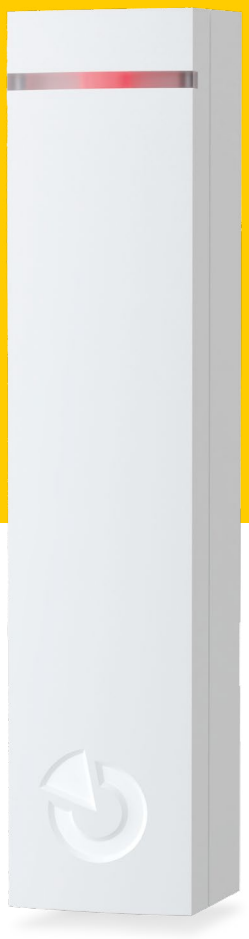
JABLOTRON

# Wireless magnetic detector with 2 universal inputs

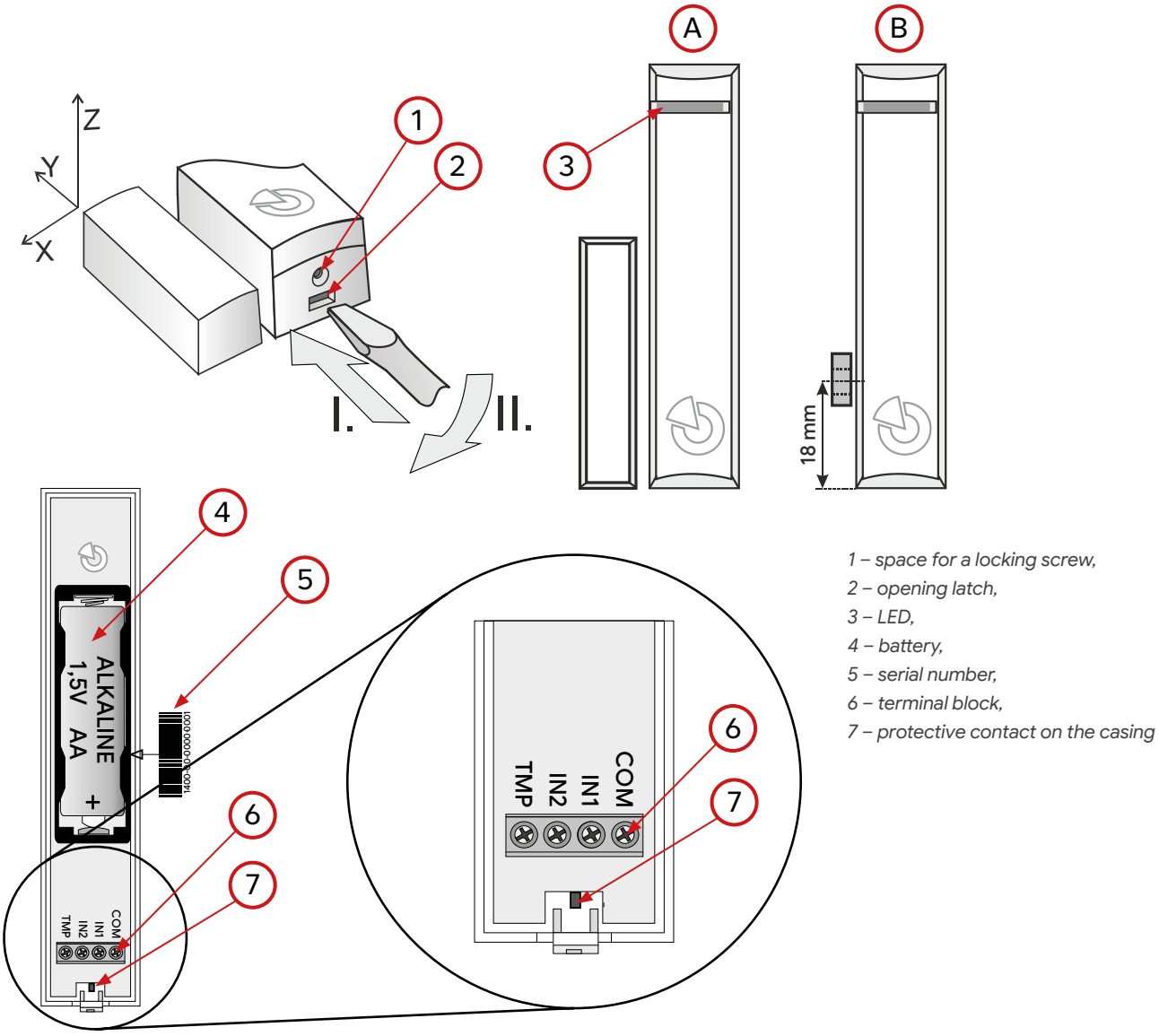
## JA-154M | JA-154M-BR
## JA-154M-AN | JA-154M-GR



- Magnetic detector with two-way communication, equipped with two configurable inputs and an input for an external tamper contact.
- The detector is intended for installation by a trained technician holding a valid Jablotron certificate.
- Compatibility with individual control panels can be verified via the QR code at the end of the manual.

# Installation

1. Open the cover by pressing the latch (2).
2. Screw the detector base into the desired place and, if necessary, thread the cables through (max. cable length 3 m).
3. The pack contains two types of permanent magnet for the movable sash of a window or door: a large ferrite magnet in a plastic casing and a small neodymium ring magnet. Align the permanent magnet with the detector as shown in Figure A or B. The magnets can be positioned either to the left or right of the detector. Screw the selected magnet onto the movable part. The lower edge of the ferrite magnet's plastic casing should align with the lower edge of the detector's casing. Use the non-magnetic screw provided in the kit to fit the ring magnet.
4. When using external sensors, connect the cables to the terminals (6). For easier handling, the terminal block can be slid out of the printed circuit board.
5. Unused terminals do not need to be connected to the COM terminal.
6. To enrol the detector into the control panel, the system must include a JA-11xR module. The detector sends an enrolment signal when the battery is inserted. Once enrolled, the detector occupies 3 positions: 1. for the built-in magnetic detector, 2. and 3. for the IN inputs. Unused positions can be removed from the rear.
7. Close the detector cover and set the top section with the locking screw in the designated hole (1).




*1 – space for a locking screw,*
*2 – opening latch,*
*3 – LED,*
*4 – battery,*
*5 – serial number,*
*6 – terminal block,*
*7 – protective contact on the casing*

*Fig. 1: Description of the product's external and internal components*

# Detection characteristics

| Magnet response distances of the magnet for opening/closing on a non-magnetic surface | | | |
|---|---|---|---|
| Axis | X | Y | Z |
| Opening distance (mm) | 31/17 | 60/25 | 48/11 |
| Closing distance (mm) | 22/10 | 45/19 | 36/6 |

| Reaction distances of the magnet for opening/closing on a ferromagnetic surface | | | |
|---|---|---|---|
| Axis | X | Y | Z |
| Separation distance (mm) | 24/4 | 14/20 | 18/12 |
| Closing distance (mm) | 12/11 | 8/12 | 12/5 |

# Input connections

| Inputs | |
|---|---|
| COM | Common terminal for inputs IN1, IN2 and TMP |
| IN1 | Input for connecting detector no. 1 |
| IN2 | Input for connecting detector no. 2 |
| TMP | Input for connecting an external protective contact – 24-hour response. Activation is reported as detector tampering. |

Inputs IN1 and IN2 can be ballanced with a 1k (EOL) resistor.

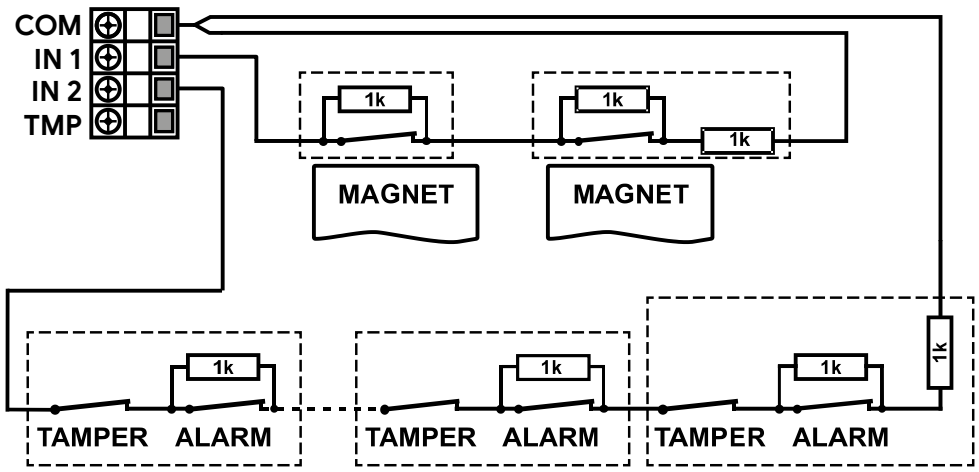



*Fig. 2: Example of connecting multiple devices to a single input via a double-balanced loop with a 1k resistor*

# Input settings in F-Link

| The following configuration options are available in the internal settings | |
|---|---|
| Off | No respond (input is completely disabled) |
| On | Responds to a change in the contact connected to the input |
| Simple balancing | A resistor R (1k) must be connected in series with the contact. Activation occurs if the resistance drops or rises by 30% (≤ 700 Ω; ≥ 1300 Ω) |
| Double-balanced | **Standby:** connection to COM via a terminating resistor 2R (± 20 %) (≤ 800 Ω; ≥ 1200 Ω)<br>**Activation:** connection to COM via a resistor of 2R (± 30 %) (≤ 1400 Ω; ≥ 2600 Ω)<br>**Tamper:** connection to COM via a resistor less than R –30% (≤ 700 Ω) or greater than 2R + 30% (≥ 2600 Ω) |
| Roller blind | Roller blind mode, responds to repeated, short open pulses with sensitivity adjustable in two levels:<br>**Pulse 1** = activation after 3 pulses within a maximum of 2 minutes;<br>**Pulse 2** = activation after 5 pulses within a maximum of 2 minutes. When using Rol1/Rol2 modes, the module remains inactive for 10 seconds after the activation signal is transmitted. |
| LD-81 Flood Detector | Mode for connecting LD-81 type flood detectors. When two flood detectors are used simultaneously, the alarm will always be triggered by the first detector to detect flooding (logical OR function). |
| Pulse mode | Only the activation signal is transmitted (opening or closing of the terminals depending on the default idle state). |
| Inverse response | Optional, applies to only On or Balanced input |

| TMP input function | |
|---|---|
| External tamper contact | Checked = input response enabled<br>Unchecked = response disabled |

# Battery replacement in the detector

The system alerts you when the battery is running low. Before replacing the battery, the system must be switched to service or maintenance mode (otherwise a tamper alarm will be triggered).

# Technical specifications

| | |
|---|---|
| Power | 1× alkaline battery, type AA (LR6, 1.5 V/2.4 Ah) Please note: Batteries are not included. |
| Typical lifetime of batteries | approx. 6 years |
| Low battery voltage | <1,1 V |
| Quiescent current consumption | 38 µA |
| Maximal current consumption | 80 mA |
| Communication band | 868,1 MHz, protokol JABLOTRON |
| Maximum radio-frequency power (ERP) | <25 mW |
| Communication range | approx. 300 m (open terrain) |
| Maximum length/diameter of the connection cable between the input and the detector | 3 m / 5 mm |
| Detector dimensions | 25 × 110 × 23,3 mm |
| Magnet dimensions | 16 × 55 × 15 mm |
| Weight (w/o batteries) | 40 g |
| Classification | security grade 2 / environmental class II (according to EN 50131-1) |
| Environment | indoor general |
| Operating temperature range | -10 °C to +40 °C |
| Average operating humidity | 75 % RH, non-condensation |
| Certification body | Trezor Test s.r.o. (No. 3025) |
| In compliance with | EN 50130-4, EN 301 483-1, EN 301 483-3, ETSI EN 300 220-2, EN 62311, EN 62368-1, EN 50131-2-6, EN 50131-6, EN 50131-5-3, EN IEC 63000 |
| Can be operated according to | ERC REC 70-03 |
| Recommended screw | 2×  ø 3,5 mm (cylindrical head) |

JABLOTRON a.s. declares that the products JA-154M, JA-154M-BR, JA-154M-AN and JA-154M-GR has been designed and manufactured in accordance with the harmonised legislation of the European Union: Directives No. 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU, provided it is used for its intended purpose. The original Declaration of Conformity is available at www.jablotron.com in the 'Downloads' section.

Note: Although the product does not contain any harmful materials, do not dispose of it in the general waste; instead, take it to an electrical waste collection point. For more detailed information, visit www.jablotron.com in the 'Downloads' section.

Compatibility table