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RC 25

Installation and Operation Manual  
**RC 25 Room Unit for IR Controllers**

**EN**

**RC 25**

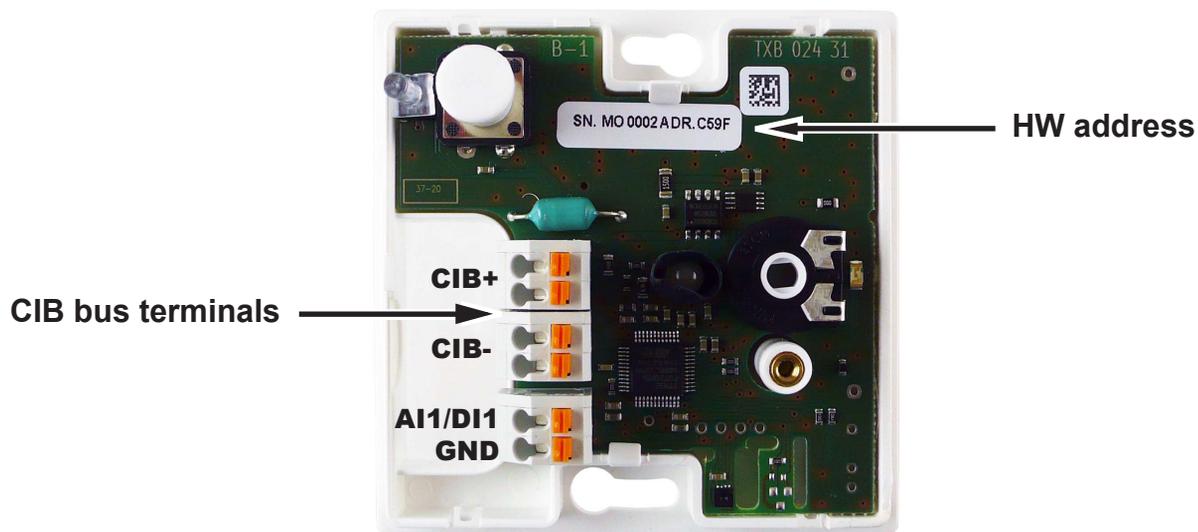
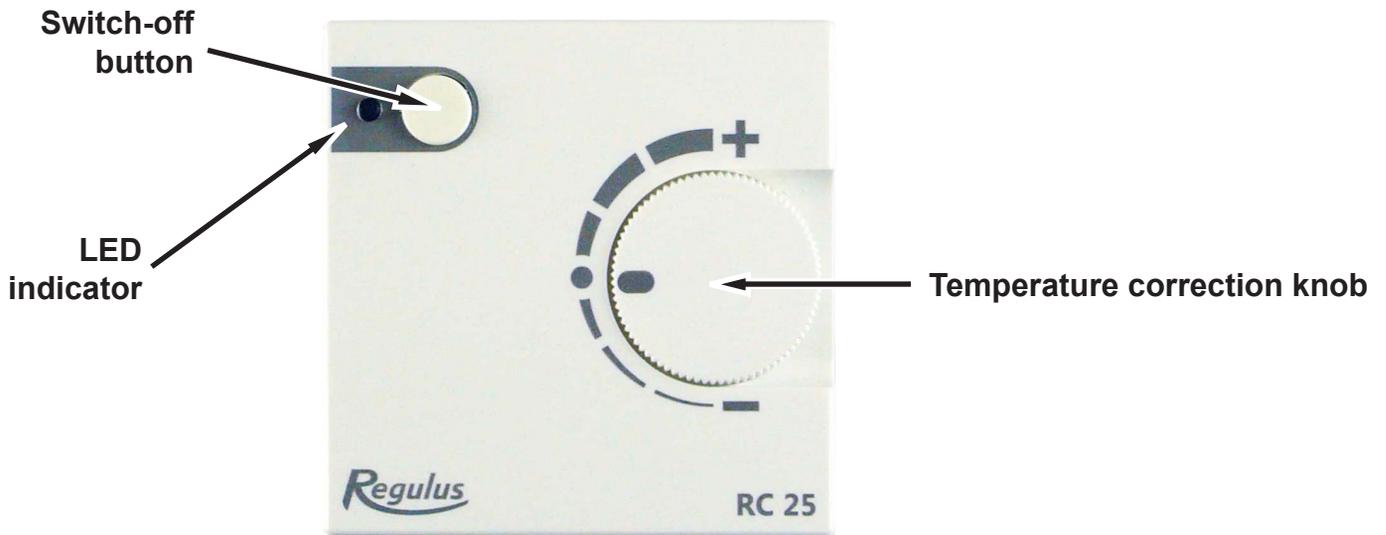
# 1. Description

RC 25 room unit is designed for the following purposes:

- sensing room temperature and relative humidity in the heated zone
- easy correction of the desired temperature using the knob
- indication of operating status and alarm
- possibly other optional functions (for more information see Chapter 3)

Power supply and communication with the IR controller runs via two CIB bus wires.

Wall mounting with screws (not included in supply).



Read the instructions carefully before installation, and follow the instructions provided when using the device.

## 1.1. Instructions for mounting and connecting the unit to the CIB bus

- Before opening the box, set the knob to the middle position (see picture above) and pull it out carefully. This will expose the screw that secures the box cover.
- The CIB spring terminal block is intended for the connection of a rigid conductor. It is therefore necessary to crimp a suitable sleeve on the stranded wire. The terminal is released by pushing the tab. Both terminals are doubled for easier bus connection.
- The CIB bus allows any installation topology (line, star, branch), but it must not be connected in a circle!
- The number of modules on the CIB bus is limited by the maximum permitted bus current. For larger installations, it is necessary to verify the voltage drops by calculation.
- Two-wire cables are used to install the CIB bus. We recommend using a cable with a twisted shielded pair and a core diameter of preferably 0.8 mm, **eg J-Y(St)Y 1x2x0.8**.
- The CIB bus is designed for a voltage of 24/27 V DC. **Internal circuits are not galvanically isolated!**
- Observe the correct polarity when connecting the bus.
- It is recommended to avoid running the bus alongside power supply cables.
- The CIB bus must always be designed and carried out to meet the conditions for SELV or PELV.
- The CIB bus cable must not have an incorrectly connected shield. The following principles apply to the connection of shields:
  - o shielding of external and internal switchboard cables shall be connected to the grounded frame of the switchboard on one side of the cable
  - o in the case of metal switchboards, the shielding of the external cables shall be connected at the switchboard entry with the earthed switchboard casing
  - o in the case of plastic switchboards, the shielding of the external cables shall be connected with a grounded mounting plate as close as possible to the switchboard entry
  - o the shield shall be connected with its largest possible area directly to the grounded surfaces of the switchboard; when terminals are used, the untwisted and twisted shield shall always be connected directly
  - o the shield shall not be connected through additional wires

## 1.2. Instructions for location and operation of the room unit

- The RC 25 unit is intended for indoor use only.
- Do not place the unit in rooms where it will be exposed to excessive moisture or rain.
- A suitable location is on a wall approximately 1.5 m above the floor, in a place where changes in the overall room temperature can be registered thanks to freely circulating air.
- Do not place the unit above heat sources (TV set, heater, refrigerator, etc.), or in places where it will be exposed to direct sunlight, drafts, or heat from other devices.
- Be careful when connecting the power supply.
- Storage and operation is only permitted in clean rooms free of conductive dust, aggressive gases and vapors.

The manufacturer disclaims any liability for damage caused by incorrect installation or use of the device contrary to the instructions.

## 2. Specifications

Code: 18540

Working temperature	0 °C to 50 °C
Temperature measurement accuracy	0.2 °C
Working humidity	5-95%, non condensing
Humidity measurement accuracy	2 %
Power supply, communication	24 V (27 V) from CIB
Nominal power consumption	25 mA
Cable cross section	max. 1.5 mm <sup>2</sup>
IP rating	IP 20
Dimensions (H x W x D)	71 x 71 x 27 mm
Wall mounting	Screw pitch 60 mm
Compatible controllers	IR12 (ver. FW 04.11. or higher) IR14 (ver. FW 1.0.2.0 or higher) RegulusBOX (ver. FW 1.0.2.0 or higher)
Product standard	EN 60730-1 ed. 4:2017
Class of ambient influence – ČSN 33 2000-1 ed. 2	normal
Degree of pollution - EN 60664-1 ed. 2: 2008	2
Overvoltage installation category - EN 60664-1 ed. 2: 2008	III (300 V)
Emissions - EN 55022 ed. 2: 2017	Class A
Immunity	EN 60730-1 ed. 3:2012

## 3. Functions of RC25 Room Unit

### Switch-off button

The button recognizes a short or long press (approx. 3 s).

A long press means turning the zone off/on by the user.

On the service level, the short press function can be set to:

- switching the zone on/off by the user (default setting)
- activation of immediate hot water circulation (for a set period, e.g. outside the time schedule)
- activation of temporary HRV performance boost

### LED indicator (green)

at the switch-off button can be:

- lit (zone on)
- not lit (zone off)
- flashing (immediate circulation or temporary HVAC boost is active)

### Temperature correction knob

It is used for user correction of the desired temperature in the range of  $\pm 3$  °C.

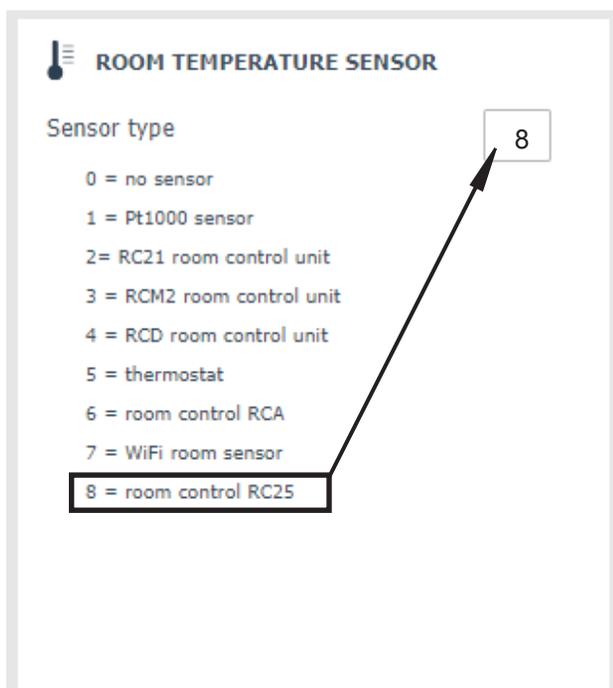
A LED indicator is located below the knob to show the operating status and alarm:

- off (zone is not heating/cooling)
- lit green (zone is heating)
- lit blue (zone is cooling)
- flashes red (a fault in the system)

The light intensity of the LEDs can be changed in the service settings of the controller.

## 4. Assigning a temperature sensor to a heating zone in IR controller

In the selected heating zone, set „RC25 room unit“ (no. 8) as the room temperature sensor and save the setting.

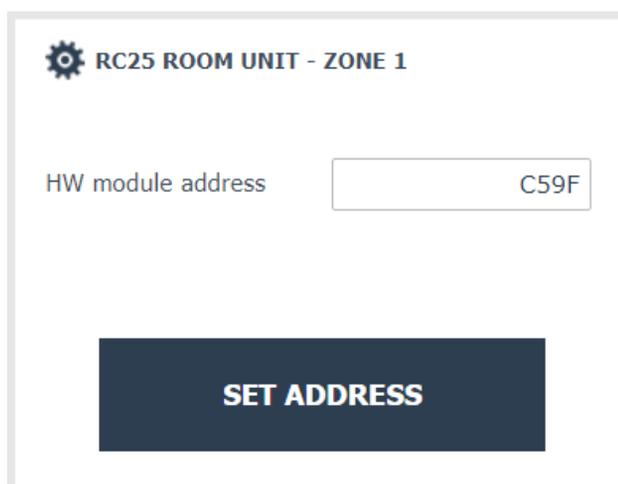


**ROOM TEMPERATURE SENSOR**

Sensor type

- 0 = no sensor
- 1 = Pt1000 sensor
- 2 = RC21 room control unit
- 3 = RCM2 room control unit
- 4 = RCD room control unit
- 5 = thermostat
- 6 = room control RCA
- 7 = WiFi room sensor
- 8 = room control RC25**

In the menu for addresses of add-on modules, set the HW address indicated on the product.

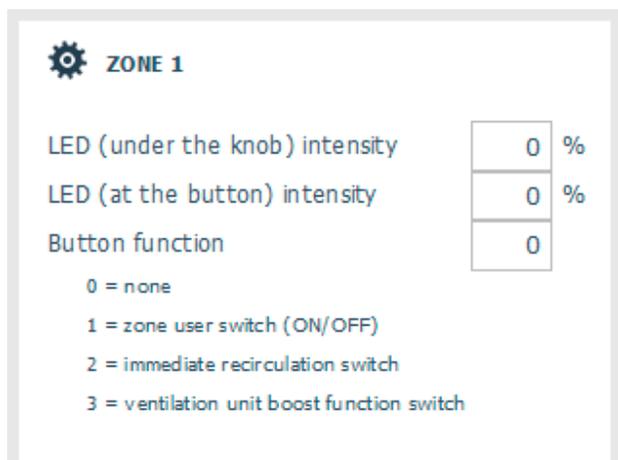


**RC25 ROOM UNIT - ZONE 1**

HW module address

**SET ADDRESS**

In the service settings of the given zone, you can set the intensity of both LEDs of the RC 25 unit. You can also set the function of a short press of the button.



**ZONE 1**

LED (under the knob) intensity  %

LED (at the button) intensity  %

Button function

- 0 = none
- 1 = zone user switch (ON/OFF)
- 2 = immediate recirculation switch
- 3 = ventilation unit boost function switch

## 5. IMPORTANT INFORMATION ON THE CORRECT DISPOSAL OF EQUIPMENT ACCORDING TO EUROPEAN DIRECTIVE 2002/96/EC

Do not dispose of this product as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

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The crossed out wheeled bin with marking bar, printed either in the Manual or on the product itself, identifies that the product must be disposed of at a recycling collection site.



WEEE number: 02771/07-ECZ