

GREISINGER

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The new G 1910 handheld measuring device for air quality/air hygiene monitoring in times of COVID-19



The G 1910 hand-held measuring device is a compact CO₂ monitor with integrated sensor and an optical and acoustic alarm function. The device features long battery life, easy charging and a above average broad measuring range.



BENEFITS.

- Extremely broad measuring range:
up to 19999 ppm/2 % CO₂
- Charging via USB
- 24 hours battery life
- Loud 2-stage alarm, acoustic and optical
- Illuminated display
- With metal belt clip and neck loop
- Calibration port
- Averaging over 15 min or 8 h

The cold season is coming, and the virus is not going away. Using CO₂ sensors to counter the pandemic.

You can already smell its autumn, and you can already feel that in classrooms and offices it's getting frosty while ventilating them. Will COVID-19 become even more dangerous now? The number of cases is increasing, and it was mainly people returning from abroad who caused many infections. In the meantime, celebrations with many people, especially in closed rooms, are considered a major source of infection.

High risk in closed rooms even with social distancing.

Therefore, experts advise extensive ventilating, and, as an additional safeguard, CO₂ concentration measurement in the room - with our new CO₂ Monitor G 1910 in the practical charging cradle.

Air is one of the most consumed substances by humans. With approx. 1 m³/h concerning the consumed oxygen, this is about 1.3 kg/h! Ideally, 30 m³ per hour is available for a human being. With the air we breathe, about 50 aerosol particles per second are emitted and the viruses can sit on these particles. Aerosols are tiny, 0.1 to 0.2 micrometer small, solid or liquid particles that are sent into the air by exhalation.

Because the particles are distributed in the room, they can be inhaled again by other people. According to current scientific findings, aerosols move around in a room for several hours if they are not dispersed or diluted by air currents.

The more limited this amount of air is, the more often the same air finds its way into the lungs and out again! The more viruses have the chance to land on our mucous membranes, the higher the probability that an infection will



With the practical charging tray G 1000 Base, the unit can be used as a non-slip stand or a wall-mounted to save space.

be transmitted. According to experts, the number of viruses ingested increases the risk of worsening the course of the disease.

That's why the new Corona protection formula applies indoors: W-C-M-L (wash hands, cover face, make space and ventilate regularly).

But how can permanent ventilation be balanced with general well-being, for example in offices, schools, or seminar rooms, when it gets colder and colder? Is a building's existing „air exchange rate“ (the air volume of a room must be completely exchanged after a certain time) already sufficient?

Useful decision making can be aided by CO₂ monitors or air quality traffic lights — such as the G 1910 from the Greisinger 1000 series.

In many metabolic processes, such as energy conversion, the human body produces carbon dioxide from oxygen. This is transported via the veins to the lungs, where it enters the respiratory tract and is exhaled. The air we exhale is different from the air we inhale — i.e. it is full of CO₂ molecules. The CO₂ value is therefore automatically an unmistakable indicator of how often the air has been reused.

In reality, the CO₂ content is measured in ppm, fresh air normally has a value of less than 500 ppm. In busy rooms without appropriate ventilation systems, this value rises rapidly. Above 2,000 ppm, fresh air should be ventilated at all costs. High CO₂ values also decrease the ability to concentrate.

The two selectable warning/alarm limits of the G 1910 warn, for example, starting at a value of 2,000 ppm (factory setting) by beeping and flashing and a show a warning at the easy-to-read display "Please ventilate now". By pressing any key, the beep



tone is interrupted for 5 minutes so that work can continue undisturbed during ventilation.

Depending on personal assessment or hygiene concept, this value can be easily adjusted, unlike with more basic devices. The averaging function, which is shown in the lower of the two measured value displays, also helps in assessing air quality — if disturbing measurement fluctuations are caused, for example, by unintentional puffing.

For educational and comparison purposes the device can also be used without a power supply because the battery with 24h runtime lasts longer than any office or classroom day. It can be recharged overnight with standard USB chargers via the micro-USB socket. For continuous operation 24h/7 days a week, the device simply remains connected to the charger.

As you would expect from a high-end manufacturer, calibration accessories are available to ensure that the device provides correct readings. This makes the G 1910 monitor traceable and ideal for checking the accuracy and usability of cheaper air quality traffic lights.

With the convenient charging cradle, the G 1000 Base, the device can be used as a standalone unit or wall-mounted to save space. Greisinger offers a special download service with the possibility of a free 3-D file of the charging cradle. Owners of a 3-D printer can either print the unit by themselves or use a commercial 3D printing service. Another special design aspect is that you have a free choice of colors. But if you would like to have it straight, you can order directly from Greisinger.

More information is available at: www.ghm-group.de/en/products/highlights/co2-handheld-measuring-devices/