

# JB-EXT-TH-R Wireless outdoor temperature detector

The product is a wireless component of the **JABLOTRON 100** system. It serves for outdoor temperature measurement using an internal or external sensor. The internal sensor, which is a part of the product, measures temperature in a range of -25 to 60 °C. Using the JB-TS-PT1000 external sensor (not included) it's possible to measure temperatures of gas, liquid or solid state substances in the range of -50 to 200 °C.

Measured data are sent to MyJABLOTRON where it is analysed and stored for further use for instance activating an assigned PG output, the SMS reporting of exceeding temperature limits or to create graphs of measured temperatures. All functions are programmable directly in MyJABLOTRON. The PG control function can be assigned to maximum of 2 thermometers per control panel. This product should be installed by a trained technician with a valid certificate issued by an authorised distributor.

## Installation

Select the installation place according to the temperature measuring requirements. The thermometer automatically detects connection of the external sensor (JB-TS-PT1000). If the external sensor is not connected, temperature is detected by the internal sensor placed on the PCB, therefore it is necessary to protect this unit from, for example, direct sunlight. Avoid installing the detector near the sources affecting temperature (heaters, electric fans, air conditioning outlets, fireplace inserts, etc.). The detector can also be installed in an outdoor environment because it complies with IP53 rating.

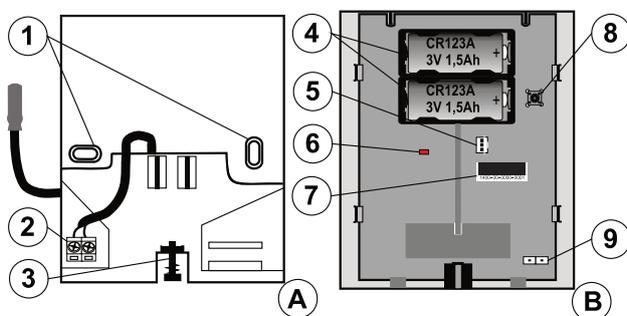


Figure 1: A - base; B1 - front part of the case with electronics; 1 - mounting holes; 2 - external sensor JB-TS-PT1000 wire terminal; 3 - cover lock screw; 4 - battery holder; 5 - external antenna AN-868 connector; 6 - light signalization; 7 - production number; 8 - discharging button; 9 - wire terminal connector

1. Loose the screw (3) and detach the front part (B) from the base (A).
2. If using the external sensor - run the external sensor wire through the hole in the base and mount the base to the required place.
3. Connect the external sensor to the wire terminal (2).
4. Follow the instructions in the control panel installation manual. Basic procedure:
  - a. Go to the **F-link** software, select the required position in the **Devices** tab and launch the enrollment mode by clicking on the **Enroll** option.
  - b. The enrollment signal is transmitted when the first battery is inserted into the detector.
5. Attach the front part of the case with electronics to the base. The external sensor connects to the PCB via the wire terminal connector.
6. Use the screw (3) to lock the cover.

### Notes:

- Enrolling the detector to the system is also possible with active enrolment mode by entering the production code (7) via the F-Link software. All digits in the production code are required (1400-00-0000-0001).
- If you want to remove the detector from the control panel, erase it from its position.
- The connection polarity of the external sensor JB-TS-PT1000 is not relevant. The sensor is available with 3 m long conductors (see the Table 1: External sensor JB-TS-PT1000 extension)
- External sensor connection is detected for the first 15 minutes after the battery insertion. In necessity of connecting the sensor

after this time take out both batteries, press the discharging button and insert the batteries again.

- The Fault of the detector is reported when the external sensor is disconnected while the detector is switched on.

## Functions

The JA-114E, JA-154E, JA-110E and JA-150E series of keypads are able to display current temperatures from up to 2 thermometers on the keypad screen. See the JA-10xK installation manual.

The detector has a fixed antifreeze temperature of +0 °C with +1 °C hysteresis. Therefore the detector has an activation temperature of 0 °C. The deactivation temperature is >+1 °C. The detector remains deactivated until the temperature drops again under 0 °C.

Using the F-Link software, it is possible to configure the JA-10xK control panel's reaction (PG output, 24h alarm, etc.) to react to temperature detector activation. Thus the selected PG output is controlled directly by the control panel.

All thermometer functions can be fully used in MyJABLOTRON. The registration procedure is described in the *Control panel installation manual*.

## MyJABLOTRON

All thermometers and their measured values are stored and shown in the **Thermostats and Thermometers** tab in MyJABLOTRON. The temperatures are stored automatically every 5 minutes. The temperatures are displayed in a graph with an adjustable timeline. It's possible to export data from the graphs in various formats for further processing. The graph function enables you to compare temperatures from two thermometers or different time periods (only available in the MyJABLOTRON mobile app).

### MyJABLOTRON app offers the following functions:

#### PG control by measured temperature

Using MyJABLOTRON, it's possible to configure activation of a PG output by a temperature measured by the thermometer. The selected PG output is controlled remotely from MyJABLOTRON therefore stable external communication is necessary for this function to work properly. If this function is selected, the user can use a slider to configure the desired temperature which will activate the PG output. These settings are located in the **Thermostats and Thermometer** tab.

Linking the thermometer with a PG output is done by a service technician in the **Installation management** section of the MyCOMPANY app. Select the control panel, enter the **Devices** tab, press the symbol of a gearwheel on the thermometer and select a PG output which should be controlled by the measured temperature. Use the slider to configure the desired activation temperature. This configured link is indicated by a PG symbol at the thermometer's position.

**Warning!** The controlled PG output must be configured to have **ON/OFF** or **Impulse** functions (configurable in the F-Link software). PG outputs with different functions cannot be controlled via MyJABLOTRON. The **Impulse** timer must be set to at least 1 hour.

#### Notes:

- Setting a temperature which triggers a PG output can also be done in the MyCOMPANY and MyJABLOTRON mobile apps. Setting the link to a particular PG output is possible only in MyCOMPANY (mobile or web versions).
- This function can be configured for a maximum of 2 thermometers enrolled to the control panel (the sum of wireless and BUS thermometers).
- Connection via GSM and LAN communicators is required in order to make sure that PG output control from MyJABLOTRON works properly.
- Due to fact that PG outputs are controlled via an external app, **we cannot guarantee proper functioning under all circumstances**. When the connection with MyJABLOTRON is lost, the status of the PG output stays unchanged until the connection is re-established. This is why we recommend using a controlled PG output along with the **IMPULS** function set to an activation time of 2:00:00. The PG output will be controlled by commands from MyJABLOTRON. If the connection is lost, activation of the PG output will be limited by the activation time of the **IMPULS** function.
- The activation hysteresis of a PG output is - 1 °C. The PG output will be activated when the measured temperature is 1 °C lower than the activation temperature. Deactivation will occur when this temperature is exceeded by 1 °C.

#### Notifying the user when the temperature exceeds the allowed range

You can set a higher and a lower temperature limit and a certain period of time of temperature monitoring for a selected thermometer in **Settings** → **Thermometer notification**. When one of these limits is exceeded or gone below then it's reported by an SMS, an e-mail or push notifications if you use the MyJABLOTRON app.

# JB-EXT-TH-R Wireless outdoor temperature detector

## Batteries replacement

The system sends a report automatically when the batteries are low. During the battery replacement it is not necessary to switch the system to service mode (this detector has no tamper contact).

After taking out the battery, press the discharging button (4) to discharge the capacitors in the detector and then insert a new battery.

Apply the same procedure if you need to enroll the detector to a different control panel. Only one battery can be used in the detector. To prolong the detector lifetime use another battery CR123A. When using two batteries always replace both batteries in the same time and use the same type and brand of fully charged batteries.

## External sensor JA-TS-PT1000

The external sensor is not included in the JB-EXT-TH-R package. The length of the conductors is 3 m and can be extended. However the conductor extension can cause a measurement deviation. Follow the recommended wire gauges listed below when extending the conductors.

Wire length	10 m	20 m	30 m
Minimal wire gauge	0,5 mm <sup>2</sup>	0,8 mm <sup>2</sup>	0,8 mm <sup>2</sup>
Measurement deviation	+ 0,1 °C	+ 0,15 °C	+ 0,2 °C

Table 1: External sensor JB-TS-PT1000 extension

## Technical parameters

Power 2x Lithium battery type CR123A (3.0 V/1500 mAh)  
*Please note: Batteries are not included*  
Current consumption (nominal/maximal) 15 µA/50 mA  
Typical battery lifetime (applies if the electronics are placed in a non-condensing environment with temperature of 0 °C to +30 °C and relative humidity of 10% - 90% rH).

Sensor type / number of batteries	1x CR123A	2x CR123A
Internal	5 years	10 years
External (JB-TS-PT1000)	2 years	4 years

Low battery reporting < 2.4 V  
Communication band 868.1 MHz, JABLOTRON protocol  
RF range up to 200 m (open area)  
Dimensions 90 x 110 x 35 mm  
Weight 145 g  
Internal sensor temperature measurement range -25 °C to +60 °C  
External sensor temperature measurement range -50 °C to +200 °C  
Operational temperature -25 °C to +60 °C  
Internal sensor temperature measurement range accuracy ±0.6 °C  
External sensor temperature measurement range accuracy ±1 °C  
IP coverage IP53  
Also complies with ETSI EN 300 220, EN 60950-1, EN 50130-4, EN 55022



JABLOTRON ALARMS a.s. hereby declares that the JB-EXT-TH-R is in a compliance with the relevant European union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com) - Section Downloads.



**Note:** Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use. For more detailed information visit [www.jablotron.com](http://www.jablotron.com)