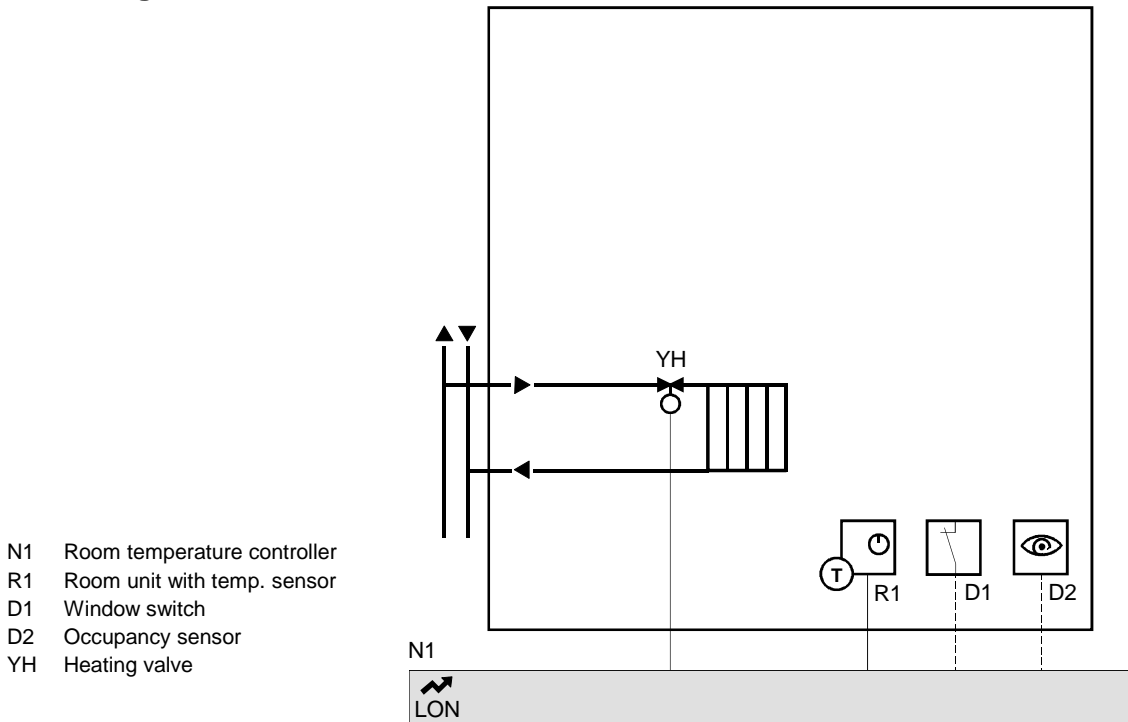


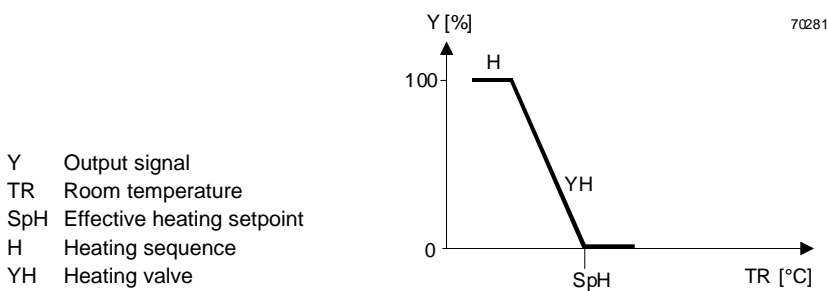


- Heating with LTHW radiator
- Modulating heating valve

Plant diagram





Sequence diagram



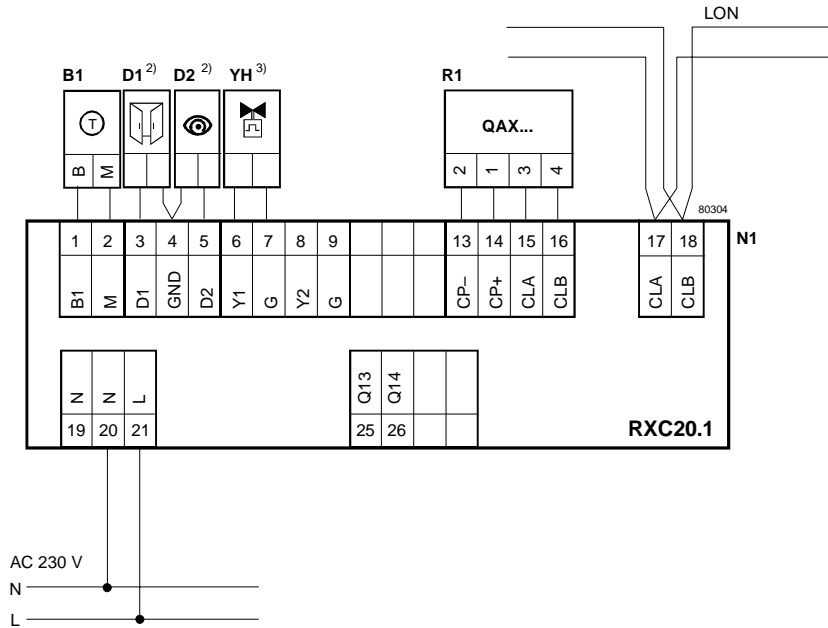
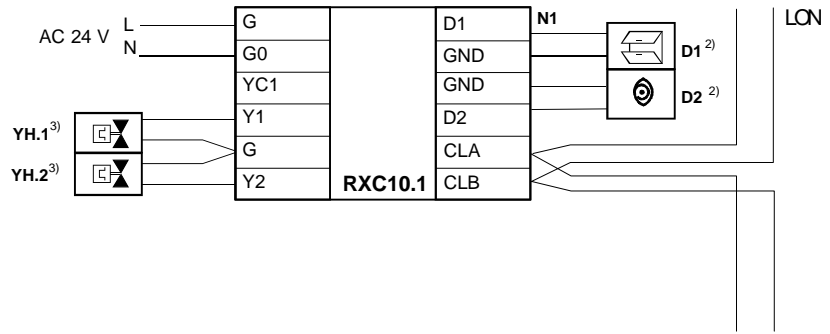
Functions

For details refer to the “RAD description of functions” at the beginning of this section (CA2A3814E00). Application RAD01 includes the following functions:

Function	Brief description	See CA2A3814E00
Proportional heating sequence	<ul style="list-style-type: none"> – PID control – Proportional heating control sequence – Control of thermic valve actuators (AC 24 V, PWM) – Valve exercising feature 	6.1
Operating modes	<ul style="list-style-type: none"> – <i>Comfort, Stand-by, Economy and Building protection</i> – Change of operating mode via /Auto switch on room unit, occupancy sensor, window contact or central command 	2, 3
Setpoint reset	<ul style="list-style-type: none"> – Locally via room unit or via central command 	4
Temperature measurement	<ul style="list-style-type: none"> – Via room unit or passive temperature sensor 	5
General functions	<ul style="list-style-type: none"> – Occupancy sensor – Window switch – Master/slave operation (<i>not with RXC10.1</i>) – Morning boost – etc. 	2.2, 7.5 2.2, 7.5 7.3 7.7
Room units	<ul style="list-style-type: none"> – Versions available with temperature sensor, setpoint adjuster, /Auto switch and LCD display 	8
Compatible controllers	RAD01 can be used in conjunction with RXC10.1 (<i>Master/slave operation excepted</i>) and RXC20.1	

Connection diagram

00227



- 2) Type of operation (N/O or N/C) can be selected
 - 3) Same sequence for both valves but valves driven alternately
- Note the maximum load for outputs Y1 and Y2: Max. load **per output** : 9.5 VA (see RXC20.1, data sheet N3834)

List of equipment

Ref.	Description	Type	Data sheet
N1	Room temperature controller	RXC10.1	3830
		RXC20.1	3834
R1	Room unit	QAX30.1	1741
		QAX31.1	1741
		QAX32.1	1641
		QAX34.1	1645
		QAX39.1	1646
		Wireless room unit Reciever	QAX90.1, 91.1 RXZ90.1
B1	Room temperature sensor	QAA24	1721
D1	Window contact ²⁾	Third-party device	-
D2	Occupancy sensor ²⁾	Third-party device	-
YH	Thermic heating valve, 2-position (PWM) control ³⁾	STE71.1	4874
		STA71	4877

- 2) Type of operation (N/O or N/C) can be selected
- 3) Note the maximum load for outputs Y1 and Y2: Max. load **per output** : 9.5 VA (see RXC20.1, data sheet N3834)

Configuration

The parameters below are available with application RAD01. They are set in the RXT10.1 commissioning and service tool in the **Device, Configure, Settings** menu option.

Menu	Parameter	Values/range	Basic setting
Temperature setpoints	Comfort heating	10 ... 35 °C	21 °C
	Stand-by heating	10 ... 35 °C	19 °C
	Economy heating	10 ... 35 °C	15 °C
	Building protection heating	10 ... 40 °C	12 °C
Sequences	Valve type	STE71.1	STE71.1
Room unit	Sensor correction	- 3 ... 3 K	0 K
	Setpoint reset range	± 0 ... 10 K	± 3 K
	Display of heating/cooling symbol		Enabled
	Temperature unit	°C or °F	°C
	Temperature display in normal mode	None / room temp. / setpoint	room temp.
	Temperature display in setpoint shift mode	Absolute or relative	Absolute
General functions	Occupancy Override Time	0 ... 90 min	30 min
	Receiver period	0 ... 105 min.	60 min.
	Send interval (heartbeat)	0 ... 105 min.	45 min.
	Occupancy sensor	Digital input 1 or 2	No occ. sensor
	Type of operation	Room occupied: Contact open or closed	Closed
	Switch-off delay	0 ... 90 min	5 min
	Switch-on delay	0 ... 90 min	5 min
	Window switch	Digital input 1 or 2	No window switch
	Type of operation	Window closed: Contact open or closed	Closed
	Master/slave	Master or Slave	Master
	Heating demand signal		Enabled
	Service LED		Enabled
	Reset shift		Disabled
	Morning boost		Enabled
LONMARK bindings	See the sections headed "LonMark network variables" and "LonMark binding templates"		

Ordering

Room controllers may be ordered either with the application described above or with the appropriate basic application. Please state the quantity, DESIGO RXC device name, type code and application.

Example 1

15 RXC20.1 individual room controllers with application RAD01 RXC20.1/RAD01

Notes

- The controllers will be delivered with the basic settings shown above.
- Minimum order quantity: 10 controllers

Example 2

2 RXC20.1 room controllers RXC20.1 / 00020

Notes

- The controllers will be delivered with the basic application
- The application can be loaded into the controllers by means of the RXT10.1 tool
- Minimum order quantity: 1 controller