED (the LED is lit for 2 seconds).

To select between normal mode and energy saving mode, use the E-SAVE MODE pins (Fig. 1). The test mode is turned on for 20 minutes after inserting the batteries or opening the tamper contact.

Every 15 minutes, the detector sends a transmission containing information on the status of the active reed switch, input, tamper contact and battery. Periodic transmissions are used to monitor presence and operation of the detector. In the test mode, this transmission is indicated by the LED lighting for 80 milliseconds.

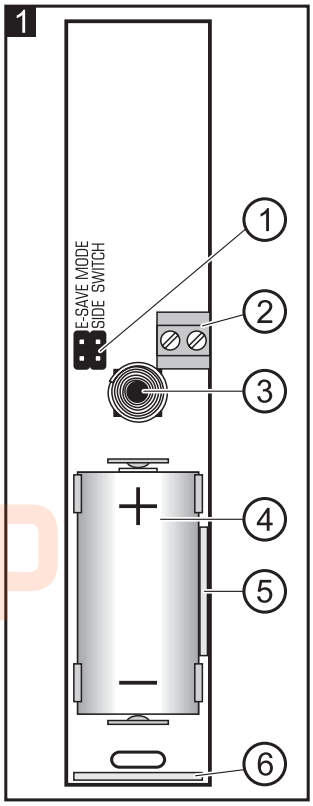

Fig. 1. View of the detector electronics board.

1 - detector configuration pins:
  E-SAVE MODE - operating mode selection:
    pins shorted – energy save mode;
    pins open – normal mode.
  SIDE SWITCH - selection of active reed switch:
    pins shorted – side reed switch;
    pins open – bottom reed switch.
2 - additional input terminals. An NC type hardwired detector can be connected to the input or else the terminals must be shorted.
3 - tamper contact.
4 - CR123A battery. The detector checks the battery status. When the voltage is lower than 2.6 V, the low-battery information is sent during each transmission.
5 - location of the side reed switch (mounted on the other side of the electronics board).
6 - location of the bottom reed switch (mounted on the other side of the electronics board).

4. Installation

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 enclosure (Fig. 2).
2. Configure the detector by means of jumpers.
3. Install the battery and register the detector in the MICRA alarm module (see the manual for MICRA alarm module).
4. Select the place of installation. Check that the transmissions from the detector placed at that point reach the MICRA alarm module. In order to send a transmission, close and

open the tamper contact. If the alarm transmission is received, continue with the installation. If the alarm transmission is not received, select a different mounting location and repeat the test.

5. If a detector is to be connected to the additional input terminals, make a hole in the enclosure base, run the wires through the hole and fasten them to screw terminals. The maximum permissible length of wires: 3 m.
6. Using wall plugs (screw anchors) and screws, fasten the enclosure base to the mounting surface.
7. Secure the magnet, taking into account the maximum permissible distance from the reed switch (see Fig. 4).
8. Close and open the tamper contact to activate the test mode, and then close the detector enclosure.
9. Check whether the LED lights up after moving the magnet away (i.e. opening a window or door). If the additional input is used, make sure that violation of the detector connected to it will cause the LED to light up.

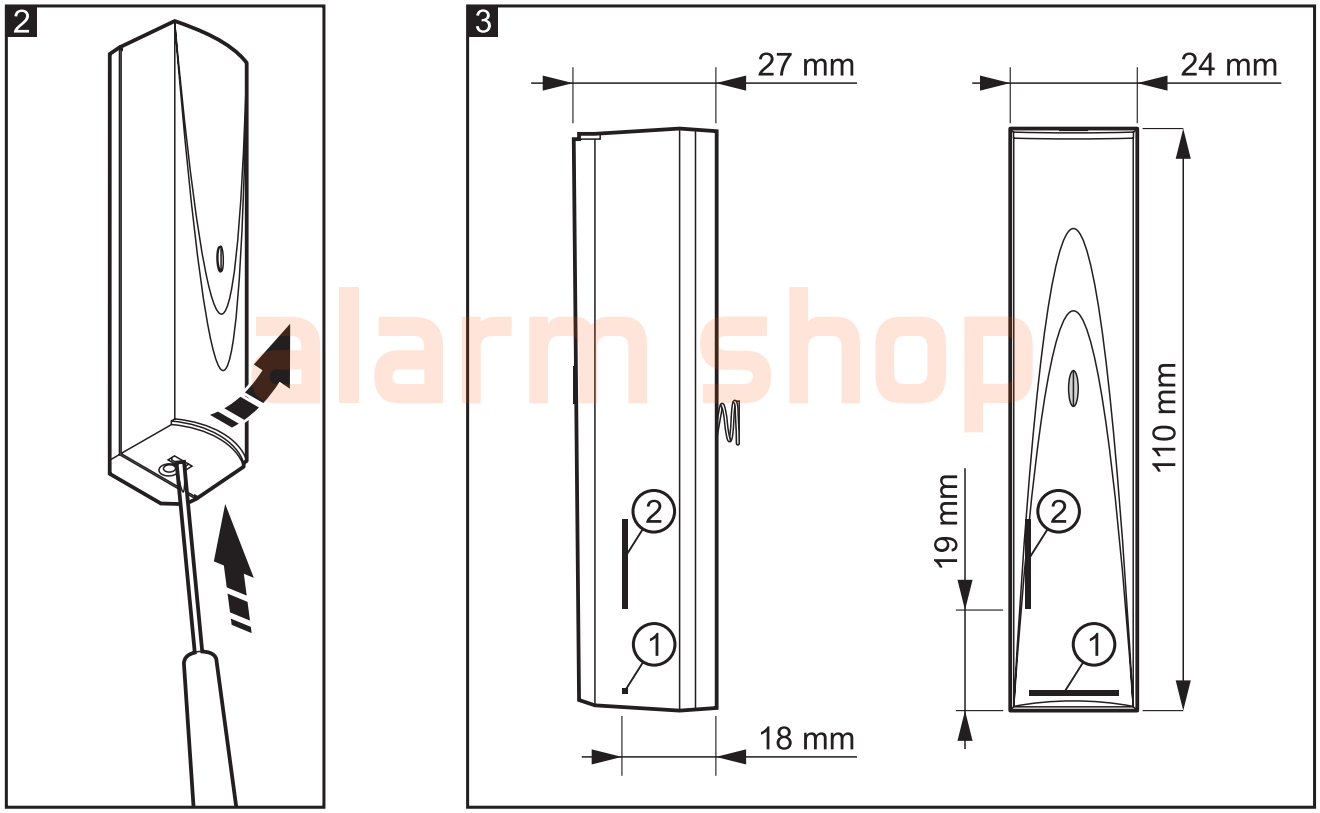

Fig. 2. The enclosure opening manner.

Fig. 3. Enclosure dimensions and location of reed switches. 1 – bottom reed switch. 2 – side reed switch.

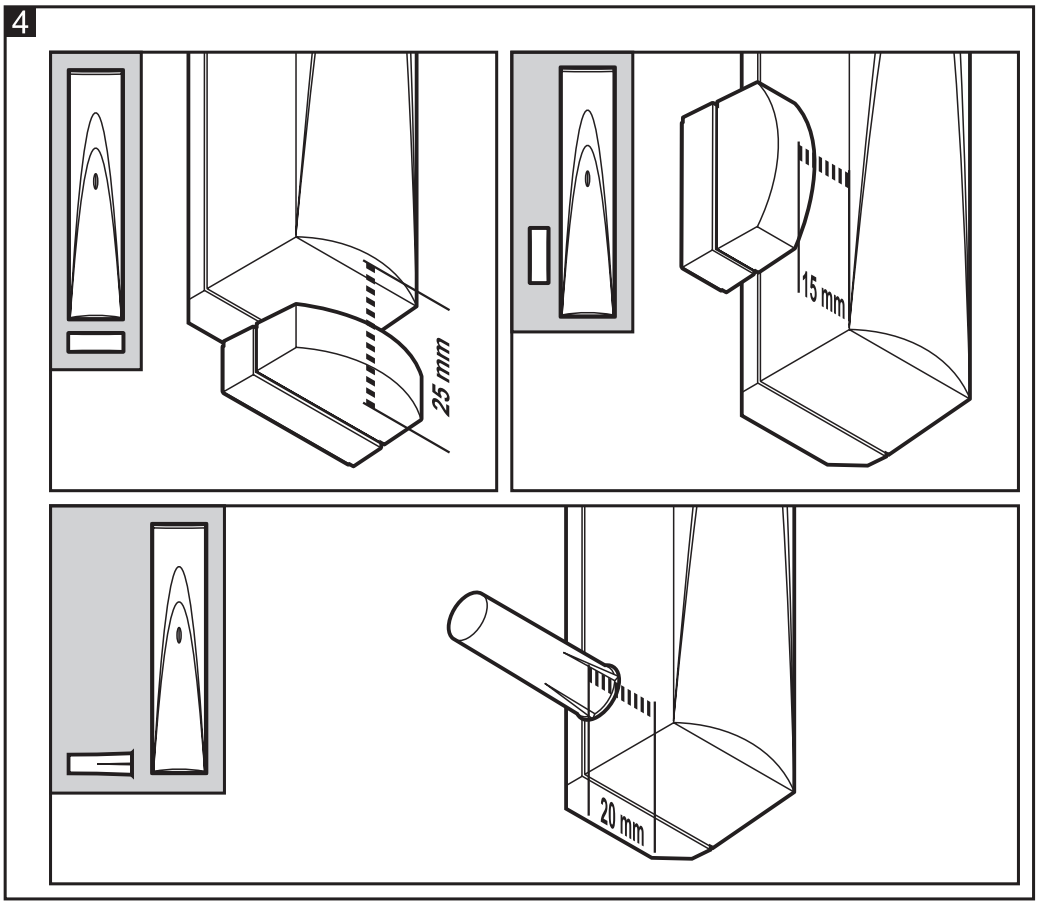

Fig. 4. Maximum operating ranges of the reed switches (magnet located at the height of magnetic contact electronics board).

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