

BUS room thermostat with CO₂ sensor

Code: JB-112TP



An enhanced thermostat for central and zone control of temperature, humidity and air quality which, compared with the basic model, additionally measures the CO₂ level. Independent switching of heating, cooling and ventilation, plus floor temperature measurement with a limit function. Convenient temperature schedule setting from MyJABLOTRON 2, creation of temperature and humidity graphs, and unique energy-saving functions thanks to integration with the alarm. It offers a whole range of new functions in a modern design, with convenient installation onto a mounting box.

Product description:

Main specifications

 82 x 82 x 11/22 mm

 From the system bus

 5.5 mA nominal consumption

 30 mA peak consumption

 JA-103K, JA-107K

 

 White or Black / anthracite

 For surface mounting, a backplate must be ordered separately.





Low costs, easy and hassle-free

The unique combination of a thermostat and an alarm system offers several advantages, making it easy to achieve savings in both acquisition and operating costs.

The thermostat uses a secure and reliable alarm infrastructure for its internal and external communication. This allows remote access to control and settings from MyJABLOTRON 2, even without costly additional control units or separate cabling, even in the event of a local Internet outage or insufficient Wi-Fi coverage.

The thermostat's response to system events offers automatic temperature reduction when leaving the building, opening a window, and other situations where full heating is not necessary. Without user intervention, the thermostat automatically saves operating costs whenever possible.

Installation and setup of thermostats

Smart features inside, simplicity outside

Local control couldn't be easier. Use the plus and minus buttons to set the desired temperature, and the "i" button to switch between displaying the measured room and floor temperatures and the set temperature. No complicated programming or menus.

Thanks to the connection to the alarm, you can set everything else clearly and conveniently from MyJABLOTRON 2. From the temperature plan to humidity control, you have full control over the environment in the building, wherever you are.

You can easily turn on the heating at your cottage before leaving work or turn down the heating at home if your weekend in the mountains unexpectedly gets extended.



One thermostat, up to three controlled appliances

Thanks to seasonal heating and cooling modes as well as a parallel ventilation mode, the thermostat can independently control up to 3 different PG outputs of the system. You can link it not only with underfloor heating, a heated towel rail or radiators, but also with the air conditioning in the bedroom, the extraction in the bathroom or a central heat recovery unit.

The thermostat monitors the CO₂ level and adjusts the ventilation function accordingly. CO₂ measurement also has an additional informational and safety function. The current value is shown on the display, and the history in the MyJABLOTRON 2 app in a clear graph. At a high concentration the system can send a notification or trigger an alarm.

The thermostat does not require a direct wired connection to the appliances. Control instructions are sent to the system digitally, and any output module can switch the appliance on and off. The range includes products designed for connection to heating systems and universal relays, offering endless application possibilities.

Read more about construction preparation and connecting JABLOTRON 100+ to the heating system

The temperature adapts perfectly to your daily routine

The programme mode, controlled according to an individual time schedule, is designed for normal operation. During this mode, the thermostat switches between a comfortable temperature, for example when you get up in the morning, and an economical temperature for sleeping or when no one is at home.

Outside of the standard heating schedule, the temperature can be adjusted manually at any time according to current needs. The thermostat resynchronises itself with the programme at the next scheduled temperature change.

If you leave the building, the thermostat automatically shortens the comfort period to save costs. Before your return, regardless of the security status, it will start heating again according to the plan to a comfortable temperature so that your return home is completely comfortable. Conversely, an open window or other set condition blocks the thermostat for its entire duration. Even during continuous blocking, however, the thermostat checks to ensure that the space does not cool below the minimum temperature set for the off mode.

Convenient installation on a box or bare wall

When mounted on an installation box, the thermostat can be partially recessed (11 mm) to blend in even better with the interior. If the required installation setup is missing, the [PLV-JB11xTx](#) surface-mounting backplate can be purchased separately.

The screwless terminal block facilitates the connection of bus cabling or the optional [JB-TS-NTC10K](#) floor sensor.



Additional safety and comfort features

- Floor temperature limitation based on floor sensor measurements.
- Display backlight linked to touch, day mode or PG output activation (e.g. when moving around the room).
- Child lock.
- Fault or alarm notification and report to the monitoring centre when high or low emergency temperatures are reached.
- Manual mode for maintaining a constant static temperature.
- Off mode with automatic maintenance of a safe temperature.
- User notifications in MyJABLOTRON 2 when the temperature exceeds or falls below the set temperature.
- Temperature and humidity history graphs in MyJABLOTRON 2.
- Bulk control commands and saving settings to all thermostats in MyJABLOTRON 2.



What to pay attention to when designing



Access to the advanced thermostat settings in MyJABLOTRON 2 requires entering an administrator code due to the need to modify the system configuration.



As a non-alarm element, the thermostat is not equipped with a tamper sensor. For installations requiring security grade 2 compliance according to EN 50131, the thermostats must be connected to a dedicated bus output of the control panel or behind a JA-110T bus separator to protect the bus.



When choosing the location of the thermostat, avoid places where the room temperature measurement may be affected by external influences, such as draughts or the thermostat being heated by the sun.



The bus version of the product is supplied with a backplate for partially recessed mounting in an installation box. The PLV-JB11xTx surface-mounting backplate for bus thermostats is sold separately. In contrast, the wireless version is supplied with a surface-mounting backplate as standard, as the battery compartment does not allow for recessed installation.



The number of thermostats in the system is limited only by the number of unoccupied positions for peripherals. However, the number of PG outputs for switching appliances that can be controlled wirelessly is limited by the wireless range of PG 1 to 32.



One PG output can only be controlled by one thermostat. If you install multiple thermostats that jointly control one heat source (e.g. a boiler), a separate PG output must be created for the boiler, which will use OR logic to copy all PGs controlled by individual thermostats.



When using floor cooling with reverse heat pump operation, the entire floor system must be protected against condensation. Consult the heating system supplier about the purpose of this application; protection against condensation must be provided on the heat pump side.

JABLOTRON Thermostat Portfolio

Where to next?

Are you a JABLOTRON installation partner? Don't hesitate to order the new thermostats from your chosen distributor. Would you like to add thermostats to your portfolio, but aren't a partner yet? Just sign up for training.

Order thermostat

I want to become a partner

Technical information:

Temperature measurement range with external sensor	-40 to +125 °C (± 0.1 °C)
Operating temperature range	-10 to +40 °C
Humidity measurement range	0 to 100%
CO₂ measurement range	400–5,000 ppm
CO₂ measurement accuracy	400–1000 ppm: ±50.0 ppm ±2.5 %w.b. 1,001–2,000 ppm: ±50.0 ppm ±3.0 %w.b. 2,001–5,000 ppm: ±40.0 ppm ±5.0 %w.b.
CO₂ measurement resolution	1 ppm
*Temperature controller class	I. (according to Regulation (EU) No. 813/2013)
*Contribution of controllers to seasonal efficiency	$\eta_S = 1\%$ (according to Regulation (EU) No 813/2013) *for both parameters in configuration with control unit
Power	from the JA-100+ control panel bus 12 V DC (8–15 V) from the Futura unit bus 24 V DC (18–30 V)
Quiescent current consumption	5.5 mA
Maximum current consumption	30 mA
IP resistance	IP 31
Dimensions	82 x 82 x 22 mm
Weight	101.1 g
Average operating humidity	75 % RH (non-condensation)
Environment	Indoor general
Also complies with	EN 50130-4, EN 55032, EN IEC 63000
Recommended screws	2x ø 3.5 mm (half-round head)