

Reference report

LEONBERG, 14 JANUARY 2019

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Wireless extension: a clean solution Comfortably expanding GEZE hold-open systems 'wirelessly' in a historical building

The GEZE fire protection solution with wireless hold-open systems in buildings owned by the Dortmund business association, which were constructed in late nineteenth century.

Unobtrusive design

Perfect for listed buildings

- simple and clean: wireless installation
- no installation of cable ducts (no knocking-through of walls!)
- no changes to historical room aesthetics
- if structural changes are not viable/not desired

Efficiency in modernisation

Costs and building expenses savings

- approved: wireless extension system with general construction technique permit for GEZE hold-open systems

Security and ease of access

Reliable fire protection and accessibility provided by a door with automatic and manual swing door systems

- open and barrier-free in daytime operation
- automatic closure in the event of fire

Construction work in a listed building? Plus the need to lay cables for the fire protection solution? This is now much easier and was successfully achieved as part of the renovation and modernisation of the listed building belonging to the metal industry Dortmund business association: thanks to FA GC 170, our unique and award-winning wireless extension for hold-open systems.

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Modern late nineteenth century style

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What happens in this brick building ‘from the good old days’ today is highly topical, involving key and current issues in our modern world of work. The building, built in 1894 during the industrial revolution and featuring an ornate façade, an arched entrance with a bay window above it, and high-ceilinged rooms, became the first ‘industrialist’s villa’ in the affluent Prinz-Friedrich-Karl-Strasse district which was established in around 1900. Today, this city palace is a listed building.

Liveable: more comfortable and much safer

However, the headquarters of the business association failed to meet the modern requirements in terms of technology and usage. A renovation and modernisation project incorporated a fresh interior with about 20 rooms into the three-storey office block. GEZE door technology makes it even more ‘liveable’, as it offers users and visitors modern door comfort and optimal safety with the required fire protection.

“The installation of the fire protection doors could not have been simpler or quicker. These doors were also supposed to be barrier-free, and can be kept open as required. The GEZE wireless extension systems, which were required for the high-ceilinged rooms, meant no walls had to be knocked-through for cables. We were able to leave the structure of the listed building intact, use a secure and approved system, and save effort and costs,” explains Gerhard Kämper. For several years, he has been the building’s on-site technician and co-organiser of the renovation.

Complete renovation: new fire protection concept

Because the building was to be used for a different purpose, the renovation required a new fire protection concept. To create the necessary barrier-free access and maintain an open atmosphere, the new fire doors had to be kept open during daytime operation – but of course close automatically in an emergency. Hold-open systems enable this. They hold the doors open until they are either closed manually or – in the event of a fire – safely closed by activating the smoke switch.

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Architectural challenges

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The problem was how to meet the special requirements placed on fire doors with hold-open systems in this historic architecture. Due to the great room heights and the distances of far in excess of one metre between the lintel and the ceiling, additional ceiling smoke detectors were required on both sides of the door. Additional cable runs in the ceiling are unavoidable. The building operators, door manufacturers and planners faced the challenge of leaving the historic ceilings – some of which had beams – untouched.

It's good to talk...

So that we at GEZE can make a meaningful contribution, we communicate constantly with our customers and partners. We always discuss the challenges of proposed and future projects with them so that we can lend our expertise and experience in the different building types and uses right from the beginning: that delivers the best solution.

..... Better together

Even in the earliest stages of the project, we got parties from all subsections involved. This made sure that no requirements or issues were forgotten, no inspiring idea was ignored, and processes could go hand-in-hand in an efficient network. In the case of this listed building with its specific circumstances, we worked together with door experts from Dömer Metallbau GmbH in Nordwalde to implement

- manual and automatic fire protection doors, and
- a wireless extension of the hold-open system with wireless detectors in a complete system

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Enhancing hold-open systems: wireless

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The GEZE FA GC 170 wireless extension has the great advantage of

- **not requiring additional cables.**

We offer a unique solution for hold-open systems with wireless components with

- **a general construction technique permit.**

No half-way measures

Thanks to the innovative GEZE wireless extension, alternative and impermissible extension solutions with object-specific, costly and time-consuming approval processes could be avoided.

Easy installation

The additional smoke detectors could be simply attached to the ceiling by GEZE Service. All components of the FA GC 170 wireless extension were easily connected to the existing system via a wireless module. FA GC 170 is therefore also a retrofitting solution. Ceiling smoke detectors and manual trigger switches of other hold-open systems in the building can also be wirelessly connected to the wireless module on the lintel-mounted detectors.

Individual service concepts

Our service does not stop when the wireless extensions are handed over. We offer tailor-made service and maintenance throughout the entire life cycle of the barrier-free fire protection doors.

The 'all-round package' for

- consistently high availability
- reliable, safe operation
- value preservation and extended life span

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Products and added value at a glance

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GEZE hold-open systems with wireless extension:

Manual and automatic swing doors

with smoke switch (integrated and invisible)

- TS 5000 door closer
- Slimdrive EMD-F/R swing door operating systems

FA GC 170 wireless extension

Elements per door

- 1 GC 171 wireless module for wireless communication
- 2 GC 172 wireless ceiling-mounted smoke detectors
- cable runs to ceiling-mounted detectors are not necessary
- no separate cable laying, no knocking-through of walls
- simple retro-fitting
- construction effort and costs are avoided
- ideal solution
 - for listed buildings
 - if structural changes are not viable/not desired
- Planning certainty
 - change of fire protection concepts
 - change in use of doors
- flexible system design for particular structural conditions
 - tested in accordance with the European DIN EN 5425 standard for fire alarm systems
- Wireless extension system with general construction technique permit (DIBt) for GEZE hold-open systems
- low maintenance: 5-year battery life

Contact