

The AVD-100 wireless vibration detector and magnetic contact is designed for operation within the ABAX two-way wireless system. The device is supported by the ACU-100 controller with firmware version 1.06 or later and by the INTEGRA 128-WRL control panel. This manual applies to the device with electronics version 1.2 D or later.

Owing to its advanced features of piezoelectric sensor signal processing, the vibration detector can distinguish between the natural vibrations received from the environment, and those caused by an attempt to force the door or window. The sensor signal is analyzed in respect of its amplitude, duration and number of vibrations. The detector sensitivity and the number of vibrations after which violation will be reported, are defined remotely.

The magnetic contact will signal violation after the magnet is moved away from the reed switch, which means breaking the electric circuit. Two reed switches are used in the detector and you can program by radio which of them is to be active.

Explanations for Fig. 1:

- 1 - tamper contact, which opens when the cover is removed or the unit is removed from its mounting surface.
- 2 - CR123A 3 V lithium battery, ensuring operation for approx. 3-year period. The detector controls the battery status. When the voltage drops to 2.6 V, the "low battery" information is sent. The low battery signaling continues until the battery is replaced.
- 3 - location of the side reed switch (mounted on the other side of the electronics board).
- 4 - location of the bottom reed switch (mounted on the other side of the electronics board).

The LED is only functioning in the test mode:

- it is lit for 80 milliseconds during polling time;
- it is lit for 2 seconds after violation (sensing vibrations by the vibration detector, or moving the magnet away from the reed switch) or tamper (opening the tamper contact).

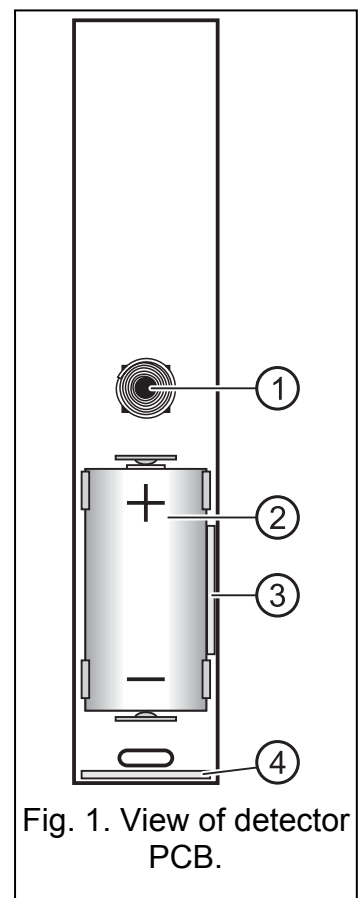


Fig. 1. View of detector PCB.

## 1. Installation

The device is designed for indoor installation. If the magnetic contact is used for the protection of window or door, the detector should be mounted on the window/door frame, and the magnet in/on the window sash or door leaf. Mounting the 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.

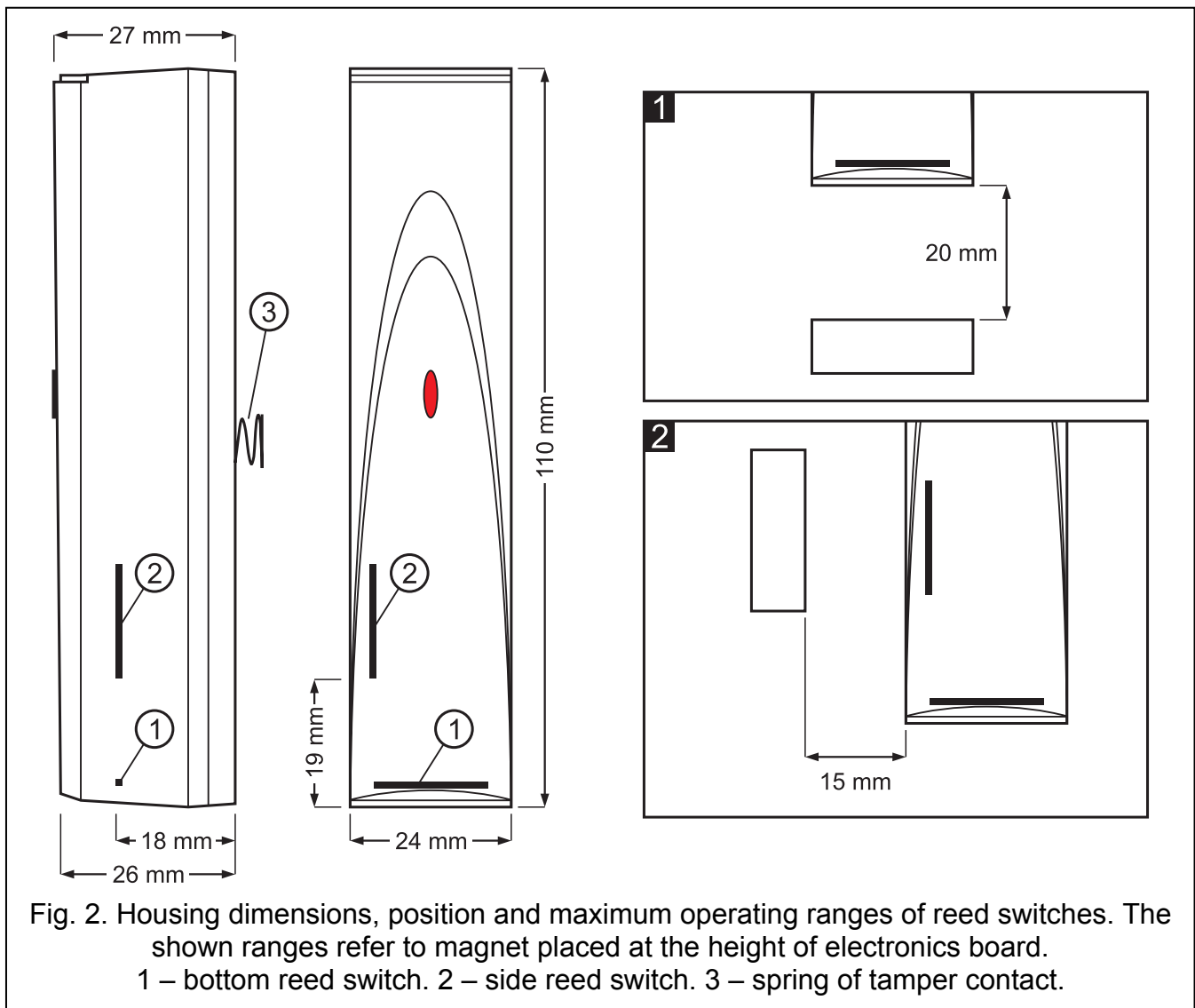


**Before you mount the detector permanently, check the level of signal received from the detector by the ACU-100 controller or by the INTEGRA 128-WRL control panel and, if necessary, change the place of installation so that the location is optimal in terms of communication.**

**The battery should be mounted just before registering the detector into the ABAX system.**

**Be particularly careful when installing or replacing the battery, so as not to damage the reed switches on the electronics board.**

1. Open the housing.
2. Install the battery and add the detector to the wireless system (see the ACU-100 controller user manual, INTEGRA 128-WRL control panel installer manual or VERSA control panel installer manual). A label with 7-digit serial number that should be entered during registration of the detector in the system is provided on the electronics board.
3. Close the detector housing.
4. Fasten the detector temporarily at the place of its future installation.
5. Check the level of signal received from the device. If necessary, select another place for installation.
6. Having selected the place which ensures the optimal signal level, open the housing and fasten the housing rear panel to the mounting surface.
7. Close the detector housing.
8. Secure the magnet, taking into account the maximum permissible distance from the reed switch (see Fig. 2).



9. Configure the detector to suit your requirements. For information on configuration - see the ACU-100 controller user manual and the INTEGRA and VERSA control panel programming manuals.

10. Start remotely the test mode and check that the detector responds appropriately to vibrations and magnet removal.
11. Exit the test mode. The detector is now ready for work.

## 2. Specifications


Working frequency band .....	868.0 MHz ÷ 868.6 MHz
Radio communication range .....	up to 150 m (in open area)
Supply .....	CR123A lithium battery, 3 V
Battery life expectancy .....	approx. 3 years
Maximum detection range of vibration detector, depending on mounting surface :	
concrete .....	1.5 m
brick .....	2.5 m
wood .....	3.5 m
steel .....	3 m
PVC .....	2.25 m
Standby current consumption .....	50 µA
Maximum current consumption .....	16 mA
Environment class according to EN50130-5 .....	II
Working temperature range .....	-10 °C...+55 °C
Maximum humidity .....	93±3%
Housing dimensions .....	24 x 110 x 27 mm
Weight.....	59 g



**Be particularly careful when replacing the battery. If inappropriately done, replacement of the battery may lead to a risk of explosion. The Manufacturer bears no responsibility for any consequences of incorrect replacement of the battery.**

**Always use the CR123A 3V lithium batteries.**

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

<b>DECLARATION OF CONFORMITY</b>		<b>CE1471</b>
<b>Product:</b> AVD-100 – wireless vibration detector and magnetic contact for ABAX system	<b>Manufacturer:</b> SATEL spółka z o.o. ul. Schuberta 79 80-172 Gdańsk, POLSKA tel. (+48) 58 320-94-00 fax. (+48) 58 320-94-01	
<b>Product description:</b> Vibration detector and magnetic contact intended for use with ABAX wireless alarm system components. Operating in the 868.0MHz – 868.6MHz frequency band. Supplied from a 3 V lithium cell. Device is intended for installation in intruder alarm systems.		
<b>The product is in conformity with the following EU Directives:</b> R&TTE 1999/5/EC		
<b>The product meets the requirements of harmonized standards:</b> ETSI EN 300 220-1: v.2.1.1; ETSI EN 300 220-2: v.2.1.1 ETSI EN 301 489-1: v.1.6.1.; EN 301 489-3: v.1.4.1 EN60950-1:2004		
<b>Notified entity participating in the conformity assessment:</b> Identification No.: 1471		
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The latest EC declaration of conformity and product approval certificates are available for downloading on website <b>www.satel.pl</b>		

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