

The logo for 'itho' is displayed in white lowercase letters on a blue triangular background. The letter 'i' has a small orange circle above it.

Itho CO2 sensor

For optimal air quality in home, offices, conference rooms and classrooms



Good ventilation is important because in a space with insufficient ventilation, the concentration of CO2 will quickly rise due to the presence of people. This is at the expense of the air quality in the room, causing those present to become tired more rapidly and their concentration level to drop. Whether in the classroom, the conference room or the cinema, by using the Itho CO2 sensor it is possible to closely monitor the CO2 concentration and to adjust the ventilation system as necessary. In this way you can always be sure of an optimal indoor climate.

Monitoring the air quality

In the past houses and buildings were constructed in which there were all sorts of air leakages, for example, at the door, the wall, the floor and where the roof joins. This ensured that the air quality was good but it was less comfortable and wasted a lot of energy.

Due to the increasing demands from the government and users with regard to energy saving and comfort, building methods have improved considerably in recent years. Homes, offices and other buildings are becoming better insulated with the result that there is no natural ventilation as in the past.

These new, more airtight buildings now

require the installation of good ventilation to guarantee good air quality. Good air quality ensures that people in the room feel healthier and are able to concentrate better. There are various elements that determine the quality of the air inside a building – these can be pollen, dust and particulates, but also Radon and CO2 (carbon dioxide). It is important to monitor these causes and in this way, safeguard the quality of the air. Taking measurements of the CO2 concentration is an especially good way of doing this.

The ideal solution for classrooms and conference rooms

The CO2 concentration is easy to control with the help of a CO2 controlled ventilation system. This system consists of a ventilation unit to which a CO2 sensor is connected.

This solution is ideal for application in situations where occupancy of the room is variable. Take classrooms for example: An important part of a child's development takes place at school but unfortunately the air quality in many schools still leaves a lot to be desired. This has a direct effect on the ability to concentrate and therefore also on learning performance. Research has shown that this can be prevented with an automatic CO2 adjusting ventilation system.

The same factors also apply to meeting and waiting rooms as here too a large group of people can be asked to occupy a defined space for long periods. Fatigue, caused by too high a concentration of CO2, can set in especially during long meetings. Often this can be caused by poor ventilation. By using a sensor the ventilation system can be adjusted to maintain good air quality. Future users

of these rooms will then be able to maintain an improved level of concentration.

There are indeed a number of other situations CO2 sensor can provide a great contribution to the indoor climate, for example:

- cinemas
- churches
- restaurants
- lunch rooms

The optimal indoor climate with CO2 controlled ventilation

At Itho you will find a ventilation system that is controlled by a unique CO2 sensor. This system consists of a central ventilation unit (CVE ECO 2, HRU ECO 4 or CAS ECO 2) and Itho CO2 sensor. This sensor measures the CO2 concentration in an enclosed space. The status can be read from the 'LED indicator':

- Green: the air quality is good
- Yellow: the air quality is acceptable
- Red: the air quality is insufficient

If the air quality deteriorates, there must be more ventilation. The sensor then

gives a signal to the ventilation unit which will then automatically adjust the extract rate. This automatic operation always assures a healthy and comfortable indoor climate.

Minimal operation

A CO2 controlled ventilation system requires a minimum of operation. It is after all, a fully automatic ventilation system because the unit automatically adjusts the extract rate only when it receives a signal from the sensor. An optimal indoor climate is important. The Itho CO2 sensor makes it possible to easily guarantee the maximum in air quality even in rooms where there are a lot of people.

We will set out the advantages for you once more:

- a healthy indoor climate because of ventilation based on CO2 concentration
- applicable in many different situations where occupancy is variable
- improved ability to concentrate
- simple operation
- outstanding price/quality ratio



ITHO DEMONSTRATES

that good air quality is achievable in every situation

More comfortable and energy efficient climate systems. Itho demonstrates that it is possible.