

# ROOM SENSORS<sup>,</sup> -CONTROL UNITS, -CONTROLS

Control component variable-volume unit CO<sub>2</sub> /RV/temperature/ventilation

### Fitting

In accordance with supplied instructions.

#### Comment

• Please consult our technical experts about extra possibilities and options.

#### Use

Solid Air supplies a complete range of room sensors, control units and controllers suitable for  $CO_2$  and/or temperature control.

In addition to the units with integrated  $CO_2$  sensor, the Belimo room controllers (thermostats) type CR24 are also available for individual use. Differential room control based on temperature.

For more general information on the possibilities of the

In various products, we refer you to the document Solid Air room sensors, control units and controllers.

#### Characteristics

- Air-quality sensors and thermostats with several functionalities.
- Direct control of the VAV system.
- Stand-alone controls or can be incorporated into buildingmanagement systems.

#### Belimo room sensors/control units for CO<sub>2</sub>/temperature control via GBS \*1

Version	Product code	Colors LED green, yellow, red	Temperature + Rel. moisture/ Dew point + CO2	Number of Analog Outputs + Standard output	MOD bus and BACNet	MP- BUS	NFC	Commissioning with Belimo Assistant App via NFC	Setpoint statement desired value for GBS. *2	power supply
White cover against unwanted adjustments	22RTM-19-1		Yes	3, linear 0-10V	No			s Yes	Temperature	24V AC/ DC
	P-22RTM-1900A-1				No					
White cover with Virtual display via Belimo Display App	P-22RTM-1U00A-2	Yes			Yes	Yes	Yes			
White cover with E-Paper like Display touch screen	P-22RTM-1900D-1				No					
	P-22RTM-1U00D-2				Yes				Temperature and ventilation	

\*1: Belimo sensors are intended to take temperature, relative humidity and CO<sub>2</sub> measurements and feed them back to the control panel control system. The control of field devices such as VAV units or reheaters must be achieved by a control system. With the above Belimo units, the lower and upper limit can be specified for the 0-10V feedback of the CO<sub>2</sub> signal.

As a result, this Belimo Sensor can be used as a stand-alone CO<sub>2</sub> sensor for control of an LMV-D3-MP (VAV unit).

\*2 Please note: this is not a controller but only a setpoint for feedback to GBS for the desired value.

#### Belimo room sensors/controllers for 'stand alone' temperature control

Thermostats	Function/version	Analogue output		
CR24-B1	Cooling only	0(2) -10 Volt		
CR24-B2	Cooling and heating	Cooling: 0 (2) - 10 Volt Heating: 3 point		
CR24-B3	Cooling and heating	Cooling: 0 (2) - 10 Volt Heating: 3 point or 0 - 10 Volt		

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## All room sensors/controllers for 'stand alone' CO<sub>2</sub>/temperature control

Version	Colors LED green yellow red	Temper- ature	Rel. mois- ture/ Dew point	CO2	Number of Analog Outputs + Standard output	Analog Output Temperature	Analog Output CO <sub>2</sub>	Direct PID control of VAV air valve with one analog output based on CO <sub>2</sub> and temperature setpoint.	MOD bus and BACNet	power supply
AT-VLC-ND-A2-RS White cover without display AT-VLC-A2-RS-VAV White cover with display and control buttons	- Yes, switchable	Yes	No	Yes, 0-2000 ppm	2, linear 0-10V	PID with set- point for stand- alone control of heat exchanger (see figure 1) or Linear for feed- back to GBS.	PID with setpoint for stand-alone con- trol (see figure 1) or Linear for feedback GBS.	No	Modbus RTU RS485	24V AC/DC
AT-VLX-A2-RS-VAV White cover with green, orange, red display based on CO <sub>2</sub> and control buttons	No LED, but photo- chromic display	but photo- chromic		Yes, 0-5000 ppm				Yes, summer/winter temperature switching (air heating/cooling) via a Modbus command is required. See Figure 2 below.		