SIEMENS

Operating Instructions en

RDG200KN
RDG260KN

RDG2..KN – Room thermostat with KNX communications allowing users to set both ideal temperature and relative humidity. 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.
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

- Operating mode selection
- Fan speed selection
- Escape
- Confirm parameters
- Outside temperature
- %r.H Relative humidity
- °C °F Degrees Celsius or Fahrenheit
- P Parameter

2 Operating mode

- Protection mode
- ECO Economy mode
- Comfort mode
- Cooling mode
- AUX Electric heater active
- Heating mode
- Manual changeover
- AUTO Auto mode
- Temporary timer

- AMPM Morning: 12-hour format (via bus); Afternoon: 12-hour format (via bus)
- 18:32 Additional user information, such as outside temperature, time of day from KNX bus, relative humidity
- 24.5 Digits for room temperature and setpoint display

- Fault
- Button lock
- Condensation in room (dewpoint sensor active) or humidity control active

- A **Operating mode button**
- B **Fan mode button**
- C **Rotary knob**
- D **Green leaf**
- E **Protection hospitality mode button**

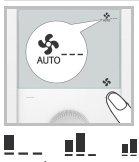
- AUTO Automatic fan
- Fan speed I
- Fan Speed II
- Fan Speed III

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

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.
- 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.
  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

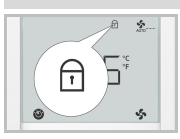
This message reminds you to clean the filter on your HVAC equipment.
It appears after ✎ _____ "fan operating hours" and disappears when the thermostat is set to Protection.
These fault messages tell you an external fault has occurred *:

- **FIL ***
- **AL1 ***
- **AL2 ***
- **AL3 ***

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

* Needs to be configured by HVAC installer

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 ** (Comfort) – Protection 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	
P004	Unit	0	0 = °C (parameter in °C) 1 = °F (parameter in °F)	
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 (via bus) 3 = Time of day (12 h) (via bus) 4 = Time of day (24 h) (via bus) 5 = Humidity	
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)	
P019	Economy heating setpoint	15 °C (59 °F)	OFF (0), 5 °C...P020 (41 °F...P020) P020 = 40 °C max. (P020 = 104 °F max.)	
P020	Economy cooling setpoint	30 °C (86 °F)	OFF (0), P019...40 °C (P019...104 °F) P019 = 5 °C min. (P019 = 41 °F min.)	
P024	Humidity setpoint high	50	OFF (0), P026 or 20...90 %	
P026	Humidity setpoint low	OFF	OFF (0), 20...90 % or P024	
P027 ***	Electric heater when cooling	ON	ON = Enabled OFF = Disabled	
P028	Keypad	0	0 = Unlocked 1 = Auto lock 2 = Manual lock 3 = Lock the operating mode 4 = Lock the Setpoint shift 5 = Lock fan speed 6 = Lock operating mode and setpoint shift 7 = Lock operating mode and fan speed 8 = Lock setpoint shift and fan speed	
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 (Heat and Cool) Auto & Manual 5 = Low speed (Cooling only) Auto & Manual	
P030	Buzzer function	ON	ON = Enabled OFF = Disabled	

** When no time schedule via KNX exists, Auto equals Comfort.

*** Parameter P027 is displayed only for application 2-pipe with electric heater.

All temperature settings are in increments of 0.5 °C.

✎ Remember to record all changes!

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