



## Preserve historical treasures – prevent mould formation



HD35 wireless sensor and GHM-ONE multifunction unit

## Recognize dewpoint danger with the GHM-ONE

### The requirements placed on us

Mould and mildew stains are the number one enemy of historical buildings and new structures, museums and churches and residences and offices. Detrimental health conditions, irreversible destruction of historical property and high renovation costs are the consequential effects. This is caused by undesired biological processes which are often the result of a failure to recognize or disregard of the relationships of relative air humidity with the inside and outside temperature when heating and ventilations rooms.

### Our solution

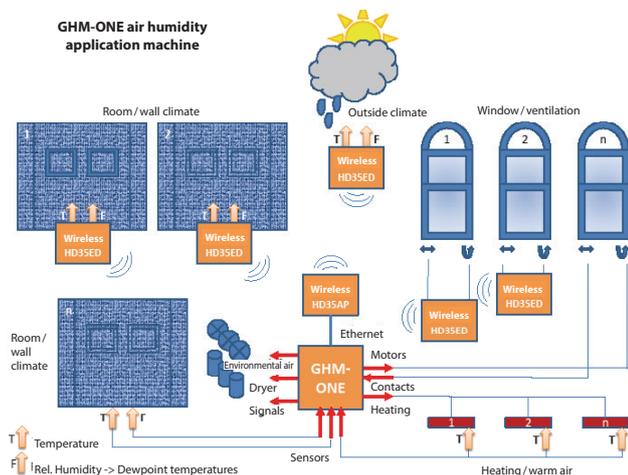
Since the GHM-ONE application can operate with more than just one sensor, all required variables are determined. With an integrated logical linking of measured variables, it blocks, for example, room ventilation by opening windows when temperatures are too high and the outside air is too humid in relation to the inside air, and thus prevents undesired condensation on the inside walls. With the GHM-ONE multifunction controller, you have the perfect module for energy-optimized coupling of heating and ventilation technology in your building.



## BENEFITS.

- timely recognition of the danger of mould formation
- dewpoint recognition even at measuring points which are difficult to access
- reduced wiring costs with wireless technology
- energy savings with fully-automated heating and ventilation

With clearly arranged and simple operation, plain text warnings and graphic support via photo assignment and trend curve display in the tolerance field and on the colour screen, the information is made easier to understand for the user groups and damaging effects can be prevented.



## Benefits

Sensors and measuring transducers cannot always be connected directly with cables or via networks to the evaluation devices like the GHM-ONE multi-function unit. With elaborate systems or temporary changes in location, it is often necessary to establish connection **via a wireless network**, providing a much more elegant solution.

With the HD35 from our Center of Competence Delta OHM, a proven and versatile solution for the GHM-ONE is now available.

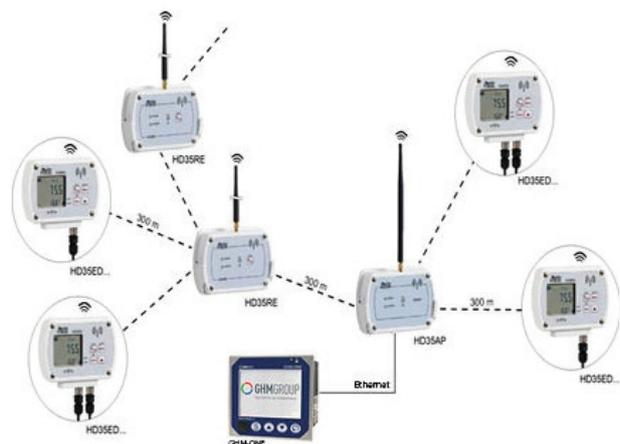
The **GHM-ONE is connected by default via Ethernet with Modbus TCP/IP protocol** to the AccessPoint, an HD35APx device from Delta OHM family of devices. Now, local wireless access takes place optionally via **WLAN, WiFi** or **GSM-GPRS technology** to the standard boxes from Delta OHM with integrated or locally connected sensors and measuring transducers, which are also equipped via the available wireless networks. As a result, **wireless networks in buildings** with one or multiple storeys,

**expansive single-storey buildings** and even moving vehicles and containers can be equipped with the GHM-ONE to enable continuous access to current process data.

Refer also to the HD35 product overview [www.hd35.info](http://www.hd35.info)

## Summary

Wireless technology eliminates the need for visually disruptive installation channels for sensor cables and enables selection of optimal measuring points. Fully-automated monitoring of window-opening mechanisms and visualization of the dewpoint danger on the GHM-ONE application machine prevent undesired opening of the fresh air supply and reduce the danger of mould formation. Valuable cultural artefacts and the health of visitors to historical buildings are protected reliably and personnel are alerted to the danger of causes for mould formation with warning texts and graphics. An additional benefit is the cost and energy savings achieved with correct ventilation and heating.



GHM-ONE and HD35 system coupling