



Indoor air quality & COVID-19

Mitigating the risks
by indoor air quality monitoring



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Connected
Inventions



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AIRBORNE TRANSMISSION

The principal mode by which people are infected by the virus



02

SAFE INDOOR AIR

Recommendation by health organisations, governments and health experts



03

USE CASES

Retrofit, plug and play solution for safe indoor air



04

AIR QUALITY MONITORING

Multiple benefits of long term monitoring beyond current crisis



AIRBORNE TRANSMISSION

The principal mode by which people are infected with SARS-CoV-2 (the virus that causes COVID-19) is through exposure to respiratory droplets carrying infectious virus.

RESPIRATORY DROPLETS

Produced during exhalation (e.g., breathing, speaking, singing, coughing, sneezing) and span a wide spectrum of sizes that may be divided into two basic categories based on how long they can remain suspended in the air.

Both larger droplets and smaller aerosols spread the Corona virus.



LARGER DROPLETS

Some of which are visible and that fall out of the air rapidly within seconds to minutes while close to the source.



SMALLER DROPLETS (AEROSOLS)

(formed when small droplets dry very quickly in the airstream) that can remain suspended for many minutes to hours and travel far from the source on air currents.

PATHOGENS

Pathogens that are mainly transmitted through close contact (i.e., contact transmission and droplet transmission) can sometimes also be spread via airborne transmission under special circumstances.

There are several well-documented examples in which SARS-CoV-2 has been transmitted over long distances or times.

These transmission events appear uncommon and have typically involved the presence of an infectious person producing respiratory droplets for an extended time (>30 minutes to multiple hours) in an enclosed space. Enough virus was present in the space to cause infections in people who were more than 6 feet away or who passed through that space soon after the infectious person had left.

CIRCUMSTANCES UNDER WHICH AIRBORNE TRANSMISSION OF SARS-COV-2 HAS OCCURRED INCLUDE:



ENCLOSED SPACES

within which an infectious person either exposed susceptible people at the same time or to which susceptible people were exposed shortly after the infectious person had left the space.



PROLONGED EXPOSURE TO RESPIRATORY PARTICLES

Some of which are visible and that fall out of the air rapidly within seconds to minutes while close to the source.



INADEQUATE VENTILATION OR AIR HANDLING

(formed when small droplets dry very quickly in the air-stream) that can remain suspended for many minutes to hours and travel far from the source on air currents.



DRY AIR

Dry air appears to favour the spread of COVID-19. When the humidity is lower, the air is drier and it makes the aerosols smaller, which can stay in the air for hours



CO₂ LEVELS EXCEEDING 1000PPM IS CONSIDERED THRESHOLD TO SERIOUSLY INCREASE RISKS OF VIRUSES AIRBORNE TRANSMISSION.

TO REMEMBER:

SARS-CoV-2 virus spreads by indoor air

Social distancing is not always enough to prevent virus particles spreading

More people, more exhale air, more CO₂ (carbon dioxide) in the air

CO₂ concentrations exceeding 1000 ppm increase risks for virus particles spreading

Low relative humidity <40% multiplies the risk of virus spread

RECOMMENDATIONS FOR KEEPING INDOOR AIR SAFE

By health organisations, governments and medical experts*

Source: REHVA, CDC, GOV.UK, EPA



TO REMEMBER:

CO₂ levels monitoring

Ventilation monitoring

Room air quality and humidity

Maximal ventilation

Cleaning and disinfection of spaces

CONNECTED AIRWITS CO2

RC1 RC2 RC4

Carbon Dioxide Temperature and Humidity Meter - Plug and Play Solution for Safe Indoor Air



1

Measurement interval configurable

2

5 years battery life

3

Works with any platform

4

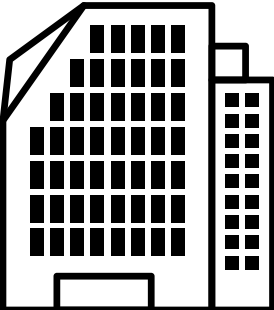
Deployed in more than 30 countries



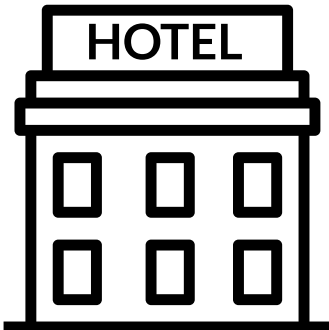
LONG TERM AIR QUALITY MONITORING BENEFITS

Indoor air quality and CO₂ levels monitoring provides multiple benefits beyond the current COVID-19 crisis

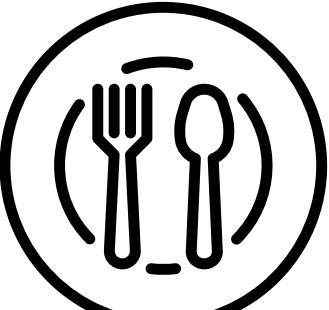
USER CASES



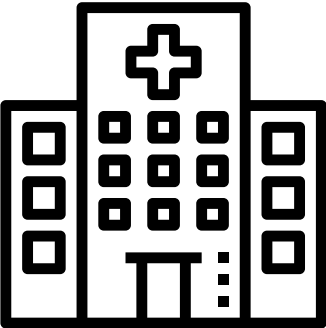
Offices



Hotels



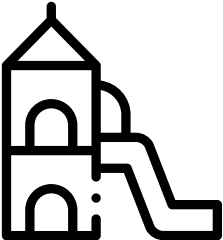
Restaurants



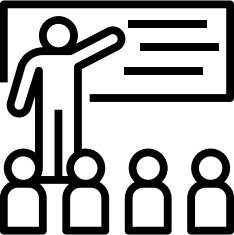
Hospitals



Public places



Kindergartens



School

CONNECTED AIRWITS IAQ, PM, CO2

Informs of viruses and bacteria spreading risk

Vital data to enable efficient ventilation

Decreased CO2 levels increases efficiency

Healthy building indicator and certifications



THE SOLUTION FOR SEEING THE INVISIBLE AND CREATING SAFE INDOOR SPACES

Connected AirWits CO2 Carbon Dioxide Temperature and Humidity Meter



Ultra long 5-10 years battery life, high quality real CO2 monitor, deployed in 50 countries globally

LINKS TO NEWS

Check out studies published elsewhere

**GERMAN GOVERNMENT INVESTING 500M€
IN VENTILATION AND CO₂ MONITORING**

[READ ARTICLE](#)

**MICRO DROPLETS (AEROSOLS)
SUSPENDING IN AIR**

[WATCH VIDEO](#)

HOW THE CORONAVIRUS IS SPREAD THROUGH THE AIR

[READ ARTICLE](#)

LOW HUMIDITY INCREASES COVID-19 RISKS

[READ ARTICLE](#)

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