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Smart Infrastructure intelligently connects energy systems, buildings and industries, enhancing the way we live and work to significantly improve efficiency and sustainability.

We work together with customers and partners to create an ecosystem that both intuitively responds to the needs of people and helps customers achieve their business goals.

It helps our customers to thrive, communities to progress and supports sustainable development to protect our planet for the next generation.

Creating environments that care.
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Smart home and building solutions. Global. Secure. Connected.

KNX

(Status 09/2021)

WIDE VARIETY AND HIGH ENERGY EFFICIENCY

Save energy while maintaining a constant room climate

Room thermostats that maximize control accuracy for heating, ventilation and air conditioning (HVAC) applications.
siemens.com/room-automation

SIEMENS

With Siemens room thermostats you have **the room in your hands**.

Siemens has a complete thermostat portfolio, ranging from simple mechanical and digital room thermostats for basic room climate control to advanced KNX communicating thermostats for integration into building automation systems.

Special emphasis is placed on fast installation, intuitive operation and accurate control. The stand-alone room thermostats cover all room HVAC applications: heating and/or cooling, fan coils and variable air volume.

The KNX communicating thermostats offer powerful yet cost-effective room automation. These communicating thermostats are offered for room climate control and for more sophisticated room automation in projects with Siemens' Desigo controllers.

The option to integrate Siemens' thermostats into building management systems – Desigo™ CC, Desigo Optic or Synco IC – enables remote operation and service.

RDG200 thermostat range

RDG200 thermostat range is communicating wall mounted room thermostats with built-in temperature and humidity sensors, configurable multiple inputs/outputs, and flexible power supply. The RDG200 has been designed for commercial buildings such as hotels, offices, educational buildings, and public places.

One touch Green-Leaf function for highest energy efficiency and comfort
As an all in one device, the RDG200 is the best companion for highest energy efficiency and optimum comfort in the room. It provides energy-saving strategies such as occupancy-based savings via presence detection, efficient use of sunlight and at the same time, it takes care of a healthy and productive indoor climate.

The RDG200 offers room occupants the possibility to put energy efficiency in their hands: Tapping the Green-Leaf button returns room control to energy-optimized operation without loss of comfort.

Modern and slim design
With its slim design it fits in all type of interiors and its easy to clean. Additionally, it is easy to install with the separate mounting plate.

A large screen, understandable icons and a customizable interface fits everyone's need.

Versatile control application coverage
Covers most room HVAC applications:
- Fan Coil (radiator, floor heating, electric heater)
- Universal (chilled/heated ceiling)
- Heat pump (heating/cooling)

Extensive features
- Built-in temperature and humidity sensor for controlling and monitoring your room
- Large choice of output control: On/Off, 3 positions, DC 0…10 V
- Supports KNX protocol, suitable for Synco and Desigo

Highlights

- Fast commissioning
- Modern and slim design
- Preloaded applications
- Standalone and system integrated
- Wide applications and versatile outputs

Very fast commissioning with the free PCT Go application
Installation and commissioning can be done within minutes thanks to the easy to wire mounting plate and several commissioning options like system tools, DIP switches and the smartphone PCT Go app. Based on near-field communication technology (NFC), the PCT Go app provides copy-paste functions from several devices, import and export settings via email or messaging apps and setting-up the devices unpowered while still in the packaging.

System integration into Desigo, Synco and KNX
The RDG200 thermostat is the ideal solution for cost-competitive projects: it complements Desigo room automation in a scaleable offering and can be easily integrated into Desigo, Synco and KNX.

Dedicated features for the commercial buildings
With all its preloaded applications and variety of functions, the RDG200 has a wide range of dedicated features for hotels, office buildings, educational buildings, and public buildings. For example in hotels, the RDG200 can greatly improve the guest experience thanks to its simple, intuitive one-touch operation and universal language with only icons.

siemens.com/rdg200

Applications at a glance

Energy-efficient room temperature control

For typical applications with radiators and underfloor heating systems, Siemens offers room thermostats with optimized PID control and self-learning programs. In addition, special variants support applications for domestic hot water and electrical heating systems – with control of up to 16 A. Multifunctional inputs allow activation of functions like dew point monitoring, window contact and remote changeover, if desired.

Variants with a KNX communication interface make it possible to control the primary system with even greater energy efficiency. Configurable time programs (day/week/vacation) prevent unnecessary energy consumption when rooms are not in use. The Smart Thermostat RDS110 features a sophisticated bundle of smart features. Quickly and easily installed even with no Internet connection, the thermostat can be intuitively controlled on the go using a remote app. Built-in sensors, a Green Leaf function, and a higher energy-efficiency class also increase your building's value and decrease energy costs.

Fan coil systems

Fan coil systems are especially appropriate for individual room control in hotels and offices.
The wall- or flush-mounted room thermostats control 2/4-pipe fan coil applications directly, even with add-on functions like electrical heating or underfloor heating. Thanks to configurable parameters, the room thermostats can also control different types of drives (On/Off, PWM, 3-point and DC) and fans (DC signals). Integrated functions like time programs, presence detectors and supply-air temperature limitation automatically optimize energy demand – without sacrificing room comfort.

Thanks to their energy efficiency applications, RDG room thermostats with KNX communication interfaces meet efficiency class AA according to eu.bac. The RDG200 is a thermostat with a wide range of applications. Quickly and easy commissioned with NFC technology, the thermostat offers a great solution for all types of interiors. Built-in sensors, a Green Leaf function, and a higher energy-efficiency class also increases your building's value and decreases energy costs.

Heat pump

From manual operation to automatic control, room thermostats for heat pump applications address the heat pump directly; in other words, they can control and release the pump according to the desired room temperature. This prevents overheating from sun exposure or energy from an external source.

In applications with reversing valves, the room thermostats control compressors in heating or cooling mode with automatic or manual changeover. The configurable parameter for the minimum on and off times prevents damage to the compressor that would result in a shorter service life.

Variable air volume (VAV) systems

Thanks to their selectable control signals, VAV-compatible room thermostats can be connected directly to a variety of devices, including VAV boxes, dampers and VAV compact controllers. The wide range of models also allows users to change settings using control parameters.

As a result, VAV applications can be combined with add-on functions – from electrical heating, radiators and underfloor heating systems to heating/cooling coils. In addition to their basic functions, the room thermostats can also be used to set minimum and maximum limits for the air volume signal. Resetting the damper position on the room thermostat can optimize the primary air control – even in applications with supply and exhaust air. Thanks to KNX communication, the room thermostats can be directly connected to an indoor air-quality sensor and control room comfort even more efficiently.

An **overview** of the room thermostat portfolio

	Premium thermostats								Standard thermostats				Basic thermostats			
	RDS	RDG2	RDG1	REV	RDF8	RDF3/RDF6	RDD	RDE	RDH	RDJ	RDU/RDE4	RDF5	RCU/RLA	RCC	RAA	RAB
Heating	●	●	●	●	●		●	●	●	●	●	●	●		●	
Cooling	●	●	●	●	●	●					●	●	●		●	
Heat pumps	●	●	●		●	●										
Fan coils		●	●		●	●						●		●		●
VAV			●								●					
Domestic hot water	●							●								
Humidity	●	●	●		●											
Indoor air quality	●		●		●											
VRF HMI					●											
Light & Shade Controls						●										
Room Operator Unit					●											

Room thermostats for **VAV and heat pump applications**

		Applications									Functionalities									Outputs				Inputs							Power supply	User interfaces				
		Heating only	Cooling only	Heating or cooling	Heating and cooling	2-stage heating	2-stage heating or cooling	Cooling or heating and electric heating	Indoor air-quality control	Control algorithm	Flush-mounted unit	Automatic heating/ cooling changeover	Manual heating/ cooling changeover	Vmin, Vmax limitation of supply air	Floor heating limitation	Dew point monitoring	Infrared remote control	7-day time program	Communication interface	On/Off	PWM	3-position	DC 0…10 V	KNX sensor External air quality	Remote IAQ(6) sensor DC 0…10 V	Operating mode/ remote contact	Presence detector	Window contact	Heating/cooling changeover sensor	Remote or return air temperature sensor	External setpoint shift	Power supply	Touchscreen	Setpoint knob	Setpoint button	Operating mode button (B)	Digital display (LCD)	Additional operation selection/remarks
VAV	**Communicating**																																			
	RDG405KN	●	●	●	●	●		●	●	P/PI		●	●	●	●	●			KNX	(1)[1]	(1)[1]	(1)[1]	1	●	●	●	●	●	●	●	●[2]	AC 24 V		●		B	LCD	
	Premium																																			
	RDG400	●	●	●	●	●		●		P/PI		●	●	●	●	●				(1)[1]	(1)[1]	(1)[1]	1			●		●	●		AC 24 V		●		B	LCD	
	Standard																																			
	RDU340	●	●	●	●	●		●		P/PI	●	●	●	●		●				1			1			●			●	●	AC 24 V			●	B	LCD	
	Basic																																			
	RCU50.2	●	●	●						P			●			●							1								AC 24 V		●				Heating-off-cooling switch
	RLA162	●	●		●	●				PI				●[4]									2							●[5]	AC 24 V		●				
Heat pumps	RDS120	●	●	●	●	●	●	●	●	PID		●	●			●		●		●						●	●			●	AC 24 V	●			B	LCD	Green Leaf and "Away" button
	RDG100 line[3]	●	●	●	●	●	●	●		2P/PI		●	●		●	●	●	●	KNX	(3)[1]	(2)[1]	(2)[1]				●	●	●	●	●	AC 230 V/ AC 24 V		●		B	LCD	Time program buttons
	RDG200 line[3]	●	●	●	●	●	●	●		2P/PI		●	●		●	●		●	KNX	(3)[1]	(3)[1]	(2)[1]				●	●	●	●	●	AC 230 V/ AC 24 V		●		B	LCD	Commissioning smartphone app, Green Leaf
	RDF600 line[3]	●	●	●	●	●		●		2P/PI	●R	●	●		●	●	●	●	KNX MODBUS	(2)[1]		(1)[1]	1			●	●	●	●	●	AC 230 V			●	B	LCD	Time program buttons, 2 colors: white, black
	RDF800 line[3]	●	●	●	●	●		●	●	2P/PI	●R	●	●		●	●			KNX	(2)[1]		(1)[1]				●	●	●	●	●	AC 230 V	●				LCD	2 colors: white, black

1) Either On/Off, 3-position, PWM or DC signal 2) External setpoint shift via KNX 3) Also suited for chilled ceiling and radiator applications. For detailed information, refer to the fan coil overview. 4) Only with V_{min} limitation 5) External setpoint shift by outdoor temperature sensor 6) Indoor air quality

(X): X = number of outputs R = round flush-mounted box

Room thermostats for **heating and/or cooling applications**

Heating or/and cooling

Communicating

	Applications										Functionalities											Outputs				Inputs					Power supply	User interfaces									
	Heating only	Cooling only	Heating or cooling	Heating and cooling	2-stage heating	2-stage heating or cooling	Cooling or heating and electric heating	Heating and independent output/DHW	Heating and cooling with 6-port control-ball valve	Control algorithm	Flush-mounted unit	Automatic heating/ cooling changeover	Manual heating/ cooling changeover	Floor heating limitation	Dew point monitoring	24-hour time program	7-day time program	Automatic time synchronization	Radio frequency	Communication interface	V_{min} V_{max} limitation of supply air	On/Off	PWM	3-position	DC 0 ... 10 V	Operating mode/ remote contact	Presence detector	Heating/cooling changeover sensor	Remote or return air temperature sensor	External setpoint shift	Power supply	Remote app[5]	Touchscreen	Setpoint knob	Setpoint button	Operating mode button (B)/switch (S)	Digital display (LCD), indicator (LED)	Programming knob and slider switch	Analog clock	Background lighting	Additional operation selection/remarks
Communicating																																							
RDS110	●							●		PID				●			●	●		WLAN		●				●	●		●		AC 230 V	●	●			B	LCD			●	Green Leaf and "Away" button
RDS110.R	●							●		PID				●			●	●	●	WLAN		●				●	●		●		AC 230 V	●	●			B	LCD			●	Green Leaf and "Away" button
RDS120	●	●	●	●	●	●	●			PID		●	●		●		●	●		WLAN		●				●	●		●		AC 24 V	●	●			B	LCD			●	Green Leaf and "Away" button
RDG200KN[3]	●	●	●	●	●	●	●		●[4]	2P/PI		●	●	●	●					KNX	●	(3)[1]	(3)[1]	(2)[1]		●	●	●	●	●[2]	AC 230 V/AC 24 V			●		B	LCD			●	Commissioning smartphone app, Green Leaf
RDG260KN[3]	●	●	●	●	●	●	●		●	2P/PI		●	●	●	●					KNX	●	(2)[1]			(3)[1]	●	●	●	●	●[2]	AC 24 V/DC 24 V			●		B	LCD			●	Commissioning smartphone app, Green Leaf
RDD810KN	●										●R			●						KNX		(1)[7]				●			●		AC 230 V		●				LCD			●	
RDF800KN	●	●	●	●			●			2P/PI	●R	●	●	●	●					KNX		(2)[1]		(1)[1]		●	●	●	●		AC 230 V		●				LCD			●	2 colors: white, black
Premium																																							
REV13	●									PID						●		●[6]				●				●					Battery			●		B	LCD	●		●	
REV24	●	●								2P/PID							●	●[6]				●				●					Battery					B	LCD	●		●	
REV24RF/SET	●	●								2P/PID							●	●[6]	●			●				●					Battery					B	LCD	●		●	
REV34-XA	●									PI						●	●					●		●		●					Battery			●		B	LCD	●		●	
RDG100 line[3]	●	●	●	●	●	●	●			2P/PI		●	●	●	●		●				●	(3)[1]	(2)[1]	(2)[1]	(2)[1]	●		●	●	●	AC 230 V			●		B	LCD			●	Time program buttons
RDD810	●									2P/PI	●R			●	●							(1)					●	●	●		AC 230 V		●				LCD			●	
RDF800	●	●	●	●	●		●			2P/PI	●R	●	●	●	●							(2)[1]		(1)[1]		●	●	●	●		AC 230 V		●				LCD			●	

Standard

RDD100	●									2P												●									AC 230 V			●		B	LCD				
RDD100.1	●									2P												●									Battery			●		B	LCD				
RDD100.1RFS	●									2P									●			●									Battery			●		B	LCD				
RDE100	●									TPI/2P						●	●					●									AC 230 V			●		B	LCD				Start/Stop optimization
RDE100.1	●									TPI/2P				●		●	●					●					●				Battery			●		B	LCD				Start/Stop optimization
RDE100.1DHW	●							●		TPI/2P						●	●					●									Battery			●		B	LCD				Start/Stop optimization
RDE100.1RFS	●									TPI/2P				●		●	●		●			●					●				Battery			●		B	LCD				Start/Stop optimization
RDD310/EH	●									2P	●R			●								●									AC 230 V			●		B	LCD	●		●	
RDE410/EH	●									2P	●R			●			●		●			●									AC 230 V			●		B	LCD	●		●	
RDJ100	●									TPI							●					●									Battery		●			S	LCD	●			
RDJ100RF/SET	●									TPI							●		●			●									Battery		●			S	LCD	●			
RAV11.1	●									PID												●									Battery		●			S			●		
RDH100	●									TPI												●									Battery		●				LCD				
RDH100RF/SET	●									TPI									●			●									Battery		●				LCD				
RDD310/MM	●									2P	●											●									AC 230 V			●			LCD				
RDD510	●									2P												●									AC 230 V			●			LCD			●	2 colors: white, silver
RDF510	●	●	●							2P	●	●										●									AC 230 V			●			LCD			●	4 colors: white, silver, gold, black
RDF530	●	●	●							2P	●	●										●									AC 230 V			●			LCD			●	4 colors: white, silver, gold, black
RCU10				●	●		●			2P/PI												(2)[1]	(2)[1]			●					AC 230 V		●								
RCU15				●	●					2P/PI												(2)[1]	(2)[1]			●			●		AC 24 V		●								
Basic																																							
RAA11	●	●								2P												1									AC 23 ... 250 V										
RAA21	●	●								2P												1									AC 23 ... 250 V		●								
RAA31	●	●								2P												1									AC 230 V		●								On/Off switch
RAA31.16	●	●								2P												1									AC 230 V		●				LED				On/Off switch
RAA31.26	●	●					●	●		2P												2									AC 230 V		●				LED				On/Off switch
RAA41			●							2P			●									1							●		AC 23 ... 250 V		●								Heating-off-cooling switch

1) Either On/Off, 3-position, PWM or DC signal 2) External setpoint shift via KNX 3) RDG200 line (fan coil) thermostats are also suited for chilled ceiling and radiator applications. For detailed information, refer to the fan coil overview. 4) Only possible with communicating 6-port control ball valves
5) For operating, monitoring, and setting extended functions, like the time program 6) Available on model REV13DC 7) SPDT relay with both NO and NC output, accepts AC 24..230 V input (X): X = number of outputs R = round flush-mounted box

Room thermostats for **fan coil applications**

Fan coil

	Applications										Functionalities														Outputs				Inputs						Power supply	User interfaces								
	2-pipe/heating only	2-pipe/cooling only	2-pipe/heating or cooling	2-pipe with electric heater	2-pipe with radiator	4-pipe cooling and heating	4-pipe with electric heater	2-stage heating or cooling	Air humidity control	Control algorithm	Master / Slave	Flush-mounted unit	Manual heating/ cooling changeover	Automatic heating/ cooling changeover	Floor heating limitation	Manual fan speed Off / I / II / III	Automatic fan control	3- or 1-stage fan	DC 0...10 V fan control	Ventilation function	7-day time program	Fan function enable/ disable	Infrared remote control	Lighting and shading control	Communication interface	On/Off	PWM	3-position	DC 0 ...10 V	KNX sensor	Multifunctional inputs	Operating mode changeover contact	Presence detector	Return air temperature sensor	Heating/cooling changeover sensor	Power supply	Touchscreen	Setpoint knob	Setpoint button	Fan speed switch	Fan speed button	Operating mode button	Display (LCD), indicator (LED)	Background lighting	Additional operation selection/remarks
Communicating																																											
RDG200KN	●	●	●	●	●	●	●	●	●	2P/PI	●		●	●	●	●	●	●	●		●	●			KNX	(3)[1]	(3)[1]	(2)[1]		●	●	●	●	●	●	AC 230 V/AC 24 V		●			●	●	LCD	●	Commissioning smartphone app, Green Leaf
RDG260KN	●	●	●	●	●	●[6]	●	●	●	2P/PI	●		●	●	●	●	●	●	●		●	●			KNX	(2)[1]			(3)[1]	●	●	●	●	●	●	AC/DC 24 V		●			●	●	LCD	●	Commissioning smartphone app, Green Leaf
RDF600KN	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●				●			KNX	(2)[1]		(1)[1]			●	●	●	●	●	AC 230 V			●		●	●	LCD	●	2 colors: white, black
RDF600KN/S	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●				●		●	KNX	(2)[1]		(1)[1]			●	●	●	●	●	AC 230 V			●		●	●	LCD	●	2 colors: white, black
RDF660MB/MM	●	●	●			●				2P/PI		●R	●	●	●	●	●		●			●			Modbus	(2)[1]		(1)[1]				●	●	●	●	AC 230 V			●		●	●	LCD	●	display temp via bus instead of in-built temp
RDF660MB	●	●	●	●						2P/PI		●R	●	●	●	●	●		●			●			Modbus	(2)[1]		(1)[1]			●	●	●	●	●	AC 230 V			●		●	●	LCD	●	display temp via bus instead of in-built temp
RDF800KN	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●				●			KNX	(2)[1]		(1)[1]			●	●	●	●	●	AC 230 V	●						LCD	●	2 colors: white, black
RDF302	●	●	●	●		●				2P/PI		●	●	●	●	●	●	●				●			Modbus	(2)[1]		(1)[1]			●	●		●	●	AC 230 V					●	●	LCD	●	2 colors: white, black
RDF302.B	●	●	●	●		●				2P/PI		●	●	●	●	●	●	●				●			Modbus	(2)[1]		(1)[1]								AC 230 V					●	●	LCD	●	2 colors: white, black
Premium																																										
RDG100	●	●	●	●	●	●	●	●		2P/PI			●	●	●	●	●	●				●			(3)[1]	(2)[1]	(2)[1]			●	●		●	●	AC 230 V		●			●	●	LCD	●	
RDG100T[4]	●	●	●	●	●	●	●	●		2P/PI			●	●	●	●	●	●			●[5]	●	●		(3)[1]	(2)[1]	(2)[1]			●	●		●	●	AC 230 V		●			●	●	LCD	●	Time program buttons
RDG110	●	●	●	●	●	●		●		2P			●	●	●	●	●	●				●			(2)					●	●		●	●	AC 230 V		●			●	●	LCD	●	
RDG160T[4]	●	●	●	●	●	●		●		2P/PI			●	●	●	●	●	●	●		●[5]	●			(2)[1]			(2)[1]		●	●		●	●	AC 24 V		●			●	●	LCD	●	
RDF600	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●							(2)[1]	(1)[1]				●	●		●	●	AC 230 V			●		●	●	LCD	●	
RDF600T	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●			●		●		(2)[1]	(1)[1]				●	●		●	●	AC 230 V			●		●	●	LCD	●	Time program buttons
RDF660T	●	●	●	●		●				2P/PI		●	●	●	●	●	●	●	●		●	●	●		(2)[1]	(1)[1]				●	●	●	●	●	AC 230 V			●		●	●	LCD	●	Time program buttons
RDF800	●	●	●	●		●				2P/PI		●R	●	●	●	●	●	●				●			(2)[1]	(1)[1]				●	●	●	●	●	AC 230 V	●						LCD	●	
RDF300.02	●	●	●	●		●				2P/PI		●	●	●	●	●	●	●							(2)[1]	(1)[1]				●	●		●	●	AC 230 V			●		●	●	LCD	●	2 colors: white, black
RDF340	●	●	●	●		●				P/PI		●	●	●	●	●	●	●										(2)		●	●		●	●	AC 24 V			●		●	●	LCD		
Standard																																										
RDF110	●	●	●							2P				●		●	●								(1)						●		●[3]	●[3]	AC 230 V			●		●		LCD		
RDF110.2			●							2P			●			●	●								(1)										AC 230 V			●		●		LCD		Heating-cooling button
RDF310.2/MM	●	●	●							2P		●	●			●	●								(1)										AC 230 V			●		●		LCD		Heating-cooling button
RDF510	●	●	●							2P		●	●			●	●					●			(1)										AC 230 V			●		●		LCD	●	Heating-cooling button 4 colors: white, silver, gold, black
RDF530	●	●		●		●				2P		●	●	●		●	●					●			(2)										AC 230 V			●		●		LCD	●	Heating-cooling button 4 colors: white, silver, gold, black
RCC10	●	●	●							2P				●		●									(1)						●		●	●	AC 230 V		●		●			LCD		
RCC20				●						2P				●		●									(2)						●		●	●	AC 230 V		●		●			LCD		
RCC30					●	●				2P				●		●									(2)						●		●		AC 230 V		●		●			LCD		
Basic																																										
RAB11			●							2P			●			●		●							(1)										AC 24 ... 250 V		●	●						Heating-cooling-CO switch
RAB11.1			●							2P			●			●		●		●					(1)										AC 24 ... 250 V		●	●						Ventilation-heating-cooling switch
RAB21	●	●	●							2P						●		●							(1)										AC 24 ... 250 V		●	●						
RAB31						●				2P			●			●		●							(2)										AC 24 ... 250 V		●	●						Heating-cooling-CO switch
RAB31.1						●				2P			●			●		●		●					(1)										AC 24 ... 250 V		●	●						Heating-ventilation-cooling-CO switch
RAB91										No						●		●																	AC 24 ... 250 V			●						

1) Either On/Off, 3-position, PWM or DC signal (optional between given output signals) 2) DC 0 ... 10 V fan control 3) Either return air temperature sensor or heating/cooling changeover sensor 4) With power reserve for clock during power failure
5) Switch program can be turned off 6) Possible also with combi-valve (PICV) and 6-port ball valve as changeover (X): X = number of outputs R = round flush-mounted box