System topology

DEOS product overview

We create solutions

Whether you are the owner, investor, planner or operator of a property or a property portfolio: with our products you create intelligent and safe buildings that inspire. Customised building solutions from DEOS AG can be used effectively in any building to meet individual building requirements.

DEOS AG: Building automation that inspires

Who we are

As an internationally operating medium-sized company and part of the Swedish Regin Group, with more than fifty-five years of experience in the field, we are developing and producing intelligent products, solutions, and services for the automation and digitalisation of buildings and facilities. We are passionate about developing heating, ventilation and climate control systems as well as cutting-edge IoT and cloud-based solutions for efficient and future-oriented overall systems. System integration into building services technology that is easily realised plays a major role at DEOS AG.

Every day, our associates work with system partners, specialist planners, operators and end customers all over the world. We do this to ensure the energy-efficient and sustainable operation of buildings, to help make our partners even more successful and turn them into fans of our automation and integration solutions. For buildings that inspire.

OFFICE

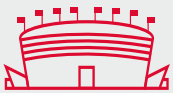
RETAIL

HOTEL

INDUSTRY

AIRPORTS & TRAFFIC SYSTEM

HEALTH CARE


SPORTS & ENTERTAINMENT

CULTURAL INSTITUTION

GOVERNMENTAL INSTITUTION

EDUCATIONAL INSTITUTION

Hardware made in Germany

Innovative, powerful, high-quality

With the DEOS hardware product portfolio, we offer you a wide variety of high-quality products from our own production. The OPEN EMS (DDC controllers) represent the central intelligence in the building as IoT and cloud-ready controllers. They are used for holistic building automation and are specialised in HVAC applications: the control, regulation and monitoring of building services equipment for the energetic optimum. Designed as native BACnet Building Controllers (B-BC) with or without manual operation, they are used in a wide variety of building types. The powerful integrated HTML5 web server OPEN*view* is available on the OPEN EMS DDC controllers. You can access it decentrally via the internet or intranet. OPEN*view* enables the graphic visualisation and operation of your system, also via remote access.

To ensure IT security in the building, the DDC controllers are equipped with an innovative firewall that meets the highest security standards. This protects the system from internal and external cyber attacks. Use our ready-made macros and templates to reduce your programming efforts by up to 90 % or rely on free programming for your individual requirements. The DEOS controllers can be supplemented with IO modules via the CAN bus interface (up to 5 km away from the controller) to optimally respond to your individual project size.

SERVICE & SECURITY Center

cloudready

Our latest generation, OPEN.WRX, combines current technology topics and future topics in the Building IoT area to create what is probably the most powerful automation station on the market. In addition, it is the first automation station worldwide to be BACnet/SC certified and thus enables encrypted communication via BACnet.

OPEN EMS OPEN.WRX

B-AWS certified BACnet BMS

Efficient monitoring and control of your systems

The B-AWS certified BACnet BMS OPEN*web* is a modern building management system in times of IoT and cloud. With it, you can easily control your systems from anywhere in the world. Thanks to the graphic visualisation, you can always keep an eye on your building and ensure that it is operating at optimum energy efficiency. System faults are communicated directly via the internal Event Control Centre and can be sent to your service staff via the DEOS *Secure AlarmApp*. This allows you to act quickly and efficiently. Thanks to the scalability of OPEN*web*, the software is suitable for almost any project. From the smallest application to large and complex projects with redundancy requirements. OPEN*web* is an in-house development that is always being further developed with our system partners – this development close to the market makes our software so special. OPEN*web* stands for flexibility. It integrates systems from different manufacturers and guarantees communication between different bus systems and products with standardised protocols and interfaces.

Decide for yourself whether OPEN*web* should be used locally on your computer or as a modern cloud solution. Even small building automation projects with 100 data points or more can benefit from a fully comprehensive BMS thanks to the cloud solution. The DEOS IT experts are available to advise you at any time. From secure remote maintenance to site networking of your properties – OPEN*web* is the right BMS for your individual projects.

Building IoT

Modern solution for the digitalisation of buildings and systems

DEOS *Secure Network* – IT solutions for building automation

In addition to the many advantages of BMS in the cloud, our cloud solution DEOS *Secure Network* focuses primarily on security. Thanks to the high security standards such as firewall functions and encrypted communication, your system is optimally protected against cyber attacks. As the Connect Box is already pre-configured, you do not need any additional IT know-how for the facilities. Building automation has never been so secure!

Wireless networking – Smart retrofit projects with LoRaWAN

Integration solutions based on the LoRaWAN wireless standard are becoming more and more common in retrofit and new building projects in the field of building automation. The wireless connection of sensors, meters or operating devices via LoRaWAN offers several advantages over other wireless technologies. The combination of modern DEOS IoT / cloud solutions and LoRaWAN flexibility enables new and efficient usage scenarios: The aim is to relieve technical facility management, reduce operating costs, process building data transparently and inspire building owners with new comfort functions.

DEOS pro.Building Suite – Software as a Service

The pro.Building Suite is an IoT platform for the transparent connection, display and processing of data from technical building systems. The data is displayed via a digital image of each building system in a semantic data model – the digital twin. With the help of the pro.Building Suite modules, individual visualisations and data inspections can be realised. Via standardised interfaces (REST API, CSV export), the pro.Building Suite offers direct interaction between building services engineering and third-party systems such as accounting software, EMS, CAFM and many more. Thanks to its modular structure, the platform can be expanded at any time to meet your requirements.

Modules of the pro.Building Suite
from the front: pro.Dashboards, pro.Cockpits, pro.TEO, pro.Tenant Management und pro.Reports

Operation for smart radiator thermostat DEOS TEO

Over 65 % of the energy consumption in a building is caused by heating the rooms.

Therefore, intelligent, motor-driven radiator actuators are indispensable.

With the help of the pro.TEO module of our IoT platform, the current room temperature and the operating mode of the thermostat can be read and changed. With customisable time programmes such as the working time and holiday calendar or the temperature reduction overnight, the temperature for predefined rooms, floors or entire buildings is controlled centrally and automatically.

The best thing about it: the annoying opening and closing of radiator valves is a thing of the past, you enjoy an optimal feel-good climate and at the same time reduce your energy costs by up to 40 percent.

Energy monitoring with the IoT platform

The primary goal is to reduce the energy consumption of building services equipment, buildings or entire properties to a minimum. With our energy monitoring, we offer a tried-and-tested solution that is manufacturer-neutral and can be used for existing buildings and their already installed TGA systems (retrofit) or in new buildings:

- Data connection of the energy generators and meters
- Storage and processing of energy data
- Web-based visualisation & operation
- Automatic energy reports
- API-based data transfer

At the heart of our solution is our IoT platform pro.Building Suite, where all data is brought together, stored and processed. The platform can be accessed from any end device using a standard web browser. The collected energy data is visualised on individually configurable energy dashboards. In this way, the collected data can be easily and conveniently compared with target data or benchmarks and possible efficiency measures can be derived. Energy reports can be automatically generated in the background and, if desired, regularly displayed, sent or printed. This provides the building operator with a transparent and simple overview of the energy status of the building and can compare it with the corporate goals.

You can also use our special interface for tenant management and tenant changes. Here you can manage the entire meter landscape of a property and assign it to the corresponding tenants. Create monthly consumption statements via the pro.Building Suite that are EPBD-compliant.

Benefit from additional synergy effects: In combination with our BACnet BMS OPEN*web*, we enable you to optimise your system operation in terms of energy.

Classic building automation

Building IoT

Building management

Building and room automation

System integration

BACnet · BACnet/SC · Modbus · M-Bus · KNX · DALI · ebmpapst · GRUNDFOS

further on request

Field devices

REGIN · industrie technik

DEOS *Secure Network*

Remote maintenance / site networking

pro.Building Suite

manufacturer-independent

Modules pro.Building Suite
Reports, Dashboards, Cockpits etc.

Third-party systems

API

Digital twin

pro.Thing

Connection . storage . processing . preparation . analysis . monitoring . archiving management . structuring . grouping . enrichment . optimization . monitoring

API

OPEN*view*
Onboard BMS
for micro-projects

OPEN*web* Server/Client
BACnet building management system

Third-party systems

Control units
LED Touch Display
incl. mini PC
10.1" / 15.6" / 21.5"
Android Touch PC

OPEN*web Cloud*
BACnet building management system

DEOS *Secure AlarmApp*
Manufacturer-independent system messages

MQTT

Third-party systems

CSV import

MQTT

DEOS *Secure Connect Portal*

VPN

TCP/IP

BACnet/IP

DEOS *Secure Connect-Box*

OPEN GATE
Message gateway

LoRa Gateway

LoRa

OPEN.WRX

Modbus / BACnet

Modbus

Room controller **Regio Ardo/Eedo**

Room controller **Regio Midi**

Fan coil controller **RCF**

Room control unit **RUD**

Room automation

Redundant security solutions
Hot Standy Controller

OPEN 3100 EMS

OPEN 4100 EMS (BACnet)
max. 4000 BACnet objects
max. 4000 physical data points

OPEN 710 EMS

OPEN 810 EMS (BACnet)
max. 2000 BACnet objects
max. 512 physical data points

OPEN 500 EMS

OPEN 600 EMS (BACnet)
max. 500 BACnet objects
max. 112 physical data points
32 integrated IOs

OPEN 600 EMS basic24 (BACnet)
max. 250 BACnet objects
max. 24 physical data points
24 integrated IOs

OPEN IO modules
(digital & analog)

DEOS DDC controller

cloudready
All DDC controllers are cloud-ready and can be used together with the DEOS BMS OPENweb *Cloud* for modern and economical cloud projects.

OPEN IO modules
(digital & analog)

DEOS DDC controller

External systems

M-Bus over IP · BACnet · Modbus

OPEN IO modules
(digital & analog)

Smart multi room sensors

Smart sensors **Presigo**

Multi room sensors

Differential pressure switch

Channel sensors

Pressure sensors **Presigo**

Air flow switches

Frost protection thermostats

Air damper and valve actuators

Zone valves

Thermoelectric actuators

LoRa Energy meter

DEOS SAM
CO_2 indoor air quality indicator

LoRa Status indicator

DEOS TEO
LoRa radiator thermostat

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EU 03/24 2nd edition

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