

# Conny CO<sub>2</sub> Ampel®

# **Operating Instructions**





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# Foreword



Dear customer,

You have opted for the CO<sub>2</sub> Ampel<sup>®</sup>, a quality product of ISIS IC GmbH.

ISIS IC GmbH offers you products that combine maximum comfort with concentration on the essentials. Products that meet your requirements and are largely self-explanatory and easy to use. The products have also proven to be reliable, sustainable and low-maintenance.

The present operating instructions describe the structure and operation of the CO<sub>2</sub> Ampel<sup>®</sup>. Please read these operating instructions before the first commissioning and observe the safety instructions.

Thank you for your trust.

your



D. Unsenos



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# Safety



#### General

Please read the user manual completely and carefully. It must be available in the event of uncertainty and also in the event of the product being passed on. Use the CO<sub>2</sub> Ampel<sup>®</sup> only at easily accessible sockets to quickly disconnect the CO<sub>2</sub> Ampel<sup>®</sup> from the grid in an emergency. Attention: The effect of mechanical stress on the CO<sub>2</sub>Ampel<sup>®</sup> e.B. by shocks or traps canlead to damage to the sensor and the CO<sub>2</sub> Ampel<sup>®</sup> and thus to the exclusion of liability (see "Disclaimer"). Please note that even minor vibrations can have an influence on the measurement accuracy, as this has been adjusted with high precision during the production of the sensor components. This can lead to deviations in the default setting of the calibration. Depending on the severity of the impact or mechanical action, this can lead to a deviation of several hundred ppm.

#### Notes on grid separation

The product does not have a power switch and may only be used on easily accessible sockets so that it can be quickly disconnected from the mains in an emergency and after use. The CO<sub>2</sub> Ampel <sup>®</sup> is only voltage-free when the plug-in power supply is pulled.

#### Safety instructions for operation

Before connecting the plug-in power supply to the socket, please pay attention to the correct power supply (230 V protective contact socket).

The CO<sub>2</sub> Ampel <sup>®</sup> can be used by children aged 16 and over and by persons with reduced physical, sensory or mental abilities or lack of experience and knowledge if they are supervised or have been instructed regarding the safe use of the product and understand the resulting dangers. Children are not allowed to play with the device. Before cleaning the CO<sub>2</sub> Ampel<sup>®</sup> it must be separated from the power supply (see chapter "Cleaning"). Lay the cable safely to avoid injuries caused by tripping and falling.



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## Privacy policy



The data protection information and other accompanying documents can be found under <u>www.co2Ampel.online/downloads</u>.

# Intended use

The CO<sub>2</sub> Ampel <sup>®</sup> is only designed for indoor use and does not tolerate moisture. The operating location should be 1.5 meters away from the router, heaters and fireplaces. For safety reasons, the maximum permissible mounting height is 2 meters above the ground. Please observe these regulations and safety instructions and be sure to comply with them. If you do not do this, serious accidents, personal injury and property damage can be the consequences. Any use other than that described in the chapter "Device description" or in the "Safety instructions" is not permitted. The plug-in power supply of the CO<sub>2</sub> Ampel<sup>®</sup> is designed for voltages of up to 230 V. Please compare mains voltage and frequency of product and power grid before use.

The CO<sub>2</sub> Ampel <sup>®</sup> must be stored or operated indoors in the temperature range between 5°C and 35°C and at a relative humidity of 20 – 70%. The CO<sub>2</sub> Ampel<sup>®</sup> should be protected from dust and direct sunlight and disconnected from the power grid during prolonged storage. The intended use also includes storage (see chapter "Storage"). The device must not be manipulated. Opening the housing leads to damage to the CO<sub>2</sub> Ampel<sup>®</sup>, certification and warranty expire as a result.

# **Device description**

The  $CO_2$  Ampel<sup>®</sup> is a device for measuring and visualizing air quality based on the  $CO_2$ concentration in indoor air.

# Scope of delivery

- CO<sub>2</sub> Ampel<sup>®</sup> with plug-in power supply and wall mount
- Theft protection (optional)





## Free app "CO2 Ampel<sup>®</sup>" in the Google Play Store and the App Store

#### Technical Data (device)

Device type designation (ArtNr.)	CO <sub>2</sub> Ampel <sup>®</sup> (02437)
Empfängerkategorie	2 (Funkrichtlinie)
Funkfrequenz	2412 – 2484 MHz
Max transmission power	13 ±2 dBm
Protection	IP 20
Degree	2
ambient temperature	+5°C to +35°C
humidity	20% to 70%
dimension	E 78 x 150 mm
weight	355 g

Further data can be found in the factsheet at www.co2Ampel.online/downloads

# CO<sub>2</sub> Ampel in relation to room size and room height

With a view to safety against risky aerosol spread, a room size of around 25 to 30 m<sup>2</sup> is used as a basis. There is no single sensor that reliably covers larger areas in enclosed spaces. Care must be taken to ensure that the CO<sub>2</sub> Ampel® is positioned at a room height of around 1.20 metres to 1.50 metres, so that it is exposed to the average air composition.

# Area of application of the CO<sub>2</sub> Ampel<sup>®</sup>

The CO<sub>2</sub> Ampel<sup>®</sup> is intended and intended for use in closed, internal and dry rooms. The CO<sub>2</sub> Ampel® was developed primarily for use in schools, daycare centers, universities and public buildings in order to ensure active operation despite the risk of infection. It is also represented in hairdressing salons, restaurants, churches and meeting places.





It can be used wherever the gathering of crowds of people in enclosed spaces is to be made more protected and regulated.

The CO<sub>2</sub>concentration is measured by a high-quality, durable and self-calibraizing sensor. The result is represented by the colors green, yellow or red on the basis of preset thresholds and supported by a beep. In addition, it can be digitally monitored through the intelligent connection with the cloud. This allows, among other things, a device failure message or a remote configuration.

# Commissioning of the CO<sub>2</sub> Ampel®

## Connection

For commissioning, power your device via a 230V plug-in and the supplied power supply. After a short start time, an optical display should appear green, yellow or red according to the existing air quality. The CO<sub>2</sub> Ampel <sup>®</sup> offers the following operating variants: The simple local operation as well as the extended operation "Cloud".

## Acceptance test

For the function test, please blow with a small distance into the lateral openings of the device. With sufficient  $CO_2$  exhalation, the  $CO_2$  Ampel will indicate the threshold value being exceeded in a colored sequence. If necessary. Is it necessary to blow several times into the openings. After good ventilation, the display of the  $CO_2$  Ampel changes back to green.

## Mounting of the wall bracket (optional)

Each CO<sub>2</sub> Ampel<sup>®</sup> is enclosed with a wall bracket. When using the Ampel<sup>®</sup> together with the wall bracket, attention must be paid to a maximum use height of 2 meters. When mounting the bracket, care must be taken to ensure that a minimum of 6 mm dowel and a screw of 4.5x50 mm are used.

During assembly, make sure that you can fully recognize the front optics of the Ampel<sup>®</sup> when you look vertically at the wall surface.

## Theft Protection (optional)





Optionally, you have the possibility to purchase a "theft protection set". This is mounted on the wall in conjunction with the enclosed wall bracket and screwed with attached special key and corresponding screw. Without the special key, it is not possible to remove the CO2 Ampel<sup>®</sup> non-destructively.

- 1. Mount the wall bracket at the desired location.
- Hang the CO<sub>2</sub> Ampel<sup>®</sup> into the wall bracket (recess on the back wall of the CO<sub>2</sub> Ampel<sup>®</sup> hang on the hook).
- Position the L-piece in such a way that it prevents the Ampel from being pushed up<sup>®</sup>.
  Screw the L-piece with the wall bracket using the special screw and special wrench.
- 4. Finally, you can mount the black fairing angle.

# App usage

## Installation of the CO<sub>2</sub> Ampel app

Search the Apple Store (iOS) or the Google Play Store (Android) for **CO2 Ampel** and download the app via **download**.

**Information:** The smart device must be connected to the Internet and must not beconnected to the WLAN of the CO<sub>2</sub> Ampel.



Please make sure that you have installed the latest version of the CO<sub>2</sub> Ampel app on your smart device. If a more recent version is available, the **Update** button appears in the Google Play Store or in the Apple App Store.

## Operating mode "Cloud"

You need the access data of the internet-enabled WLAN, in which you want to integrate the CO<sub>2</sub> Ampel. The following steps are necessary to set up the system.





For more devices, repeat steps 3-5.

If you need further information when setting up, cf. The following detailed description:

#### 1. Create account

Please make sure that your smart device is connected to the Internet. Open your CO<sub>2</sub> Ampel app and select the operating mode "Cloud".

Create your personal account. To do this, enter your e-mail address, choose a password and accept the data protection agreement.

Information: To accept the privacy policy, follow the instructions of the e-mail.

#### 2. Groups

Under **Groups,** all groups you have created are listed. Selecting a group (e.B. tapping the group name) takes you to the **devices**.

#### 3. Devices

Under **Devices**, all devices added to this group are listed. The devices are listed under the assigned name with their current measured value. The current measured value is only displayed after a successful WLAN integration. You can rename the devices, delete them, or add new devices.

By selecting a device (e.B. tapping on the device name) you will be led to the devicesettings, bzw. wlan integration, if the device is not yet connected to the Internet.

#### Add device

• Select the "plus symbol" (to the right of the group*name*)under Devices





- Scan the QR code of the CO<sub>2</sub> Ampel or manually insert the **device ID** of the CO<sub>2</sub>
  Ampel. Information: For this purpose, the camera use in the CO<sub>2</sub> Ampel app settings for the CO<sub>2</sub> Ampel app must be approved.
- Assign an individual device name for your CO<sub>2</sub> Ampel.
- Save your input. The CO<sub>2</sub> Ampel is displayed as a device in your **group.** It is now in your account, but is still offline. Start the WI-FI integration:
  - Perform wi-fi integration following adding the device. You will be automatically redirected to the menu, please follow the instructions on the screen.
  - Devices within a group that are offline are marked accordingly. A click on the device also leads to WLAN integration.

#### Connection to the WLAN of the CO2 Ampel

Switch to the WLAN settings of your smart device. Leave the app open in the background. Connect your smart device to the WLAN of your CO<sub>2</sub> Ampel (name and password of your CO<sub>2</sub> Ampel can be found on the nameplate on the back of the device/ device packaging, e.B. "CO2\_Ampel\_F7D8".

If you receive the message "Your smartphone is not connected to the Internet", **ignore it** or click **on "Keep connection"**.

- 1. Switch back to your CO<sub>2</sub> Ampel app
- 2. click **next**
- Select your internet-enabled WLAN (home network) and enterthe corresponding WLAN password

(this can be found e.B. on the back of your router.)

4. Now change the WI-FI connection of your smart device and connect to the Internet as usual. (Here you leave the WLAN of the CO <sub>2</sub> Ampels.)

Until the data is transmitted after the WLAN integration and displayed in the CO<sub>2</sub> Ampel app, it may take a few minutes.



#### News



**Messages** are status messages from every CO<sub>2</sub> Ampel in their account if the set thresholds have been exceeded. These are sent when the threshold is exceeded. Messages can be searched. You can filter by device name, group name, color, or date. The "*garbage can icon*" can be used to delete the received messages.

Under **Settings**, the password can be changed and log in settings can be adjusted.

Via **data protection statement**, the current data protection statement can be retrieved and, if necessary, revoked.

#### Operating mode "Local"

For the local device operation, no account is necessary. You must be in close proximity to your  $CO_2$  Ampel with your smart device.

## Connection to the WLAN of the CO<sub>2</sub> Ampel

In the WLAN settings of your smart device, select the WLAN of your CO<sub>2</sub> Ampel

(The name and password of your CO<sub>2</sub> Ampel can be found on the nameplate on the back of the device/ device packaging, e.B. "CO2\_Ampel\_F7D8", see figure).

If you receive the message "Your smartphone is not connected to the Internet", *ignore* it or select: "*Keep connection*".

## App usage

Open your CO<sub>2</sub> Ampel app and select **Local.** If you are still logged in to your CO<sub>2</sub> Ampel app account, please change your operating modus via the settings in the main menu.

#### 1. Live-View

Live-View graphically displays the currently measured CO<sub>2</sub>concentration and the set threshold values.



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## 2. Threshold Configuration



To configure your thresholds, select **Settings.** Here you can set your individual thresholds.

Note: The device uses preset thresholds for delivery. These can be found on the nameplate on the back of the device / device packaging.

## 3. Other device settings

Under **Settings**, you can configure additional parameters. These include fans, acoustic signal, optical signal.

# We recommend that you change the WLAN connection of the smart device again after the configuration has been made.

# Color code

## Recommended behavior at "Green"

Green stands for good air quality depending on the CO<sub>2</sub>content. The respective current value varies depending on your settings.

Recommendation: Additional ventilation is not required.

## Behavior at "Yellow"

Yellow stands for reduced air quality (in terms of  $CO_{2)}$ . The  $CO_2$  content is increased and is above the first threshold. The default setting of this threshold can be found in the device label. If necessary, you have already met you personally en Ein positions.

Note: It is recommended to ventilate (shock ventilation with fresh air) until the CO<sub>2</sub> Ampel<sup>®</sup> indicates "green" again.



### Behavior at "Red"



Red stands for poor air quality. The CO<sub>2</sub> content is significantly increased and is above the yellow visualized air quality. The threshold canbe found in the device label or in your personallyset thresholds (e.B. 2000 ppm).

Note: It is recommended to immediately perform shock ventilation until the CO<sub>2</sub> Ampel<sup>®</sup> again shows "green". If necessary, leave. the room during ventilation.

#### Audible signal

The acoustic warning signal (beep) is factory activated. This supports the indication of the threshold exceedance. The acoustic warning signal can be switched on and off with the help of the app.

# Information and help

Note: For a complete FAQ list ("frequently asked questions"), please visit our website: <a href="https://www.co2Ampel.online/faq">www.co2Ampel.online/faq</a>

# Cleaning

The CO<sub>2</sub> Ampel <sup>®</sup> can be cleaned from the outside with a soft, slightly damp cloth without cleaning agents if necessary and significantly contaminated. Cleaning from the inside is not necessary and inadmissible. It should be noted that the warranty expires when the housing is opened. Disinfection with a surface disinfectant (disinfectant cloth) is possible. For cleaning, remove the CO<sub>2</sub> Ampel<sup>®</sup> from the electricity and wipe all closed surfaces for cleaning. Avoid cleaning the air exchange areas (perforated area), as this can lead to a passage of liquid into the housing. The Ampel<sup>®</sup> must not be cleaned under running water and must not be exposed to direct spraying.

## Storage

If the CO<sub>2</sub> Ampel <sup>®</sup> not in use, it must be stored cool, dry and in a dust-protected environment. In addition, we recommend storing the original packaging for possible return shipping.



# Dispatch



The CO<sub>2</sub> Ampel <sup>®</sup> may only be shipped in a sufficiently padded (e.B. fully wrapped with bubble wrap) shipping carton including its own packaging. Make sure that the shipping packaging meets the requirements of the logistics service provider.

# Maintenance

The CO<sub>2</sub> Ampel <sup>®</sup> is basically maintenance-free. After exposure to mechanical stress (e.B significant impact, falling down, etc.), it may happen that the sensor needs a recalibration. Please inform yourself about this with the help of the CO2 Ampel<sup>®</sup>app.

# Repair

Do not make any changes/repairs to the device. For assistance, please see the FAQs (<u>www.co2Ampel.online/faq</u>). If you do not find what you are looking for there, please contact your specialist retail partner with confidence.

# Disposal



The CO<sub>2</sub> Ampel<sup>®</sup> must not be disposed of as unsorted household waste. You must hand over this product to your local recycling service.

According to the European WEEE Directive, electrical and electronic equipment may not be disposed of with household waste. Their components must instead be recycled or disposed of separately. Toxic and dangerous components can cause lasting damage to health and the environment if they are disposed of improperly. As a consumer, you are therefore obliged under the Electrical Act (ElektroG) to return electrical and electronic devices at the end of their service life. For free return, manufacturers, sales outlets or public collection points set up for this purpose are available. Details are regulated in the respective state law. The symbol of the crossed-out garbage can indicates this circumstance. If you adhere to this type of recyclable material separation, recycling and disposal of waste equipment, you make an important contribution to the protection of our environment.



ISIS IC



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## Disclaimer

We reserve the right to make printing errors or possible changes to the product, packaging or product documentation. Please pay attention to our warranty services. You can ask for these in current form under the mentioned contact details.

# Disclaimer

Any use that does not comply with the points "Intended use" or "Safety instructions" leads to an exclusion of liability of ISIS IC GmbH.

# EC declaration of conformity

*ISIS IC GmbH*herebydeclares that the radio equipment type  $CO_2$  Ampel complies with Directive 2014/53/EU. The full text of the EC declaration of conformity is available at the following Internet address: www.co2ampel.online/downloads



