

# DEOS AG Case Study

## Single room solution in hotels



### Hotel Victory, Therme Erding (GER)

The Victory hotel located at the Erding thermal springs is equipped with a complete single room solution including FCU, central ventilation and OPENweb. DEOS AG thus provides the individual room solution for HVAC, lighting and shading, creating a comfortable room climate throughout the hotel.

The hotel complex boasts a meticulously-maintained nautical decor, offering a unique expansion of the Erding thermal springs and perfectly blends into the surroundings of the thermal springs, turning the stay of the visitors into an unforgettable experience.

## Comprehensive single room solution - A comfortable room climate through energy-efficiency

The challenge of planning the Victory hotel lies in providing maximum guest comfort while lowering energy costs at the same time.

To achieve these two objectives, the Victory hotel was equipped with the innovative DEOS AG single room solution. All 128 hotel rooms are controlled with the DEOS AG room automation according to VDI 3813. The system is coupled with the „Sihot“ hotel management software ensuring perfect conditions for each guest and scenario.

This project was successfully implemented by using the various DEOS technologies together with the scene control. The room can be customized for each guest in advance, thus ensuring maximum comfort. At the same time, the energy costs are constantly reduced.



„Comfort and individuality, coupled with the highest quality demands are paramount for builders – I am proud that we were able to consistently meet these demands with our DEOS technology“. **Marco Lange**, Head of the Hamburg Branch Office

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A fan coil unit (FCU) for each hotel room and the central supply air and extract air installation are operated in a noise-optimized configuration so that no operating or circulation noise is created at the lowest air speeds possible.

Excellent technical planning is a must for such a project: every pair of the six OPEN EMS 4100 (DDC) installed in total is used on a hotel floor. Each individual screen of the touch panel room control units is saved and operated on this EMS controller. To provide all these DDC room control functions, each hotel wing and its IO modules are connected via the HSB CAN safety ring bus (approx. 1000 m long for each controller). A remarkable feature here is the fact the approx. 80 IO modules are installed for each floor via a single CAN bus distributed in the hotel rooms (two IO modules per room). Among other things, these IO modules are integrated in the room automation system controlling the FCU units and collecting the information from the card reader as well as the access and window contacts.

The central, energy-efficient refrigeration, which operates as a hybrid system (absorption chiller, with supporting compressor chiller), as well as the existing CHPP plant (2 x 900 kw) are connected via the higher-level DEOS controller via MODBUS.

The DEOS AG BMS OPENweb performs the entire integrated monitoring. This building management systems software allows the operator to log in and individually enable the user functions and views, which, in turn, simplifies building operations according to the functional units.

### Technical data

Year	2014
Size	128 rooms
Usage	hotel
Application	HLK, light, cloudiness
Physical DP	6980
DP system integration	220
MODBUS in DP	80
BACnet objects	140

### Our system partner

## DEOS.AG

DEOS Gebäudeautomation GmbH (DG) is a subsidiary of DEOS AG and installs building automation systems. In addition, DG supports the DEOS System Partners with complex projects and tests and develops new products and processes.

### Our product



The OPEN 4100 EMS is a DEOS controller that performs the communication between the management and controller levels via BACnet and records and processes the measurement information of the sensors and then transmits it to the actuators.