



WLA 150

Temperature and CO₂-sensor



Natural
ventilation

Application

- Automatic indoor climate control
- Regulates after optimum temperature interval 22-23.5°C and CO₂-interval max. 975-1025ppm
- display for temperature and CO₂ level
- easy installation
- suited for offices, class rooms atriiums etc.

Sensor for temperature and CO₂ regulation by automatic opening and closing of windows equipped with window actuators and WindowMaster MotorControllers.

The sensor is mounted indoor on the wall. No special tools are required.

Description

The sensor measures the room temperature and CO₂ level and sends signals to the MotorController to open the windows if the temperature exceeds 23.5°C or the CO₂ level exceeds 1025ppm. The opening of windows is done in 10 seconds increment at 5 minute intervals, until the desired level is reached. The closing of windows is equally done in 10 seconds increments at 5 minute intervals.

Temperature

If the room temperature exceeds 23.5°C the windows will open for 10 seconds. If after 5 minutes the temperature remains above 23.5°C, the windows will open further for another 10 seconds. The process repeats itself until the

windows are fully open or the room temperature drops to less than 22°C.

As long as the CO₂ level is below 925 ppm, the sensor will stabilize the room temperature between 22 and 23.5°C, by closing or opening the windows respectively in 10 seconds increments at 5 minute intervals.

CO₂ level

If the CO₂ level rises above 1025 ppm and the room temperature is above 21°C, the windows will open for 10 seconds. If the CO₂ level remains above 1025ppm after 5 minutes, the windows will continue to open in further 10 seconds increments until the CO₂ level drops below 975ppm or the room temperature drops below 21°C.

Manuel operation

Connection of a ventilation keypad enables manual operation of the windows and thereby overriding the sensor. The ventilation keypad will override the sensor for 1 hour, after 1 hour the system will return to automatic operation.

Specifications

- measuring range:
 - temperature -20°C – +60°
 - CO₂: ±1% of measuring range ±5% of the measured value
- signal to the MotorController
- easy mounting and connection

Connection of wind / rain sensor is recommended.

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Temperature and CO₂-sensor

Technical specifications	
Supply voltage	24V AC/DC ±20% 50-60 Hz. The sensor can be supplied directly from the WindowMaster MotorController.
Power consumption	≤3W average
Output	2 x relay output. Potential free: Opening signal: NC1-NO1-Com1 Closing signal: NC2-NC2-Com2. Minimum load 1 mA/5V Maximum load 0.5 A/125V AC - 1A / 24V DC
Input	1 x Digital input, do not apply voltage. 1 mA at closed contact, 5V at open contact. Closed contact > 5 sec. switch off automatic for 1 hour
Measuring range	Temperature: -20°C – +60°C ±0,1°C CO ₂ : ±1% of measuring range ±5% of the measured value
Operating conditions	-0°C – +50°C, max. 95% relative humidity (not condensing), indoor mounting, the sensor must not be covered
Material	plastic housing
Colour	white
Dimension	83 x 120 x 31mm (W x H x D)
Connection	max. 1.5mm ² cable, screw terminals
Note	Limit values for temperature and CO ₂ respectively are programmed in the sensor and cannot be changed.
Delivery includes	sensor
Note	We reserve the rights to make technical changes

Item	Item no.
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