



GEZE SYSTEMS SOLUTIONS

Natural ventilation and indoor climate regulation

FRESH AIR FOR MORE WELLBEING

Products and solutions from GEZE for a good indoor climate

Natural ventilation and indoor climate regulation are important subjects with regard to ensuring a high air quality, especially for office buildings, school and hospitals.

- Stale air has consequences: An excessive CO2 concentration can lead to a decline in capabilities or headaches. It is also assumed that in closed rooms there is a higher risk of virus infections through aerosols. Consequently, a sufficient flow of fresh air through ventilation is recommended. By contrast, circulating air is advised against.
- Air quality and thermal convenience must be taken into account when planning buildings. Meaning: the CO2 content, the temperature, the humidity and the air movement in the room.
- Natural ventilation with automated windows is a smart solution that significantly improves the indoor climate, consuming little energy and with low investment costs.

GEZE offers window drives and smart control systems for natural ventilation. Sensors and control units are expandable and through our IQ box KNX they can be integrated into building management systems.

GEZE SYSTEM SOLUTION

- Ventilation solutions to meet your needs – from simple open/close controls of individual windows or window groups to extensive central control units and ventilation systems integrated into the building automation.
- Comfort solutions for automatic ventilation adjusted to the weather, temperature and air quality
- Intelligent smoke and heat extraction system control units that also enable ventilation functions. Radiocontrolled solutions for comfortable room / building controls, that can be controlled using a modern touch display.



System example: buildings with RWA and indoor climate control

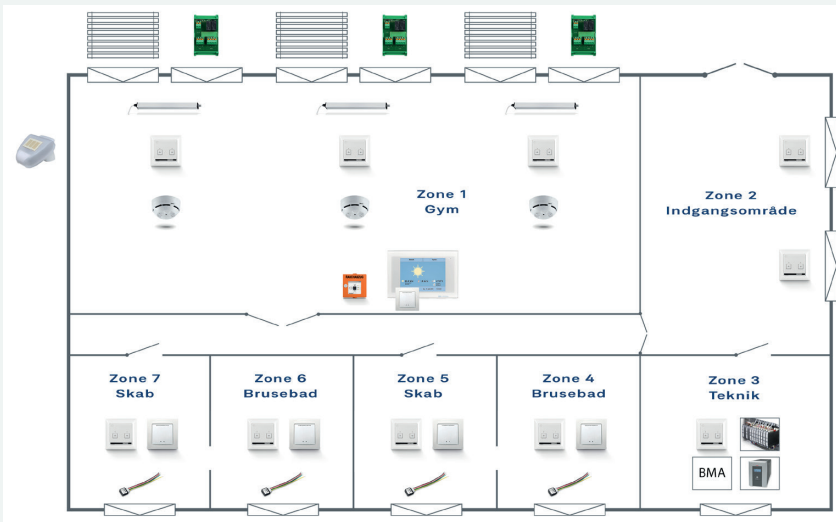


Diagram of indoor climate control in a gymnasium

The drawing illustrates a building with various rooms. In buildings like these, the optimum indoor climate can be difficult to reach with manual window opening. A system solution from GEZE provides great benefits for the building users. Automated ventilation throughout the building is supplying 'fresh' air depending on the air quality (mist), humidity (sweat) and temperature. Examples of rooms in this type of building could be: gymnasium, entrance area, technology room, locker rooms and shower rooms.

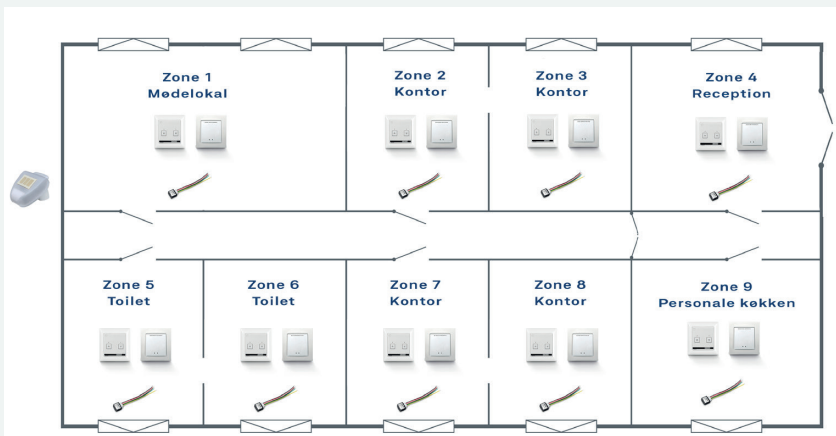


Diagram of indoor climate control in an office building

In Offices or classrooms the CO₂ values of the indoor air as well as the temperature of the air, is of high importance for the level of concentration and ability to work and learn. The drawing illustrates this type of building, where natural ventilation with automated window drives from GEZE, can regulate the air conditions to optimal settings. This can be regulated from measuring the air quality or set to a specific time schedule.

MORE AIR FOR BETTER CONCENTRATION

The quality of the indoor air has a great influence on our well-being, as we spend around two thirds of our lives indoors. In many schools, rooms are ventilated only when the weather is good or if the air quality is noticeably poor. This is often insufficient. A needs-based supply of fresh air can increase learning ability and concentration by at least 15 per cent. A good indoor air hygiene also reduces a possible infection risk, e.g. by aerosol.

SUCCESS IN EVERY AREA

References



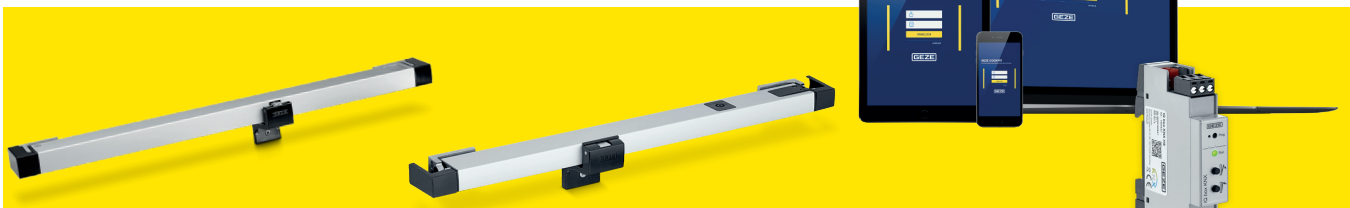
GAG's headquarters, Cologne, Germany

The GAG Immobilien AG headquarters is located in a six-storey building in Cologne. Apart from offices, the building has 159 apartments, children's playgrounds and an underground car parking. With a building that is utilised in such diverse ways, safety, efficiency and convenience play a central role. In order to address these requirements with smart solutions, it was decided to introduce an automatic building management system. It was a criterion that this superordinate building management system (BMS) should also be able to offer monitoring and visual presentation of all external doors, i.e. main and side entrance doors as well as emergency exit doors.



The Herresta school, Stockholm, Sweden

The new Herresta School, just north of Stockholm, was the first in Sweden to be constructed entirely of solid wood. It fulfils the strict criteria for the Sweden Green Building Council's Gold certification, which involves very high requirements when it comes to energy consumption, air quality, acoustic environment and the control of chemical substances in the indoor environment. GEZE's committed collaboration with the building contractor Skanska contributed to these requirements being fulfilled in the 8,200 m² building.



→ GEZE Powerchain

The powerful GEZE Powerchain chain drive can open and close even large and heavy windows.

→ GEZE Slimchain

The slim and discreet look of the Slimchain opening drive integrates perfectly into the façade design.

→ GEZE IQ BOX KNX

The IQ box KNX allows window drives to be integrated into GEZE Cockpit, our smart building automation system.

OVERVIEW

Products

Powerchain

Chain drive for large and heavy window elements that need large opening widths



Slimchain

Chain drive in an attractive design with numerous possible applications



E 250 NT

Compact design spindle drive with a wide area of application



Powerlock

Locking drive in combination with Slimchain, Powerchain or E 250 NT



IQ box KNX

Interface module for connecting the Slimchain, Powerchain and E 250 NT window drives in the KNX building bus



IQ Gear

Interface for activation of the Slimchain, Powerchain and E 250 NT window drives in ventilation mode



MAINTENANCE



- For the automatic door to keep its optimal functionality and assure safety on the door, it is recommended to maintain the drives with regular after sales services.
- A regular service on the door not only secures the safety and usability, it prolongs the lifetime of the door drive and optimizes the daily comfortable use.
- Our local team and our service technicians are specialists in making sure your automatic door is maintained to the highest standards.

Connecting expertise – building solutions.



GEZE Sweden Mallslingan 10 | SE-187 11 Täby Sweden | **TEL.** +46 (0) 8 732 34 00 | **EMAIL** sverige.se@geze.com | www.geze.se
GEZE Denmark Mårkærvej 13L | DK-2630 Taastrup, Denmark | **TEL.** +45 46 32 33 24 | **EMAIL** danmark.se@geze.com | www.geze.dk
GEZE Norway Bølerveien 71 | NO-2020 Skedsmokorset, Norway | **TEL.** +47 63 95 72 00 | **EMAIL** norge.se@geze.com | www.geze.no

GEZE Scandinavia AB Mallslingan 10 | SE-187 66 Täby, Sweden | **TEL.** +46 (0) 8 732 34 00 | www.geze.com
Finland | Iceland | Latvia | Estonia | Lithuania
EMAIL finland@geze.com | iceland@geze.com | latvia@geze.com | estonia@geze.com | lithuania@geze.com