

# AIR01CT/HT/CHT DETECTOR



Figure 1 : AIR01 Detector

## 1. Product Description

The AIR01 air quality detector comes in three different versions:

- AIR01CT: measures CO<sub>2</sub>-concentration (ppm) and Temperature.
- AIR01CHT: measures CO<sub>2</sub>-concentration (ppm), temperature and Relative Humidity (RH%)
- AIR01HT: measures temperature and Relative Humidity (RH%).

The CO<sub>2</sub> detector on the AIR01CHT and the AIR01CT measures the CO<sub>2</sub>-concentration in a space. The CO<sub>2</sub> content is determined by the number of people in a space (or by cooking with gas). The measured CO<sub>2</sub> value is communicated over the bus to the Controller, which can activate other modules on the bus to bring in fresh air (e.g. open a valve, open a window, ...).

The Humidity sensor on the AIR01CHT and the AIR01HT measures the relative humidity (RH%) in a room. Humidity is an indicator for air quality and is mostly applicable in wet areas (bathrooms, toilets, ...). By combining RH% with Temperature measurement, the dew point in a room can be calculated and the ventilation can be adjusted to this dew point.

For the best results, the AIR01 detectors should be used as part of the Jaga oXygen system ([www.theradiatorfactory.com](http://www.theradiatorfactory.com)).

THE MODULE SHOULD BE MOUNTED ON A VERTICAL WALL AT ABOUT 2 METERS HEIGHT, AND NOT IN A DRAFT AREA.

NEVER CONNECT OR DISCONNECT MODULES WHILE THE BUS IS ENERGIZED!

## 2. Safety Instructions

Read the complete manual before carrying out the installation and activating the system.



### WARNING

- The device must be mounted and commissioned by an authorised electrician in accordance with the country-specific regulations.
- The use of solvents should be avoided in the vicinity of the sensor.
- The device must not be opened.

## 3. Mounting and wiring

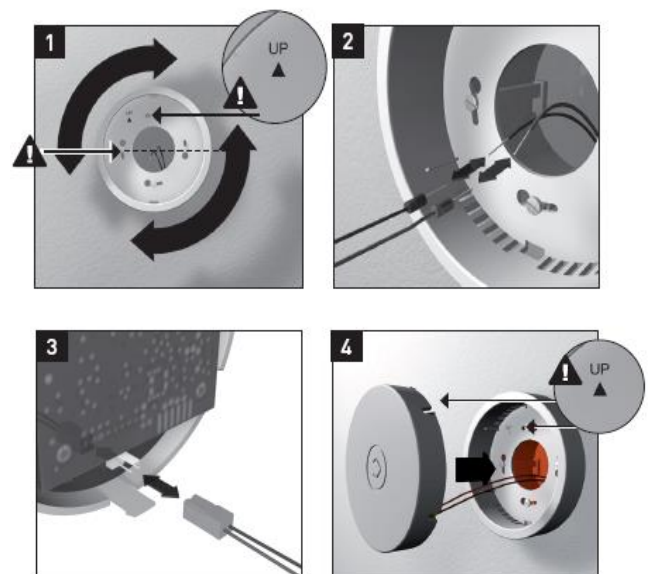


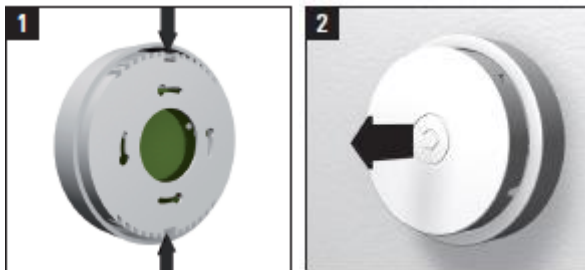
Figure 2 : Connection AIR01 Detector (image by Jaga)

Mount the AIR01 in a wall-mount box of minimum 40mm depth.

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- ❶ Make sure that the wall-recessing box of the CO<sub>2</sub> is mounted so that the openings in the box are both at the top and bottom side of the box.
- ❷❸ Connect the CO<sub>2</sub> sensor to the bus via the bus-connector.
- ❹ Gently push the top-part of the CO<sub>2</sub> connector in the wall-mounted box.

To take the front cover off, simultaneously push on the bottom and the top levers and remove the front cover as shown below:



**IMPORTANT :**  
 THE BUS MUST NEVER COME INTO CONTACT  
 WITH THE EARTHING OR A LIVE WIRE!

## 4. Technical Data

### GENERAL SPECIFICATIONS :

- Power supply : bus connection
- Ambient temperature :  
 Working temp. range : 5°C to 50°C  
 Storage temp. range : -10°C to 50°C
- Maximum humidity : 93%, no moisture condensation
- Bus load
  - AIR01CT/CHT: 50mA at nominal 13,8V
  - AIR01HT: 10mA at nominal 13,8V
- Resolution:
  - 16 ppm CO<sub>2</sub>
  - 0,4% RH
  - 0,2°C for AIR01HT and AIR01CHT; 0,5°C for AIR01CT
- Accuracy:
  - ± 75 ppm CO<sub>2</sub> @ 20°C
  - ± 3% RH @ 25°C
  - ± 1° C from 0°C to +70°C
- Maximum installation altitude : 2.000m

### PHYSICAL SPECIFICATIONS

- Housing : ABS
- Color RAL 9003
- Protection Degree : IP20, EN 60529
- Dimensions: ∅110mm x D 27mm
- Weight : 0,130 kg

## ELECTRICAL SAFETY

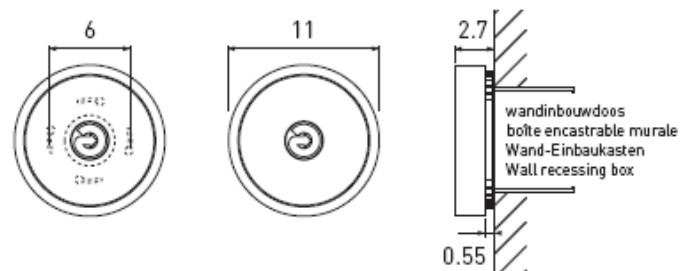
- Bus : 13,8VDC safety extra low voltage (according EN 60950 – 1 : 2006).

## CE

- Complies with the EMC regulations. The device complies with EN 61000-4-2 and 50090-2-2.

## 5. Dimension Diagram

Dimensions in mm.



## 6. Guarantee provisions

Period of guarantee : 2 years from date of delivery.

Guarantee will not be accepted if the device has been opened!

Any faulty devices should be send postage-free with a description of the defect to our central customer service office :

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