



RU-DOS

Flexible room unit with display, fan button and special functions, for use with RCP

RU-DOS is a room unit intended for use together with Regin Maxi controllers.

- Awarded design
- Simple installation
- Built-in temperature sensor
- Backlit display

RU-DOS is a flexible room unit from the Regio series with display, fan button for controlling a three-speed fan (fan coil), and a number of special functions.

The room unit should be connected to one of the Regin Maxi controllers RCP100, RCP100T, RCP100F, RCP100FT, RCP200, RCP200T, RCP200F or RCP200FT.

Regio

Regio is a wide series of controllers which handle heating and cooling.

The controllers are divided into three different series, Mini, Midi and Maxi. Mini are pre-programmed, stand-alone controllers. The Midi controllers are pre-programmed with communication. The Maxi group, to which RU-DOS belongs, consists of freely programmable controllers with communication.

Applications

The Regin controllers are suitable in buildings where you want optimal comfort and low energy consumption, for example offices, schools, shopping centres, airports, hotels and hospitals etc.

Design

The room units have a modern design. The design has been awarded the 2007 "iF product design award".

The standard colour is white, but the frame and centre can be received in a number of different colours on inquiry. The units can be combined, offering many different effects.



Sensor

The room unit has a built-in sensor.

- Cable for connection between the room unit and the RCP controller is available as accessory
- Lighting control, CO₂-control, control of blinds, display of humidity and outdoor temperature

Easy to install

The modular design with a separate bottom plate for wiring makes the whole Regio series easy to install and commission. The bottom plate can be put into place before the electronics are installed. Mounting is directly on the wall or on an electrical connection box.



Connection to RCP

The room unit is connected to the RCP-unit with an RJ12-cable, max length 30 m. Regin has two cables as accessories, RU-CBL3 (length 3 m) and RU-CBL10 (length 10 m).

Lighting control

The RCP-controllers can be used for controlling lighting when they are connected to RU-DOS. The lighting can be controlled manually, either locally via the Select button (see below) or centrally via a comprehensive system or Regio Tool®. You can also use time control, presence control or a combination of time and presence control.

Control of blinds

RU-DOS can also be used for controlling blinds, locally via the Select button or centrally via a comprehensive system or Regio Tool®.

CO₂-transmitter

If you want to measure the current percentage of CO₂ in the room, you can connect a CO₂-transmitter to RCP. It is possible to activate presence when the percentage of CO₂ rises above a set limit value (FS=800 ppm) and deactivate it when the percentage of CO₂ drops below a set limit value minus a hysteresis (FS=160 ppm).

Humidity sensor

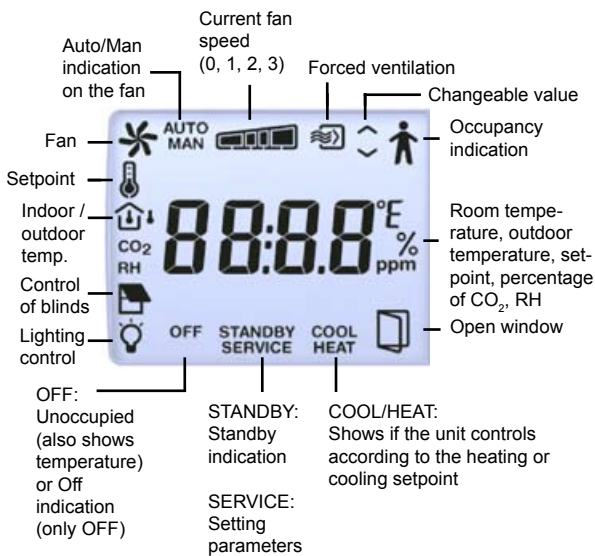
It is also possible to measure the current relative humidity (% RH) in the room by connecting a humidity sensor.

Outdoor temperature sensor

Furthermore, you can connect a sensor that measures the current outdoor temperature.

Display handling

The display has the following indications:



The Select button

RU-DOS has a Select button:



By pressing the Select button, you move between the following indications:

- Fan speed. When this symbol is lit you change the fan speed with the INCREASE/DECREASE buttons.
- Current setpoint in °C to one decimal point and 0.5°C resolution
- Current outdoor temperature in °C to one decimal point and 0.1°C resolution
- CO₂: Current percentage of CO₂ 0...9999 ppm
- RH: Current humidity 0...100% RH
- Lighting control: The lighting can be turned on/off with the INCREASE/DECREASE buttons.
- Control of blinds: The blinds can be controlled with the INCREASE/DECREASE buttons. The output for opening the blinds is on as long as you are holding the INCREASE button depressed, and the output for closing the blinds is on as long as you are holding the DECREASE button depressed.

The parameter menu

It is possible to set different parameter values in a parameter menu in the display, using the buttons on the room unit. You change parameter values with the INCREASE and DECREASE buttons and confirm changes with the Occupancy button.



The Occupancy button

If you press the Occupancy button for less than 5 seconds when the controller is in the preset operating mode (Occupied or Stand-by), the controller changes to operating mode Bypass. It will automatically return to the preset operating mode after a configurable time (FS=2 hours). If you press the button for less than 5 seconds when the controller is in Bypass, it changes operating mode to the preset operating mode.

When the Occupancy button is held depressed for more than 5 seconds, the controller changes operating mode to "Shutdown" (Off/Unoccupied), regardless of the current operating mode. Via the display, you can configure which operating mode, Off or Unoccupied, should be activated on "Shutdown" (FS=Unoccupied). If you press the Occupancy button for less than 5 seconds in Shutdown, the controller returns to Bypass.

Forced ventilation

Regio has a built-in function for forced ventilation. A short press on the Occupancy button activates the output that has been configured for forced ventilation, for example for a damper.

Setpoint

In Occupied mode, the controller operates from a heating setpoint (FS=22°C) or a cooling setpoint (FS=24°C) that can be changed using the INCREASE and DECREASE buttons.

Pressing on INCREASE increases the current setpoint by 0.5°C with each press up to the max. limit (FS = +3°C). Pressing on DECREASE decreases the current setpoint by 0.5°C with each press down to the min. limit (FS = -3°C).

Switching between heating and cooling setpoints is done automatically in the controller depending on the heating and cooling requirement.

Fan control

When you press the Select button, the fan symbol is shown in the display. As long as this is shown, it is possible to change the fan speed using the INCREASE/DECREASE buttons.

The controller has the following positions:

| | |
|------|--|
| Auto | Automatic control of the fan speed to maintain desired room temperature. |
| 0 | Fan off. |
| I | Manual position with low speed. |
| II | Manual position with medium speed. |
| III | Manual position with high speed. |

The maximum speed in the auto position can also be set: Auto 1, Auto 2 or Auto 3. Auto 1 means that the maximum speed is 1, Auto 2 that the maximum speed is 2 and so on.

In operating modes Off and Unoccupied, the fan is stopped, regardless of the setting in the display.

Technical data

| | |
|---|---|
| Supply voltage | Fed from RCP |
| Ambient temperature | 0...50°C |
| Storage temperature | -20...+70°C |
| Ambient humidity | Max 90% RH |
| Protection class | IP20 |
| Communication | Same as RCP |
| Display | LCD with background illumination |
| Built-in temperature sensor | NTC type, measuring range 0...50°C, accuracy +/-0.5°C at 15...30°C |
| Material, casing | Polycarbonate, PC |
| Weight | 110 g |
| Colour | Cover: Polar white RAL9010 Bottom plate: Light gray <i>Is also available in other colours on inquiry, contact Regin for more information.</i> |
| Cable for connection between RU and RCP | Type RJ12, max length 30 m. |
| Cables that can be ordered from Regin | RU-CBL3 (length 3 m) RU-CBL10 (length 10 m) |



This product conforms with the requirements of European EMC standards CENELEC EN 61000-6-1 and EN 61000-6-3, and the requirements of European LVD standard IEC 60 730-1. It carries the CE mark.

Inputs and outputs

In RCP

Terminal blocks in RCP

So-called lift type for cable cross-section 2.1 mm²

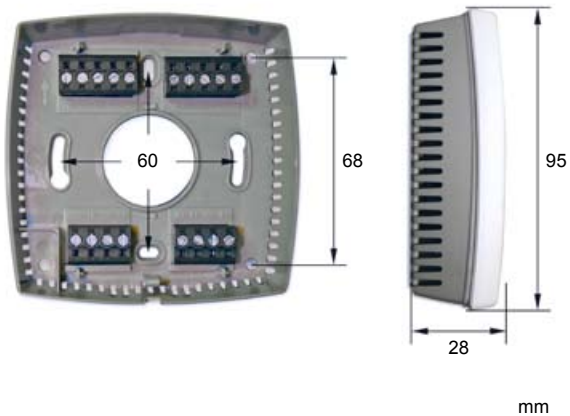
Setpoint settings via Regio Tool® or in the display

| | |
|------------------------|---------------------------|
| Basic heating setpoint | 5...40°C |
| Basic cooling setpoint | 5...50°C |
| Setpoint displacement | +/-0...10°C (FS = +/-3°C) |

Wiring

| Terminal | Designation | Operation |
|----------|-------------|------------------------------|
| 10-33 | | No function |
| 40 | +5 V | +5 V supply voltage from RCP |
| 41 | N (0 V) | 0 V supply voltage from RCP |
| 42 | A | RU-Bus A |
| 43 | B | RU-Bus B |

Dimensions



Product documentation

| Document | Type |
|---------------------------------------|---|
| Regio Maxi Manual | Manual for the controllers from the Regio Maxi series |
| Installation instruction Regio RU-DOS | Installation instruction for RU-DOS |

All product documentation is available on www.regin.se.

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