PRODUAL
measure - be sure.

Application note AN006

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

Outputs

AD1: Heating 24 Vac PWM,room 1
AD2: Cooling 24 Vac PWM, room 2
AD3: Heating 24 Vac PWM,room 2
AD4: Cooling 24 Vac PWM, room 2
AO5: 0...10 V VAV CO_2 / %rH (maximum control), room 1
AO6: 0...10 V VAV CO_2 / %rH (maximum control), room 2

Controller (C1)

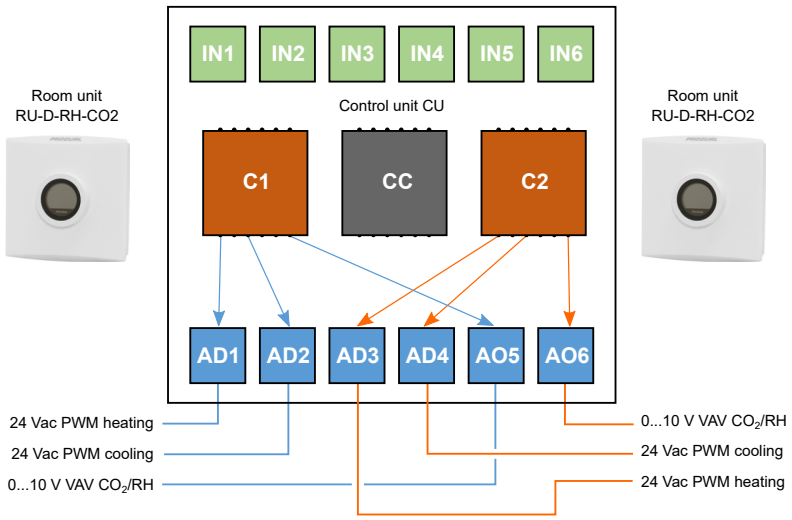
Temperature, setpoint, CO_2 and humidity from room unit 1.
Dead zone: ±0,5 (day mode), ±1,0 (night mode), ±3,0 (eco mode).

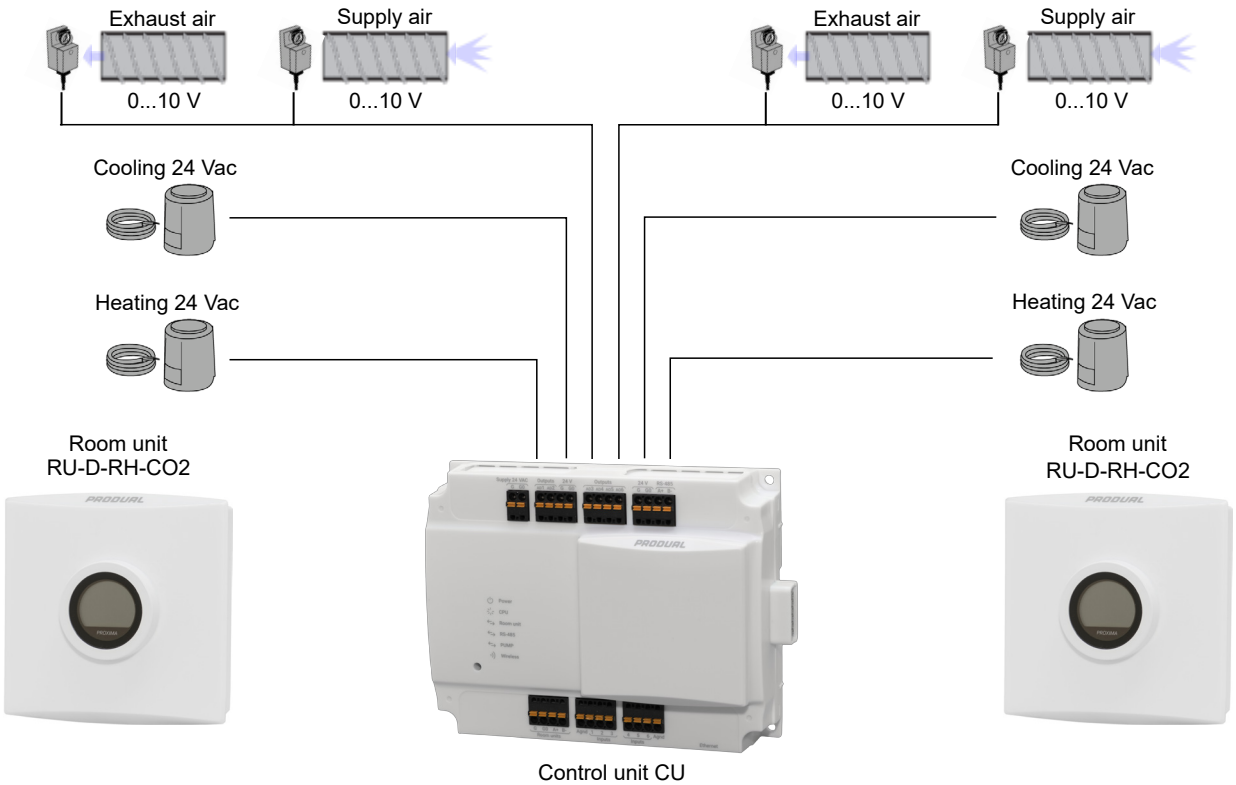
Controller (C2)

Temperature, setpoint, CO_2 and humidity from room unit 2.
Dead zone: ±0,5 (day mode), ±1,0 (night mode), ±3,0 (eco mode).

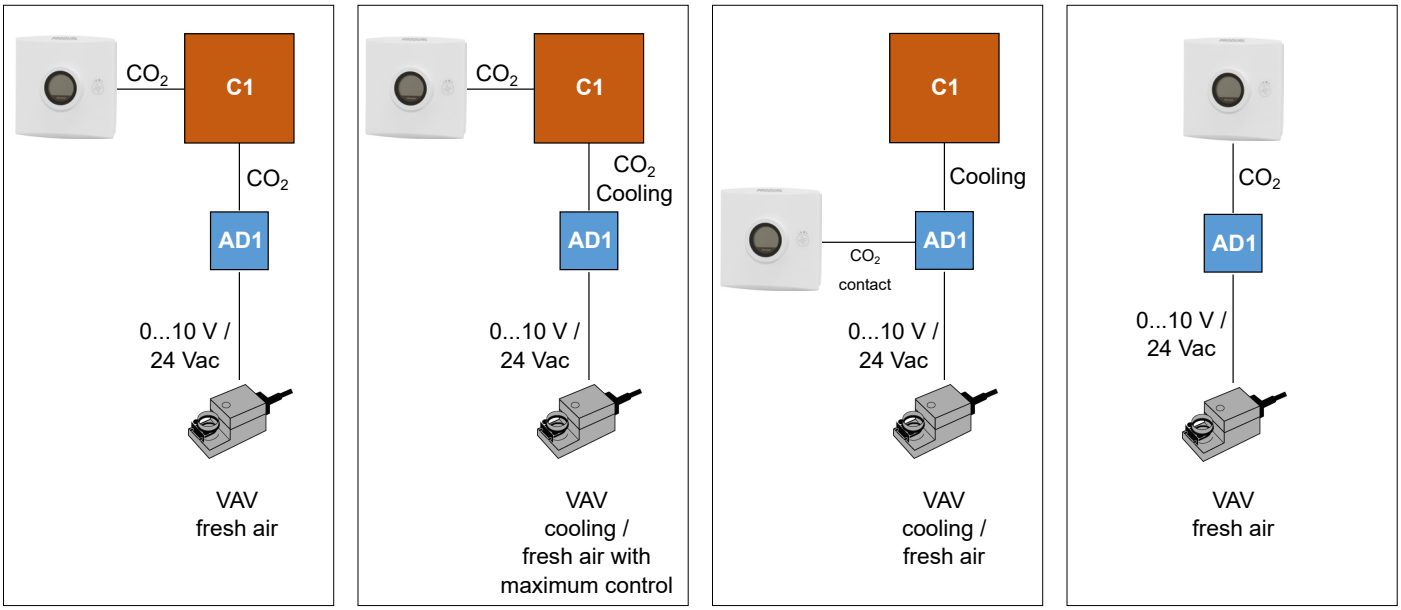
Room units

Setpoint center 21.0 °C
Setpoint range ±3 °C
Relative humidity range 40...60 %rH
CO_2 range 700...1200 ppm





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).