

**Perfect
INDOOR
CLIMATE**

The VOC wall sensor

from the OCCULOG[®] family



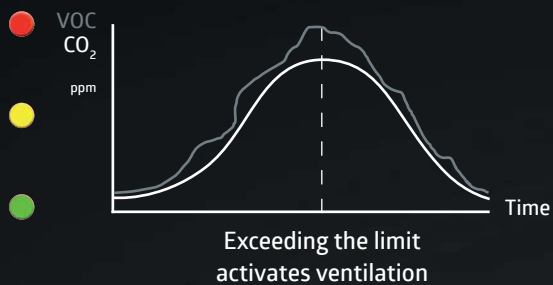
The CO₂ - control for a healthy indoor climate

The CO₂ values are determined indirectly by equivalent calculation from the VOC values.



Measurement of air quality (VOC / CO₂)

- Air quality measurement method VOC or CO₂ equivalent (CO₂eq)
- Four limit values for air quality



Temperature control

- Preset temperature curves for different heating / cooling systems
- Temperature ranges adjustable via KNX: Hot water, underfloor and electric heating, fan coil unit, split unit (air conditioning with outdoor unit)
- Extension of the duration for the comfort temperature via push-button on the device



Humidity measurement

- Four limit values for air humidity
- Control of humidity, air quality and temperature (heating / cooling)



- Ventilation mandatory
- Ventilation recommended
- Good air quality

Intuitive and clear:

The coloured LED indicator allows the current air quality to be quickly recognised from a distance by means of the traffic light colours.

Better air with the new Air Quality Sensor



Control via KNX

- Control or step mode
- Setting of control values for air quality or room temperature or room humidity via rotary knob or object
- PI controller (continuous), 2-point controller %, 2-point switching, PWM



Product information

- Display (traffic light) for air quality and humidity
- Display heating / cooling
- Output of air quality (ppm) to the bus
- Air quality measurement method VOC or CO₂ equivalent
- Output of rel. humidity (%) to the bus
- Four limit values each for humidity and air quality
- Control of humidity, air quality and temperature (heating / cooling)
- PI controller (continuous), 2-point controller %, 2-point switching, PWM
- Control or step mode
- Preset temperature curves for different heating / cooling systems
- Output of temperature (°C) to the bus
- Additional heating / cooling stage can be activated
- Different operating modes (prioritised)
- Dew point determination
- Set value limitation (temperature) via outside temperature possible
- Extension of the duration for the comfort temperature via push-button on the device
- Setting of control values via rotary knob or communication object
- Feedback as bit, byte and RHCC format
- Suitable for switch ranges 55 x 55 mm
- Adapter for switch ranges 63 x 63 mm is enclosed



Measured values for air quality

VOC (volatile organic compounds)

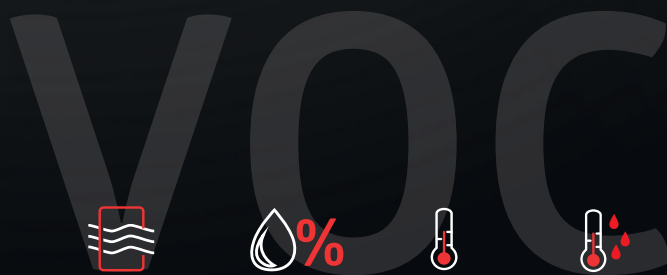
Volatile organic compounds are gaseous and vaporous substances in the air, such as hydrocarbons, alcohols, aldehydes and organic acids. These are normal components of indoor air in buildings.

CO₂

Carbon dioxide is a natural component of the air, it accumulates indoors mainly through the air breathed by living beings. However, too much carbon dioxide in indoor air can be harmful. DIN EN 13779 divides indoor air into four quality levels depending on the carbon dioxide concentration:

- < 800 ppm = good
- 800 and 1000 ppm (0.08 to 0.1 vol.-%) = medium
- 1000 to 1400 ppm = moderate
- > 1400 ppm = low

The maximum CO₂ concentration to which employees may be exposed over an 8-hour day is 5000 ppm. According to studies, a significantly increased CO₂ concentration and / or lack of ventilation in indoor spaces leads to a severe and avoidable impairment of brain performance – especially in decision-making and complex, strategic thinking – in spaces such as classrooms.



WS-VOC-HVAC-KNX 93806