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 Regio Maxi controllers.

✓ Simple installation
✓ Built-in temperature sensor
✓ Backlit display
✓ Cable for connection between the room unit and the RCP controller is available as accessory
✓ Lighting control, CO_2-control, control of blinds, display of humidity and outdoor temperature

Function

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 Regio Maxi controllers RCP100, RCP100T, RCP100F, RCP-100FT, 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 Regio 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.

Sensor

The room unit has a built-in sensor.

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.

HEAD OFFICE SWEDEN
Phone: +46 31 720 02 00
Web: www.regincontrols.com
E-Mail: info@regincontrols.com

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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©.

CO_2-transmitter

If you want to measure the current percentage of CO_2 in the room, you can connect a CO_2-transmitter to RCP. It is possible to activate presence when the percentage of CO_2 rises above a set limit value (FS=800 ppm) and deactivate it when the percentage of CO_2 drops below a set limit value minus a hysteresis (FS=160 ppm).
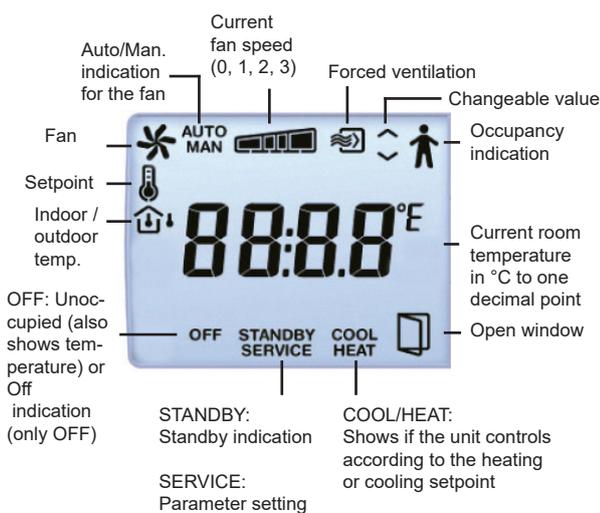
Humidity sensor

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:

Auto/Man. indication for the fan
Current fan speed (0, 1, 2, 3)
Forced ventilation
Changeable value
Fan
AUTO MAN
Occupancy indication
Setpoint
Indoor / outdoor temp.
Current room temperature in °C to one decimal point
OFF: Unoccupied (also shows temperature) or Off indication (only OFF)
OFF STANDBY SERVICE COOL HEAT
Open window
STANDBY: Standby indication
SERVICE: Parameter setting
COOL/HEAT: Shows if the unit controls according to the heating or cooling setpoint

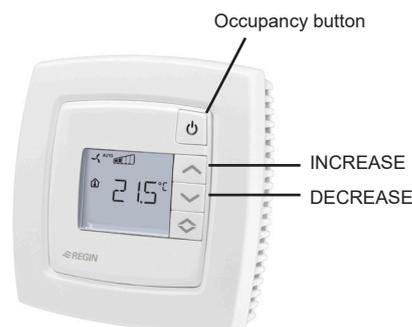## The Select button

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
- CO_2: Current percentage of CO_2 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.

Occupancy button
INCREASE
DECREASE

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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.

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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	110g
Colour	Signal white RAL 9003

Cables

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)

CE

This product carries the CE mark. For more information, see www.regincontrols.com.

Inputs and outputs

In RCP	
Terminal blocks in RCP	So-called lift type for cable cross-section 2.1 mm^2

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 (FI=±3°C)

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Wiring

Terminal	Designation	Function
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
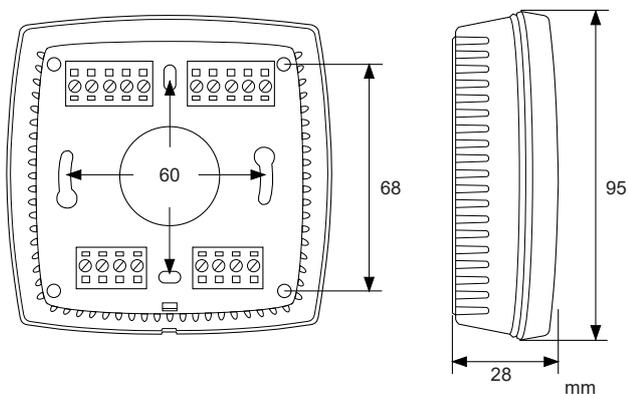
Product documentation

The product documentation can be downloaded from www.regincontrols.com.

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