



Datasheet: CO₂ Ampel DesignHome

The microprocessor-controlled CO₂ measuring instrument is used to record the CO₂ content (0 to 9,999 ppm), temperature and humidity. The measuring signals are shown optically in the form of a display numerically or optionally as traffic light or graphically.

The CO₂ content of the air is determined by means of an optical sensor (NDIR), non-dispersive infrared technology. By using the sensor according to the dual principle, disturbances of the measurement by pollution and aging can be excluded to a large extent, so that a long function time of the device is ensured. Calibration is not necessary under normal operating conditions. Temperature and humidity serve as additional displays of information.

The application of the CO₂ traffic light DesignHome is especially recommended in private rooms, offices, teaching rooms and conference rooms, because the maximum CO₂ room air concentration is kept within limits by a controlled ventilation behavior and thus the ability to concentrate can be increased. The CO₂ traffic light DesignHome is designed as a wall device for mounting on a flush-mounted box.



Technical data

CO₂-Ampel DesignHome,
Article Number: CO₂ - A 300

Measuring methode CO₂

Dual Wavelength NDIR,
With ABC- Self calibration logic
(Werkseinstellung)

Measuring range CO₂

0–9.999 ppm

Measurement accuracy CO₂
(25°, 77°F, 3.000ppm)

± 75 ppm or 10% of the reading value (the highest value in each case)

Ansprechverhalten

< 2 Minutes for 90% step width

Measuring interval

2 sec

Temperature dependence

0,2 % / °C

Environmental conditions

0 - 50 °C, 0-95% rel. F, non-condensing

Power supply

230V VAC

Electrical connection

On-site in switch box, D 68mm, minimum depth 35mm

Power consumption

1,5 W

Housing dimensions

95 x 95 x 20 mm

weight

100 g

Mounting

Protection class

III nach EN 60730 und IP31 nach EN 60 529

Traffic light display CO₂ value(factory settings)

Wall mounting in a switch box

Green

< 1.000 ppm

yellow

1.000 up to 2.000 ppm

Rot

> 2.000 ppm

Technical modification reserved



Connection and mounting

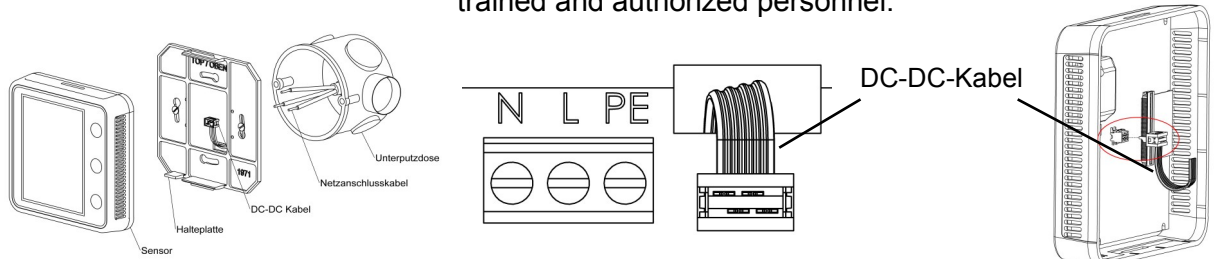
The connection is made as shown in the figure. The terminals N and L are for voltage input, the terminal PE is to be used as protective conductor. 2.

For mounting on the wall, open the sensor as shown in the figure below and fix the back plate on the device box. Mounting location: Not behind the door, near radiator or in a corner. Protect the sensor from direct sunlight and magnetic waves. 3.

Then plug the DC-DC cable from the cover to the connector on the board. 4.

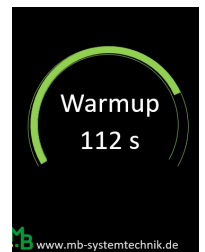
4. put the cover on and fix it with locking lugs.

Caution: Improper connection will destroy the sensor. The connection must only be carried out by trained and authorized personnel.

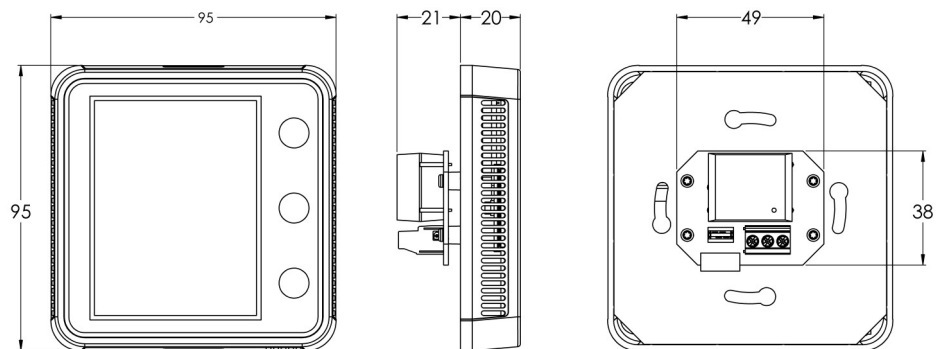


Initial start-up

After connecting the voltage, the Warm UP time starts 150s (shown on display). During initial start-up (or when not used for longer than one month), the warm-up time is 24 hours, after which the sensor operates stably. The normal warm-up time is 5 minutes.



Abmessungen

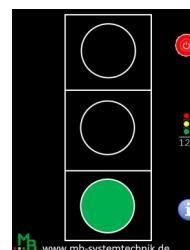
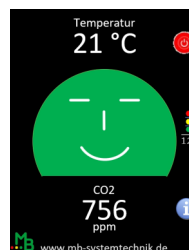
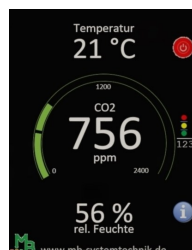


Operating Instructions CO2 Traffic Light DesignHome

With the upper button the sensor can be switched on or off.

By pressing the middle button you can choose between the three display modes (values, smilee and traffic light).

The lower button calls the info menu








Instructions

1. to protect the infrared CO2 sensor, please avoid shaking or hitting it.
2. when using for the first time or after a long period of unuse, the CO2 sensor must be turned on continuously for at least 2 days for the CO2 sensor self-calibration system to work properly.
3. the sensor will self-calibrate every 14 days when it reaches the value of 400ppm (e.g. due to extensive ventilation or prolonged non-use of the premises).

CO2– Values

-  CO2- value of the room air < 2.000 ppm
Poor air quality
Please ensure air exchange (ventilation)
-  CO2 value of the room air 1,000 to 2,000 ppm
There is a medium air quality
-  CO2 value of the room air < 1,000 ppm
No significant load

Setting the threshold values

In the info menu, pressing the middle button and the lower button simultaneously for at least 3 seconds switches to the settings menu

- The upper key is used to select the setting of the green/yellow threshold value.
- Press the middle button to return to the previous display (traffic light or numerical display).
- Press the lower key to select the yellow/red threshold setting.



Green/yellow or yellow/red applies in the Settings menu:

- Pressing the upper button increases the threshold value by 1 ppm at a time
- Pressing the lower key decreases the threshold value by 1 ppm at a time.
- Pressing the middle key terminates the setting mode
- If you press the setting keys for longer than 1 second, the threshold value changes in fast forward mode.



- In the subsequent menu, the previously set threshold value is permanently saved by pressing the upper key. The middle key has no function in this menu
- The lower key cancels the setting, i.e. the changed setting is discarded.



For more information visit our website:

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