

# Reference Story Carl Zeiss AG

Complex security requirements implemented individually

## Security precisely controlled: How ZEISS implements access control with Interflex

**ZEISS is one of the most innovative companies in Germany. With lithography optics manufactured at its headquarters in Oberkochen, around 80 percent of all microchips worldwide are produced. To protect the highly complex manufacturing and research facilities, the manufacturer has been relying on the access control solutions of Interflex for more than 20 years.**

Whether in smartphones, tablets, or cars - today's digital world is based on increasingly powerful microchips. With its SMT (Semiconductor Manufacturing Technology) division, ZEISS is the technology leader that supplies optical systems and components to the semiconductor industry, enabling them to produce ever finer and more energy-efficient chip structures. There is no doubt that this business area has now become one of the critical infrastructure companies. In addition, ZEISS, as an all-rounder in the optical industry, is also one of the leading manufacturers of eyeglass lenses, photography lenses, solutions for medical technology, microscopy, ophthalmology, as well as industrial metrology and research. The company employs more than 40,000 people worldwide in 50 countries, including around 17,000 in Germany. With over 30 production sites, another 30 for research and development, and around 60 for sales and service, it is clear how complex and diverse the group has become.

### Industry:

Optical and optoelectronic industry

### Company Size:

> 40,000 employees (globally),  
approximately 17,000 in Germany

### Solution:

- IF-6040 access control
- Time recording
- Opendor<sup>air</sup>

### Products Used:

- Opendor:
  - IF-271 Door Handle Air
  - IF-261 Cabinet Lock Air
  - IF-281 Cylinder Air
- Access Reader IF-800
- Time Recorder IF-5735
- RFID Credentials (LEGIC)

## Security precisely controlled

Security for employees, suppliers, visitors, but above all the protection of highly sensitive production and research facilities are top priorities. The Corporate Information Technology department, based in Oberkochen, Baden-Wuerttemberg, is responsible for the security of all business areas and locations worldwide. This is where all the threads come together when it comes to physical security and access control of all facilities. Access authorizations for employees are assigned and changed, access and readers are controlled. In the event of a security incident, for example, at a facility in the USA, the experts in Oberkochen can trace the incident and derive appropriate measures. At first glance, this is a highly complex administrative effort that the security experts at ZEISS have successfully solved for more than 20 years with access control solutions from Interflex. "We have extreme and complex security requirements," says Holger Herbst, responsible for physical security at ZEISS in Oberkochen. "Technically, everything is interconnected. There can no longer be strict separation. The scope of security solutions we have and need in our operations is currently unmatched by any other provider."

The high complexity of the security concept is particularly evident at the headquarters in Oberkochen: There are various production halls with different security standards and levels, including high-security areas where not even a speck of dust is allowed and can only be accessed through airlocks by specially trained personnel wearing protective clothing. In addition, there are parking areas and office buildings that are regularly frequented by suppliers, employees from external companies, as well as guests and applicants. In Germany alone, there are an estimated 800 external companies with around 5,000 people. Together with the service experts from Interflex, an elaborate individual security concept has been developed.

## IF-6040: Specifically tailored

For the continuously growing production site of the SMT division, ZEISS relies on various hardware and software solutions from Interflex. The core of the solution is the business software IF-6040. Since 2011, the solution has been managing the high requirements in Germany and worldwide. Currently, 1,000 room zones and up to 3,000 terminals are managed and controlled through the administration interface, and evaluations of security incidents are quickly generated regardless of time zones. ZEISS also uses the visitor management module in IF-6040. "I can practically do everything from my desk and even control it from my home office," explains Holger Herbst. "The beauty of IF-6040 is that you can administer everything down to the smallest detail. I am practically independent of time zones and can act internationally. Considering the volume and the international connections, the software runs very stable." Other advantages include the modularity of the solution, the fast and timely patching of new software releases, and the ability to expand the software at any time.

## This is what the customer says:

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Holger Herbst, Corporate Information Technology,  
IT System Integrator, Carl Zeiss AG



The fact that IF-6040 is not an off-the-shelf solution for ZEISS is evident, for example, in the workflows for access authorizations. With 1,000 defined room zones worldwide, ZEISS has a very granular authorization concept. Depending on the area and security level of buildings and locations, different, sometimes multi-stage approval processes are stored in workflows. The underlying complex role concept involves various contact persons, from department managers to security officers and hall managers, some with multiple representatives. The software has been customized and tailored to ZEISS by the developers and service experts from Interflex to meet these specific requirements.

### Durable, versatile hardware

Currently, up to 3,000 access readers from Interflex are administrated across the entire company and different areas using the IF-6040. Online-wired access readers from the IF-800 series are a standard feature at ZEISS' company premises, both indoors and outdoors in office buildings and production halls. Holger Herbst particularly appreciates "the durability of the hardware." In high-security areas, two-stage secured access locks, as well as access control gates and turnstiles, are controlled using IF-800 readers. ZEISS utilizes RFID-based ID cards in chip card format with a photo based on LEGIC technology as a means of identification. These cards have an additional advantage as they can also be used by employees as payment cards in the company cafeteria. In addition to the hardware components for access control, ZEISS also uses the IF-5735 terminals for employee time recording. The recorded working time data is transmitted to the SAP system and used, among other things, for payroll accounting.

### Wireless independence with Opendor<sup>air</sup>

Although ZEISS particularly values the durability of its locking components, access readers, and terminals, the company is always interested in innovative new technologies in the field of access control. This is why ZEISS was one of the first users of Opendor<sup>air</sup>, a new product generation presented by Interflex in 2021. The battery-operated, wireless-capable locking components are now in use, along with the IF-271 door handle, and the IF-261 locker locks. In the next expansion stage, the IF-281 cylinders will be introduced, as well as the rollout of locker locks to additional locations in Germany.

A special advantage of this solution over a pure offline solution is: "If we have to program a lock component on-site every time, it is very time-consuming. Afterwards, it is also not possible to determine exactly who has used the access. That is a big problem," says Holger Herbst about the decision to use an online-based access solution like Opendor<sup>air</sup>. "With Opendor, I have permanent online monitoring. Who enters when and where, and who is allowed to enter from when. I have traceability at all times, and the door handles can be quickly replaced. In short, I am just as independent as if I had an online-connected card reader."

Since the locking components can be easily and quickly installed without drilling, they are primarily used by ZEISS in fast reconstruction projects on the company premises in Oberkochen. Opendor<sup>air</sup> is particularly effective in the current construction phase of the company's headquarters. "Buildings under construction cannot be wired so quickly. If an office is converted into a development site, it needs to be quickly sealed off," explains Holger Herbst. "Especially in areas where no wiring has been installed for online readers, the Opendor solution is just right. I simply install the hardware on the door. And done." Additional application areas include, for example, fire doors, the conversion of which costs several thousand Euros, or access points to so-called cleanrooms in the production halls where the optics are manufactured. In other words, in places where reconstruction must not generate dust through drilling.



Access Reader IF-800



Time Recorder IF-5735



IF-261 Cabinet Lock Air



IF-271 Door Handle Air



IF-281 Cylinder Air

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"The great thing about the IF-6040 is that you can administer everything down to the smallest detail. I am practically not dependent on time zones and can act internationally."

Holger Herbst, Corporate Information Technology,  
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Opendor<sup>air</sup> has a special application area among employees. Employees working in the production and research halls for optical systems must sometimes completely change their clothes and are not allowed to bring personal items to the workplace. For this purpose, lockers equipped with Opendor<sup>air</sup> locks IF-261 are used. Currently, up to 6,000 locker locks are planned to be gradually installed at locations with production halls in Germany.

### Future-proofed

ZEISS and Interflex solutions: This is not just a long-standing business relationship, but also a special partnership. “What I particularly appreciate about Interflex is the excellent collaboration. Whether it’s development or service, they all address our problems and seek suitable solutions,” summarizes Holger Herbst. And this is not by chance. For a long time, ZEISS has been one of Interflex’s customers who always test the latest access technologies in practical environments as one of the first pilot customers, such as Opendor<sup>air</sup> or the Key App. “We are happy to provide feedback if something doesn’t work in the test functions and what specific improvements can be made in development,” says Holger Herbst. For example, the ZEISS Group in Jena is planning a high-tech center where the latest technologies from Interflex will be piloted and used in the future. New access technologies from Interflex that are being tested by ZEISS. A win-win situation that also benefits other companies and industries.



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