

Your building.

Your networking.

Your advantages.



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Intelligent solutions for building automation

Facilities managers and operators are increasingly faced with the challenge of managing individual buildings and entire building complexes. In addition, the requirements for building energy efficiency, sustainability and comfort are demanding and must be verified. The complexity of the technical areas and their interactions require well-thought-out solutions.

myGEZE Connectivity helps you to meet these challenges to master building automation – and benefit from its advantages.

Our intelligent automation solutions not only offer increased efficiency and safety, but also optimise energy consumption and enhance user comfort. With our systems, we enable architects and planners to improve the functionality of their projects and create sustainable, future-proof buildings.

connectivity.geze.com

What is building automation?

Building automation (BA) is essential to optimise building functionality, safety and sustainability. Thanks to intelligent software and smart networking, building automation enables the central control and monitoring of heating, ventilation, and air conditioning technology, as well as of safety, door and window systems. The aim is to design processes that are autonomous and efficient, in order to simplify operation and monitoring and to maximise building performance – thereby minimising costs.

THE ADVANTAGES OF BUILDING AUTOMATION

1. Take advantage of gains in efficiency: Optimise building operations through automation and remote monitoring to significantly reduce operating costs.

2. Increase safety: Use intelligent door systems to increase the safety of your buildings and users with the help of condition and function monitoring, and to ensure quick reaction capabilities.

3. Enhance comfort: Enable smooth and accessible access with automated access solutions, and use networked window and climate systems to ensure a healthy indoor climate while reducing cooling and heating costs.

4. Use data analysis: Gain valuable insights from operational data to optimise your decisions and improve operations – for higher productivity and shorter downtimes.

5. Focus on sustainability: Minimise CO₂ emissions and energy consumption in buildings with intelligently coordinated automation systems, such as SHEV windows and doors for efficient night-time cooling and better air quality.

6. Reduce maintenance effort and costs: . Reduce downtimes (outages) and maintenance costs by using error and fault messages as well as automated maintenance messages.

Benefit from these advantages of building automation and make the operation of your properties more efficient, safer and more sustainable with myGEZE Connectivity World!



Free white paper:

Sustainability in building management through building automation

The construction sector plays a key role in achieving sustainability goals, because it is responsible for a third of global greenhouse gas emissions. Building automation is the solution for energy-efficient planning, operation, and building renovation that save resources.

In our white paper, find out exactly what building automation is, understand the potential savings that can be achieved through it, how Smart Buildings can contribute to sustainability, and which products and services GEZE offers for smart networking.



The average amortisation period for building automation and control systems is between two and ten years.



Application examples for your Return on Investment (ROI)



Building monitoring and night mode for greater building security and cost savings

INITIAL SITUATION

Many large properties require regular security patrols by facilities management or a security service. These patrols essentially serve to check whether all doors and windows of the building envelope and between building zones are properly closed and secured. These security patrols are often time-consuming and incur added staffing costs.

SOLUTIONS

Building automation is used to connect all doors and ground-floor windows in the building envelope, as well as those between the relevant building zones, to a central building automation control system. If automated door drives are already present, they only need to be integrated into the communication. In all other cases, the relevant sensors can be retrofitted.

Thanks to the central networking of the door and window systems in the building automation control system, the facilities manager can view the current status of the doors and ground floor windows at any time and from anywhere.



A monitoring mode can be activated manually or by a timer for night-time hours. If a door or window is opened without authorisation in monitoring mode, local alarms are triggered and alarm messages are sent to freely configurable reporting chains.

ADVANTAGES AND POTENTIAL SAVINGS

- Increased building safety
- Optimised facilities management processes
- Reduced time and costs for building surveillance

ROI (Return on Investment)

INVESTMENT COSTS

Components for control technology, including sub-distribution and cables; additional costs for necessary magnet/bolt contacts for doors and ground-floor windows; installation and commissioning

Total investment costs

≈ € 60,000

ANNUAL SAVINGS

Cost savings for plant security¹
./.. additional operating costs

Total annual savings

≈ € 50,000 /year

AMORTISATION PERIOD

≈ 1 year

Efficient building operation for automatic doors

INITIAL SITUATION

Particularly in larger buildings, different areas are separated from one another by doors based on their function or in accordance with fire protection regulations. In line with legal requirements and standards, functional automatic doors are mainly used for this – but they are not usually controlled with smart features.

Manually operating automatic doors is not only time-consuming, but can also be particularly challenging for people with limited mobility. Despite the use of functional automatic doors that comply with legal requirements and standards, there is often no intelligent control unit that could improve building comfort and efficiency.

SOLUTIONS

Door systems open and close automatically, allowing people to move through the building more efficiently and comfortably. Building automation makes it possible to automatically keep certain doors open at specified times, while at other times they can be operated manually or by sensors. In addition, all door systems are centrally networked in the building management system, giving the facilities management team an overview of the functionality of all doors. Faults are reported in real time and with a full description. This simplifies the maintenance of door and window technology: an increase in the number of error messages, for example, indicates a failure and enables facilities management to initiate maintenance as needed and in good time.



ADVANTAGES AND POTENTIAL SAVINGS

- Efficient building operation
- Accessible and safe access routes
- Faster transport of goods and people through the building
- Optimised use of resources thanks to predictive maintenance

ROI (Return on Investment)	
INVESTMENT COSTS	
Components for control technology, including sub-distribution and cables; installation and commissioning	
Total investment costs	≈ € 50,000
ANNUAL SAVINGS	
Higher employee productivity ¹ ./ additional operating costs	
Total annual savings	≈ € 30,000 / year
AMORTISATION PERIOD	≈ 2 years

Increased efficiency through climate-active façades

INITIAL SITUATION

Good air quality is essential for human well-being and impacts everyone, from office workers to hotel staff or hotel guests. In addition, if ventilation is inadequate, employee productivity will suffer, while ventilation that is too intensive during the cooler months can lead to increased heating costs.

SOLUTIONS

A climate-active façade with windows that open and close automatically ensures optimal air quality and increases both the well-being and productivity of building users. The façade automatically reacts to changing outdoor conditions by raising or lowering the shading in an automatic process and opening or closing the windows depending on the outside temperature and air quality. This ensures that it is neither too hot nor too cold inside the building. Night-time cooling ensures a good indoor climate at the start of the following day.

Although all of this could also be achieved with a central ventilation system, the life cycle costs of such a system are up to 50% higher than those of the climate-active façade (see the final report "„KonLuft – Energieeffizienz von Gebäuden durch kontrollierte natürliche Lüftung“ (KonLuft – energy efficiency of buildings by application of controlled natural ventilation); HFT Stuttgart, 2016).



ADVANTAGES AND POTENTIAL SAVINGS

- Climate-optimised building operation
- Enhanced well-being and productivity of building users
- Reduced costs for indoor ventilation

ROI (Return on Investment)

INVESTMENT COSTS

Components for control technology, including sub-distribution and cables; installation and commissioning

Total investment costs

≈ € 350,000

ANNUAL SAVINGS

Savings through the reduction of unnecessary ventilation¹
 Higher employee productivity due to better air quality²
 Higher employee productivity due to thermal comfort³
 ./ additional operating costs

Total annual savings

≈ € 460,000 / year

AMORTISATION PERIOD

≈ 1 year

Multifunctional use of smoke and heat extraction systems (SHEV)

INITIAL SITUATION

Due to their size, design and use, many buildings are legally required to have a smoke and heat extraction system (SHEV). And although these are actually installed primarily in case of a fire, modern smoke and heat extraction systems can also be used to ensure good air quality and avoid excessive heating costs. Air quality, in particular, is essential for well-being and productivity.

SOLUTIONS

To use the smoke and heat extraction system for ventilation, the building management system exchanges data with a weather station and the building's occupancy plan. At the same time, it continuously measures the air quality and temperatures in the building. If the specified CO₂ limits are exceeded, the automated SHEV components automatically start ventilating the affected areas of the building. This improves air quality and increases the employee well-being and productivity. The temperatures in the different building areas can also be controlled via the smoke and heat extraction system, which is networked with smart technology. Thanks to the building automation, the smoke and heat extraction system reacts automatically to changing external conditions and ventilates the building when the outside temperature rises. Automatic night-time cooling ensures a good



indoor climate for the following day. Nevertheless, safety is always the top priority for the automated smoke and heat extraction system: in the event of a fire, the ventilation commands are ignored.

ADVANTAGES AND POTENTIAL SAVINGS

- Increased building safety
- Optimised facilities management processes
- Cost reduction for building monitoring

ROI (Return on Investment)	
INVESTMENT COSTS	
Components for control technology, including sub-distribution and cables; installation and commissioning	
Total investment costs	≈ € 140,000
ANNUAL SAVINGS	
Savings through the reduction of unnecessary ventilation ¹	
Higher employee productivity due to better air quality ²	
Higher employee productivity due to thermal comfort ³	
./. additional operating costs	
Total annual savings	≈ € 460,000 / year
AMORTISATION PERIOD	≈ 2 years

When will building automation pay off for you?

When will your investment in a centralised building management pay for itself? Calculate your amortisation period now – we can advise you in person!



Contact us now!

myGEZE Control

Everything you need for smart networking

With myGEZE Control, we offer you a smart solution for networking door, window and safety systems. The myGEZE Control connectivity platform with modular technology and open interfaces opens up completely new possibilities in building automation for all planners and operators. The advantages of the new platform: automated and standardised processes as well as central monitoring make it easier to use, more convenient and safer – while enabling more energy-efficient operation of the overall building. So you have complete control!

→ For greater efficiency, safety and comfort

→ For dynamic safety and fire protection concepts, intelligent smoke and heat extraction and the targeted release of escape routes

→ For more networking options

SECURE NETWORKING AND VISUALISATION

myGEZE Control can be integrated into building automation and control, physical security management and CAFM systems from any manufacturer via a certified BACnet communication interface and OPC UA integration. The myGEZE Visu software option also allows you to create your own visualisation solutions for GEZE product systems.

MYGEZE CONTROL IS AMEV READY – ARE YOU?

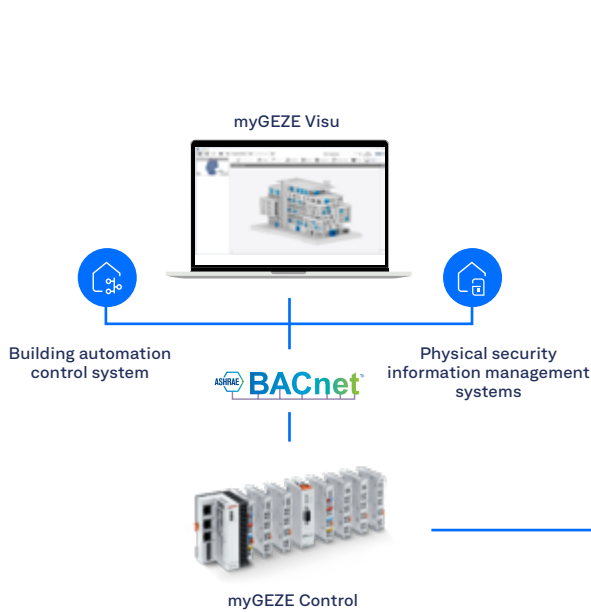
DIN EN ISO 16484 defines the requirements for building automation, which is becoming increasingly important in current tender texts and requirements specifications. This is the case in particular in public buildings, where compliance with AMEV certificates from the Working Group for Machine and Electrical Engineering in State and Municipal Non-residential Construction is mandatory. These AMEV certificates are proof that the systems meet the required standards and guarantee safety and proper function.

With our myGEZE Control connectivity solution, we meet the specific AMEV requirements for digital twins (BACtwin) for windows and doors. This enables seamless integration and management of building technologies that conform to the latest standards.

THE ADVANTAGES OF MYGEZE CONNECTIVITY WORLD AT A GLANCE

- **Open interfaces** – secure data exchange via BACnet, OPC-UA can be used by any operator
- **BTL-certified** – complies with BACnet standard ISO 16484-5
- **Digital twins** – meets AMEV requirements (BACtwin) for windows and doors in accordance with DIN EN ISO 16484
- **Can be expanded with myGEZE Visu** – control individual scenarios, monitor door and window systems and operate them intuitively
- **Data integration** – use the entire GEZE product portfolio
- **Maximum system availability** – central monitoring for fewer outages
- **Flexible & scalable** – Easy and cost-efficient to expand as requirements grow

PRODUCTS AND SERVICES FOR SMART NETWORKING



- myGEZE Control
- myGEZE Visu
- Emergency exit systems (RWS):
GEZE TZ 320, 321, 322
- Automatic door drives:
Slimdrive EMD, Powerturn, TS 325 NT,
Revo.PRIME, Slimdrive
- Fire protection doors with hold-open systems
- Smoke and heat extraction systems (SHEV):
MBZ 300 (various models)
- IQ windowdrive intelligent window drives
via IQ Box KNX: Slimchain, Powerchain

Further products or third-party work via I/O technology
(such as locking systems, cameras, etc.)



Good to know:
Control systems play a central role in building management. That is why GEZE is merging the two system areas of building automation control systems (BACS) and building management systems. Through open integration and close coordination with other trades in building automation, we ensure that all systems are interoperable.



EMERGENCY EXIT SYSTEM (RWS)



SMOKE AND HEAT EXTRACTION SYSTEM (SHEV)



FIRE PROTECTION DOORS WITH HOLD-OPEN SYSTEMS



NETWORKED DOOR SYSTEMS



NETWORKED VENTILATION CONTROL



Learn more about our
Connectivity World:

connectivity.geze.com

From planning to maintenance

We support you throughout the entire project cycle.

With our many years of expertise, we support you throughout the entire building automation process: as your reliable partner, we ensure that everything runs smoothly, from planning, construction site coordination and the pre-commissioning inspection to installation and commissioning, as well as regular maintenance or adjustments during operation by GEZE Service. This means you can focus fully on your building.

OUR SERVICES FOR YOU

We do not only offer you intelligent products for smart networking, but also support you in:

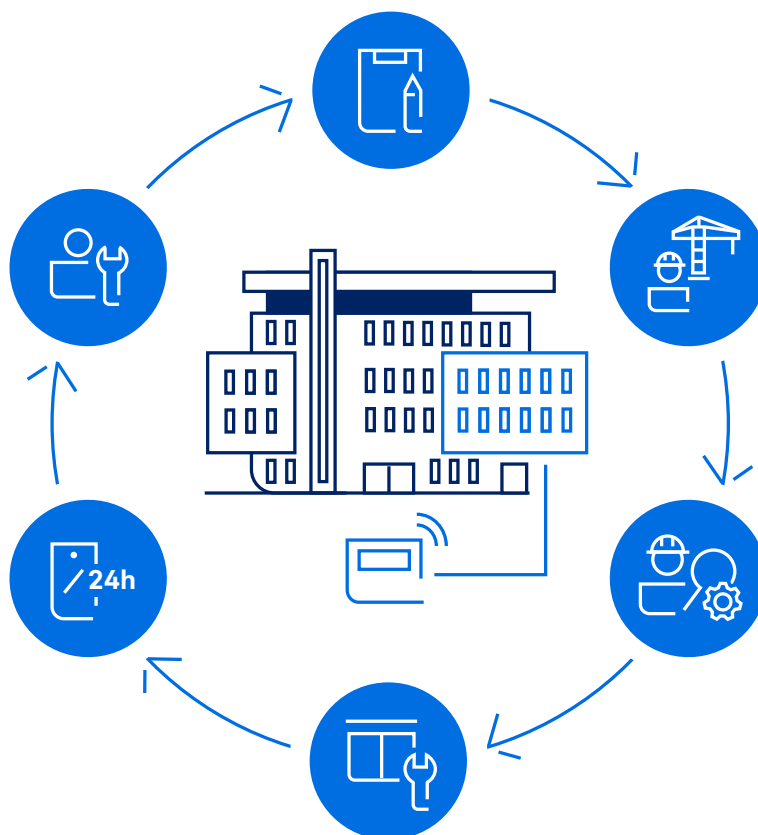
- project planning
- specialist planning
- installation
- commissioning
- maintenance
- changes and adjustments in operation

WOULD YOU LIKE TO LEARN MORE?

We would be happy to discuss your specific plans and advise you on your questions to find the right solutions. Contact our GEZE experts on the architect hotline: +49-7152-203-112

We are just an email away:

Write to us!



GEZE offers everything from a single source: planning, construction site coordination, pre-commissioning inspection and installation or commissioning, as well as regular maintenance.

When
are you
writing us?

Learn more about
our services:

www.geze.com/en/services



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