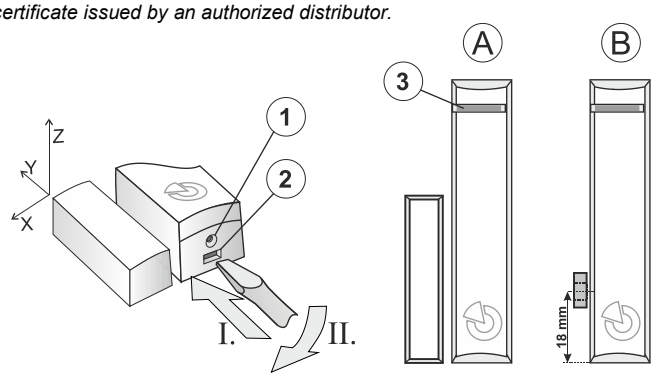
The JA-150M, JA-150MB, JA-150M-AN, JA-150M-GR
Wireless magnetic detector with 2 universal inputs

*The JA-150M is a wireless component of the **JABLOTRON** system. It is a magnetic detector with two configurable independent inputs. The detector is also designed to detect the movement of roller blinds, if it is equipped with a CT-01 roller detector. Small movements are filtered out so that wind blasts do not cause false alarms. The module occupies 2 positions in the F-link device list. The JA-150M can be used with up to two LD-81 flood detectors.*

The product must be installed by a trained technician with a valid certificate issued by an authorized distributor.



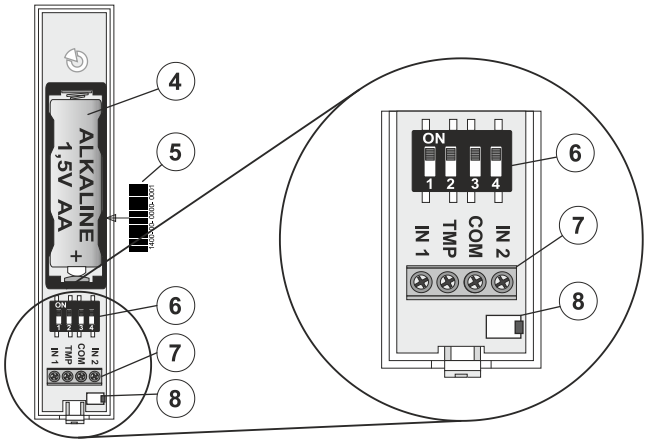


Figure: *1 – Place for locking screw, 2 – Cover tab, 3 – LED indication, 4 – Battery, 5 – Production number, 6 – DIP switch settings, 7 – Terminals, 8 – Cover tamper contact*

Axis	X	Y	Z
Activation distance (mm)	25/7	14/9	44/25
Deactivation distance (mm)	24/6	13/8	43/24

Table 1: Spacing on a non-magnetic surface. Distances are issued for device using ferrite magnet / ring magnet.

Axis	X	Y	Z
Activation distance (mm)	17/9	11/4	43/18
Deactivation distance (mm)	16/8	10/3	42/17

Table 2: Spacing on a magnetic surface. Distances are issued for device using ferrite magnet /ring magnet.

There are two different types of permanent magnets in the package – a ferrite magnet in a plastic housing (A) and a neodymium ring magnet (B) for use in places where there is not enough space for a standard magnet or for counter-sinking the magnet into a door's or window's inner frame. The positions for placing both types of magnets against the internal magnetic sensor are shown above (see Figure) as well as the reaction areas for magnets in millimetres in three axes of movement (see Table 1 and 2). The polarity of the magnet can affect the change in detection distance.

Installation

1. Open the detector cover by pressing the cover tab (2).
2. Screw the rear cover onto the required place. If it´s needed, put the cables through the rear plastic base. The length of cables to the detector should not exceed 3 m; choose the place of installation accordingly.
3. Attach the selected magnet to the moving part of the door (window) with screws. The lower edge of the ferrite magnet must be at the same height as the lower edge of the detector. It is recommended to attach the ring magnet with a special non-magnetic screw from the package.
4. Connect the wires from external contact to the required terminals if they are used.
5. It is not necessary to use any wire jumpers if none of the terminals will be used (this is also valid for tamper).
6. Set the DIP switches according to your needs (see Table 3).
7. Proceed according to the control panel installation manual.

   Basic procedure:

   a. Go to the ***F-link*** software, select the required position in the ***Devices*** window and launch the enrollment mode by clicking on the *Enroll* option.

   b. Insert the batteries (mind the correct polarity). The enrolment signal is transmitted when the battery is inserted into the detector. **Note** – the detector occupies 2 positions (each input has its own position). If the second position is occupied, it will be automatically overwritten.
8. Close the detector cover.

Note:

- *The detector can also be enrolled into the system by entering its serial number (5) in the F-link software (1400-00-0000-0001). You can find the production code on the sticker under the bar code on the battery holder.*
- *If only the first input is used, the second input can be deleted by pressing "Delete" to release the position for another device.*
- *By deleting the first input position, the module will always be deleted completely.*

Setting the detector properties

This can be done by DIP switches 1-4 on the detector's PCB. Select the required mode according to Table 2. The detector immediately reads the NO/NC status of all input terminals when the battery is inserted. The detected NC or NO state is taken as the default (standby). The input terminals IN1 and IN2 also work with 1k resistor-balancing.

Example: When there is a requirement to change the default logic of IN1 from NC to NO it is necessary to insert the battery when the input is disconnected.

Description of inputs:

IN1 – Input terminal for connection to detector no. 1

IN2 – Input terminal for connection to detector no. 2

TMP – Input terminal for tamper contact connection

COM – Common terminal for inputs IN1, IN2 and TMP

MG – Internal magnetic detector

Description of input modes:

Norm – status mode, the detector signals activation and deactivation of the input terminals

Pulse – pulse mode, the detector just signals activation (whether turning off or turning on depends on the default NO/NC standby mode)

Off – input disabled

RoI1, RoI2 – roller mode, which reacts to repeated pulses and short activating (NO) pulses with a sensitivity selectable in to two levels: ***RoI1*** = activation after 3 pulses within a 2-minute period; ***RoI2*** = activation after 5 pulses within a 2-minute period. After input is triggered in RoI1/RoI2 mode, the detector does not react to the next activation for 10 s. **LD-81** – mode for connecting one or two LD-81 flood detectors. If there are two flood detectors used simultaneously, alarm will always be triggered only from the first detector (logic OR function).

Mode	DIP1	DIP2	DIP3	DIP4	MG	IN1	IN2
0					Norm	Off	Norm
1				•	Norm	Off	Pulse
2			•		Norm	Off	RoI1
3			•	•	Norm	Off	RoI2
4		•			Pulse	Off	Pulse
5		•		•	Pulse	Off	RoI1
6		•	•		Pulse	Off	RoI2
7		•	•	•	Off	LD-81	LD-81
8	•				Off	Norm	Norm
9	•			•	Off	Norm	Pulse
10	•		•		Off	Norm	RoI1
11	•		•	•	Off	Norm	RoI2
12	•	•			Off	Pulse	Pulse
13	•	•		•	Off	Pulse	RoI1
14	•	•	•		Off	RoI1	RoI1
15	•	•	•	•	Off	RoI2	RoI2

*Table 3: Setting the detector properties (• = DIP switch **ON**)*

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Battery replacement

The system sends a report automatically when the battery is low. Remember to switch the system to Service mode before changing the batteries (otherwise a tamper alarm will be triggered). **Warning: The input terminals must be in standby mode when a new battery is inserted, the detector reads the inputs and takes the status as default.** ***(This is not valid for an internal magnetic contact).***

Technical specifications

Power	1x alkaline battery, type AA (LR6 1.5 V/2.4 Ah) Please note: Battery is not included
Typical lifetime of battery	about 2 years (max. 10 activation daily)
LowBatt state	<0.92 V
Quiescent current consumption	40 µA
Maximum current consumption	120 mA
Communication frequency	868.1 MHz, JABLOTRON protocol
Maximum radio-frequency power (ERP)	13 mW
RF range	approx. 300 m (unrestricted area)
The maximum length of cable for external detectors	3 m
Dimensions transmitter part	24 x 109 x 24 mm
Dimensions magnet part	16 x 55 x 15 mm
Weight (without battery)	55 g
Classification	Security grade 2/Environmental class II (EN 50131-1)
Operational environment	Indoor general
Operational temperature range	-10 °C to +40 °C
Average operating humidity	75 % RH, without condensation
Certification body	Trezor Test s.r.o. (no. 3025)
Complies with	EN 50131-1, EN 50131-2-6, EN 50131-5-3 ETSI EN 300 220-1-2, EN 50130-4, EN 55032, EN 62368-1, EN IEC 63000
Can be operated according to	ERC/REC 70-03
Recommended screw	2 x  ø 3.5 x 40 mm (countersunk head)

JABLOTRON ALARMS a.s. hereby declares that the JA-150M, JA-150MB, JA-150M-AN, JA-150M-GR is in compliance with the relevant European Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU, when used as intended. The original of the conformity assessment can be found at www.jablotron.com – the Downloads Section.

Note: Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.