

# INSIGHT INTO AIR QUALITY FOR BETTER HEALTH

**A better understanding of air quality allows you to make better, targeted decisions to improve air quality and your health.**

AirQVision is an easy-to-use platform to continuously monitor air quality. The most important parameters such as particulate matter, CO2 concentration, air temperature and relative humidity are continuously recorded and reported with AirQvision. A poor indoor and outdoor climate at your workplace leads to various health complaints. By measuring and managing air quality you can maintain a healthy work environment, complaints can be limited as much as possible:

- Discomfort, e.g. odor nuisance or cold/heat complaints
- Headaches, fatigue and drowsiness
- Mucous membrane irritations and other 'sick building' complaints such as 'dry air'
- Unnecessary transmission of infectious diseases through the air
- Aggravation of allergies (e.g. hay fever and food allergies)
- Extra Asthma attacks for people with asthma



## MONITOR YOUR AMBIENT CLIMATE WITH AIRQVISION



The carbon dioxide concentration, relative humidity, temperature and fine dust concentration are the most important indicators of air quality. People are often the most important source of CO<sub>2</sub> emissions indoors. Outside, industry, transportation and agriculture are usually the cause of poor air quality. Poor air quality leads to fatigue, lack of concentration and can even lead to disease. The CO<sub>2</sub> concentration, for example, may not exceed 1,000 ppm as a rule. Characteristics of the sensors that are part of the **AirQVision** system:

- Temperature -40°C to 70°C
- Relative humidity 0% to 100%
- CO<sub>2</sub> concentration 0 to 40,000 PPM
- Fine dust concentration PM 0.5 / 1 / 2.5 / 4 / 10
- Air pressure 260 hPa to 1260 hPa

### Example in Schools

Absenteeism in education is higher than in the service sector. There are strong indications that a bad indoor climate at school leads to an increase in absenteeism among teachers and students. This absenteeism can be prevented by adjusting ventilation, temperature and acoustics.

For example, if the absenteeism in a school is 8% before renovation, this can be reduced to 6 to 7% after renovation. Real-time insight into air quality can help to take effective actions.

## AVIC AIRQVISION

Offers you a complete hard- and cloud based solution that gives insight into your air quality everywhere. Whether you want to monitor temperatures, CO<sub>2</sub>, particulate matter concentrations or relative humidity. AirQVision is a web based online platform and therefore available on every possible device. Reports can be generated manually or fully automatically, making it easier for you to comply with laws and regulations. AirQVision is highly reliable and accurate.

- The hardware is universal so additional sensors can be connected (e.g. for other gases)
- Any deviations in measured values can be sent directly via an alarm. The advanced alarm module gives you complete freedom about how you want the alarm follow-up to take place
- 24/7 access with an uptime of more than 99.9%. All systems are fully redundant
- A UPS battery ensures continuous operation even in the event of a power failure
- All measurements are backed up continuously. The data is stored at different locations to ensure the highest possible availability
- The system is very easy to use, despite its advanced capabilities
- Even when you need customization, the platform offers various options to match the visualization exactly to your needs.

### AirQVision stands for:

- Ease of use
- Accuracy
- Reliability
- A better climate for you



RELIABLE  
AND SAFE



PLUG & PLAY



2-WAY  
SIGNAL



ALKALINE  
BATTERIES



ALARM



REPORT

## YOUR PERSONAL DASHBOARD WITH AIRQVISION

You can easily access your personal Air Quality dashboard via the internet. AirQVision automatically generates your reports and sends them to you and to other recipients of your choice. If desired, an SMS message can be sent if the measurements deviate too much from the desired values.

### Wireless sensor capabilities (PicoWise):

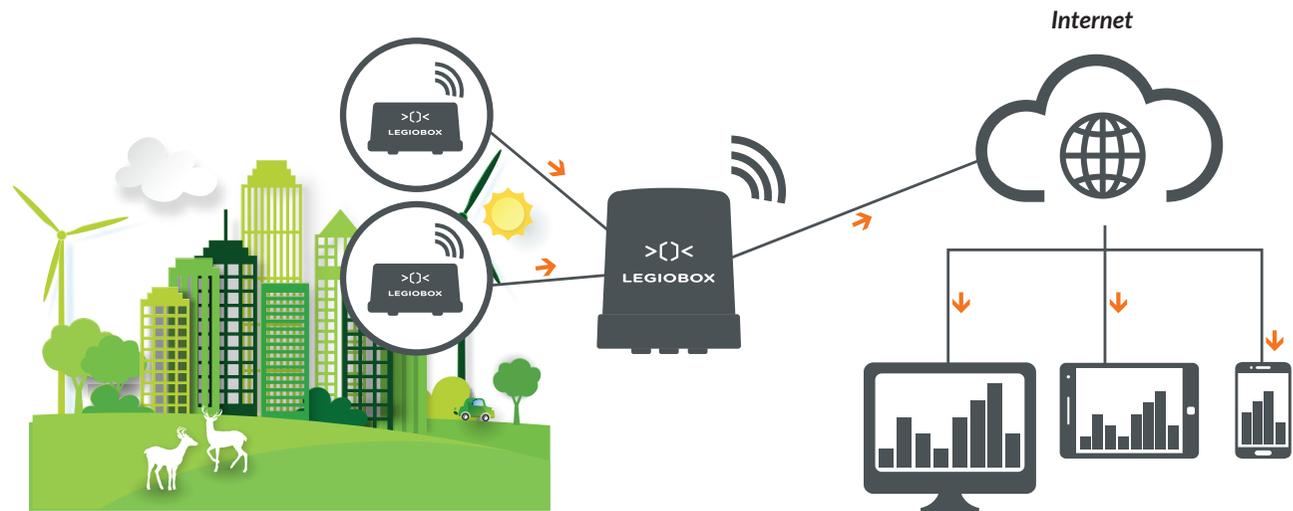
- Ambient temperature
- Relative Humidity
- Air pressure
- Digital inputs for e.g. interference contacts, energy and gas meters

### Gateway (NanoGate & SolarGate) features

- Sensors:
  - Sensors:
  - Ambient temperature
  - Relative humidity
  - Air pressure
  - Optional: Fine dust (PM1, PM<sub>5</sub>, PM<sub>5</sub>, PM<sub>10</sub>)
  - Optional: CO<sub>2</sub>
- Communication possibilities:
  - Standard 2G-GPRS and 4G-CatM1 & NB-IoT Avic WISE RF network capabilities
- Optional
  - LAN connection
  - UPS for monitoring power supply problems
  - External PT1000 / NI1000 sensors - External 4-20mA & 0-10 Volt sensors
  - Additional analog (4x) and digital inputs (2x)
  - RS485 or RS232 MODbus interface for IO extensions or connection to other systems

### Accessoires

- Wall bracket, magnet mount, hanging bracket, stand for easy mounting of the wireless sensors (PicoWise) and gateway (NanoGate)



*Measurements are performed with PicoWise wireless sensors or with a NanoGate Gateway.*

*Data is collected and transmitted to the data center using a NanoGate.*

*Monitor your indoor and outdoor climate with AirQVision.*

## WHAT DOES THE SOLUTION LOOK LIKE?

**With small transmitters (PicoWise) the temperature and relative humidity is measured very accurately. With the NanoGate (adapter power supply) or SolarGate (solar cell power supply) not only temperature and relative humidity is measured, but also CO<sub>2</sub> and particulate concentration. The wireless transmitters operate maintenance-free for at least 5 years on two standard AA alkaline batteries. After this period, the batteries can easily be replaced. All measurement results are continuously sent to the central platform of AirQVision.**

The transmitters are available with various mounting options. Partly because the transmitters are battery powered, installation is very easy. The Gateway (NanoGate or SolarGate) takes care of the transfer of all measurements to the cloud. This Gateway also measures various properties of the environment, such as room temperature, relative humidity, CO<sub>2</sub>, particulate matter and air pressure. The data connection to the server works completely independently and uses modern mobile networks (2G and 4G). An optional UPS battery ensures continuous operation even in the event of power failure. Would you like to take more different measurements? The system is easy to expand, so you can also monitor other gases or, for example, energy consumption.



IoT made simple.



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