

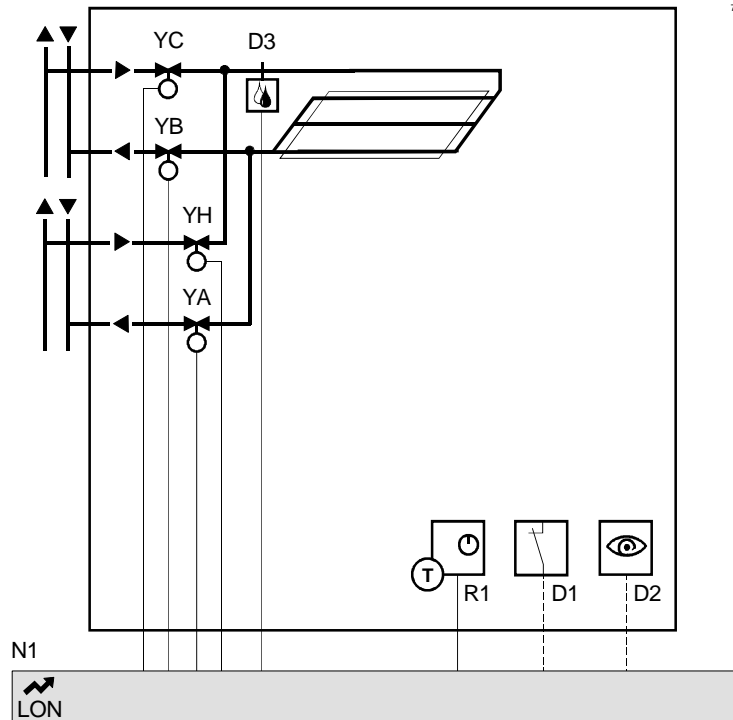
Chilled/heated ceiling, 4-pipe system with 2 change-over valves

CLC08



- Heating or cooling with heated/chilled ceiling
- Change-over with two on/off valves
- Modulating control of heating and cooling valve
- Dew point monitoring

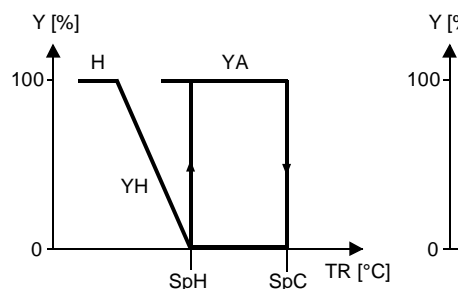
Plant diagram



- N1 Room temperature controller
- R1 Room unit with temp. sensor
- D1 Window switch
- D2 Occupancy sensor
- D3 Dew point sensor
- YC Cooling valve
- YH Heating valve
- YB Change-over valve, cooling
- YA Change-over valve, heating

Sequence diagram

- Y Output signal
- TR Room temperature
- SpH Effective heating setpoint
- SpC Effective cooling setpoint
- H Heating sequence
- C Cooling sequence
- YC Cooling valve
- YH Heating valve
- YB Change-over valve, cooling
- YA Change-over valve, htg.

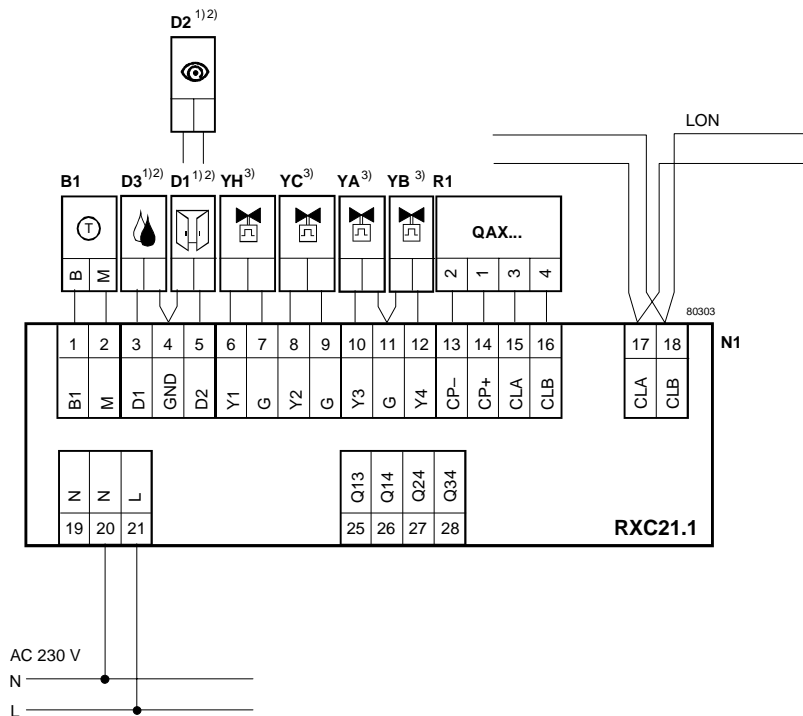


Functions

For details refer to the “CLC” description of functions at the beginning of this section (CA2A3815E00). Application CLC08 includes the following functions:

	Brief description	See CA2A3815E00
Proportional heating and cooling sequence (4-pipe system with 2 on/off valves)	<ul style="list-style-type: none"> – PID control – Two proportional control sequences, heating and cooling – Change-over with two on/off valves – Control of thermic valve actuators (AC 24 V, PWM) – Valve exercising feature 	6.3 6.4 6.6
Dew point sensor	– Dew point sensor to prevent condensation formation	6.5
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	– Locally via room unit or via central command	4
Temperature measurement	– Via room unit or passive temperature sensor	5
General functions	<ul style="list-style-type: none"> – Occupancy sensor – Window switch – Master/slave operation – Boost, night cooling – etc. 	2.2, 7.4 2.2, 7.4 7.2 7.6, 7.7
Room units	– Versions available with temperature sensor, setpoint adjuster, ⏻/Auto switch and LCD display	8
Compatible controllers	CLC08 can be used in conjunction with the RXC21.1	

Connection diagram



- 1) Type of operation (N/O or N/C) can be selected.
- 2) Only two of these devices are connectable (either D1 or D2).
- 3) Do not exceed the max. simultaneous load on outputs Y1 ... Y4: max. 9.5 VA (see RXC20.1, data sheet 3834).

List of equipment

Ref.	Description	Type	Data sheet
N1	Room temperature controller	RXC21.1	3834
R1	Room unit	QAX30.1	1741
		QAX31.1	1741
		QAX32.1	1641
	Wireless room unit	QAX34.1	1645
		QAX39.1	1646
	Reciever	QAX90.1, QAX91.1 RXZ90.1	1643 1644
B1	Room temperature sensor	QAA24	1721
D1	Window contact ^{1) 2)}	Third-party device	–
D2	Occupancy sensor ^{1) 2)}	Third-party device	–
D3	Dew point sensor ¹⁾ Please provide AC24V supply!	QFX21	1551
YC	Thermic cooling valve, 2-position (PWM) control ³⁾	T3W..., T4W...	4829
		STE72	4873
		STE71.1	4874
		STA71	4877
YH	Thermic heating valve, 2-position (PWM) control ³⁾	T3W..., T4W...	4829
		STE72	4873
		STE71.1	4874
		STA71	4877
YB	On/off thermic valve, 2-position	STE71.1 STA71	4874 4877
YA	On/off thermic valve, 2-position	STE71.1 STA71	4874 4877

- 1) Type of operation (N/O or N/C) can be selected
- 2) Only two of these devices are connectable (either D1 or D2)
- 3) Do not exceed the max. simultaneous load on outputs Y1 ... Y4: max. 9.5 VA (see RXC20.1, data sheet 3834).

Configuration

The parameters available with application CLC08 are shown below. 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 ¹	10 ... 35 °C	21 °C	
	Comfort cooling ¹	10 ... 35 °C	24 °C	
	Stand-by heating	10 ... 35 °C	19 °C	
	Stand-by cooling	10 ... 35 °C	28 °C	
	Economy heating	10 ... 35 °C	15 °C	
	Economy cooling	10 ... 35 °C	35 °C	
	Building protection heating	10 ... 40 °C	12 °C	
	Building protection cooling	10 ... 40 °C	40 °C	
Sequences	Valve type (heating and cooling valve)	– STE71.1 – STE72	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 Type of operation:	Digital input 1 or 2		No occ. sensor
		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 Type of operation:	Digital input 1 or 2		No window switch
		Window closed: Contact open or closed		Closed
	Dew point sensor Type of operation:	Digital input 1 or 2		No dew point sensor
		Condensation: Contact open or closed		Closed
	Master/slave	Master or Slave		Master
	Heating demand signal			Enabled
	Cooling demand signal			Enabled
	Morning boost			Enabled
Night cooling			Enabled	
Service LED			Enabled	
Reset shift			Disabled	
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 RXC21.1 individual room controllers with application CLC08 RXC21.1/CLC08

Notes

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

Example 2

2 RXC21.1 room controllers RXC21.1 / 00021

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