

## Objective:

Constant room climate through the intelligent use of the natural climate fluctuations of the environment.

## Basic idea:

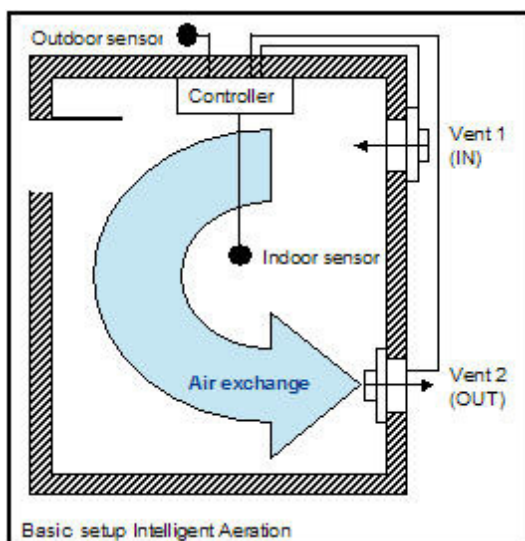
In our Mid European temperate zone correct aeration clearly seems to be the most effective way to reduce excess relative humidity (RH) in residential and commercial rooms. Besides discomfort a RH at 70%+ always bears the risk of mold growth which is always unpleasant and occasionally even dangerous. Due to this context it is an essential task in rooms to keep the air below 70 % RH constantly, e. g. 50 % RH.

Manual aeration in general is characterized that windows remain slightly open for a longer while or wide open for shorter periods. Specialists know that both ideas are not optimal.

In our temperate zone outside humidity is often subject to high change in short time (e.g. thunderstorm). Thus the risk to "aerate" outside air with additional capacity for humidity into a room is always present. The long term consequences are frost and even mold. Retained manual aeration is impossible and natural aeration today hardly happens anymore due to ongoing compact and airtight construction policies. We raise the question.

When exactly is the correct moment to aerate a room?

Our Intelligent Aeration picks up on exactly this question and utilizes innovative measurement and control technology to take in air at any time only when it improves the specifically defined room climate. The result is a retained constant RH over the whole year simply through the intelligent use of natural climate fluctuations.



## Measurement tool and setup:

In a basic setup two sensors for T and RH measurement, one climate controller, two aeration venti-

lators and a shelter box for the outside sensor are sufficient to create constant room climate. See above. The technology in addition offers innovative network options based on a bus-line as well as radio and GPS solutions.

## References:

Our solution of choice today is installed in several rooms, churches, cellars, depots and archives and receives first class references.



## Intelligent Aeration Controller

Naturally optimizes the room aeration through intelligent and sustained utilization of the climate fluctuations of the environment.

„Since the installation of the climate controller our paintings depot has been constantly supplied with optimal climate. A reliable and retained solution without mentionable constructional changes.“ **A. Hofstett, Manager House Automation, Städt. Galerie im Lenbachhaus, Munich.**

„This outstanding climate measurement technology operates congruent with our reference sensors. We are looking forward to an ongoing successful cooperation.“ **A. Kaufmann, Fraunhofer Institute for Construction Physics, Holzkirchen, Germany.**

## Advantages of intelligent aeration:

- Environmentally friendly, little energy use
- Ongoing stabilization of room climate
- Service free operation
- Low operating cost
- Little constructional changes
- CAN-Bus-compatible, radio, GPS

## Fields of application:

- Intelligent automation of the aeration of rooms.
- Sustained prevention before mold growth
- Climate controller for churches, archives, depots, cultural heritage
- Tempering of IT-rooms and more

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**We would be pleased to tailor our expertise to meet your specific needs. Thanks for your interest.**