

Siemens RDG 260T Smart Infrastructure Thermostat



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PRODUCT DESCRIPTION

For fan coil units, universal applications and compressors in DX-type equipment applications

- Built-in temperature sensor
- Control room temperature level
- Suitable for wall mounting
- RDG20..T triac control outputs for On/Off, PWM or 3-position
- RDG26..T control outputs for DC 0...10 V or On/Off
- Fan outputs for 3-speed, 1-speed or DC 0...10 V
- 3 multifunctional inputs X1, X2 and X3 for keycard, external sensor, etc.
- Operating modes: Comfort, Economy and Protection
- Automatic or manual fan speed control
- Automatic or manual heating/cooling changeover
- Commissioning via local HMI
- Commissioning via Siemens smartphone application PCT Go
- Power reserve clock for 20 h during power failure
- Operating voltage:
 - RDG20..T: AC 230 V
 - RDG26..T: AC 24 V or DC 24 V



KEY FUNCTIONS

Control Application: The RDG2..T room thermostats are designed for use with the following:

Fan coil units via On/Off or modulating/DC control outputs:

- 2-pipe system
- 2-pipe system with electric heater
- 2-pipe system with radiator/floor heating
- 2-pipe/2-stage system also suitable for applications with 1-stage heating/ 2-stage cooling, or 2-stage heating/1-stage cooling
- 4-pipe system
- 4 pipe system with electric heater
- 4-pipe system with a 6-port ball valve (RDG26..T)
- 4-pipe system with 6-port PICV (RDG26..T)
- 4-pipe system with PICV and 6-port ball valve as changeover (RDG26..T)

Chilled/heated ceilings (or radiators) via On/Off or modulating/DC control outputs:

- Chilled/heated ceiling
- Chilled/heated ceiling with electric heater
- Chilled/heated ceiling and radiator/floor heating
- Chilled ceiling and radiator/floor heating
- Chilled and/or heated ceiling/2-stage
- Chilled/heated ceiling (4-pipe) with 6-port ball valve (RDG26..T)
- Chilled/heated ceiling (4-pipe) with 6-port PICV (RDG26..T)
- Chilled/heated ceiling with PICV and 6-port ball valve as changeover (RDG26..T)

Compressor applications via On/Off control:

- Heating or cooling, compressor in DX-type equipment
- Heating or cooling, compressor in DX-type equipment with electric heater
- Heating and cooling, compressor in DX-type equipment
- Heating or cooling/2-stage, compressor in DX-type equipment

General Functions:

- Weekly scheduler
- Room temperature control via built-in temperature sensor or external room temperature/return air temperature sensor
- Floor heating temperature limitation
- Min. and max. supply air temperature limitation
- Selection of operating modes via operating mode button
- Button lock for all buttons independently (automatically or manually)
- Changeover between heating and cooling mode (automatic via local sensor or manually)
- Parameters protected by password (disabled by default)
- Purge function together with 2-port valve
- Valve kick/exercising function to prevent gripping
- Reminder to clean fan filters
- Delta temperature control
- Limiting temperature difference between flow and return temperature for water to optimize the system and reduce energy consumption in district heating systems
- Power reserve clock for 20 h during power failure

Setpoints and display:

- Min. and max. limitation of room temperature setpoint:
 - Comfort limitation (min. and max. limitation)
 - Energy saving concept (min. and max. limitation separate for heating and cooling)
- Temporary Comfort mode extension
- Display of current room temperature or setpoint in °C, °F or both

Setting:

- Application selection via DIP switches or external commissioning software (Siemens smartphone application PCT Go)
- Parameter download with external commissioning software (Siemens smartphone application PCT Go)
- Reloading factory settings for commissioning and control parameters

Fan:

- 1-speed, 3-speed or DC 0...10 V fan control on RDG20..T and RDG26..T (automatic or manual fan)
- Advanced fan control function, e.g. fan kick, fan start delay, selectable fan operation (enable, disable, depending on heating/cooling mode, or min. and max. speed setting)
- Fan start depending on fan coil temperature (heating) to avoid cool air while heating
- Enabling fan output only in the 2nd stage (2-pipe/2-stage)
- Switching fan speed from manual to automatic in the dead zone to avoid energy waste

Special Functions:

- Swap function for 2-pipe and 2-stage application by switching the 1st stage heating to 2nd stage cooling
- In 2-stage applications, limit the number of heating or cooling sequence to one
- Control of 6-port ball valve and for 6-port PICV, DC 0...10 V, DC 2...10 V and inverted signals DC 10...0 V, DC 10...2 V (RDG26..T)
- Control of 6-port ball valve as changeover (On/Off – open/close signal) and PICV DC 0...10 V
- Flow limitation function for PICV in heating and cooling mode (RDG26..T)
- Set holiday period to reduce energy consumption during absences (holidays)
- For 6-port PICV (RDG26..T)
 - During commissioning, maximal water flow selection in l/h for heating (P260) and for cooling (P261) independently via PCT Go
 - During operation, water flow (l/h) reading via PCT Go live data function
- Selectable relay functions
 - Switching off external equipment during Protection mode
 - Switching on external equipment (e.g. pump) during heating/cooling demand
 - Output status heating/cooling sequence

Inputs

- 3 multifunctional inputs X1, X2 and X3, selectable for:
 - Window contact switches operating mode to Protection
 - Presence detector switches operating mode to Comfort
 - Sensor for automatic heating/cooling changeover
 - Switch for manual heating/cooling changeover
 - External room temperature or return air temperature sensor
 - Dewpoint sensor
 - Enable electric heater
 - Fault input



- Supply air temperature sensor
- Coil temperature sensor
- External temperature limit
- Hotel presence detector

APPLICATIONS

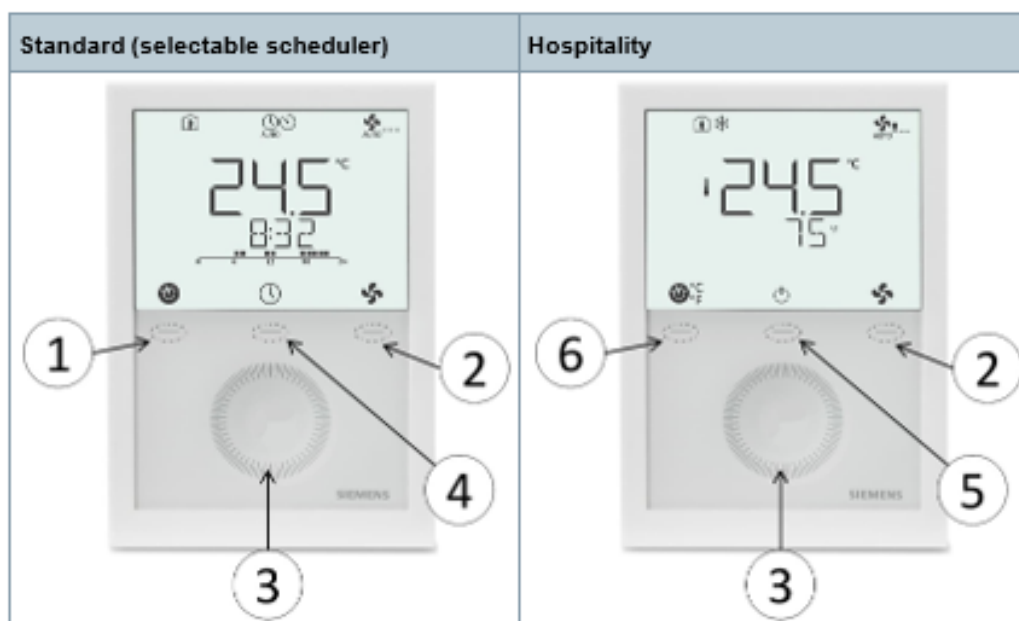
The RDG2..T room thermostats support the following applications, which can be configured using the DIP switches on the rear of the unit or via the commissioning tool.

Remote Configuration: Set DIP switches 1...5 to Off (remote configuration, factory setting) to select an application via commissioning tool.

For full application diagrams and tables please get in touch.

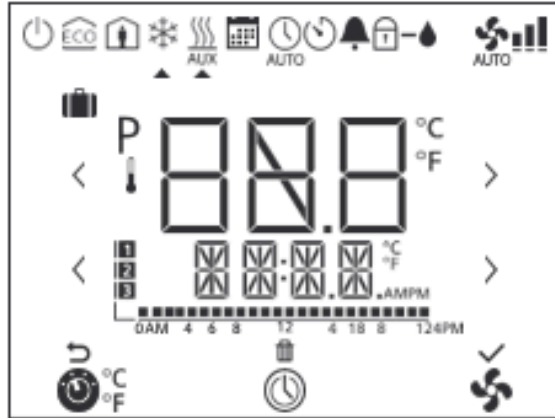
<p>Remote configuration via commissioning tool (factory setting)</p> <ul style="list-style-type: none"> • Commissioning via Siemens smartphone application PCT Go 	<p>ON =  DIP NO.: 1...5</p> <hr/> <p>OFF =  DIP NO.: 1...5</p>
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OPERATION & SETTINGS



Number	Description
①	Operating mode button/Esc
②	Fan mode button/OK
③	Capacitive rotary knob to adjust setpoints and parameters
④	Local schedule setting button, the schedule is enabled via P005
⑤	Protection hospitality mode button
⑥	Unit switching between °C and °F

DISPLAY



#	Symbol	Description	#	Symbol	Description						
1		Operating mode selection/Unit switching	2		Scheduler						
3		Fan speed selection	4		Escape						
5		Delete schedule	6		Confirm parameters						
7		Time bar for schedule	8		Number of schedules						
9		Additional user information, such as time of day	10	AMPM	Morning: 12-hour format Afternoon: 12-hour format						
11		Degrees Celsius or Fahrenheit	12	P	Parameter						
13		Value with thermometer: Digits for room temperature display	14		Digits for setpoint display						
15		Holiday mode	16		Protection mode						
17		Economy mode	18		Comfort mode						
19		Cooling mode	20		Heating mode, electric heater active						
21		Heating mode	22		Manual changeover, heating/cooling mode						
23		Scheduler mode	24		Auto mode						
25		Temporary timer	26		Fault						
27		Button lock	28		Condensation in room (dewpoint sensor active)						
29		Automatic fan	30		Fan speed <table border="1" style="margin-left: 20px;"> <tr> <td></td> <td>Fan speed I</td> </tr> <tr> <td></td> <td>Fan speed II</td> </tr> <tr> <td></td> <td>Fan speed III</td> </tr> </table>		Fan speed I		Fan speed II		Fan speed III
	Fan speed I										
	Fan speed II										
	Fan speed III										



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