

CONDUCTOR W4

Installation instruction for W4.1 and W4.2

20190923

Art.No. 942428023

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Symbols

Warning/Caution!



Controller

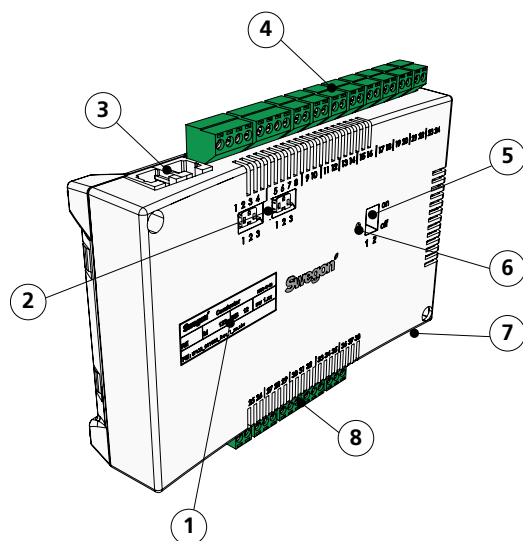


Figure 1. Overview of the Controller.

Pos 1. Product marking.

Pos 2. Termination resistance.

1 = The unit is the last node in the network

2 = The unit is the first node in the network

3 = The unit is situated between the first and last nodes

Pos 3. Modular Contact / ModBUS RTU units (pressure sensor and room unit)

Pos 4. Inputs: Wiring terminals for the connection of sensors.

Pos 5. DIP switch for ModBUS RTU.

1 (=on) boosts the controller to Modbus address 1

2 (=on) access to Modbus register via BMS system (requires a restart of the controller)

Pos 6. LED, indicates the status of the controller.

Pos 7. Input and output for signal to external relay.

Pos 8. Outputs: Wiring terminals for the connection of valve and damper actuators.

Product Identification Label

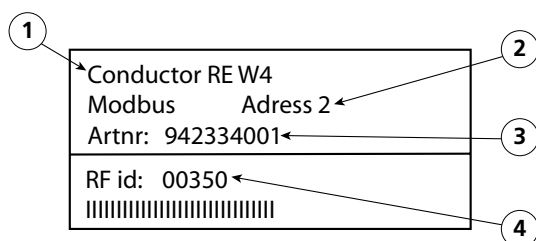


Figure 2. Product identification label on the controller.

Pos 1. Name of the product.

Pos 2. ModBus RTU address default from factory.

Pos 3. Part number.

Pos 4. Controller ID number.

To mount the controller

Mounting on a DIN rail

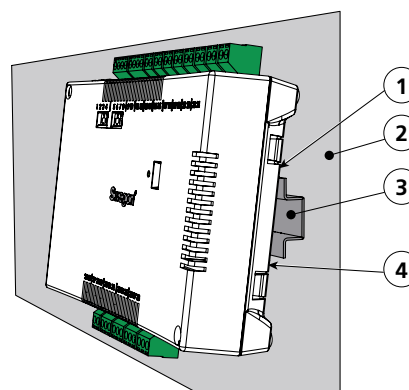


Figure 3. To mount the controller.

Pos 1. Plastic hooks

Pos 2. Supporting surface

Pos 3. DIN rail

Pos 4. Snap-on fastener.

To be installed above a false ceiling

If a DIN rail is NOT available pre-mounted or is not available, the controller can be appropriately mounted above the false ceiling (**not** on the module).

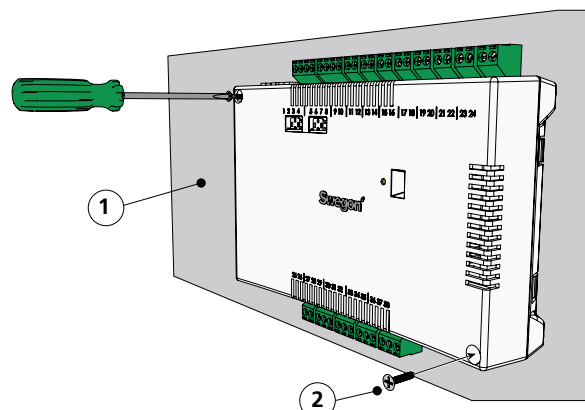


Figure 4. To mount the controller.

Pos 1. Supporting surface, NOT for the comfort module or climate beam.

Pos 2. Screws.

a. Secure the controller by means of screws in the upper left-hand and the lower right-hand corners. Use screws suitable for the supporting surface.

Wiring, W4.1 (Hotel/Office)

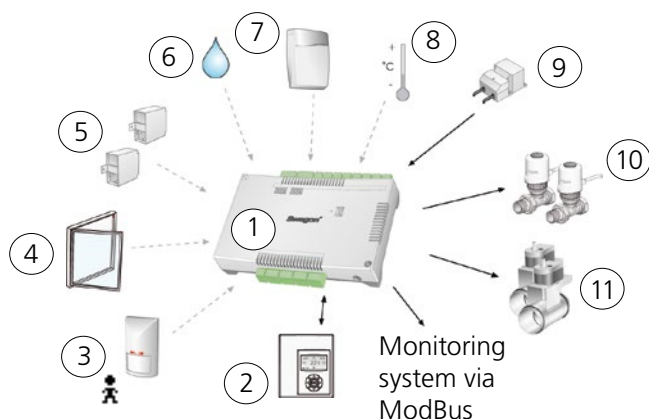


Figure 5. CONDUCTOR W4.1: Integral Components

- | | | |
|----|---|----------------------------------|
| 1 | Controller | Conductor RE |
| 2 | Room unit | Conductor RU |
| 3 | Presence detector/
Key card | DETECT Occupancy/
SYST SENSO |
| 4 | Window contact | |
| 5 | Pressure sensor | SYST PS |
| 6 | Condensation sensor | |
| 7 | CO ₂ -sensor | DETECT Quality |
| 8 | External temp. sensor | CONDUCTOR T-TG |
| 9 | Transformer | SYST TS-1 |
| 10 | Valve actuator | ACTUATOR b 24V NC |
| 11 | Ventilation damper
incl. damper actuator | CRTc -aaa-2
(aaa = dimension) |

- Connect the presence sensor, check application parameter P_1910
- Connect the window contact, check application parameter P_1909
- Connect the pressure sensor to the Modular contact. Set the address on sensor: SA1 = 3, EA = 4
- Check application parameters P_1929, P_1930 and P_1931. (P_1930 allways 0 in appli W4.1)

Room unit	RJ12	Modular contact
Pressure sensor	RJ12	Modular contact
MODBUS RS2	1	Data (B)
	2	Data (A)
	3	Earth
MODBUS RS1	5	Data (B)
	6	Data (A)
	7	Earth
Condensation sensor	17	Resistance
	18	
Temperature sensor	19	KTY
	20	
Transformer	23	+ 24V AC
	24	-G0
Window contact	25	10V
	10	10V
	26	10V
Presence detector	12	0-10V
	21	+24V AC
	22	-G0
	27	-G0
Valve actuator, cooling	29	+24V
	30	-G0
Valve actuator, heating	32	+24V
	33	-G0
Damper, supply air (SA)	34	0-10V
	35	+24V
	36	-G0
Damper, extract air (EA)	37	0-10V
	38	+24V
	16	0-10V Signal
CO ₂ -sensor	21	+24V AC
	22	-G0

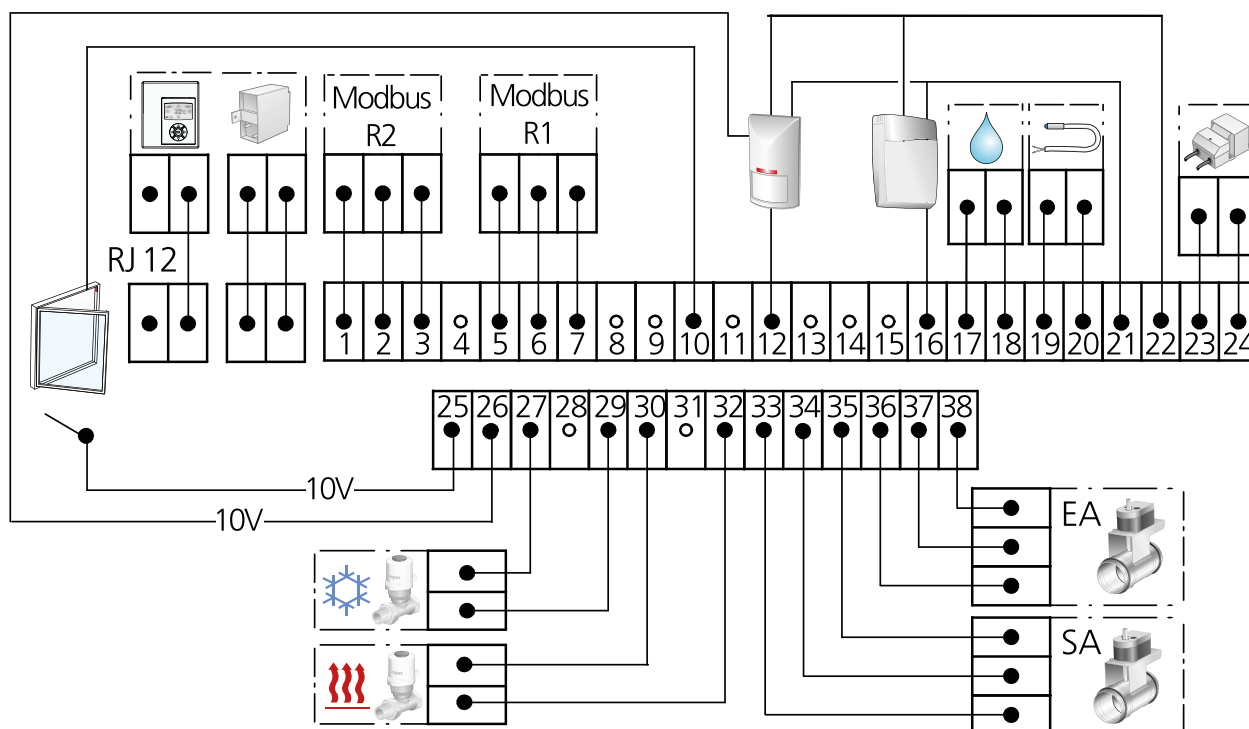


Figure 6. Wiring diagram, CONDUCTOR W4.1

Wiring, W4.2 (Conference)

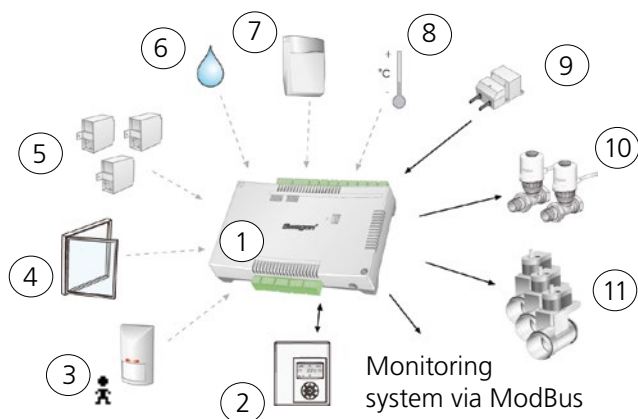


Figure 7. CONDUCTOR W4.2: Integral Components

- | | | |
|----|-------------------------|-------------------|
| 1 | Controller | Conductor RE |
| 2 | Room unit | Conductor RU |
| 3 | Presence detector | DETECT Occupancy |
| 4 | Window contact | |
| 5 | Pressure sensor | SYST PS |
| 6 | Condensation sensor | |
| 7 | CO ₂ -sensor | DETECT Quality |
| 8 | External temp. sensor | CONDUCTOR T-TG |
| 9 | Transformer | SYST TS-1 |
| 10 | Valve actuator | ACTUATOR b 24V NC |
| 11 | Ventilation damper | CRTc aaa-2 |
| | incl. damper actuator | (aaa = dimension) |

- Connect the presence sensor, check application parameter P_1910
- Connect the window contact, check application parameter P_1909
- Connect the pressure sensor to the Modular contact. Set the address on sensor: SA1 = 3, SA2 = 6, EA = 4
- Check application parameters P_1929, P_1930 and P_1931.

Room unit	RJ12	Modular contact
Pressure sensor	RJ12	Modular contact
MODBUS RS2	1	Data (B)
	2	Data (A)
	3	Earth
MODBUS RS1	5	Data (B)
	6	Data (A)
	7	Earth
Condensation sensor	17	Resistance
	18	
Temperature sensor	19	KTY
	20	
	21	
Valve actuator, heating	21	+24V
	22 X15	-G0
Transformer	23	+ 24V AC
	24	-G0
Window contact	25	10V
	10	10V
Presence detector	26	10V
	12	0-10V
	21	+24V AC
	22	-G0
Valve actuator, cooling	27	-G0
	29	+24V
Damper 2, supply air (SA2)	30	-G0
	31	0-10V
	32	+24 V
Damper 1, supply air (SA1)	33	-G0
	34	0-10V
	35	+24V
Damper, extract air (EA)	36	-G0
	37	0-10V
	38	+24V
CO ₂ -sensor	16	0-10V Signal
	21	+24V AC
	22	-G0

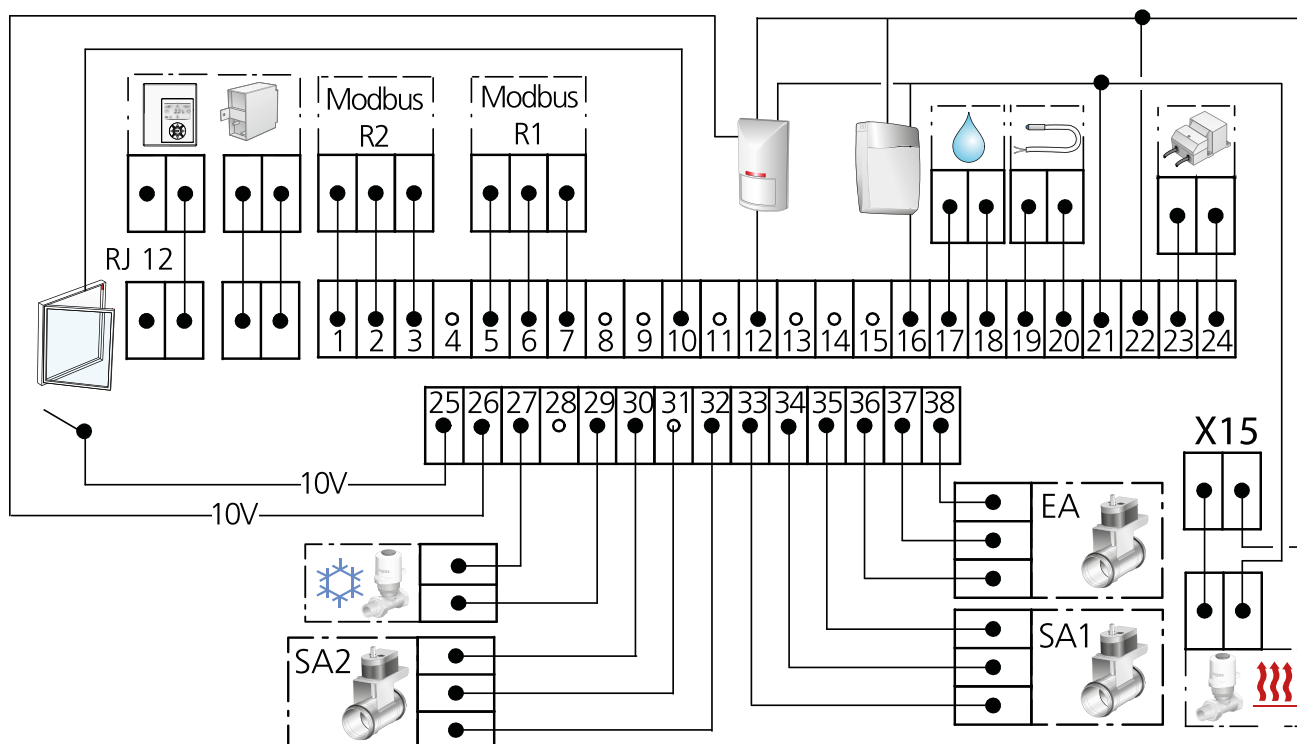


Figure 8. Wiring diagram, CONDUCTOR W4.2

Room unit

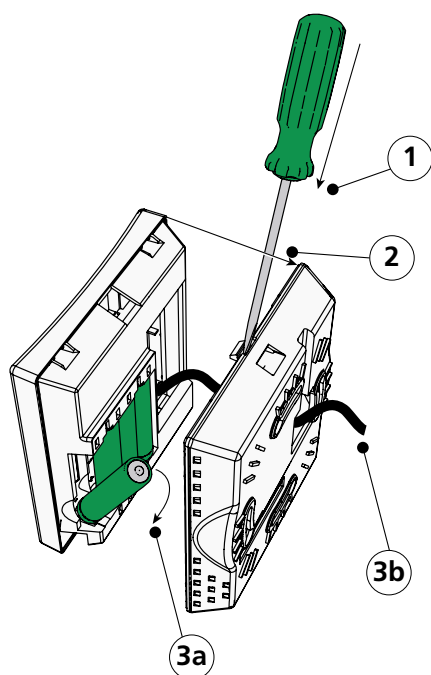


Figure 9. Wireless: 3xAAA, (pos 3a), Cable: RJ12 (pos 3b).

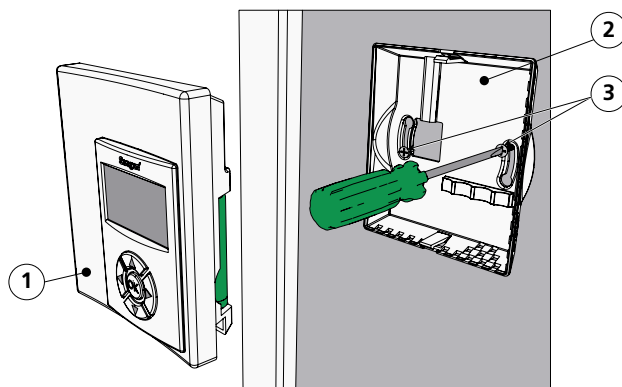


Figure 10. To mount the room unit (thermostat).

Pos 1. Front piece.

Pos 2. Back piece.

Pos 3. Screws suitable for the supporting surface.

- Recommended installation height RU = standard height for light switches
- RU should not be exposed to direct sunlight, or other disturbing heat sources.
- Room air should be able to circulate around the front and sides of the RU.

Overview over the menu system of the room unit.

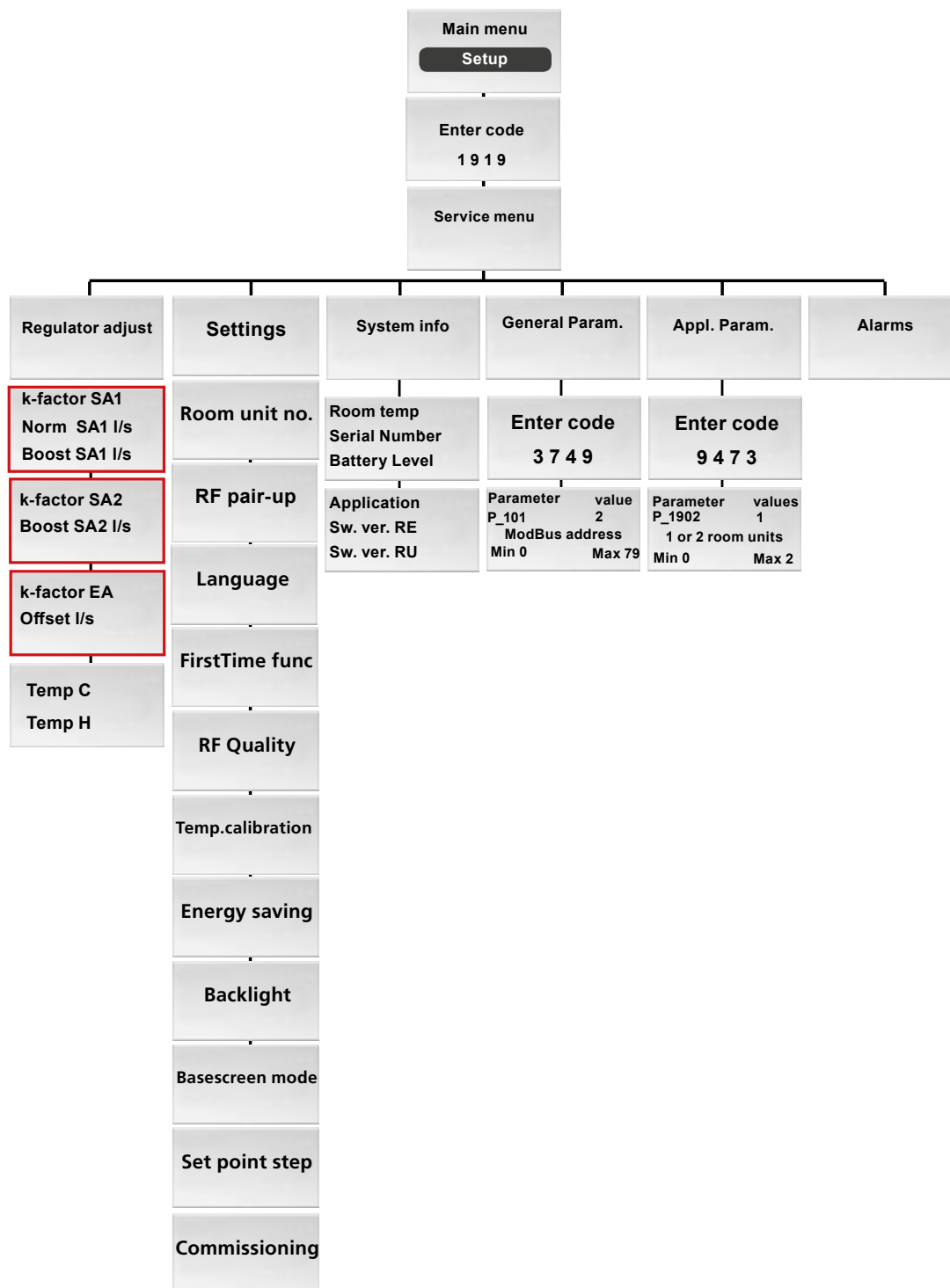


Figure 11. Overview over the menu system of the room unit.

Room unit overview

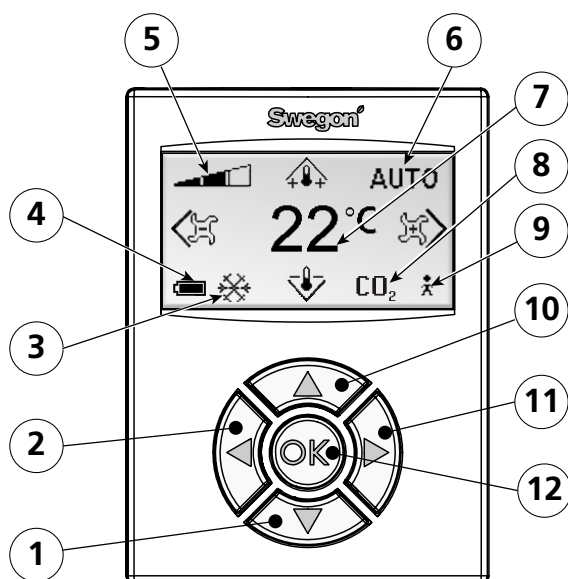


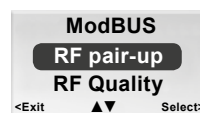
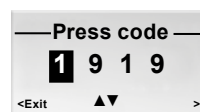
Figure 12. Overview of the main image of the room unit.

- Pos 1. Cursor key for moving DOWN.
 Pos 2. Cursor key for moving to the LEFT.
 Pos 3. Heating/cooling.
 Pos 4. Battery charge status/Window status.
 Pos 5. Current airflow.
 Pos 6. Operating mode.
 Pos 7. Current temperature.
 Pos 8. Carbon dioxide content.
 Pos 9. Occupancy status
 Pos 10. Cursor key for moving UP.
 Pos 11. Cursor key for moving to the RIGHT.
 Pos 12. OK key.

RF pair-up (When RJ12 not used)



OK 3 sek.

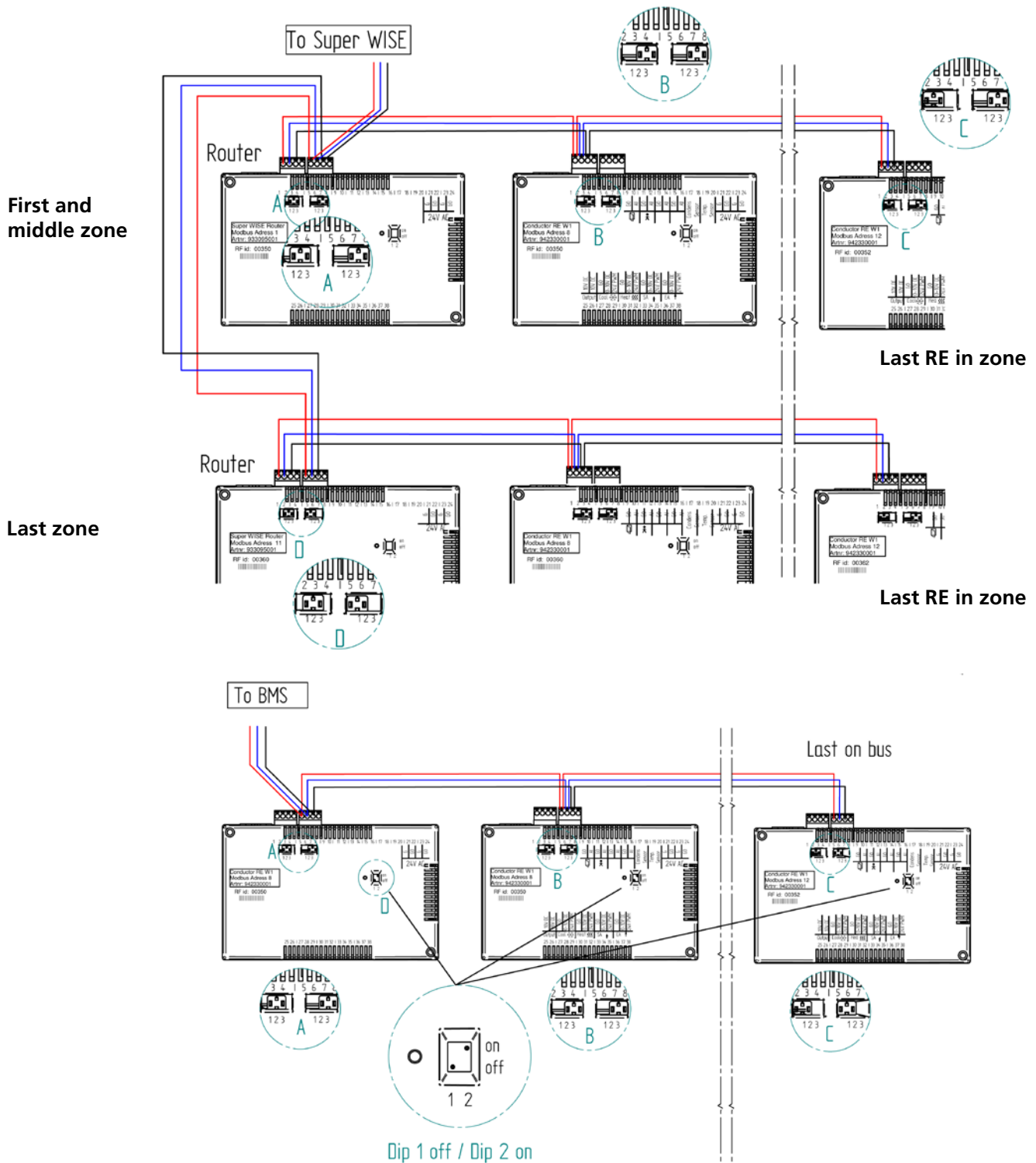


Conductor RE W4
 Modbus Address 2
 Artnr: 942334001

RF id: 00350

Product identification label
 on the controller.

Conductor to BMS and SuperWise (WISE gen.1)



WARNING:

All electrical installation, including wiring the actuators, valve actuators and various sensors is to be carried out by the electrical contractor or the systems contractor.

Safety precautions / Responsibility

It is the responsibility of the user to do the following:

- Assess all the risks involved in the activities which are related to this instruction.
- Make sure that all necessary safety precautions are made before starting the activities which are related to this instruction.

For US and Canada market

WARNING:

The power feeding shall be a Low Voltage class 2 circuit.