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Datasheet: CO_2 Ampel DesignHome with table stand

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.

Technical data	CO_2 -Ampel DesignHome, Article Number: CO2 - A 300
Measuring methode CO_2	Dual Wavelength NDIR, With ABC- Self calibration logic (Werkseinstellung)
Measuring range CO_2	0–9.999 ppm
Measurement accuracy CO_2 (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	Table stand
Protection class	III nach EN 60730 und IP31 nach EN 60 529

Traffic light display CO2 value(factory settings)

Green	< 1.000 ppm
yellow	1.000 up to 2.000 ppm
Rot	> 2.000 ppm

Technical modification reserved

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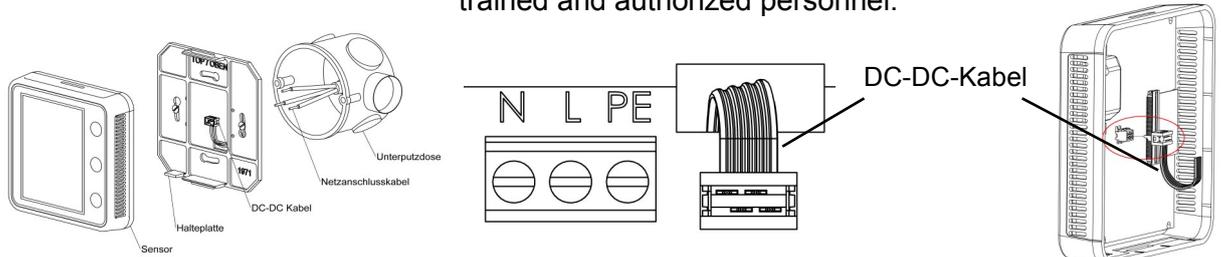
Connection and mounting

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.
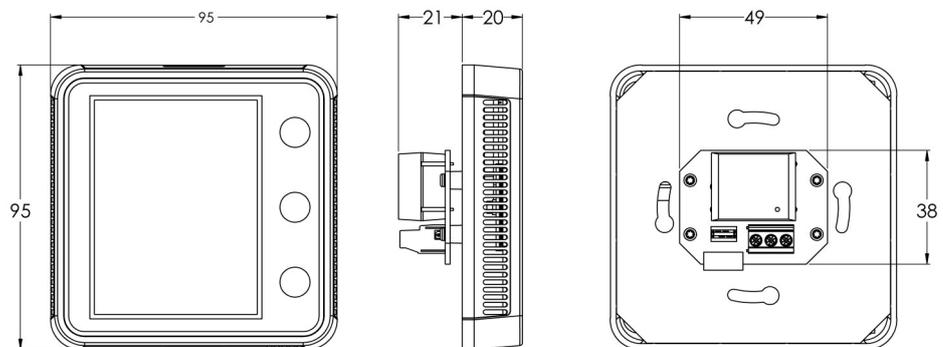
DC-DC-Kabel

Unterputzdose
Netzanschlusskabel
DC-DC Kabel
Halteplatte
Sensor

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.
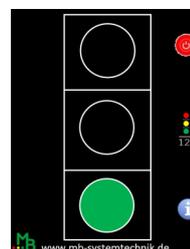
Warmup
112 s
www.mb-systemtechnik.de

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, smilie and traffic light).

The lower button calls the info menu

Temperatur
21 °C
CO2
756
ppm
56 %
rel. Feuchte
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Temperatur
21 °C
CO2
756
ppm
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www.mb-systemtechnik.de

Information
CO2 Sensor
Softwareversion x.xx.xx
grün/gelb Grenze: 1000 ppm
gelb/rot Grenze: 2000 ppm
Für Einstellungsänderung siehe Handbuch unter
www.mb-systemtechnik.de
Designed by MB-Systemtechnik
Produced by T&O Display Solution
zurück
www.mb-systemtechnik.de

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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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