SIEMENS

Room thermostats – for energy-efficient temperature control

Broad portfolio for heating, ventilation and cooling applications

Answers for infrastructure.

Room thermostats – choosing from a wide variety

With the comprehensive portfolio of room thermostats from Siemens, you can satisfy all customer requirements. From fan coils, variable air volume systems, chilled ceilings to radiators and heat pumps, the product range includes room thermostats for every application. Time programs enable individual rooms to be heated or cooled at preset times to the desired temperatures. This means that energy is not wasted in rooms that are not in use. All thermostats are easy to install and to adjust. Help your customers enjoy a comfortable room climate, save energy, lower costs and reduce CO_2 emissions.

Everything needed for efficient temperature control

Efficient temperature control
The room thermostats excel in high energy efficiency. Time programs adjust the room temperature to the desired comfort level at predefined times. What's more, the thermostats provide a wide choice of easy-to-set energy saving functions that help reduce energy consumption, like self-learning PID control, setpoint limitation, vacation function or fan control. They can also be connected to external sensors or contact switches such as window contacts.

One portfolio for all customer needs
With room thermostats from Siemens, you are optimally prepared to meet any customer requirement. The extensive product portfolio comprises simple as well as complex, communicating devices. The thermostats can be either standalone or networked with others to create tailored solutions for demanding applications. Your major benefit: You can cover a wide range of different heating, ventilation and cooling applications while addressing individual customer needs – be it in homes, commercial buildings, hotels or office buildings.

Enhancing comfort all the way
Easy-to-understand symbols on the products, a backlit display with large lettering as well as large buttons and setting knobs are just a few of the features that ensure straightforward operation.

Easy installation
The room thermostats are easy to install. Thanks to the uniform product concept, you will also benefit from fast and simple commissioning. Siemens' patented control technology ensures constant room temperatures.

Protecting the investment of your customers
The use of high-quality materials, careful manufacturing and comprehensive quality management ensure that room thermostats from Siemens deliver the highest reliability and a long life. Also, conformance to international norms and standards is guaranteed.

The fact that the room thermostats can also be used on applications with renewable energy sources, makes them a future-proof choice.

Relying on an experienced partner
Siemens has been developing room thermostats for more than 70 years. So benefit from our in-depth application know-how and decades of experience.

Highlights
- Wide range of room thermostats to meet every requirement
- Energy-efficient and cost-saving room temperature control
- Simple operation and high control accuracy for optimal comfort
- Fast and easy installation and commissioning
- Investment protection thanks to high-quality products conforming to norms and standards
- Benefit from long-term experience and in-depth know-how of Siemens

Optimal room comfort with the perfect room climate at the right timing – thanks to room thermostats with time schedules.

A room should only be heated or cooled when used. With room thermostats from Siemens, the room temperature can be easily set to a comfortable level – according to a time program. This saves your customers energy and money.

Perfect room temperature at all times

Intelligent temperature settings

A comfortable room environment means having the right temperature at the right time. This is why room thermostats from Siemens feature settable time programs. They enable users to heat or cool rooms only when needed, which is both cost- and energy-efficient. Also, the time programs offer a choice of settings. If a room is used differently every day, the heating and cooling phases can be set individually for each weekday. If room usage is always the same, the weekday/weekend program is the perfect choice.

Consistent product concept

Fan coils, variable air volume systems, chilled ceilings, radiators or heat pumps – Siemens offers the ideal room thermostat for any type of application. All thermostats are based on the same product concept. This means for you: Fast, cost-efficient installation and commissioning. What's more, communicating thermostats can be seamlessly integrated into existing systems via KNX.

Saving energy and costs

External sensors and switches can be quickly connected to the room thermostats. This ensures significant energy savings for your customers. For example, room thermostats connected to a keycard contact automatically lower the temperature to energy-saving mode the moment the user leaves the room. With window contacts, the setpoint is automatically adjusted when a window is opened. It is also possible to connect manual switches or a telephone modem. And with the help of changeover sensors, some models can be automatically switched from heating to cooling and vice versa.

Highlights

- Energy and cost savings thanks to time programs, absence function or sensors
- Extensive range of thermostats to meet every requirement
- Seamless integration into existing systems via KNX

The worldwide standard for home and building management

Our portfolio of room thermostats comprises products for every type of application and every customer need.

Room thermostats for optimal room climate

With the extensive portfolio of room thermostats, you can offer customers an excellent answer for an optimal room climate. All models are easy to use, provide a variety of time setting functions and come in an elegant design.

Perfect for heating and/or cooling

For living spaces and work areas, you can offer your customers all types of thermostats for heating and/or cooling. They are ideally suited for switching and controlling hot water, electrical heaters, radiators, floor heating systems and chilled ceilings in small zones. Whether ergonomic buttons or large control knobs – all models are intuitive to operate. They allow users to set the exact room temperatures and times for heating and energy saving phases. Wireless models provide additional flexibility.

Ideal for heat pumps

Renewable energy becomes increasingly important. With heat pumps, you can extract energy either from the air, water or ground and supply it to buildings. With our thermostats for use with heat pumps, you can offer your customers a smart solution to save energy and reduce CO_2 emissions.

Covering VAV applications

With the thermostat portfolio, you are best prepared to meet customer requirements for demanding applications – like switching and controlling variable air volume or ventilation systems. A button lock ensures that settings cannot be accidentally changed. Remote control provides for convenient operation, for example, from a hotel bed. Connection options for external sensors and switches, such as keycards, enhance flexibility and energy efficiency.

Room thermostats for heating and/or cooling

Controlling fan coils

The thermostats for controlling fan coils are the perfect choice for small zones in commercial buildings, single- or multi-family houses and hotel rooms. They are highly energy-efficient, user-friendly and automatically adapt the fan speed. This means for your customers that they can save energy and thus money.

Constant control for enhanced comfort

Whatever the type of application, our thermostats set the temperature right down to the degree and minute. What's more, thanks to Siemens' patented control technology, a perfectly even temperature is ensured throughout the room or the entire building – so your customers can enjoy the highest possible levels of well-being.

And your benefit? You can equip buildings with different heating and cooling systems using the same design throughout, plus standardized operation.

Highlights

- Heating and/or cooling – offer your customers highest flexibility
- Energy savings and reduced CO_2 emissions with heat pump applications
- Inputs for external sensors and switches
- Enhanced comfort thanks to constant room temperature

Heat pumps

VAV

Fan coil applications

Our extensive portfolio of room thermostats covers all possible application areas. This means that you can always offer your customers an ideal solution – whatever their requirements.

Room thermostats for different applications

The right thermostat for any requirement

The portfolio of room thermostats covers a comprehensive range of HVAC applications – be it in homes, hotels, offices or public buildings: From simple electromechanical ON/OFF and wireless thermostats to room thermostats with a continuous output signal to efficient OpenTherm models – be it programmable with 24-hour or 7-day time programs or non-programmable with or without display – the right product for any budget.

Covering a host of applications

With room thermostats from Siemens, you can cover a wide variety of applications:

– Fan coils
– Heat pumps
– VAV
– Domestic hot water
– Floor heating
– Radiators
– Electric heating
– Ventilation systems for heating/cooling
– Chilled ceilings

Highlights

- Thermostats for heating, ventilation and cooling applications – meeting all requirements
- Suited for homes, hotels, offices or public buildings
- Thermostats for every budget and every type of application

	Heating	Cooling	DHW	Heat pumps	VAV*	Fan coils
Analog	RAA.., RAV..	RAA..	–	–	–	RAB..
Digital without display	RCU10, RCU20	RCU10, RCU20	–	–	RCU5..	RCC..
Digital with display, no time program	RDD.., RDG.., RDH.., RDU..	RDG.., RDH.., RDU..	RDD..	RDF.., RDG..	RDG.., RDU..	RDF.., RDG..
Digital with display and time program	RDE.., RDG.., RDJ.., REA.., REV..	RDG.., REA.., REV..	RDE..	RDF.., RDG..	–	RDF.., RDG..

* VAV = variable air volume

Room thermostats for heating and heat pu

		Applications									Functionalities						
		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	Control algorithm	Semi flush-mounted unit	Automatic heating/cooling changeover	Manual heating/cooling changeover	Floor heating limitation	Dew point monitoring	Infrared remote control	24-hour time program
Heating	**Slide switch operation**																
	REV13	■								PID							■
	REV13DC	■								PID							■
	REV17	■								PID							■
	REV17DC	■								PID							■
	REV34	■								PI							■
	REV34DC	■								PI							■
	Analog operation																
	RAV11.1	■								PID							
	RAV11.7	■								PID							
	Digital operation, slimline																
	RDD100	■								2P							
	RDD100.1	■								2P							
	RDD100.1DHW	■							■	2P							
	RDD310	■								2P	■						
	RDE100	■								2P							■
	RDE100.1	■								2P							■
	RDE100.1DHW	■							■	2P							■
	RDE410	■								2P	■						■
	Rotary knob/slide switch operation																
	RDH10M	■								PID							
	RDJ10	■								2P							■
	RDJ10RF/SET	■								2P							■
Heat pumps	**RDG100 line**[1]	■	■	■	■	■	■	■		2P/PI		■	■	■	■	■	
	RDF300/400 line[3]	■	■	■	■	■		■		2P/PI	■	■	■		■	■	

(X): X = number of outputs [1] RDG100 line (fan coil) thermostats are also suited for chilled ceiling and radiator applications. For detailed information, refer to the fan coil overview.
[2] Either ON/OFF, 3-position or PWM signal [3] RDF300/400 line (fan coil) thermostats are also suited for heat pump applications.

mp applications

				Outputs				Inputs			Power supply	User interfaces						
7-day/weekend time program	7-day time program	Radio frequency	Modulating (OpenTherm)	ON/OFF	PWM	3-position	Output heating/cooling changeover	Operating mode/ Remote contact	Heating/cooling changeover sensor	Remote or return air temperature sensor	Power supply	Setpoint knob	Setpoint buttons	Operating mode button (B)/ switch (S)	Digital display (LCD), indicator (LED)	Programming knob and slider	Analog clock	Additional operation selector/remarks
				■				■			battery		■	B	LCD	■		
				■				■			battery		■	B	LCD	■		
■				■				■			battery		■	B	LCD	■		
■				■				■			battery		■	B	LCD	■		
	■					■		■			battery		■	B	LCD	■		
	■					■		■			battery		■	B	LCD	■		
				■							battery	■		S			■	
				■							battery	■		S			■	
				■							AC 230 V		■	B	LCD			
				■							battery		■	B	LCD			
				■							battery		■	B	LCD			
				■							AC 230 V		■	B	LCD			
■	■			■							AC 230 V		■	B	LCD	■		
■	■			■							battery		■	B	LCD	■		
■	■			■							battery		■	B	LCD	■		
■	■			■							AC 230 V		■	B	LCD	■		
			■	■							battery	■		B	LCD			
				■							battery	■		S	LCD	■		
		■		■							battery	■		S	LCD	■		
	■			(3)[2]	(2)[2]	(2)[2]		■	■	■	AC 230 V	■		B	LCD			Time prog. buttons
	■			(2)[2]		(1)[2]		■	■	■	AC 230 V		■	B	LCD			Time prog. buttons

Room thermostats for heating and/or coolin

		Applications										Functionalities						
		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	Cooling and independent output	Control algorithm	Semi flush-mounted unit	Automatic heating/cooling changeover	Manual heating/cooling changeover	V_{min}, V_{max} limitation of supply air	Floor heating limitation	Dew point monitoring	24-hour time program
Heating and/or cooling	**Basic**																	
	RAA11	■	■								2P							
	RAA21	■	■								2P							
	RAA200	■	■								2P							
	RAA31	■	■								2P							
	RAA31.16	■	■								2P							
	RAA31.26	■	■						■	■	2P							
	RAA41			■							2P			■				
	Modern																	
	RCU10				■	■		■			2P/PI							
	RCU15				■	■					2P/PI							
	RCU20	■	■	■							PI		■					
	Communicating																	
	RDG100KN[2)]	■	■	■	■	■	■	■			2P/PI		■	■		■	■	
	RDG160KN[2)]	■	■	■	■	■	■	■			2P/PI		■	■		■	■	
	Slide switch operation																	
	REV24	■	■								PID							■
	REV24DC	■	■								PID							■
	REV24RF/SET	■	■								PID							■
	REV24RFDC/SET	■	■								PID							■
	REV26	■	■								PID							■
	Rotary knob/ slide switch operation																	
	RDH10	■	■								2P							
	RDH10RF/SET	■	■								2P							
VAV	**Modern**																	
	RCU50	■	■	■							P		■		■ [4)]			
	RCU50.2	■	■	■							P			■				
	RLA162	■	■		■	■					PI				■ [4)]			
	Advanced																	
	RDU340	■	■	■	■	■		■			P/PI	■	■	■	■		■	
	RDG400	■	■	■	■	■		■			P/PI		■	■	■	■	■	
	Communicating																	
	RDU341	■	■	■	■	■		■			P/PI	■	■	■	■		■	
	RDG400KN	■	■	■	■	■		■			P/PI		■	■	■	■	■	

(X): X = number of outputs [1)] Either ON/OFF, 3-position or PWM signal [2)] RDG100 line (fan coil) thermostats are also suited for chilled ceiling and radiator applications. For detailed
[4)] Only with V_{min} limitation [5)] External setpoint shift by DC 0...10 V input [6)] External setpoint shift by outdoor temperature sensor

g and VAV applications

			Outputs				Inputs				Power supply	User interfaces					
7-day time program	Radio frequency	Communication interface KNX	ON/OFF	PWM	3-position	DC 0…10 V	Operating mode/ Remote contact	Heating/cooling changeover sensor	Remote or return air temperature sensor	External setpoint shift	Power supply	Setpoint knob	Setpoint buttons	Operating mode button (B)/ switch (S)	Digital display (LCD), indicator (LED)	Programming knob and slider	Additional operation selector/remarks
			(1)								AC 24…250 V						
			(1)								AC 24…250 V	■					
			(1)								AC 24…250 V	■					Large setting knob
			(1)								AC 24…250 V	■					ON/OFF switch
			(1)								AC 230 V	■			LED		ON/OFF switch
			(2)								AC 230 V	■			LED		ON/OFF switch
			(1)								AC 24…250 V	■					Heat/OFF/cool switch
			(2)[1]	(2)[1]			■				AC 230 V	■					
			(2)[1]	(2)[1]			■		■		AC 24 V	■					
					(1)		■	■			AC 230 V	■					
		■	(3)[1]	(2)[1]	(2)[1]		■	■	■	■[3]	AC 230 V	■		B	LCD		
		■	(2)[1]			(2)	■	■	■	■[3]	DC 0…10 V and AC 24 V	■		B	LCD		
■			■				■				battery		■	B	LCD	■	
■			■				■				battery		■	B	LCD	■	
■	■		■								battery		■	B	LCD	■	
■	■		■								battery		■	B	LCD	■	
■			■								battery		■	S	LCD	■	
			■								battery	■			LCD		
	■		■								battery	■			LCD		
						(1)	■	■		■[5]	AC 24 V	■					
						(1)					AC 24 V	■					Heat/OFF/cool switch
						(2)				■[6]	AC 24 V	■					
			(1)			(1)	■	■	■		AC 24 V		■	B	LCD		
			(1)[1]	(1)[1]	(1)[1]	(1)	■	■	■		AC 24 V	■		B	LCD		
		■	(1)			(1)	■	■	■	■[3]	AC 24 V		■	B	LCD		
		■	(1)[1]	(1)[1]	(1)[1]	(1)	■	■	■	■[3]	AC 24 V	■		B	LCD		

information, refer to the fan coil overview. [3] External setpoint shift via KNX

Room thermostats for fan coil applications

		Applications									Functionalities										
		2-pipe/heating only	2-pipe/cooling only	2-pipe/heating or cooling	2-pipe with electric heater	2-pipe and radiator	4-pipe/cooling and heating	4-pipe with electric heater	2-stage/heating or cooling	Control algorithm	Semi flush-mounted unit	Manual heating/cooling changeover	Automatic heating/cooling changeover	Floor heating limitation	Manual fan speed off / I / II / III	Automatic fan control	Ventilation function	Electronic commutated fan motor[1)]	7-day time program	Fan function enable/disable	Infrared remote control
Fan coils	**Basic**																				
	RAB11			■						2P		■			■						
	RAB11.1			■						2P		■			■		■				
	RAB21	■	■	■						2P					■						
	RAB21.1	■	■	■						2P			■		■		■				
	RAB31						■			2P		■			■						
	RAB31.1						■			2P		■			■		■				
	RAB91									No					■						
	Modern																				
	RCC10	■	■	■						2P			■		■						
	RCC20				■					2P			■		■						
	RCC30					■	■			2P			■		■						
	Advanced: semi flush-mounted																				
	RDF600	■	■	■	■		■			2P/PI	■ R	■	■	■	■	■				■	
	RDF300	■	■	■	■		■			2P/PI	■	■	■	■	■	■				■	
	RDF300.02	■	■	■	■		■			2P/PI	■	■	■	■	■	■				■	
	RDF310.2	■	■	■						2P	■	■			■	■					
	RDF310.21	■	■	■						2P	■	■			■	■					■
	RDF340	■	■	■	■		■			P/PI	■	■	■	■	■	■				■	
	RDF600T	■	■	■	■		■			2P/PI	■ R	■	■	■	■	■			■	■	■
	RDF410.21	■	■	■						2P	■	■			■	■			■		■
	Advanced: wall-mounted																				
	RDF110	■	■	■						2P			■		■	■					
	RDF110.2			■						2P		■			■	■					
	RDF210/IR	■	■	■						2P			■		■	■			■		■
	RDG100	■	■	■	■	■	■	■	■	2P/PI		■	■	■	■	■				■	
	RDG100T[6)]	■	■	■	■	■	■	■	■	2P/PI		■	■	■	■	■			■ [7)]	■	■
	RDG110	■	■	■	■	■	■		■	2P		■	■	■	■	■				■	
	RDG140	■	■	■	■	■	■		■	P/PI		■	■	■	■	■				■	
	RDG160	■	■	■	■	■	■		■	P/PI		■	■	■	■	■		■		■	
	Communicating: semi flush-mounted																				
	RDF600KN	■	■	■	■		■			2P/PI	■ R	■	■	■	■	■				■	
	RDF301	■	■	■	■		■			2P/PI	■	■	■	■	■	■				■	
	RDF301.50	■	■	■	■		■			2P/PI	■	■	■	■	■	■				■	
	RDF302	■	■	■	■		■			2P/PI	■	■	■	■	■	■					
	Communicating: wall-mounted																				
	RDG100KN	■	■	■	■	■	■	■	■	2P/PI		■	■	■	■	■				■	
	RDG160KN	■	■	■	■	■	■		■	2P/PI		■	■	■	■	■		■ [4)]		■	

(X): X = number of outputs R = round flush mounting box [1)] ECM DC 0...10 V fan control [2)] Either ON/OFF, 3-position or PWM signal [3)] Either return air temp. sensor or heating/cooli
[4)] Selectable between EC fan or 3 speeds [5)] Either DC or ON/OFF signal [6)] Also available as horizontal model [7)] Switch program can be switched off

		Outputs				Inputs				Power supply	User interfaces							
Lighting and shading control	Communication interface	ON/OFF	PWM	3-position	DC 0...10 V	Multifunctional inputs	Operating mode changeover contact	Return air temperature sensor	Heating/cooling changeover sensor	Power supply	Setpoint knob	Setpoint buttons	Fan speed switch	Fan speed button	Operating mode button	Display (LCD), indicator (LED)	Backlight	Additional operation selector/remarks
		(1)								AC 24...250 V	■		■					Heat-cool CO switch
		(1)								AC 24...250 V	■		■					Vent-heat-cool switch
		(1)								AC 24...250 V	■		■					
		(1)								AC 24...250 V	■		■					Heat/cool-vent switch
		(2)								AC 24...250 V	■		■					Heat-cool CO switch
		(1)								AC 24...250 V	■		■					Heat-vent-cool CO switch
										AC 24...250 V			■					
		(1)					■	■	■	AC 230 V	■		■			LED		
		(2)					■	■	■	AC 230 V	■		■			LED		
		(2)					■	■		AC 230 V	■		■			LED		
		(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	
		(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD		
		(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	
		(1)								AC 230 V		■		■		LCD		Heat-cool button
		(1)								AC 230 V		■		■		LCD	■	Heat-cool button
					(2)	■	■	■	■	AC 24 V		■		■	■	LCD		
		(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	Time prog. buttons
		(1)								AC 230 V		■		■	■	LCD	■	Heat-cool button, time prog. buttons
		(1)					■	■[3]	■[3]	AC 230 V		■		■		LCD		
		(1)								AC 230 V		■		■		LCD		Heat-cool button
		(1)						■[3]	■[3]	AC 230 V		■		■	■	LCD		Time prog. buttons
		(3)[2]	(2)[2]	(2)[2]		■	■	■	■	AC 230 V	■			■	■	LCD	■	
		(3)[2]	(2)[2]	(2)[2]		■	■	■	■	AC 230 V	■			■	■	LCD	■	Time prog. buttons
		(2)				■	■	■	■	AC 230 V	■			■	■	LCD	■	
					(2)	■	■	■	■	AC 24 V	■			■	■	LCD	■	
					(2)	■	■	■	■	AC 24 V	■			■	■	LCD	■	
	KNX	(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	
	KNX	(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	
■	KNX	(2)[2]		(1)[2]		■	■	■	■	AC 230 V		■		■	■	LCD	■	
	M-bus	(2)[2]		(1)[2]		■	■	■	■	AC 230 V	■		■	■		LCD	■	
	KNX	(3)[2]	(2)[2]	(2)[2]		■	■	■	■	AC 230 V	■			■	■	LCD	■	
	KNX	(2)[5]			(2)[5]	■	■	■	■	AC 24 V	■			■	■	LCD	■	

ng changeover sensor

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Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

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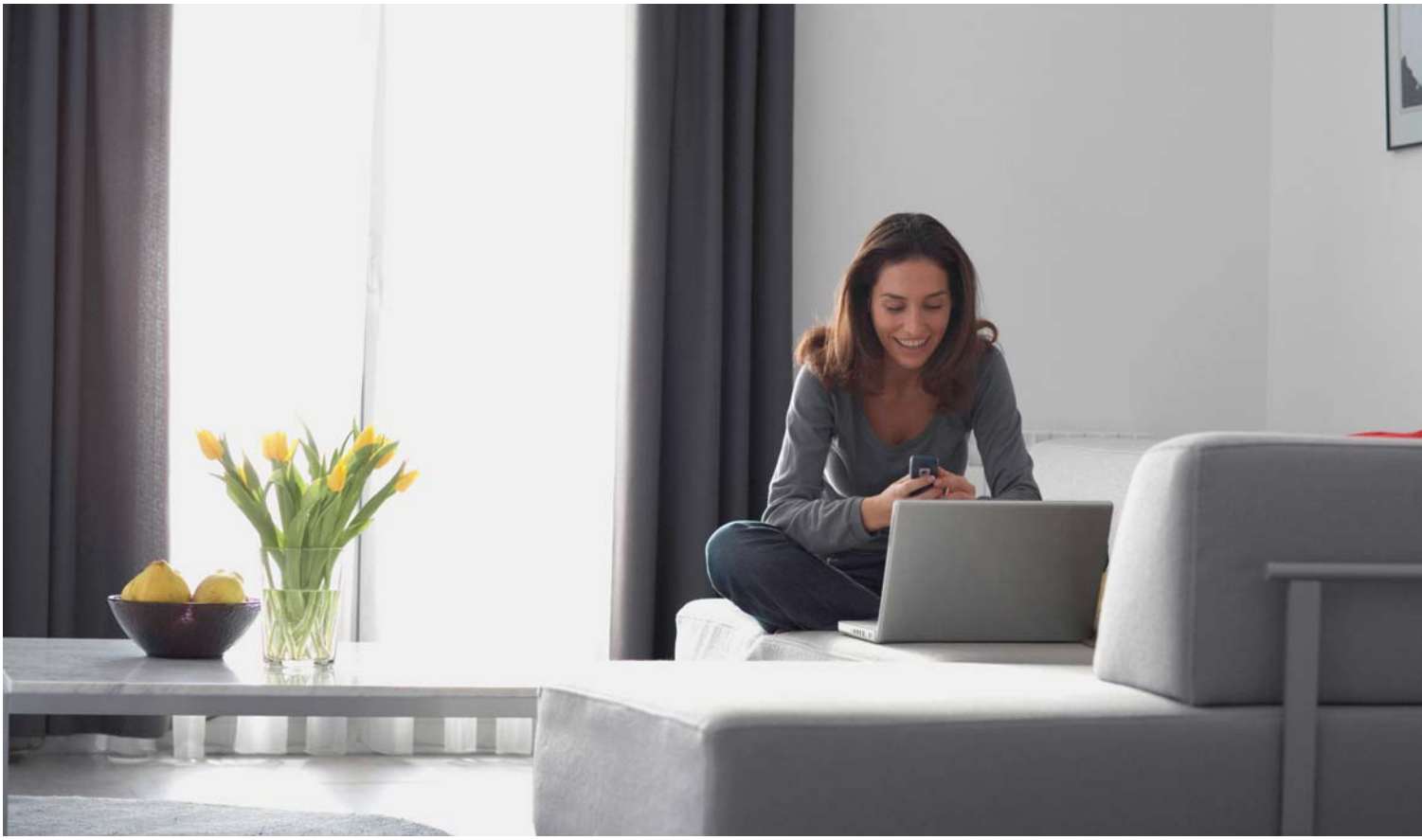
Room thermostats – wide variety and high energy efficiency

New room thermostats of modern design for fan coil units and universal applications

Answers for infrastructure.



Room thermostats – energy-efficient temperature control for all needs

Enjoying comfort and coziness while saving energy and costs – the new room thermostats from Siemens offer everything you need to achieve this. The time programs provided by the devices ensure efficient usage of heat and cooling energy. You will also be able to cut energy costs by making use of setpoint limitations for heating and cooling. To ensure optimum room comfort at minimum cost, the fan's speed is automatically adjusted. And for the periods of time people are absent, the room thermostats can be switched to energy saving mode simply by pressing a button.

RDG range – for fan coil units and volume flow, also available with KNX communication

RDG100T/H – with time programs for fan coil units

Convenient, elegant and versatile

Be it stand-alone or communicating models: Using time programs and relying on intuitive operation, the RDG and RDF room thermostats ensure an optimum room climate at all times.

Enhanced room climate in all types of houses or buildings

Hotels, homes or commercial buildings – the room thermostats' time programs guarantee optimum comfort at the required times. The setpoint can be adjusted very accurately. And, using the extension and absence function, the comfort phase can be easily extended or shortened. In addition, the products ensure an optimum control of the fan speed, resulting in quiet operation.

Ease of operation thanks to function-oriented design

The thermostats' modern design places great emphasis on user-friendly operation. Thanks to the products' large and clear display, temperature values and time of day are easy to read. Backlit display increases the display's contrast and facilitates operation under poor light conditions. To satisfy the needs of international users, the display shows setpoint and room temperature in °C and °F if required.

Operation is easy and intuitive, thanks to a setting knob and large buttons. A button lock feature prevents unintentional readjustments. Also, the thermostats indicate when the fan's filter needs to be cleaned. Remote control also offers ease of use: The room temperature can be readjusted from the hotel bed, for instance or the workplace.

RDF range – for semi flush mounting with time programs for fan coil units, also available with KNX communication

RDF301.50 – communicating room thermostat with lighting and blinds control

High level of flexibility and cost efficiency thanks to consistent product concept

The new room thermostats are suited for a host of applications, including fan coil units, variable air volume systems, chilled ceilings, heating systems and heat pumps. This means that plants operating on different heating and cooling systems can make use of a consistent design concept based on uniform operation. Installation and commissioning are quick and economical since the room thermostats use the same product concept. Employing KNX – the only open, global standard on home and building management – the communicating thermostats can be seamlessly integrated into existing systems. The devices are available with Modbus communication as well.

Flexibility and efficiency are also offered by the choice of connection facilities for external sensors and contacts. For example, in hotels, the room thermostats in connection with a keycard contact automatically switch to energy saving mode when the guest leaves the room. To ensure accurate acquisition and control of the room temperature, an external room temperature sensor can be connected. Through changeover sensors, the plant is automatically switched from heating to cooling and vice versa. As the RDG room thermostats are wall-mounted, they can easily be fitted in a suitable place.

Top-quality that pays off in the long term

Long service life and a high level of reliability of the room thermostats ensure efficient operation. This means that you benefit from your investment not only in the short term, but for many years to come, backed by meticulous production, top-quality materials and comprehensive quality management.

Highlights

- Energy and cost savings thanks to time programs, setpoint limitation, fan control and absence function
- Pleasant room climate owing to accurate temperature control and quiet operation
- Intuitive, user-friendly design for ease of operation
- High level of flexibility and cost efficiency based on consistent product concept
- First-class product quality for more investment protection and reliability

Everything for economical room temperature control

Satisfying all needs with just one product range

The room thermostats from Siemens enable you to meet all your application requirements in an optimum way. The comprehensive range comprises simple communicating thermostats. The devices can be used as stand-alone thermostats or in networks together with other products – in the form of tailored solutions for demanding applications.

Major benefit: You can cover a wide choice of heating, ventilation and cooling applications while satisfying individual customer needs – be it in single family homes, commercial buildings, hotels or office buildings.

The efficient way to control room temperature

Our room thermostats excel in high energy efficiency. Time programs maintain the room temperature at the required comfort level for preset periods of time. In addition, the thermostats offer a number of easy-to-set energy saving functions that help cut energy usage, such as different operating modes setpoint limitation, automatic fan control, or applications featuring modulating outputs. It is also possible to connect external sensors or switches, such as window contacts.

The room thermostats are also suited for heat pump applications with renewable forms of energy, making the products a future-proof choice.

Ease of use in every respect

Unambiguous symbols, a large backlit display plus large buttons and setting knobs are only some of the features that ensure ease of operation. Also, the thermostats are simple to install. And – thanks to the uniform product concept – you benefit from quick and straightforward commissioning.

Investment protection for your customers

The use of top-quality materials, meticulous production and comprehensive quality management ensures that room thermostats from Siemens offer a high level of reliability and longevity. Also, they conform to international norms and standards.

Relying on an experienced partner

Siemens has developed room thermostats for more than 70 years. Benefit from our in-depth application know-how and our decades of experience.

Highlights

- Energy-efficient and cost-saving room temperature control
- Ease of operation and great control accuracy for optimum comfort and user-friendliness
- Quick and straightforward installation and commissioning
- Investment protection thanks to top-quality products conforming to the relevant standards
- Decades of experience and in-depth application know-how
- KNX communication for the integration into building automation systems

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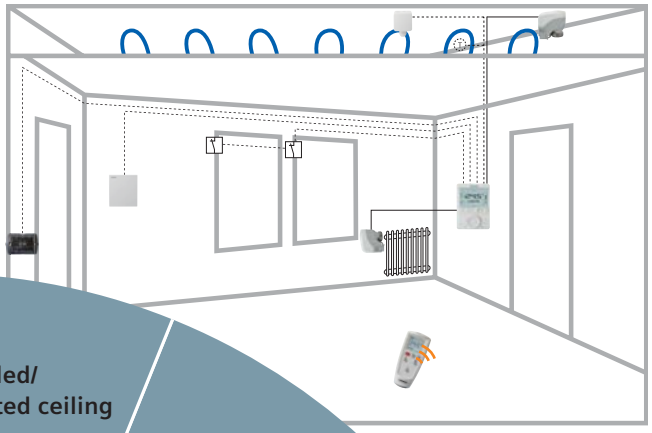
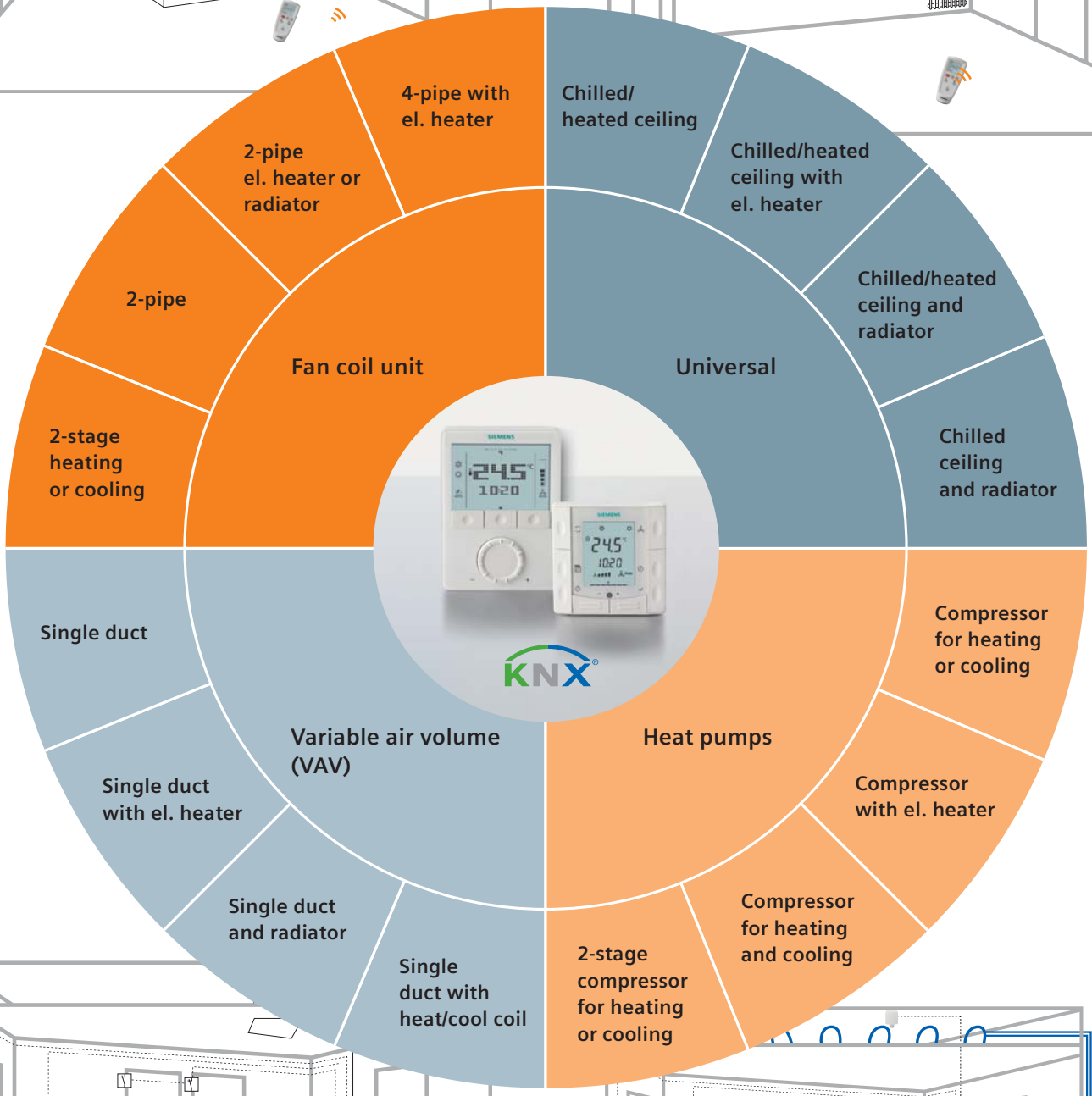
RDG/RDF – room thermostats

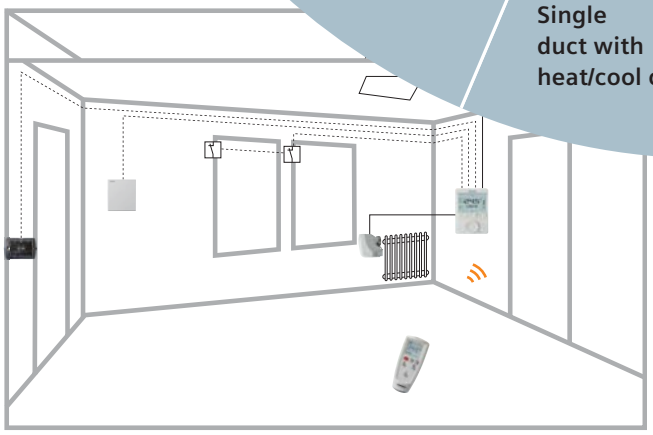
Application Guide

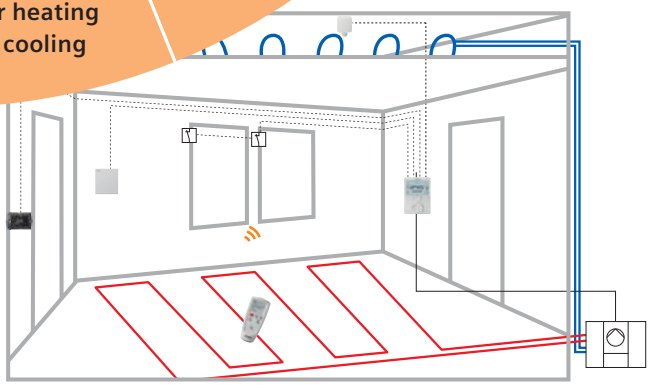
Answers for infrastructure.

Application overview









Contents

Introduction

The RDG and RDF thermostat range is very versatile and includes a number of products. RDG and RDF offer extensive features and cover a broad range of applications.

The document:
- **provides you an overview of the new RDG and RDF ranges**
- **assists you in selecting the suitable product and**
- **provides helpful installation and commissioning information**

The section "application overview" for each main application – i.e. fan coil unit (FCU, universal, heat pumps and VAV – shows what applications are covered by which thermostat line.
The sections "product overview" show the available thermostat variants and their supported applications.

Before you start

We recommend proceeding as follows prior to selecting a thermostat:
- Type of main application: FCU, universal, heat pump or VAV
- Application: e.g. 2-pipe with electric heater
- Type of control output 1: ON/OFF, PWM, 3-position, or DC 0...10 V
- Type of control output 2: ON/OFF, PWM, 3-position, or DC 0...10 V
- Type of inputs: e.g. external room temperature sensor, changeover sensor, keycard contact etc.
- Type of thermostat: stand-alone, stand-alone with 7-day timer, or communicating thermostat
- Thermostat design: wall- or semi flush-mounted
- Other important requirements

Description of RDG range

The RDG is a compact, wall-mounted version with an elegant and modern design.

The product consists of 2 lines of versatile products – RDG100 and RDG400:
- RDG100 line for FCUs plus universal (e.g. chilled ceilings or radiators) and heat pump applications
- RDG400 line for VAV applications

The thermostats are available as stand-alone versions, stand-alone with 7-day program and KNX versions tailored for use with Synco 700 via LTE-mode, for integration in Synco living or BACS (Building Automation and Control System) via S-mode.

Product range RDG

- **RDG100 –** the **versatile** stand-alone thermostat with ON/OFF and modulating (PWM or 3-position) outputs
- **RDG100T –** the **versatile** stand-alone thermostat with 7-day program and same functionality as RDG100, plus infrared receiver for remote control
- **RDG100T/H –** the **versatile** stand-alone thermostat is the landscape version of RDG100T, the 7-day program can be disabled
- **RDG100KN –** the **versatile communicating** thermostat with the same functionality as RDG100, plus KNX interface
- **RDG110 –** the **robust** stand-alone thermostat with relay outputs (SPDT) for applications with max. 5 A current on the control outputs. This thermostat is the ideal solution for ON/OFF applications with electric heater, heat pumps, or heat pumps with reversing valve (RV).
- **RDG140 –** the **modulating** thermostat operating on AC 24 V (SELV) with DC 0...10 V control outputs

- **RDG160 –** the **energy-efficient** modulating thermostat to control electronic commutated fan motors (ECM Fans), operating on AC 24 V (SELV) with DC 0...10 V outputs for valve and fan
- **RDG160KN –** the communicating **energy-efficient** modulating thermostat for controlling electronic commutated fan motors (EC Fans) and either DC or 2-position valves, or for 3-speed fan and DC valves, including KNX interface
- **RDG400 –** the **versatile** stand-alone thermostat for VAV applications with modulating and ON/OFF outputs
- **RDG400KN –** the **versatile communicating** thermostat with the same functionality as RDG400, plus KNX interface

A number of control parameters can be adjusted on each thermostat to optimize the control performance.

Description of RDF semi flush-mount range

The RDF.. range is a compact semi flush mount solution. The RDF6.. line fits into round conduit boxes with a 60 mm diameter and a minimum 40 mm of depth. The RDF3.. and RDF4.. lines are designed to fit into conduit boxes with fixing center 60.3 mm (British standard BS4662).

The RDF and RDU are two product ranges featuring versatile and slim products:
- RDF range for FCUs and heat pump applications
- RDU range for VAV applications

The thermostats are available as stand-alone, stand-alone with 7-day program and KNX versions tailored for use with Synco 700 via LTE-mode, for Synco living or for integration in BACS via S-mode. There is also a version available with ModBus interface.

Product range RDF/RDU stand-alone

- **RDF300 –** the **versatile** stand-alone thermostat with ON/OFF or modulating 3-position outputs
- **RDF300.02 –** also includes backlit display
- **RDF340 – modulating** thermostat operating on AC 24 V (SELV) with DC 0...10 V control outputs
- **RDF310.2 – basic** stand-alone thermostat for 2-pipe applications
- **RDF310.21–** also offers a backlit display and infrared receiver for remote control
- **RDF600 – versatile** stand-alone thermostat for use with round conduit boxes conforming to CEE/VDE with the same functionality as RDF300.02
- **RDU340 –** the **versatile** stand-alone thermostat for VAV applications with modulating DC 0...10 V and ON/OFF outputs

RDF product range, stand-alone with time program

- **RDF600T –** the **versatile** stand-alone thermostat with 7-day program and same functionality as RDF600, plus infrared receiver for remote control and backlit digital display for use with round conduit boxes conforming to CEE/VDE
- **RDF410.21 – basic** stand-alone thermostat for 2-pipe applications, with 7-day program, backlit digital display and infrared receiver for remote control

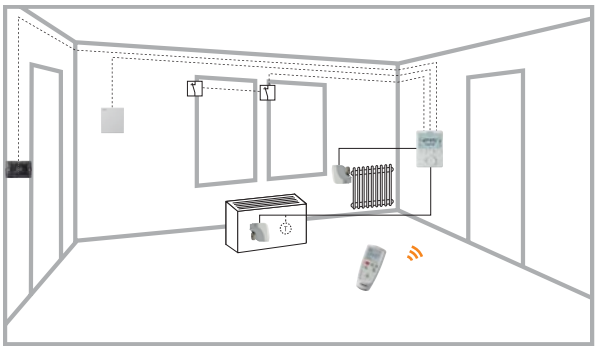
Product range RDF/RDU with bus interface

- **RDF301 – communicating** thermostat with the same functionality as RDF300, plus KNX interface and backlit display
- **RDF301.50 – communicating** thermostat with the same functionality as RDF301, plus switching groups for lighting and blind control via KNX S-mode
- **RDF600KN – communicating** thermostat for use with round conduit boxes conforming to CEE/VDE with the same functionality as RDF301
- **RDF302 – communicating** thermostat with the same functionality as RDF300, including ModBus interface
- **RDU341 – communicating** thermostat with the same functionality as RDU340, plus KNX interface

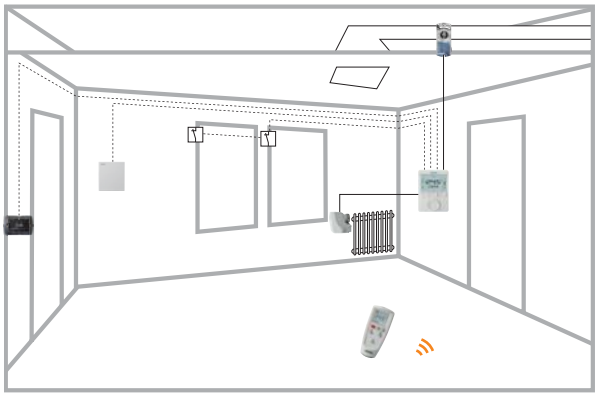
Description of applications

The RDG/RDF thermostats cover the following applications:

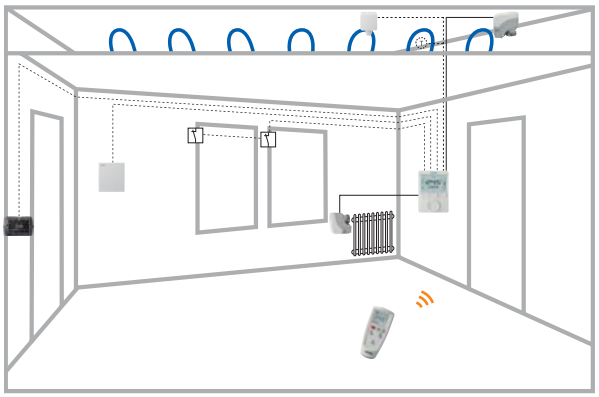
FCUs via ON/OFF or modulating control outputs:
- 2-pipe system
- 2-pipe system with electric heater
- 2-pipe system and radiator/floor heating[1]
- 4-pipe system
- 4-pipe system with electric heater[1]
- 2-stage heating or cooling system[1]



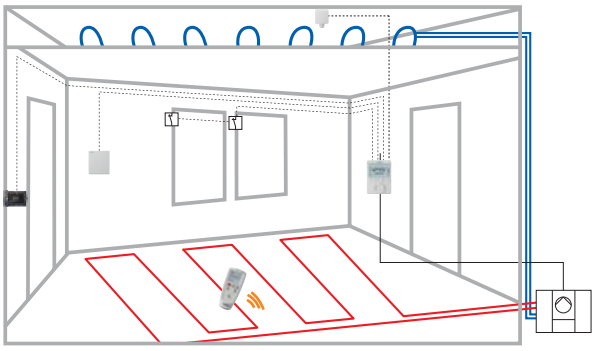
VAV systems via ON/OFF or modulating control outputs:
- Single-duct system
- Single-duct system with electric heater
- Single-duct system and radiator/floor heating[1]
- Single-duct system with heating/cooling coil[1]



Chilled/heated ceilings (or radiators) via ON/OFF or modulating control outputs:
- Chilled/heated ceiling
- Chilled/heated ceiling with electric heater
- Chilled/heated ceiling and radiator/floor heating[1]
- Chilled/heated ceiling, 2-stage heating or cooling[1]



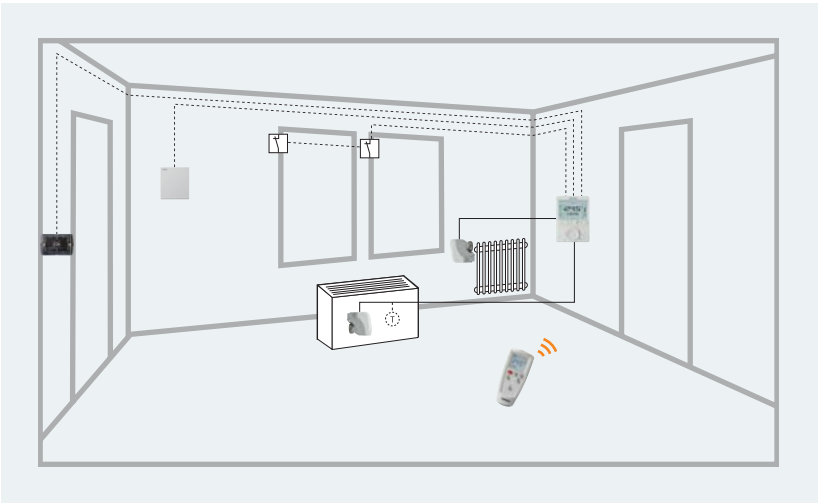
Heat pumps with DX type equipment:
- 1-stage compressor for heating or cooling
- 1-stage compressor for heating or cooling with electric heater
- 1-stage compressor for heating or cooling and radiator/floor heating[1]
- 1-stage compressor for heating and cooling with reversing valve[1]
- 2-stage compressor for heating or cooling[1]



The RDG/RDF offer extensive features and functions[2]

- Operating mode: Comfort, Economy and Protection
- Energy saving functions: external operating mode switchover, 7-day program, keycard or window contact, minimum and maximum setpoint limitation, etc.
- Numerous applications selectable via DIP switch
- Heating/cooling changeover: automatic or manual
- Control output signals: ON/OFF (triac or relay), PWM, 3-position and DC 0...10 V
- Fan control: automatic or manual fan speed for 1-speed, 3-speed or ECM[3] fan
- Fan operation: fan enable, heating only, cooling only, fan disable
- Multifunctional inputs: (function selectable)
  - External temperature sensor
  - Heating/cooling changeover sensor or switch
  - Operating mode switchover for keycard, window or time switch contact
  - Electric heater release
  - Dew point monitor
  - Fault input
- 7-day program
- Timer for prolonged presence and absence function
- Button lock
- Backlit display
- Infrared remote control
- Reminder for cleaning fan filter
- Floor temperature limitation function
- Various parameters for setpoint adjustment and control setting
- KNX communication interface: Synco700 via LTE mode, Synco living and BACS (Building Automation and Control System) via S-mode
- Switching groups for lighting and blind control via KNX S-mode
- ModBus communication interface

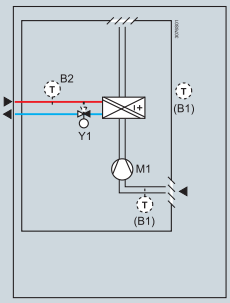
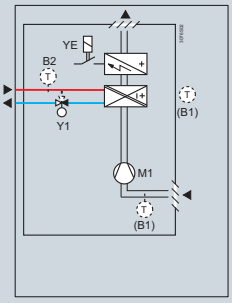
[1] Applications covered by RDG thermostats only
[2] Feature availability depends on thermostat type
[3] Electronic commutated motor, DC 0...10 V

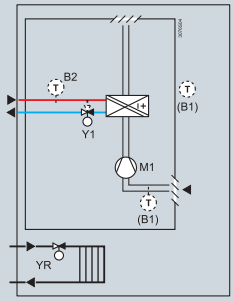
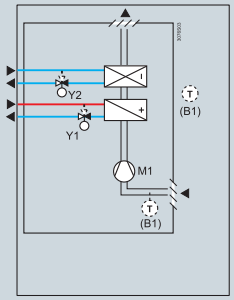
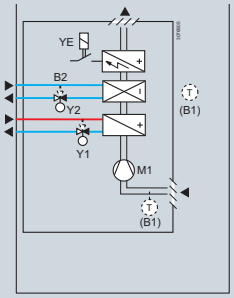
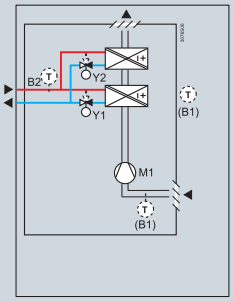


Application description

– Control sequences for heating and/or cooling, 1 or 2 stages
– Multifunctional inputs for keycard contact, external sensor, etc.
– Automatic or manual heating/cooling changeover
– Automatic or manual fan speed
– 3-speed, 1-speed and mod. (ECM) fan control (DC 0...10 V)
– Fan operation selectable in heating and cooling mode (enable, disable, heating only or cooling only)

Fan coil – application overview

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
			
2-pipe system			
	2-pipe (ON/OFF)	RDG100.. RDG110	RDF300.. RDF310.. RDF600.. RDF410..
	2-pipe mod. (PWM)	RDG100..	
	2-pipe mod. (3-pos.)	RDG100..	RDF300.. RDF600..
	2-pipe mod. (DC 0...10 V)	RDG140 RDG160KN	RDF340
	2-pipe mod. (DC 0...10 V) ECM fan control (DC 0...10 V)	RDG160..	
	2-pipe (ON/OFF) ECM fan control (DC 0...10 V)	RDG160KN	
2-pipe system with el. heater			
	2-pipe (ON/OFF), with el. heater (ON/OFF)	RDG100.. RDG110	RDF300.. RDF600..
	2-pipe (ON/OFF), with el. heater (mod. PWM or 3-pos.)	RDG100..	
	2-pipe mod. (PWM), with el. heater (ON/OFF, PWM or 3-pos.)	RDG100..	
	2-pipe mod. (3-pos.), with el. heater (ON/OFF, PWM or 3-pos.)	RDG100..	
	2-pipe mod. (DC 0...10 V), with el. heater (DC 0...10 V)	RDG140 RDG160KN	RDF340
	2-pipe mod. (ON/OFF, DC 0...10 V), with el. heater (ON/OFF, DC 0...10 V). ECM fan control (DC 0...10 V)	RDG160..	

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
2-pipe system and radiator heating			
	2-pipe (ON/OFF) and radiator (ON/OFF)	RDG100.. RDG110	
	2-pipe (ON/OFF) and radiator (mod. PWM or 3-pos.)	RDG100..	
	2-pipe mod. (PWM) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..	
	2-pipe mod. (3-pos.) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..	
	2-pipe mod. (DC 0...10 V) and radiator (DC 0...10 V)	RDG140 RDG160KN	
	2-pipe mod. (ON/OFF, DC 0...10 V) and radiator (ON/OFF, DC 0...10 V). ECM fan control (DC 0...10 V)	RDG160..	
4-pipe system			
	4-pipe (ON/OFF)	RDG100.. RDG110	RDF300.. RDF600..
	4-pipe mod. (PWM)	RDG100..	
	4-pipe mod. (3-pos.)	RDG100..	
	4-pipe mod. (DC 0...10 V)	RDG140 RDG160KN	RDF340
	4-pipe mod. (ON/OFF, DC 0...10 V). ECM fan control (DC 0...10 V)	RDG160..	
4-pipe system with el. heater			
	4-pipe (ON/OFF) with el. heater (ON/OFF)	RDG100..	
	4-pipe (ON/OFF and 3-pos.) with el. heater (ON/OFF)	RDG100..	
	4-pipe mod. (PWM) with el. heater (ON/OFF)	RDG100..	
	4-pipe mod. (PWM and 3-pos.) with el. heater (ON/OFF)	RDG100..	
2-stage, heating or cooling			
	2-stage (ON/OFF) heating or cooling	RDG100.. RDG110	
	2-stage mod. (PWM) heating or cooling	RDG100..	
	2-stage mod. (3-pos.)	RDG100..	
	2-stage mod. (DC 0...10 V)	RDG140 RDG160KN	
	2-stage mod. (ON/OFF, DC 0...10 V). ECM fan control (ON/OFF, DC 0...10 V)	RDG160..	

Abbreviations

ON/OFF:	2-position control	ECM fan:	Electronic Commutated Motor for fan, DC 0...10 V
3-pos.:	Modulating 3-position control signal	el. heater:	Electric heater
PWM:	Pulse Width Modulation control signal	mod. output:	Modulating output
DC 0...10 V:	Modulating DC 0...10 V control signal		

Fan coil – product overview

Product	Application	Stand-alone	Stand-alone with 7-day program	Communicating
Communicating				

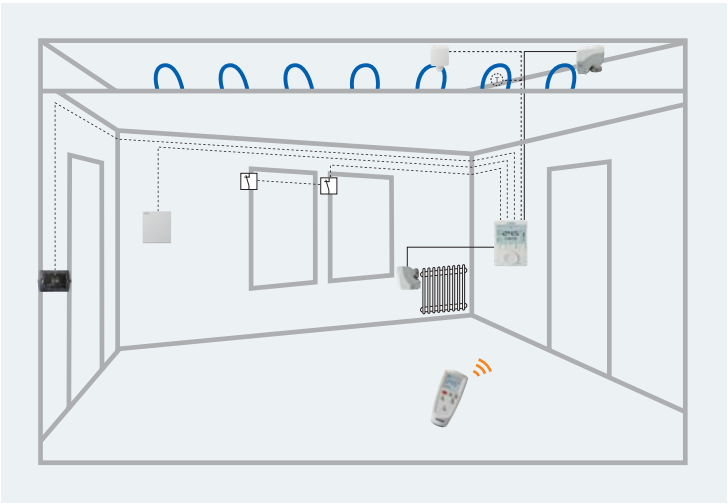
RDG100...
 	
Versatile thermostats with control output signal (ON/OFF) or mod. (PWM or 3-pos.)
	– 2-pipe (ON/OFF, PWM or 3-pos.)
	– 2-pipe with electric heater
	  – FCU: (ON/OFF, PWM or 3-pos.)
	  – el. heater: (ON/OFF, PWM or 3-pos.)
	– 2-pipe and radiator
	  – FCU: (ON/OFF, PWM or 3-pos.)
	  – radiator: (ON/OFF, PWM or 3-pos.)
	– 4-pipe (ON/OFF, PWM and/or 3-pos.)
	– 4-pipe with electric heater
	  – FCU: (ON/OFF, PWM and ON/OFF, PWM or 3-pos.)
	  – el. heater: (ON/OFF)
	– 2-stage heating or cooling
	  – FCU: (ON/OFF, PWM or 3-pos.)
		RDG100	RDG100T
			RDG100T/H
				RDG100KN
				(KNX)

RDG110 Robust thermostat with relay outputs (SPDT) for ON/OFF – control sequences	– 2-pipe (ON/OFF) – 2-pipe (ON/OFF) with el. heater (ON/OFF) – 2-pipe (ON/OFF) and radiator (ON/OFF) – 4-pipe (ON/OFF) – 2-stage (ON/OFF) heating or cooling	RDG110		
RDG140 Thermostat for mod. control sequences with (DC 0...10 V) output signals	– 2-pipe (DC 0...10 V) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 2-pipe (DC 0...10 V) and radiator (DC 0...10 V) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V) – 2-stage (DC 0...10 V) heating or cooling	RDG140		
RDG160.. Thermostat for mod. control sequences with (DC 0...10 V) output signals for valve and fan control (ECM) DC 0...10 V	– 2-pipe (DC 0...10 V) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 2-pipe (DC 0...10 V) and radiator (DC 0...10 V) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V) – 2-stage (DC 0...10 V) heating or cooling	RDG160		RDG160KN (KNX)
RDG160KN Communicating thermostat for mod. control sequences with DC 0...10 V or ON/OFF output signals for valve and fan control DC 0...10 V (ECM), 1- or 3-speed	With ECM fan control (DC 0...10 V signal) – 2-pipe (ON/OFF) – 2-pipe (DC 0...10 V) – 2-pipe (ON/OFF) with el. heater (ON/OFF) – 2-pipe (DC 0...10 V) with el. heater (ON/OFF) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 2-pipe (ON/OFF) and radiator (ON/OFF) – 2-pipe (DC 0...10 V) and radiator (ON/OFF) – 2-pipe (DC 0...10 V) and radiator (DC 0...10 V) – 4-pipe heating (ON/OFF) and cooling (ON/OFF) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V) – 2-stage (ON/OFF) heating or cooling – 2-stage (DC 0...10 V) heating or cooling With 3- or 1-speed fan – 2-pipe (DC 0...10 V) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 2-pipe (DC 0...10 V) and radiator (DC 0...10 V) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V) – 2-stage (DC 0...10 V) heating or cooling			RDG160KN (KNX)

Product	Application	Stand-alone	Stand-alone with 7-day program	Communicating
Semi flush-mounted units: RDF				
RDF300.. Versatile thermostats with relay ouputs: ON/OFF or 3-pos.	– 2-pipe – FCU: (ON/OFF or 3-pos.) – 2-pipe (ON/OFF) with el. heater (ON/OFF) – 4-pipe (ON/OFF)	RDF300..		RDF301.. (KNX) RDF302 (ModBus)
RDF310../410..* Basic thermostats for 2-pipe application	– 2-pipe (ON/OFF)	RDF310..	RDF410.21	
RDF340 Thermostat for mod. control sequences with (DC 0...10 V) output signals	– 2-pipe (DC 0...10 V) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V)	RDF340		
RDF600..* Thermostats for use with round conduit boxes conforming to CEE/VDE, with relay outputs: ON/OFF or 3-pos.	– 2-pipe – FCU: (ON/OFF or 3-pos.) – 2-pipe (ON/OFF) with el. heater (ON/OFF) – 4-pipe (ON/OFF)	RDF600	RDF600T	RDF600KN (KNX)

***Variants**

RDF300	Basic version
RDF300.02	Thermostat with backlit display
RDF301	Thermostat with KNX interface
RDF301.50	Communicating thermostat with 4 buttons for lighting and blinds
RDF310.2	Basic version
RDF310.21	Basic version with backlit display and infrared remote control
RDF410.21	Basic version with backlit display, 7-day program and infrared remote control
RDF600	Basic version for use with round conduit boxes
RDF600T	Basic version with 7-day program
RDF600KN	Communicating thermostat with KNX interface
RDF302	Communicating thermostat with ModBus interface

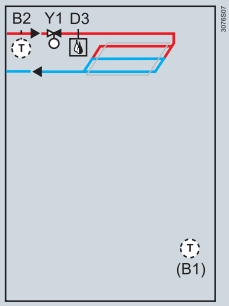
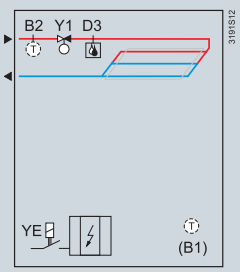


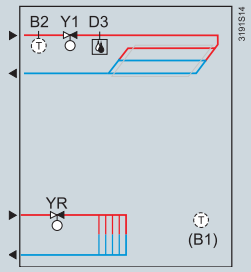
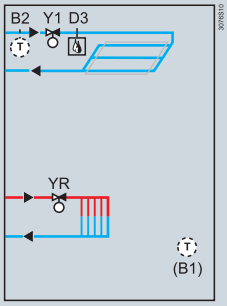
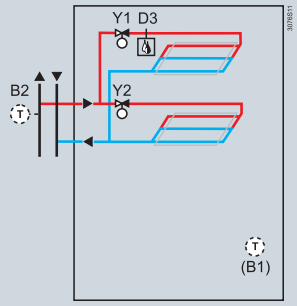
Application description

– For heating and/or cooling applications with heated/chilled ceiling or radiator
– Control sequences for heating and/or cooling, 1- or 2-stages
– Dew point monitoring
– Multifunctional inputs for keycard contact, external sensor, etc.
– Automatic or manual heating/cooling changeover

Universal – application overview

Chilled/heated ceiling or radiator

Application	Type of control outputs	RDG... Wall-mounted range
		
Chilled/heated ceiling with changeover		
	Chilled/heated ceiling (ON/OFF)	RDG100.. RDG110
	Chilled/heated ceiling, mod. (PWM)	RDG100..
	Chilled/heated ceiling, mod. (3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (DC 0...10 V)	RDG140 RDG160..
Chilled/heated ceiling and el. heater		
	Chilled/heated ceiling (ON/OFF) and el. heater (ON/OFF)	RDG100.. RDG110
	Chilled/heated ceiling (ON/OFF) and el. heater (mod. PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (PWM) and el. heater (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (3-pos.) and el. heater (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (ON/OFF, DC 0...10 V) and el. heater (ON/OFF, DC 0...10 V)	RDG140 RDG160..

Application	Type of control outputs	RDG... Wall-mounted range
Chilled/heated ceiling and radiator		
	Chilled/heated ceiling (ON/OFF) and radiator (ON/OFF)	RDG100.. RDG110
	Chilled/heated ceiling (ON/OFF) and radiator (mod. PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (PWM) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (3-pos.) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled/heated ceiling, mod. (ON/OFF, DC 0...10 V) and radiator (ON/OFF, DC 0...10 V)	RDG140 RDG160..
Chilled ceiling and radiator		
	Chilled ceiling (ON/OFF) and radiator (ON/OFF)	RDG100.. RDG110
	Chilled ceiling (ON/OFF) and radiator (mod. PWM or 3-pos.)	RDG100..
	Chilled ceiling (PWM) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled ceiling (3-pos.) and radiator (ON/OFF, PWM or 3-pos.)	RDG100..
	Chilled ceiling (ON/OFF, DC 0...10 V) and radiator (ON/OFF, DC 0...10 V)	RDG140 RDG160..
Chilled/heated ceiling with 2-stage cooling or 2-stage heating		
	2-stage (ON/OFF) heating or cooling	RDG100.. RDG110
	2-stage mod. (PWM) heating or cooling	RDG100..
	2-stage mod. (3-pos.) heating or cooling	RDG100..
	2-stage mod. (ON/OFF, DC 0...10 V) heating or cooling	RDG140 RDG160..

Abbreviations

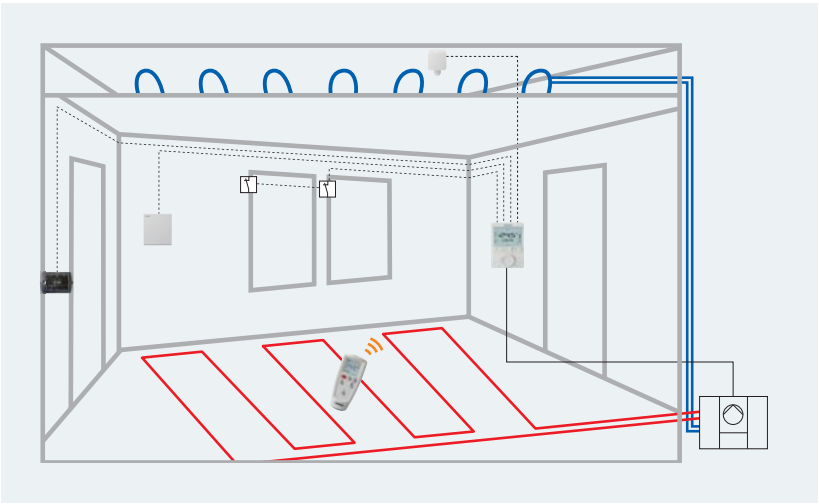
ON/OFF:	2-position control	DC 0...10 V:	Modulating DC 0...10 V control signal
3-pos.:	Modulating 3-position control signal	el. heater:	Electric heater
PWM:	Pulse Width Modulation	mod. output:	Modulating output

Universal – product overview

Product	Application	Stand-alone	Stand-alone with 7-day program	Communicating
Wall-mounted units: RDG				

RDG100...
 	
Versatile thermostats with control outputs signal ON/OFF or mod. (PWM or 3-pos.)
	– Chilled/heated ceiling (ON/OFF, PWM or 3-pos.)
	– Chilled/heated ceiling and el. heater
	  – CLC: (ON/OFF, PWM or 3-pos.)
	  – el.heater: (ON/OFF, PWM or 3-pos.)
	– Chilled/heated ceiling and radiator
	  – CLC: (ON/OFF, PWM or 3-pos.)
	  – radiator: (ON/OFF, PWM or 3-pos.)
	– Chilled ceiling and radiator
	  – CLC: (ON/OFF, PWM or 3-pos.)
	  – radiator: (ON/OFF, PWM or 3-pos.)
	– Chilled/heated ceiling 2-stage
	  – CLC: (ON/OFF, PWM and/or 3-pos.)
		RDG100	RDG100T	RDG100KN (KNX)

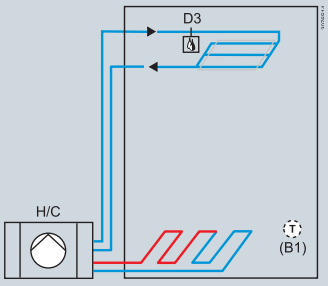
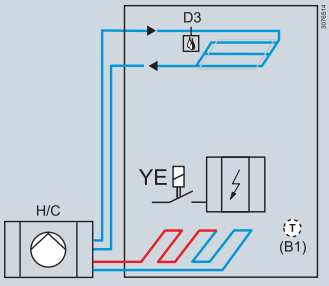
RDG110 Thermostats with relay outputs (SPDT) for (ON/OFF) control sequences	– Chilled/heated ceiling (ON/OFF) – Chilled/heated ceiling (ON/OFF) and el. heater (ON/OFF) – Chilled/heated ceiling (ON/OFF) and radiator (ON/OFF) – Chilled ceiling (ON/OFF) and radiator (ON/OFF) – Chilled/heated ceiling 2-stage (ON/OFF)	RDG110		
RDG140 Thermostat for mod. control sequences with (DC 0...10 V) outputs signals	– Chilled/heated ceiling (DC 0...10 V) – Chilled/heated ceiling (DC 0...10 V) and el. heater (DC 0...10 V) – Chilled/heated ceiling (DC 0...10 V) and radiator (DC 0...10 V) – Chilled ceiling (DC 0...10 V) and radiator (DC 0...10 V) – Chilled/heated ceiling 2-stage (DC 0...10 V)	RDG140		
RDG160.. Thermostat for mod. control sequences with (DC 0...10 V) outputs signals	– Chilled/heated ceiling (DC 0...10 V) – Chilled/heated ceiling (DC 0...10 V) and el. heater (DC 0...10 V) – Chilled/heated ceiling (DC 0...10 V) and radiator (DC 0...10 V) – Chilled ceiling (DC 0...10 V) and radiator (DC 0...10 V) – Chilled/heated ceiling, 2-stage (DC 0...10 V)	RDG160		RDG160KN (KNX)
RDG160KN Communicating thermostat for mod. control sequences with DC 0...10 V or ON/OFF output signals for valves	– 2-pipe (ON/OFF) – 2-pipe (DC 0...10 V) – 2-pipe (ON/OFF) with el. heater (ON/OFF) – 2-pipe (DC 0...10 V) with el. heater (ON/OFF) – 2-pipe (DC 0...10 V) with el. heater (DC 0...10 V) – 2-pipe (ON/OFF) and radiator (ON/OFF) – 2-pipe (DC 0...10 V) and radiator (ON/OFF) – 2-pipe (DC 0...10 V) and radiator (DC 0...10 V) – 4-pipe heating (ON/OFF) and cooling (ON/OFF) – 4-pipe heating (DC 0...10 V) and cooling (DC 0...10 V) – 2-stage (ON/OFF) heating or cooling – 2-stage (DC 0...10 V) heating or cooling			RDG160KN (KNX)

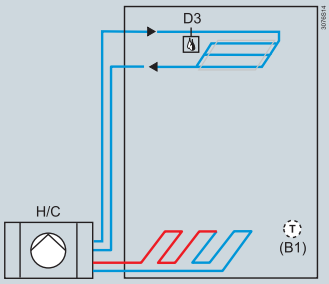
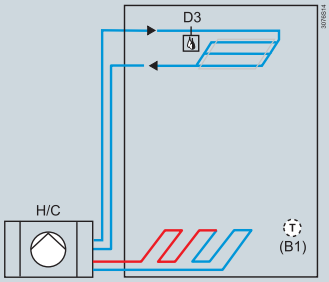


Application description

– Control sequences for heating and/or cooling, 1- or 2-stage
– Dew point monitoring
– Multifunctional inputs for keycard, contact, external sensor, etc.
– Min. ON/OFF time for compressor short cycle protection

Heat pumps – application overview

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
			
Compressor in DX-type equipment for heating or cooling			
	1-stage compressor (ON/OFF)	RDG110 RDG160KN	RDF300.. RDF310.. RDF410.. RDF600..
Compressor in DX-type equipment for heating or cooling, with el. heater			
	1-stage compressor (ON/OFF), with el. heater (ON/OFF)	RDG110 RDG160KN	RDF300.. RDF600..

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
Compressor in DX-type equipment heating and cooling			
	1-stage compressor (ON/OFF) for heating and cooling	RDG110 RDG160KN	RDF300.. RDF600..
	1-stage compressor (ON/OFF) for heating and cooling with reversing valve	RDG110	
Compressor in DX-type equipment, cooling or heating, 2-stage			
	2-stage compressor (ON/OFF) for heating or cooling	RDG110 RDG160KN	

Abbreviation

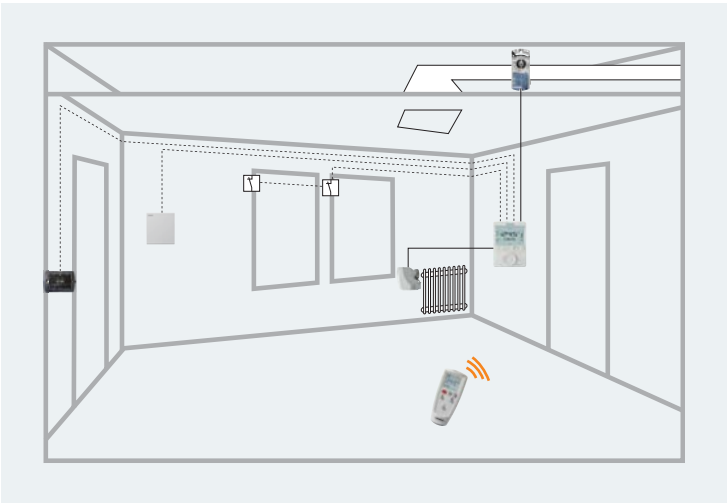
ON/OFF: 2-position control
el. heater: Electric heater

Heat pumps – product overview

Product	Application	Stand-alone	Stand-alone with 7-day program	Communicating
Wall-mounted units: RDG				
RDG110 Thermostat with relay output (SPDT) to ON/OFF control sequences	– 1-stage compressor (ON/OFF) for heating or cooling – 1-stage compressor (ON/OFF), with el. heater (ON/OFF) – 1-stage compressor (ON/OFF) for heating and cooling – 1-stage compressor (ON/OFF) for heating and cooling with reversing valve – 2-stage compressor (ON/OFF) for heating or cooling	RDG110		
RDF600..* Thermostats for use with round conduit boxes conforming to CEE/VDE, with relay outputs: ON/OFF	– 1-stage compressor (ON/OFF) for heating or cooling – 1-stage compressor (ON/OFF), with el. heater (ON/OFF) – 1-stage compressor (ON/OFF) for heating and cooling	RDF600	RDF600T	RDF600KN (KNX)
Semi flush-mounted units: RDF				
RDF300../400..* Versatile thermostats with relay ouputs: ON/OFF	– 1-stage compressor (ON/OFF) for heating or cooling – 1-stage compressor (ON/OFF), with el. heater (ON/OFF) – 1-stage compressor (ON/OFF) for heating and cooling	RDF300..		
RDF310.. Basic thermostats for 1-stage compressor	– 1-stage compressor(ON/OFF) for heating or cooling	RDF310..	RDF410..	
RDG160KN Communicating thermostat with relay output: ON/OFF	– 1-stage compressor (ON/OFF) for heating or cooling – 1-stage compressor (ON/OFF), with el. heater (ON/OFF) – 1-stage compressor (ON/OFF) for heating and cooling – 2-stage compressor (ON/OFF) for heating or cooling			RDG160KN (KNX)

***Variants**

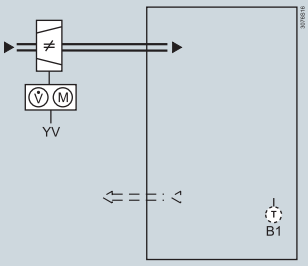
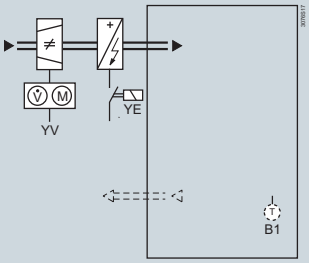
RDF300	Basic version	RDF410.21	Basic thermostat with backlit display, weekly time program and Infrared remote control
RDF300.02	Thermostat with backlit display		
RDF310.2	Basic version	RDF600	Basic version
RDF310.21	Basic thermostat with backlit display and Infrared remote control	RDF600T	Basic version with 7-day program
		RDF600KN	Communicating thermostat with KNX interface

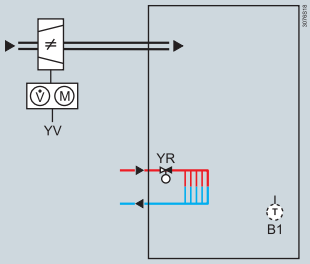
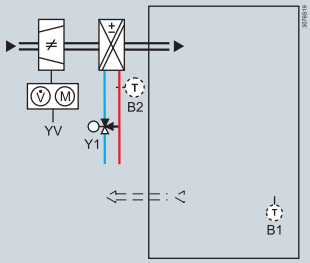


Application description

– Control sequences for heating and/or cooling
– Modulating control output DC 0...10 V or 3-pos. for VAV box/air flow controller
– Multifunctional inputs for keycard, contact, external sensor, etc.
– Automatic or manual heating/cooling changeover
– Adjustable minimum and maximum limitation of air flow signal (DC 0...10 V)
– Modulating PI control
– Output signal inversion as an option

VAV – application overview

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
			
Single duct			
	Single duct (DC 0...10 V) for VAV-box	RDG400..	RDU34..
	Single duct mod. (3-pos.) for VAV-box	RDG400..	
Single duct with el. heater			
	Single duct (DC 0...10 V) for VAV-box, with el. heater (ON/OFF)	RDG400..	RDU34..
	Single duct (DC 0...10 V) for VAV-box, with el. heater (mod. PWM or 3-pos.)	RDG400..	
	Single duct (3-pos.) for VAV-box, with el. heater (DC 0...10 V)	RDG400..	

Application	Type of control outputs	RDG.. Wall-mounted range	RDF.. Semi flush-mounted range
Single duct with radiator			
	Single duct (DC 0...10 V) for VAV-box with radiator (ON/OFF)	RDG400..	
	Single duct (DC 0...10 V) for VAV-box with radiator (mod. PWM or 3-pos.)	RDG400..	
	Single duct (3-pos.) for VAV-box with radiator (DC 0...10 V)	RDG400..	
Single duct with heating/cooling coil			
	Single duct (DC 0...10 V) for VAV-box, with heating/cooling coil (ON/OFF)	RDG400..	
	Single duct (DC 0...10 V) for VAV-box, with heating/cooling (mod. PWM or 3-pos.)	RDG400..	
	Single duct (3-pos.) for VAV-box, with heating/cooling (DC 0...10 V)	RDG400..	

Abbreviations

VAV:	Variable Air Volume system	3-pos.:	Modulating 3-position control signal
ON/OFF:	2-position control	el. heater:	Electric heater
PWM:	Pulse Width Modulation	mod. output:	Modulating output
DC 0...10 V:	Modulating DC 0...10 V control signal		

VAV – product overview

Product	Application	Stand-alone	Stand-alone with 7-day program	Communicating
Wall-mounted units: RDG				

RDG400..
 	
Versatile thermostats with control outputs signal DC 0...10 V, ON/OFF, PWM or 3-pos.
	– Single duct for VAV-box
	  – VAV: (DC 0...10 V or 3-pos.)
	– Single duct for VAV-box with electric heater
	  – VAV: (DC 0...10 V) el. heater: (ON/OFF, PWM or 3-pos.)
	  – VAV: (3-pos.) el. heater: (DC 0...10 V)
	– Single duct for VAV-box with radiator
	  – VAV: (DC 0...10 V) radiator: (ON/OFF, PWM or 3-pos.)
	  – VAV: (3-pos.) radiator: (DC 0...10 V)
	– Single duct for VAV-box with heating/cooling coil
	  – VAV: (DC 0...10 V) coil: (ON/OFF, PWM or 3-pos.)
	  – VAV: (3-pos.) heating/cooling coil: (DC 0...10 V)
		RDG400		RDG400KN
				(KNX)

Semi flush-mounted units: RDU				
RDU34.. Thermostats for mod. control sequences with DC 0...10 V and ON/OFF outputs signals	– Single duct (DC 0...10 V) for VAV-box – Single duct (DC 0...10 V) for VAV-box with el. heater (ON/OFF)	RDU340		RDU341 (KNX)

How to prepare and set up your room thermostats

Introduction

The versatile RDG and RDF room thermostats help you to better meet your customer's needs. The following information supports you in setting up your RDG and RDF thermostats.

Control parameters

A number of control parameters can be adjusted to optimize control performance and enable additional functions, making it possible to employ. The RDG and RDF thermostats in almost any type of application.

The control parameters are assigned to 2 levels:
- Service level and
- Expert level

The service level contains a small set of parameters to set up the thermostat for HVAC systems (control sequence) and to adjust the user interface.

The expert level contains control parameters for fan, control inputs/outputs and other functions. Take care when changing parameters on the expert level as these changes impact the thermostat's control performance and functionality.

TIP As a rule, you don´t need to adjust parameters once the required application is selected via the DIP switch since the thermostat works correctly using factory set parameters. It may be nevertheless necessary, in some cases, to adjust application specific parameters.
- Control sequence (P01): select heating/cooling sequence and changeover function
- Multifunctional inputs (P38...P42): select the input functionality for X1, X2 and D1
- Control outputs (P46...P47): select type of output signal (ON/OFF, PWM, 3-pos.)
- Fan function (P52...P62): select fan functionality

TIP

Installation and set up

1. Select a suitable thermostat.
2. Set application via DIP switch as per mounting instructions.
3. Wire and install the thermostat. Apply power.
4. Set parameter P01 (control sequence) and other application-specific parameters as needed.

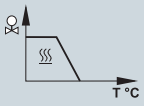
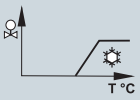
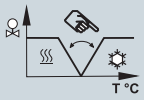
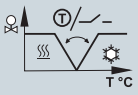
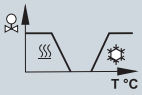
Note: ARG71 – conduit box suitable for RDF3.. and RDF4.. semi flush-mount thermostats is available as an accessory item.

Control sequence (P01)

Application-specific parameter

This parameter is used to set the required heating and/or cooling sequence and to select automatic/manual changeover. Parameter P01 is preset as follow, depending on the selected application:

– 2-pipe or single-duct application: P01: = 1 = cooling only
– 4-pipe application: P01: = 4 = heating and cooling

Sequence					
Mode	Heating only	Cooling only	Manually select heating or cooling mode	Automatic heating/cooling changeover	Heating and cooling mode
Parameter	P01=0	P01=1	P01=2	P01=3	P01=4

Multifunctional inputs (X1, X2, D1)

An NTC sensor of type NTC such as QAH11.1 (AI) or a switch (DI) can be connected to the input terminals. Input functionality can be freely configured. The factory settings are as follows:

	RDG range	RDF range
P38: Multifunctional input X1	External temperature sensor (1)	Operating mode switchover (3)
P40: Multifunctional input X2	Heating/cooling changeover (2)	Heating/cooling changeover (2)
P42: Multifunctional input D1	Operating mode switchover (3)	N/A

Available function on X1, X2 and D1

	Function of inputs	Description
1	External/return air temperature (AI) (not available for input D1)	Temperature sensor input for – External room temperature – Return air temperature – Floor temperature sensor to limit the heating output
2	Heating/cooling changeover (AI/DI)	Automatic heating/cooling changeover sensor or switch
3	Operating mode switchover (DI)	Digital input to switch the operating mode to Economy
4	Dew point monitor (DI)	Digital input for a dew point sensor to monitor condensation
5	Enable electric heater (DI)	Digital input to enable/disable the electric heater via remote control
6	Fault (DI)	Digital input to signal a fault on the display (e.g. dirty air filter)
7	Monitoring input (digital)	Digital input to monitor the state of an external switch via bus (only for communicating variants)
8	Monitoring input (temperature)	Sensor input to monitor the state of an external sensor (e.g. QAH11.1) via bus (only for communicating variants)

Control outputs (P46...P47)

– The RDG100.. offers two control outputs, each of either type On/Off, PWM or 3-position. To select the required type, use the DIP switch and P46 (1st control output) and/or P47 (2nd control output).
– The RDG400.. for VAV applications offers two control outputs, DC 0...10 V and either ON/OFF, PWM or 3-position. To select the required type use the DIP switch and P46 (reheater/cooler control output) and/or P47 (damper actuator, DC 0...10 V or 3-pos.).

Fan function (P03, P52...P62, P67):

RDG and RDF offer an extensive fan control concept with a wide choice of functions and features. The required options can be selected via the control parameters:

- Fan mode automatic-manual or manual only (P03)
- Fan active in cooling mode only, active in heating mode only, disable (P52)
- Control output for 3-speed/1-speed fan (P53)
- Control output for ECM fan, DC 0...10 V signal (P55...P57) on RDG160..
- Fan minimum on time (P59)
- Operation in dead zone for conjunction with return air sensor or to avoid damage due to moisture (P60, P61)
- Fan start kick from standstill to overcome inertia and friction (P58)
- Fan overrun to avoid overtemperatures after the electric heater turned off (P54)
- Fan start delay by ON/OFF control to avoid cold or warm air (P67)

Note: Fan operation must be disabled via control parameter (P52) for universal application.

Parameters on communicating thermostats

On communicating thermostats, control parameters can be downloaded via ACS and ETS Service Tools.

Note: RDG/RDF require an external KNX bus power supply if connected via OCI700.

Diagnostic parameters

TIP After installing and setting up the thermostat, you can check your configuration by going to the "Expert" level and selecting the diagnostic parameters dxx (d01, d02, etc.).

Communicating, KNX thermostats

In connection with Synco 700, the communicating, KNX thermostats operate in LTE-mode. The units are tailored as well for use with Synco living or for integration in BACS via S-mode. Refer to technical documentation CE1N3127 for detailed information on installing and commissioning a KNX system.

TIP **Suggestions for saving energy**

- Use thermostats with 7-day program
- Use thermostats with modulating control outputs (e.g. DC 0...10 V or 3-position)
- Use thermostats with ECM fan control (DC 0...10 V)
- Use KNX communicating thermostats
- Activate auto fan function
- Connect external operating mode switchover for central operating mode control
- Connect window contacts to avoid energy losses when windows are open
- Connect keycard contact for switching the unit to Economy mode when rooms are not occupied
- Define optimum setpoint limitations (heating max. 20 °C, cooling min. 25 °C) to minimize energy usage
- In application with electric heater, use function "Electric heater enable" (P38, P40...)
- Inform enduser of prolonged absences and presence function

FAQ

Where are the DIP switches located?
On RDG, the DIP switches are located at the rear of the unit; on RDF semi flush-mount thermostats, they are located on the inner side of the front panel.

Where do I find the correct DIP switch position?
Refer to the Mounting Instructions and on the product.

How can I set the parameters?
The procedure for setting the parameters (service or expert level) is described in the basic documentation of the thermostats.

When do I have to set the control parameters?
You generally do not need to adjust parameters since the unit works correctly using the factory-set parameters. Nevertheless, in some rare cases, you may need to adjust the application-specific parameters during commissioning to enable desired functions. For that, access the expert level. Refer to technical documentation for detailed information. The control parameters on the service level for HVAC systems and for adjusting the user interface can be accessed at any time.

Is it possible to reload the default timer setting?
Yes. The default timer setting (A1... A8) and the procedure for reloading are described in the technical documentation.

Is it possible to reset the control parameters?
Yes. The factory-set control parameters can be reloaded via parameter P71 by changing the value to “ON” and by confirming with the buttons. Refer to technical documentation for detailed information.

Can the current settings and installation be checked?
On the expert level, some diagnostic parameters (d01, d02, etc.) are available for checking the selected application, the status of the inputs and for testing the 3-position outputs. Refer to technical documentation for detailed information.

Reference to the basic documentation

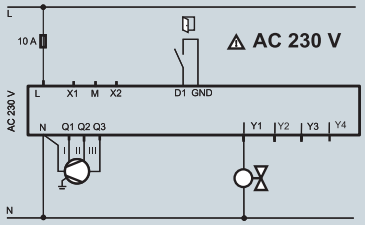
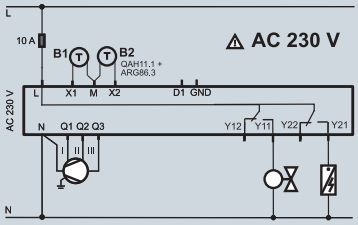
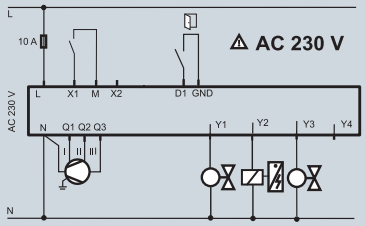
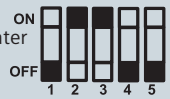
- P3076: RDF3../6.. stand-alone thermostats for FCUs
- P3171: RDF3../6.. KNX communicating thermostats for FCUs
- P3181: RDG1.. stand-alone thermostats for FCUs
- P3191: RDG1..KN KNX communicating thermostats for FCUs
- P3182: RDG400 stand-alone thermostat for VAV
- P3192: RDG400KN KNX communicating thermostats for VAV
- P3078: RDU340 stand-alone thermostat for VAV
- P3172: RDU341 KNX communicating thermostat for VAV
- P3079: RDF302 ModBus communicating thermostat for FCUs

Application examples

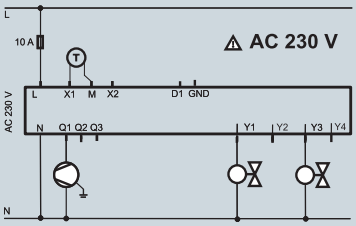
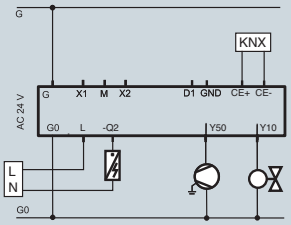
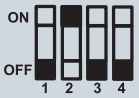
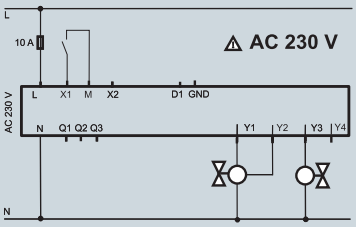
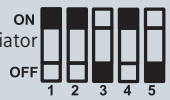
Installation and set up

1. Select a suitable thermostat.
2. Set application via DIP switch according to the mounting Instructions.
3. Wire and install the thermostat. Apply power.
4. If necessary, set parameter P01 (control sequence) and other application-specific parameters.

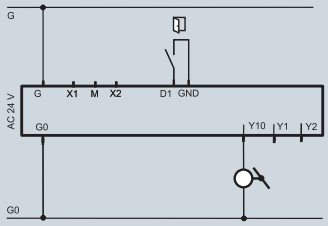
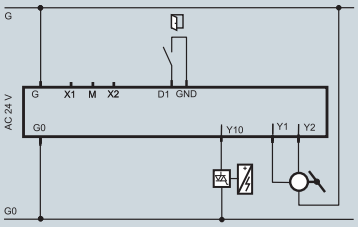
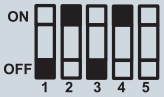
Fan coil application examples

Application	How to set the application
Fan coil unit, 2-pipe cooling only	
 – Valve actuator: ON/OFF – Keycard contact	1. Thermostat: RDG100 2. DIP switch: 2-pipe application Y1 = ON/OFF 3. Wiring: Actuator → Y1-N Fan → Q1...Q3-N Key card → D1-GND 4. Parameters: no change necessary (factory-setting)  **TIPS** – Keycard contact in hotel guest rooms helps saving energy costs – RDG100T with 7-day program – RDG100KN communicating KNX
Fan coil unit, 2-pipe with el. heater	
 – Valve actuator: ON/OFF – Heating with electric heater ON/OFF – Automatic changeover – Return air temperature sensor	1. Thermostat: RDG110 2. DIP switch: 2-pipe application, el. heater 3. Wiring: Actuator → Y11-N El. heater → Y21-N Fan → Q1...Q3-N Temp. sensor → X1-M H/C changeover sensor → X2-M 4. Parameters: P01 = 3 (automatic H/C changeover)  **TIPS** – RDG110 with relay outputs can drive direct an el. heater up to 1 kW
Fan coil, 4-pipe with el. heater	
 – Valve actuators H&C: PWM – Electric heater: ON/OFF – Electric heater enable input – Window contact	1. Thermostat: RDG100 2. DIP switch: 4-pipe application, el. heater Y1 = PWM Y3 = PWM 3. Wiring: Actuator heating → Y1-N Actuator cooling → Y3-N Contactor[1] for el. heater → Y2-N Fan → Q1...Q3-N El. heater enable → X1-M Window cont. → D1-GND 4. Parameters: P38 = 5 (El. heater Input) P46 = 2 (PWM heating) P47 = 2 (PWM cooling)  **TIPS** – Electric heater enable signal for saving energy costs – Note[1]: Add relay if load exceeds 1A!

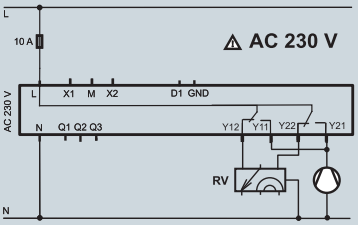
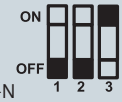
Universal application example

Application	How to set the application
FCU, 2-pipe and floor heating, single speed	
 – 2-pipe, cooling only: ON/OFF – Floor heating limitation (ON/OFF) with temperature limitation – Single speed fan	1. Thermostat: RDG100 2. DIP switch: 2-pipe application and radiator Y1 = ON/OFF Y3 = ON/OFF 3. Wiring: Actuator cooling → Y1-N Actuator heating → à Y3-N Fan → Q1-N Floor temperature sensor → X1-M 4. Parameters: P51 = 25 °C (floor Heat. Temp. limit) P53 = 1 (single speed fan)  **TIPS** – Limited heat supply to the floor to avoid overheating (DIN EN 1264) thus protecting the floor and ensuring more comfort – Select "2-pipe and el. heater" for application with electric floor heating
FCU, 2-pipe with electric heater, ECM fans, thermostat with KNX	
 – Valve actuators (DC 0...10 V) – Electric heater ON/OFF (relay) – ECM fan (DC signal)	1. Thermostat: RDG160KN 2. DIP switch: 2-pipe application, el. heater Y10 = DC 0...10 V Q2 = ON/OFF 3. Wiring: Actuator → Y10-Go El. heater → Q2-N ECM fan → Y50-Go 4. Parameters: No changes necessary (factory-setting)  **TIPS** – Modulating (ECM) fan control for optimal comfort, lower level of noise and energy costs saving – Check ECM fan max. (P55) and min. (P56)
Chilled ceiling and radiator	
 – Chilled ceiling (3-pos.) and radiator (PWM) – Dew point monitor	1. Thermostat: RDG100 2. DIP switch: 2-pipe application and radiator Y1/Y2 = 3-pos. Y3 = PWM 3. Wiring: Actuator cooling → Y1/Y2-N Actuator heating → Y3-N Dew point monitor → X1-M 4. Parameters: P38 = 4 (dew point input) P46 = 2 (PWM) P52 = 0 (fan disable)  **TIP** – Dew point monitoring to detect condensation. Cooling is stopped if condensation occurs.

VAV application examples

Application	How to set the application
VAV single duct, cooling only	
 – Damper actuator: 0...10 V – Window contact	1. Thermostat: RDG400 2. DIP switch: Single duct application Y10 = DC 0...10 V 3. Wiring: Actuator → Y10-Go-G Window contact → D1-GND 4. Parameters: no change (= default)  **TIP** – Window contact for saving energy during the airing of rooms
VAV single duct and el. reheater	
 – Damper actuator: 3-pos. – El. heater: DC 0...10 V – Central time switch	1. Thermostat: RDG400 2. DIP switch: Single duct application, el. heater Y10 = DC 0...10 V 3. Wiring: Actuator → Y1/Y2-G El. heater → Y10-Go Time switch → D1-GND 4. Parameters: P47 = 1 (VAV output 3-pos.)  **TIPS** – Use a central time switch (e.g. SEH62.1) to set back room temperature during non-business hours – Adjust parameter "Prolong comfort period" (P68) to allow occupant to override the central time switch, e.g. when working overtime

Heat pump application example

Compressor with reversing valve	
 – Compressor: ON/OFF – Reversing valve: ON/OFF	1. Thermostat: RDG110 2. DIP switch: 4-pipe application 3. Wiring: Compressor → Y11/Y21-N Reversing valve → Y12/Y22-N 4. Parameters: P52 = 0 (fan disable)  – Set control sequence to manual changeover (P01=2); then the user can select manually between heating and cooling

Notes

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Answers for infrastructure.

Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

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