PAX WIRELESS SERIES

PAX MC1

Wireless Magnetic Contact with One Input

Installation and Operation Manual

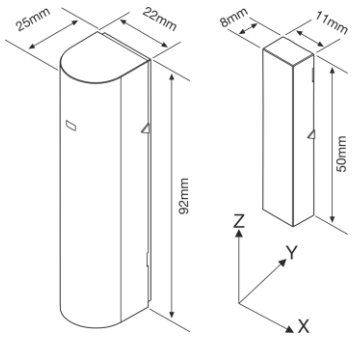
TELETEK

Teletek Electronics JSC
Address: 14A Srebarna Str,
1407 Sofia, Bulgaria

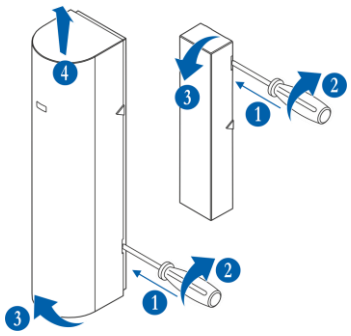
ATTENTION: Read carefully this installation Instructions before installing the device! This manual is subject to change without notice!

1. Installation

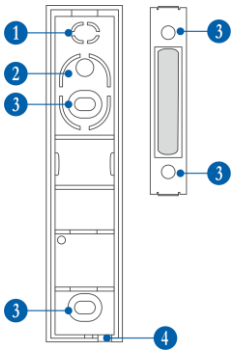
1 General view & Dimensions



2 Opening the front covers

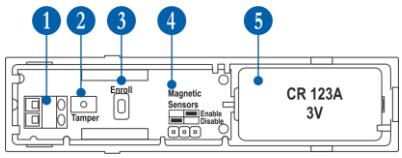


3 Mounting the bases



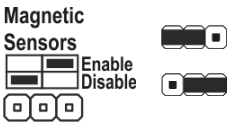
1 - Cable running hole, knock out plate
2 - Back-tamper knock out plate (against unauthorized dismantling)
3 - Mounting holes
4 - Hole for fixing the cover to the bottom with a screw (optional, against unauthorized opening, according EN50131-1 and EN50131-3) – see 6

4 PCB Elements and Jumper settings



1 - Terminals for connecting the wired zone - see 5
2 - Tamper switch
3 - Operation button (used for Enrolment, Reset and Radio signal check)
4 - Jumper terminals for Enable/Disable the operation of the magnetic sensors
5 - Battery 3V CR123A*
** Use only Panasonic, IEC 60086 tested batteries.*

To set the operation of the magnetic sensors, put a jumper on the respective terminals:

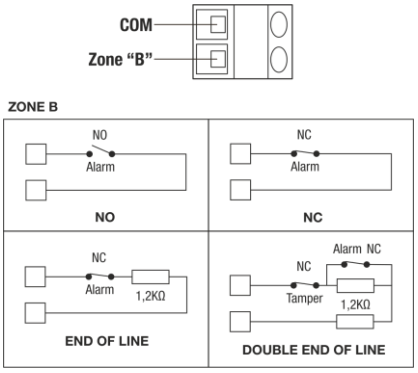


The operation of magnetic sensors is Disabled.

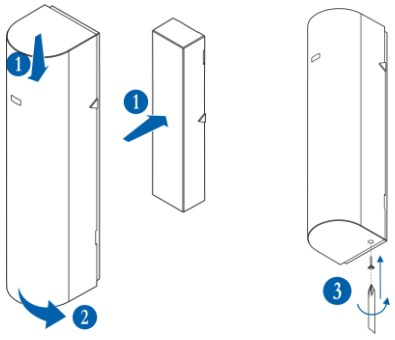
The operation of magnetic sensors is Enabled.

When all jumpers are removed, the LED and magnetic sensor operation is fully programmable via the control panel or configuration software!

5 Zone wiring diagrams

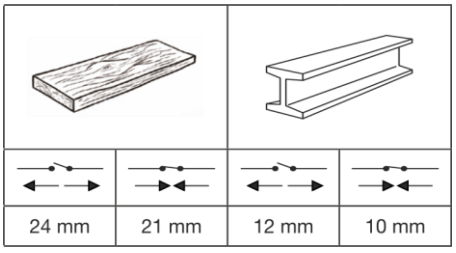


6 Closing and securing the front cover

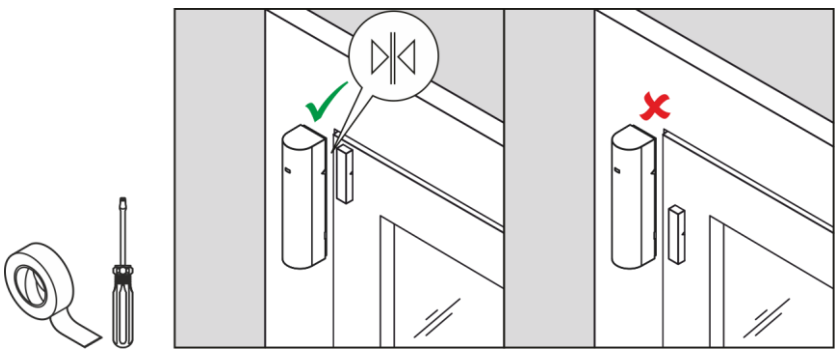


For securing the cover to the bottom, use the little pan head screw from the supplied kit with spare parts.

7 Operation distance



8 Installation place



2. General Information

PAX MC1 is a wireless magnetic contact for detection of door or window opening. The detector has one wired zone input suitable for connecting of wired magnetic contacts. The operation of wireless magnetic contact is programmable. PAX MC1 is compatible for operation with:

- ***BRAVO Next*** wireless control panel, for building of fully wireless security systems.
- ***PAX WL Expander*** module, for building of hybrid security systems with Eclipse series control panels.

Attention: *The minimum distance between BRAVO Next or PAX WL Expander and enrolled to it wireless PAX MC1 magnetic contact must be 1 meter to guarantee the correct operation of the system.*

Technical Specifications:

Battery (type CR123A) ..... 1 x 3 V/ 1500mAh
Battery life (max. without LED) ..... ~ 8 years
Low voltage threshold..... 2.6V
Current consumption (TX/Standby).... 26 mA / 4 µA
RF communication type..... Bidirectional
Operation frequency..... ~868 MHz
Radio distance (open space) ..... Up to 1500m
Reed switches..... 2
Hardware zone input 1
Working temperature..... -10°C - +50°C
Storing temperature..... - 40°C - +50°C
Operation distance 10-24mm
Dimensions ..... 22 x 92 x 25 mm
Weight (including battery)..... ~43 g

Main Functional Features:

- Two reed switches
- Front cover and rear (anti-tear) tamper
- Indication for the signal strength (RSSI)
- 1 hardware Zone Input, separately enabled; supports hardware connection according the system installation: NO, NC, EOL*, Double EOL* (*balancing with 1,2kOhm resistor)
- Bi-color LED activation on open (red)/ close (green)
- Events transmitted: Zone open/close, Tamper activation, Low battery
- Indoor use
- Beacon+ protocol type for wireless communication

3. Enrolment

(You should also refer to BRAVO Next and PAX WL Expander module full installation and operation manuals for more details)
Note: *For already used PAX MC1 detectors, first perform RESET procedure.*

- Enter in Device Programming menu of the used control panel.
- Select a free wireless device number.
- Enrol the detector as:
  If the PAX MC1 is new: Remove the protection folio from the battery – the LED lights on in red followed by a green blink, and after that the enrolment procedure starts automatically. If the automatic enrolment is failed, press the ENROLL button to initiate the process again.
  If the PAX MC1 has been already used: Press the ENROLL button on the PCB - the LED will blink fast in red for a while.
- The enrolment is successful, if in a time interval up to 30 seconds, the device LED lights on in green, and after that starts blinking in orange, which means that the device is selected. Make a radio test on the place of installation of the device as press the ENROLL button once and wait for LED indication – see item 5.
- In case PAX MC1 is enrolled to PAX WL Expander module, select a free zone number and attach the detector to it. Then, set the type of the zone, according the system configuration.

4. Resetting

Resetting is a procedure for restoring the default factory settings of a device. It is necessary to perform, when the device is moved to new system installation and must be enrolled to new control panel.

- Remove the cover of the PAX MC1.
- With battery on press and hold the ENROLL button for at least 7 seconds.
- The reset is completed when the green LED blinks shortly three times, followed by one long red flash and one long green flash.
- Next pressing of the ENROLL button will activate the enrolment procedure described at item 3.

5. Performing Radio Test

Note: *Perform the radio test just after the enrolment of the device and at the place of installation, as in that way you can choose the place with the best signal coverage.*

The radio test should be performed in order to check the signal strength on the site and the quality of the communication between the control panel and the PAX wireless devices.

The radio test can be performed directly after the enrolment of the device and after that during the maintenance of the system.

To perform a radio test of a device:
• Remove the cover of the device to access the PCB.
• Press the ENROLL button - the LED(s) will blink single in green. Up to 30 seconds the device will inform for signal coverage with a new indication with the following meaning:
- 3 blinks in green - the signal coverage is good and there is a stable communication between the device and the panel;
- 3 blinks in red - no signal coverage and communication between the device and the panel;
- 3 blinks in yellow – there is a signal coverage, but the communication between the device and the panel is unstable. In this case it is recommended to change the place of installation and to perform a new radio test.

6. Jumper Settings

Attention: The wireless magnetic contacts and hardware zone input cannot work together!
The type of activation (hardware zone or wireless reed switches) must be set via the jumpers on the terminals of the PAX MC1, or remotely via the control panel or programming software.

PAX MC1 comes with the following default factory set adjustments:
- LED operation is enabled (this setting is available for adjustment only via the control panel or programming software).
- The operation of the Wireless Magnetic contacts is Enabled.

The settings can be changed with setting a jumper on the respective terminals, or remotely (from control panel or programming software) when all jumpers are removed.

7. Replacing the Battery

Attention: Use only Panasonic batteries approved by the manufacturer, type CR123A 3V/1500mAh! Use only IEC 60086-4 tested batteries!

To replace the battery with new:

- Remove the cover of the detector's enclosure.
- Remove the battery.
- Press several times the ENROLL button.
- Wait for 10-15 seconds and place the new battery as observe the polarity.
- The LED lights in sequence in red, then in green.
- Mount back the cover of the device enclosure.

SAFETY PRECAUTIONS: Keep new and used batteries away from children! If the battery compartment does not close securely, stop using the product and keep it away from children's reach. If swallowed, the coin-sized batteries can cause serious injuries and burns in just 2 hours. In case of any doubt for swallowing of a battery, seek for medical help immediately!



Environmental Protection

Directive of batteries disposal – Information for the user (2013/56/EO)

The used batteries from devices, after changing with new ones, should not be disposed together with another household waste. The chemical elements, used in the batteries can seriously harm the man's health and the outdoor environment.
The recycling of the used batteries and waste of batteries contributes for protection, keeping clean and improving the outdoor environment.

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