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CONFIGURATION FILE DESCRIPTION

CU

Produal

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PRODUAL
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Reliable measurements for building automation • 30+ years

Application note AN005

Hotel room application using Proxima CU and Proxima RU with CO_2 and humidity

Outputs

AD1: Heating 24 Vac PWM
AD2: Cooling 24 Vac PWM
AD3: 0...10 Vdc VAV CO_2 / %rH (maximum control)
AD4: 0...10 Vdc fan, 3-step (2.5 / 5.0 / 7.0 V), controlled from RU fan button
AO5: 0...10 V floor heating, controlled by cascade controller

Controller (C1)

Temperature, setpoint, CO_2 and humidity from room unit
Operation mode switch: input 2, key card (day / night)
Dead zone: ±0,5 (day mode), ±1,0 (night mode), ±3,0 (eco mode)

Cascade controller (CC)

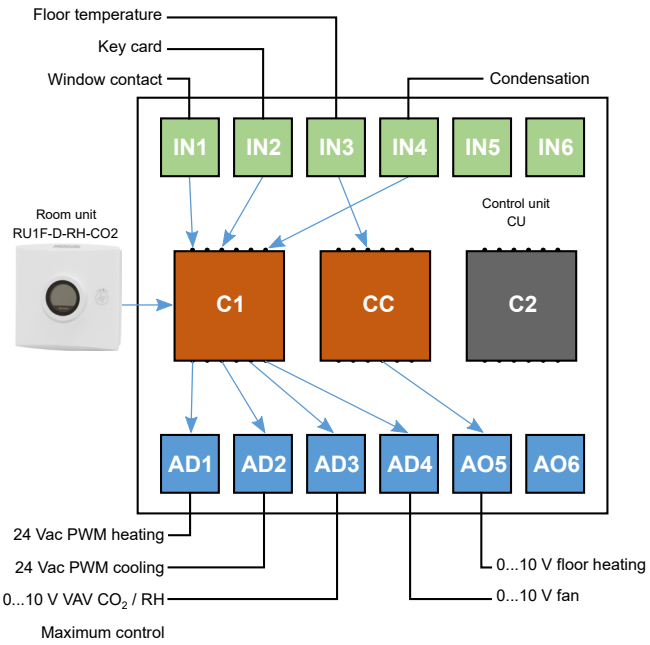
Heating, temperature sensor from input IN3, setpoint range 22...27 °C

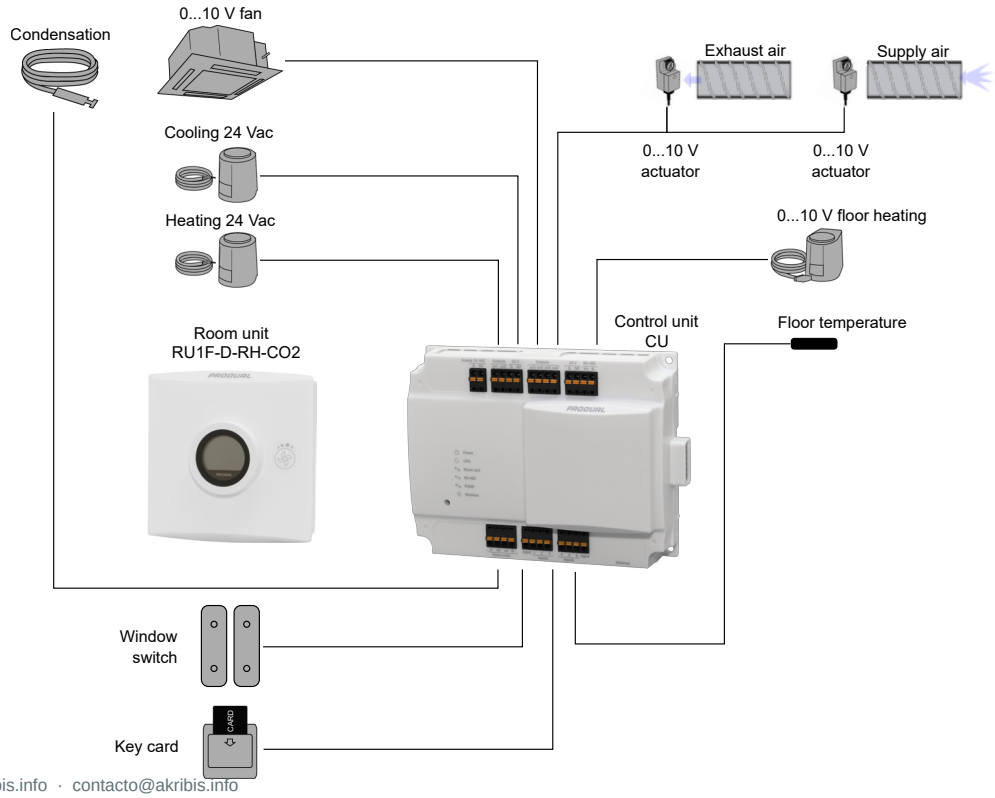
Input settings

IN1: window contact (blocks heating and fan at window open)
IN2: Key card, for operation mode switch
IN3: Floor temperature sensor for cascade controller (NTC 10K)
IN4: Condensation switch (blocks cooling at condensation)

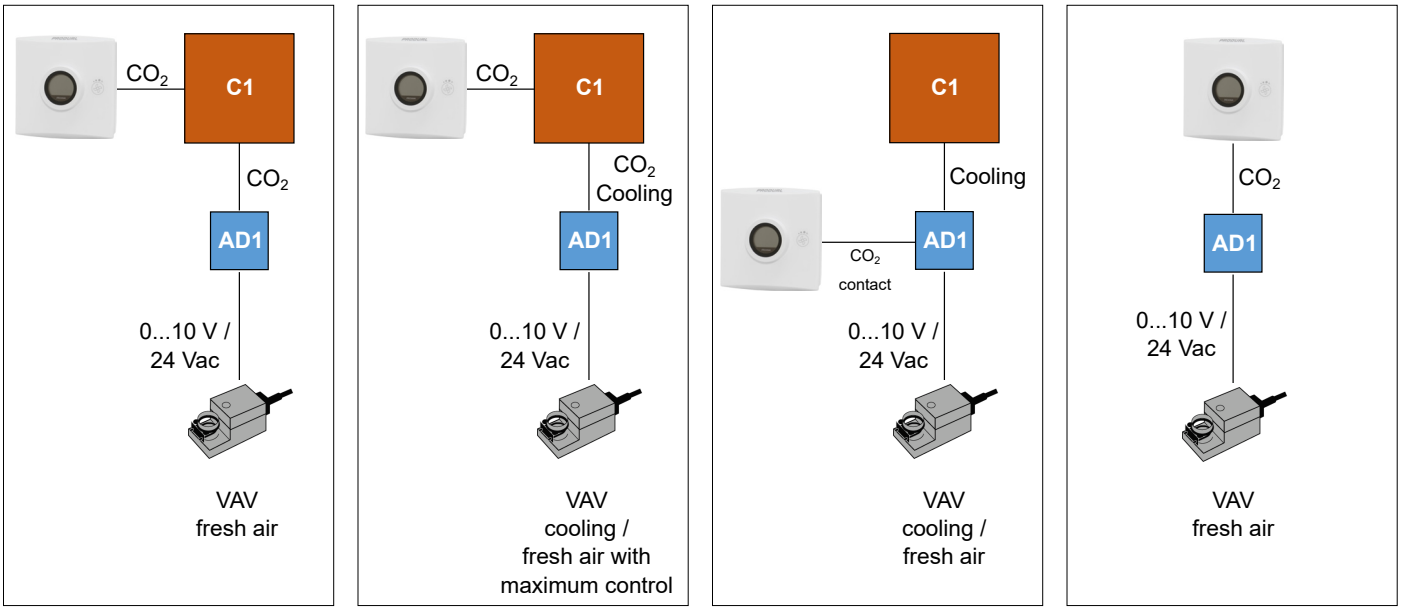
Operation modes

Day mode (checked in, quest in room) is activated with card switch.
Night mode (checked in, quest not in room) activates when the card is removed.
Eco mode is from BMS, when the room is checked out.





Different ways of using CO_2 information from Proxima RU



1. RU CO_2 -> CU controller
   Controller output controls the fresh air supply.

2. RU CO_2 -> CU controller
   Controller output controls the cooling and CO_2 level with maximum control.

3. RU CO_2 -> CU output
   CU controller controls the cooling. The CO_2 level overrides the output.

4. RU CO_2 -> CU output
   The output is controlled directly with CO_2 level from room unit.

NOTE: These examples show the use of CO_2 information from Proxima RU. The same logic applies also for relative humidity (RH models).

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