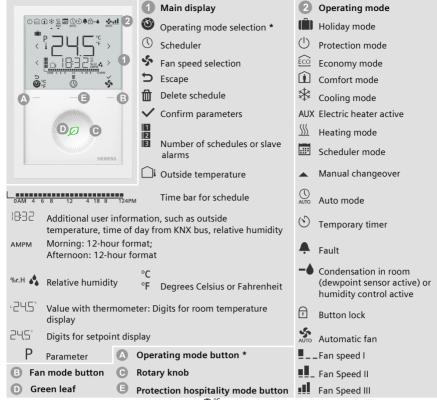
RDG2..KN – Room thermostat with KNX communications allowing users to set both ideal temperature and relative humidity. The thermostat offers the operating modes Comfort, Economy and Protection.

In addition, it can operate in Auto mode as per a schedule via KNX bus 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.



\* When P002 = 3 and P009 = 1, the icon is displayed as  $\bigcirc^{\circ}$  and the button can be used to switch unit between °C and °F. This function is available from product index C or a higher version (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  $^{\circ}\text{C}$ ; it can be limited by parameters P013 and P016. (for parameter settings, see Control parameters on page 2).

#### Adjusting the fan speed



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Press the right button repeatedly until the desired fan mode is reached.

- In Auto mode work, 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 II / speed III .

#### Ш 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.

# EEB

## 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:



## 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

This message reminds you to clean the filter on your HVAC equipment. \_ "fan operating hours" and disappears when the thermostat is FIL \*\* It appears after 🥒 set to Protection. AL1 \*\* These fault messages tell you an external fault has occurred \*\*: AL2 \*\* 

Д AL3 \*\* Å AL3 : № \*\* Needs to be configured by HVAC installer

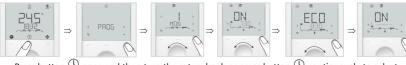
## Scheduler

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Set schedule



- Press button  $\odot$  once and then turn the rotary knob or press button  $\odot$  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  $\checkmark$  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 🔯 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).

- Press button  $\odot$  once and then turn the rotary knob or press and hold button  $\odot$  to select programming mode TIME.
- Press button  $\checkmark$  once and then turn the rotary knob to select time format.
- Press button  $\checkmark$  once and then turn the rotary knob to select AM or PM. Press button  $\checkmark$  once and enter the hour setting. The hour value flashes and can be changed by turning the rotary knob.

- Press button  $\checkmark$  once to confirm the adjusted value and enter the minutes setting. Repeat the steps as for the hour.

Set DATE



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

Repeat steps for month and weekday settings.

## Set AWAY (Holiday mode) 245 RWRY

- Press button  $^{\bigcirc}$  once and then turn the rotary knob or press and hold button  $^{\bigcirc}$  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 (DATE)
- Press button ✓ once to confirm the adjusted value; the idle page for Holiday mode is displayed.

#### **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 1.
- 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** 0 = Heating only 1 = Cooling only 2 = H/C changeover auto 3 = H/C changeover manual 4 = Heating and cooling 2-pipe: 1 = Cooling only P001 Control sequence 4-pipe: 4 = Heating and 4 = Heating and cooling 1 = Auto \*\*\* - Protection / Auto - Comfort Protection (when there is local scheduler) 2 = Auto \*\*\* - Comfort - Economy - Protection 3 = Auto \*\*\* - (Comfort) - Protection Hospitality 0 = Auto - Manual 1 = Manual 2 = Auto - Manual - Protection 3 = Auto - Protection 0 = °C (parameter in °C) 1 = °F (parameter in °F) ON = Enabled OFF = Disabled -5...5 K cooling P002 Operation via room operating mode selector P003 Operation via fan operating selector P004 Unit OFF P005 Scheduler 0 K -5...5 K P006 Measured value correction P007 Humidity value correction 0 -10...0...10 % = Room temperature = Setpoint P008 Standard display 0 --- (No display) °C and °F = Cand F = Outside temperature = Time of day (12 h) = Time of day (24 h) P009 Additional display information 0 4 = Ilme of day (24 n) 5 = Humidity 1 = Comfort concept 2 = Energy saving concept 5...40 °C (41...104 °F) (P010 = 1): 5 °C (41 °F)...P016-1 K (P010 = 2): 5 °C (41 °F)...P014-1 K P013+1 K...P015-1 K P010 Setpoint concept P011 Comfort basic setpoint 21 °C (70 °F) 5 °C (41 °F) P013 Comfort setpoint minimum P014 Comfort setpoint maximum heating 21 °C (70 °F) 25 °C (77 °F) P014+1 K...P016-1 K P015 Comfort setpoint minimum cooling (P010 = 1): P013+1 K...40 °C (104 °F) (P010 = 2): P015+1 K...40 °C (104 °F) -- (0), 5 °C., P020 (41 °F., P020) P020 = 40 °C max. (P020 = 104 °F max.) -- (0), P019...40 °C (P019...104 °F) P019 = 5 °C min. (P019 = 41 °F min.) -- (0), P026 or 20...90 % P016 Comfort setpoint maximum 35 °C (95 °F) P019 Economy heating setpoint 15 °C (59 °F) P020 Economy cooling setpoint 30 °C (86 °F) P024 Humidity setpoint high 50 (0), 20...90 % or PO24 P026 Humidity setpoint low ON = Enabled OFF = Disabled P027 \*\*\*\* Electric heater when cooling ON 0 = Unlocked 1 = Auto lock 2 = Manual lock √ means function locked **6** () 4 0 10 P028 Keypad 0 12 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 ON = Enabled ON = Cooling ON = Cooling ON = Cooling P029 Fan: Dead zone Comfort mode 0 ON = Enabled OFF = Disable ON P030 Buzzer function

\*\*\* 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.

All temperature settings are in increment Issued by Siemens Switzerland Ltd Smart Infrastructure Global Headquarters Theilerstrasse 1a CH-6300 Zug Tel. +41 58 724 2424 www.siemens.com/buildingtechnologies A6V11545973 ens. h

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