RDG2..KN – Room thermostat with KNX communications allowing users to set ideal temperature, relative humidity and CO_2 level (RDG204KN&RDG264KN). The thermostat offers the operating modes Comfort, Economy and Protection.
In addition, it can operate in Auto mode as per a schedule via KNX bus or local.
The fan operates either in Auto mode or at the selected speed in Manual mode.
Users can either use the factory settings or adjust settings as desired.

1 Main display	**2** Operating mode
Operating mode selection *	Holiday mode
Scheduler	Protection mode
Fan speed selection	Economy mode
Escape	Comfort mode
Delete schedule	Cooling mode
Confirm parameters	AUX Electric heater active
Number of schedules or slave alarms	Heating mode
Outside temperature	Scheduler mode
P Parameter	Manual changeover
Digits for setpoint display	Auto mode
Time bar for schedule	Temporary timer
	Fault

0AM 4 6 8 12 4 18 8 124PM

18:32 Additional user information, such as outside temperature, time of day from KNX bus, relative humidity, or indoor air quality

AMPM Morning: 12-hour format; Afternoon: 12-hour format

%r.H Relative humidity

°C
°F Degrees Celsius or Fahrenheit

Indoor air quality

ppm CO_2 values

Value with thermometer: Digits for room temperature display

Fresh air indication

Condensation in room (dewpoint sensor active) or humidity control active

Button lock

Automatic fan

A Operating mode button *	B Fan mode button	Fan speed I
C Rotary knob	D Green leaf	Fan Speed II
E Protection hospitality mode or scheduler button		Fan Speed III

* When P002 = 3, the icon is displayed as °C/°F and the button can be used to switch unit between °C and °F. (scan the above QR code for the latest version info).
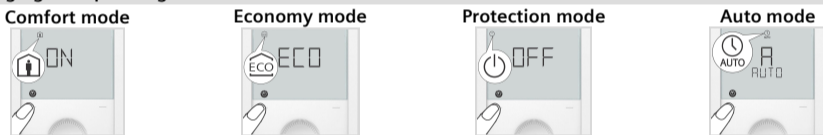
Changing the room temperature

Turn the rotary knob clockwise to increase, or counterclockwise to decrease the current room temperature setpoint.

Note: The setting range is 5...40 °C; it can be limited by parameters P013 and P016.
(for parameter settings, see Control parameters on page 2).

Adjusting the fan speed

Speed I
Speed II
Speed III

- Press the right button repeatedly until the desired fan mode is reached.
- In Auto mode AUTO, the fan speed is automatically selected by the thermostat depending on setpoint and current room temperature.
- In Manual mode, the fan operates independently and runs at the speed set by the user: speed I / speed II / speed III.

Changing the operating mode

Comfort mode	Economy mode	Protection mode	Auto mode
ON	ECO	OFF	A AUTO

1. Comfort mode
- In Comfort mode, the thermostat maintains the room temperature at the setpoint which can be adjusted with the rotary knob.

2. Economy mode
- In Economy mode, the thermostat maintains the room temperature at a lower or higher setpoint, thus saving energy and money.
- The thermostat can be set to Economy mode either by pressing the operating mode button if enabled (P002 = 2), or via an external signal (switch or KNX bus command) such as keycard or presence detector.
- The Economy setpoints are factory-set to 15 °C for heating and 30 °C for cooling. They can be adjusted via parameters P019 and P020 (for parameter settings, see Control parameters on page 2).

3. Protection mode
- In Protection mode, the thermostat stops operating. However, if the room temperature drops below 8 °C, heating is switched on to protect the room against frost.
- The thermostat switches to Protection mode when the window contact (local or on KNX) is activated.
The setpoints for Protection mode can be changed by your HVAC installer if desired:
Changes made by installer: ✎ Frost protection: _____ °C Heating protection: _____ °C

4. Auto mode
- In Auto mode, the thermostat automatically switches over between Comfort and Economy mode as per the KNX bus or local schedule (enabled via P005).
If no schedule is available, Comfort replaces Auto.

Important: If setpoints are set to Off, there is no protective heating or cooling function. **Risk of frost!**

Green leaf indication

The green leaf indication is an energy-efficient setting and indicates the end user settings.

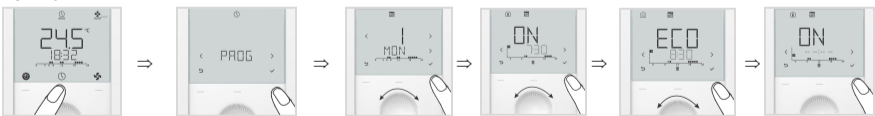Green leaf: Settings are within the preset energy-efficient range.

Red leaf: Settings exceed the preset energy-efficient range.
End users can press the red leaf and return to the energy-efficient range.

Reminder to clean filter, display of external faults

FIL ** This message reminds you to clean the filter on your HVAC equipment.
It appears after ✎ _____ "fan operating hours" and disappears when the thermostat is manually set to Protection. These fault messages tell you an external fault has occurred **:

AL1 ** AL1 : ✎ _____
AL2 ** AL2 : ✎ _____
AL3 ** AL3 : ✎ _____

** Needs to be configured by HVAC installer

Scheduler
Set schedule

24.5 18:32	⇒	PROG	⇒	MON	⇒	ON	⇒	ECO	⇒	ON

- Press button 🕐 once and then turn the rotary knob or press button 🕐 continuously to select programming mode PROG.
- Press button ✓ once to enter scheduler mode 📅.
- Turn the rotary knob to select the weekday to be set, then press button ✓ once.
- Turn the rotary knob to view existing schedules, then press button ✓ once to select the schedule that need to be edited.
- Comfort mode setting of selected schedule and icons 🏠 and 📅 are displayed, then press button ✓ once. The start time for Comfort flashes and can be changed by turning the rotary knob.
- Press button ✓ once to confirm the adjusted value and enter the Economy mode setting for the schedule. Icons ECO and 📅 are displayed, then press button ✓ once. The start time for Economy flashes and can be changed by turning the rotary knob.
- Press button ✓ once to confirm the adjusted value. Then users can view other schedules by turning the rotary knob and enter other schedule settings (same as edited schedule).

Note: User can press button 🗑 to delete any schedule or ↩ (Esc) to cancel the change. The maximum number of set schedule is three per day.

Set TIME

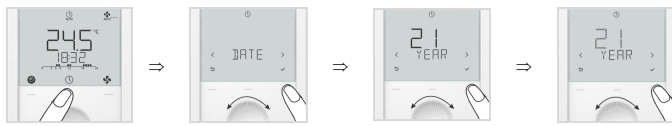| 24.5 18:32	⇒	TIME	⇒	12H	⇒	AMPM	⇒	12:00	⇒	12:00

- Press button 🕐 once and then turn the rotary knob or press button 🕐 continuously to select programming mode TIME.
- Press button ✓ once and then turn the rotary knob to select time format (12H).
- Press button ✓ once and then turn the rotary knob to select AM or PM.
- Press button ✓ once and enter the hour setting.
- The hour value flashes and can be changed by turning the rotary knob.
- Press button ✓ once to confirm the adjusted value and enter the minutes setting.
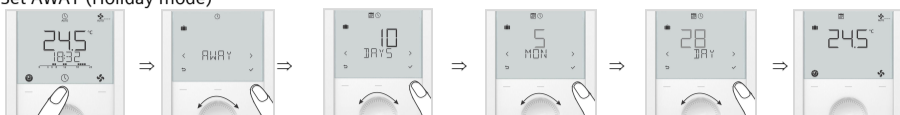Repeat the steps as for the hour. Note: When time format is 24 h, AMPM is not displayed.
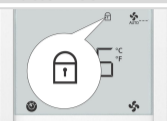
Set DATE

- Press button ⏲ once and then turn the rotary knob or press button ⏲ continuously to select programming mode DATE.
- Press button ✔ once to enter date setting.
- Turn the rotary knob to select month / weekday / year, then press button ✔ once.
- For example, enter the year setting. The Year value flashes and can be changed by turning the rotary knob.
- Press button ✔ to confirm the adjusted value, or ↩ (Esc) to cancel the change.

Repeat steps for month and weekday settings.

Set AWAY (Holiday mode)

- Press button ⏲ once and then turn the rotary knob or press button ⏲ continuously to select programming mode AWAY. Holiday mode 🧳 is displayed.
- Press button ✔ once to enter scheduler mode 📅.
- Turn the rotary knob to adjust the holidays, then press button ✔ once.
- Set the start time (AWAY): Set the month (MON) and then press button ✔ ⇒ Set the day (DAY)
- Press button ✔ once to confirm the adjusted value; the idle page for Holiday mode is displayed once the start time reaches.

Button lock

- If the button lock function is enabled (parameter P028 = 2), pressing the right button for 3 seconds locks or unlocks the buttons respectively.
  Locked buttons are indicated by the key symbol 🔒.
- If "Auto lock" is configured (P028 = 1), the thermostat automatically locks the buttons 10 seconds after the last adjustment.

Commissioning (by qualified HVAC installer)

To adapt the thermostat to your system and optimize control performance, a number of control parameters can be adjusted. This can be done during operation, either via the buttons on the thermostat or via a commissioning tool.

Control parameters

To change control parameters, proceed as follows:
1. Press left and right buttons simultaneously for 3 seconds or until device beeps if buzzer function is enabled (P030).
2. **Service level**: Release and within 0.5…4 seconds, press the right button again until "P001" is displayed.
   Expert level: Release and within 0.5…4 seconds, press the left button again until the temperature disappears. Turn the rotary knob counterclockwise minimum ½ rotation. **P050** displays.
3. Select the required parameter by turning the rotary knob.
4. Press button ✔ (OK). The current value of the selected parameter flashes and can be changed by turning the rotary knob.
5. Press button ✔ (OK) to confirm the adjusted value, or ↩ (Esc) to cancel the change.

To adjust additional parameters, repeat steps 3 through 5, or press ↩ (Esc) to quit parameter setting mode.
Note: If password protection (needs to be done by HVAC installer) is enabled, users must enter the password to open parameter setting mode. If the password is mistyped 5 times, the thermostat is locked and the password cannot be entered for 5 minutes.
Symbols ⏲ and 🔒 are displayed.

Parameter list

No.	Description	Factory setting	Setting range	Adj.
P001	Control sequence	2-pipe: 1 = Cooling only / 4-pipe: 4 = Heating and cooling	0 = Heating only 1 = Cooling only 2 = H/C changeover auto 3 = H/C changeover manual 4 = Heating and cooling	
P002	Operation via room operating mode selector	1	1 = Auto *** - Protection / Auto - Comfort – Protection (when there is local scheduler) 2 = Auto *** - Comfort - Economy - Protection 3 = Auto *** (Comfort) - Protection Hospitality	
P003	Operation via fan operating selector	0	0 = Auto - Manual 1 = Manual 2 = Auto - Manual - Protection 3 = Auto – Protection 4 = Forced ventilation ***** 5 = Forced ventilation, fan auto-manual *****	
P004	Unit	0	0 = °C (parameter in °C) 1 = °F (parameter in °F)	
P005	Scheduler	OFF	ON = Enabled; OFF = Disabled	
P006	Measured value correction	0 K	-5…5 K	
P007	Humidity value correction	0	-10…0…10 %	
P008	Standard display	0	0 = Room temperature; 1 = Setpoint	
P009	Additional display information	0	0 = --- (No display) 1 = °C and °F 2 = Outside temperature 3 = Time of day (12 h) 4 = Time of day (24 h) 5 = Humidity 6 = Indoor air quality (numeric) ***** 7 = Indoor air quality (text) ***** 8 = Humidity and IAQ (numeric) ***** 9 = Humidity and IAQ (text) *****	
P010	Setpoint concept	1	1 = Comfort concept; 2 = Energy saving concept	
P011	Comfort basic setpoint	21 °C (70 °F)	5…40 °C (41…104 °F)	
P013	Comfort setpoint minimum	5 °C (41 °F)	(P010 = 1): 5 °C (41 °F)…P016-1 K (P010 = 2): 5 °C (41 °F)…P014-1 K	
P014	Comfort setpoint maximum heating	21 °C (70 °F)	P013+1 K…P015-1 K	
P015	Comfort setpoint minimum cooling	25 °C (77 °F)	P014+1 K…P016-1 K	
P016	Comfort setpoint maximum	35 °C (95 °F)	(P010 = 1): P013+1 K…40 °C (104 °F) (P010 = 2): P015+1 K…40 °C (104 °F)	
P017	Summer time	1	OFF; 1 = Europe; 2 = Australia; 3 = New Zealand	
P019	Economy heating setpoint	15 °C (59 °F)	--- (0), 5 °C…P020 (41 °F…P020) P020 = 40 °C max. (P020 = 104 °F max.)	
P020	Economy cooling setpoint	30 °C (86 °F)	--- (0), P019…40 °C (P019…104 °F) P019 = 5 °C min. (P019 = 41 °F min.)	
P023	Indoor air quality setpoint *****	1000 ppm	10…2000 ppm	
P024	Humidity setpoint high	50	--- (0), P026 or 20…90 %	
P025	Humidity setpoint high ECO	OFF	--- (0), P026…90 %, or 20…90 %	
P026	Humidity setpoint low	OFF	--- (0), 20…90 % or P024	
P027 ****	Electric heater when cooling	ON	ON = Enabled; OFF = Disabled	
P028	Keypad	0	0 = Unlocked 1 = Auto lock ✔ means function locked 2 = Manual lock	
P029	Fan: Dead zone Comfort mode	0	0 = Fan disable 1 = Low speed (Heat and Cool) 2 = Low speed (Cooling only) 3 = Fan disable Auto & Manual 4 = Low speed Auto & Manual 5 = Low speed Auto & Manual Cooling	
P030	Buzzer function	ON	ON = Enabled; OFF = Disabled	
P031	Language	1	1 = English; 2 = Francais (French) 3 = Deutsch (German); 4 = Italiano (Italian) 5 = Espanol (Spanish); 6 = Nederlands (Dutch) 7 = Turkce (Turkish); 8 = Cesky (Czech) 9 = Suomi (Finnish); 10 = Polski (Polish) 11 = Magyar (Hungarian); 12 = Slovenski (Slovak) 13 = (Limba) Romana (Romanian); 14 = Dansk (Danish) 15 = Norsk (Norwegian)	
P032	Room operating mode holidays	0	0 = Economy; 1 = Protection	

For P028 (Keypad):

	🌡	⏲	🌀	⏻			🌡	⏲	🌀	⏻
3	✔					10	✔	✔		
4				✔		11	✔		✔	
5			✔			12	✔			✔
6	✔			✔		13		✔	✔	
7	✔		✔			14		✔		✔
8			✔	✔		15			✔	✔
9										

*** When no time schedule via KNX exists, Auto equals Comfort.
**** Parameter P027 is displayed only for application 2-pipe with electric heater.
***** These parameter values are valid for RDG204KN and RDG264KN.
All temperature settings are in increments of 0.5 °C (except P006 of RDG204KN & RDG264KN is in 0.1 °C).

🖉 Remember to record all changes!