

# Fire safety solutions for archives and libraries

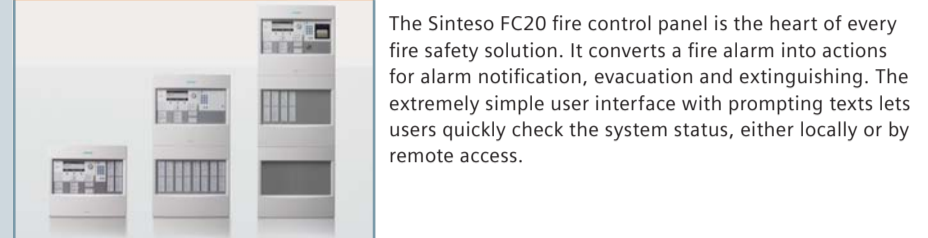
Planning Tool

# Planning Tool – fire safety solutions for archives and libraries

Answers for infrastructure.

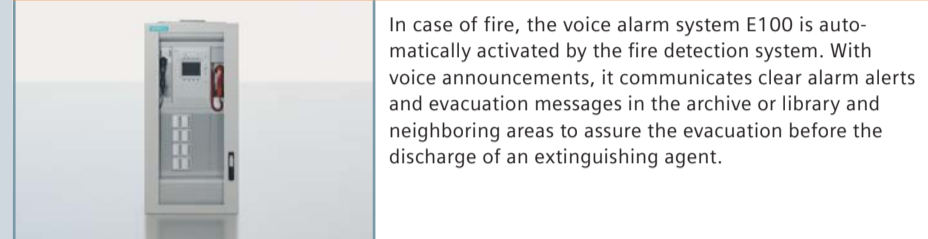


## Fire control panels



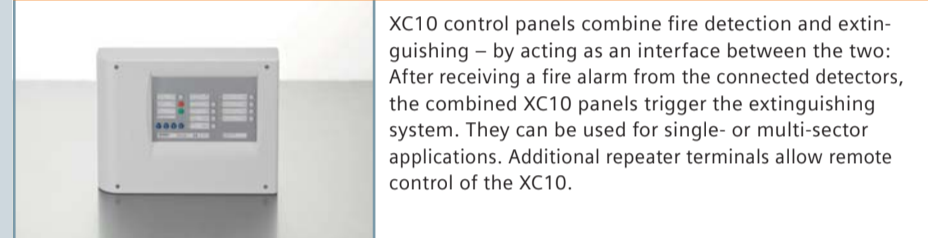
The Sinteso FC20 fire control panel is the heart of every fire safety solution. It converts a fire alarm into actions for alarm notification, evacuation and extinguishing. The extremely simple user interface with prompting texts lets users quickly check the system status, either locally or by remote access.

## Voice alarm system



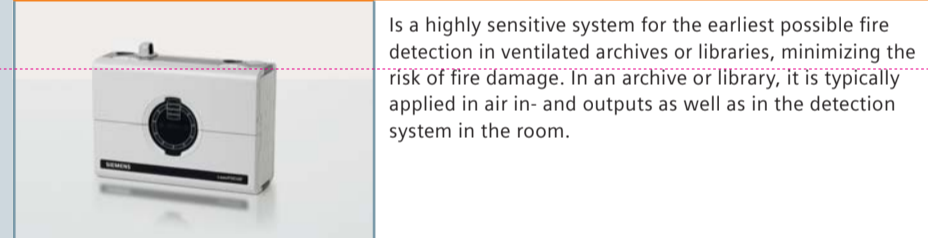
In case of fire, the voice alarm system E100 is automatically activated by the fire detection system. With voice announcements, it communicates clear alarm alerts and evacuation messages in the archive or library and neighboring areas to assure the evacuation before the discharge of an extinguishing agent.

## Extinguishing control panels



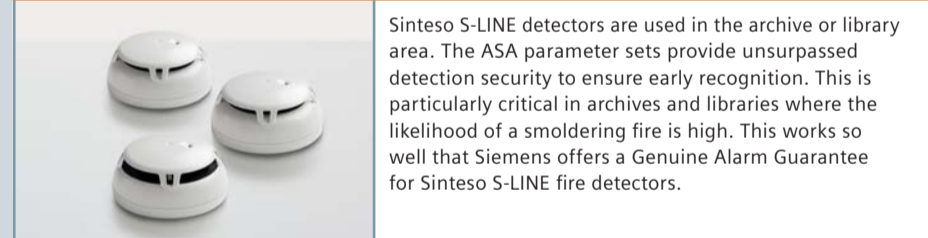
XC10 control panels combine fire detection and extinguishing – by acting as an interface between the two: After receiving a fire alarm from the connected detectors, the combined XC10 panels trigger the extinguishing system. They can be used for single- or multi-sector applications. Additional repeater terminals allow remote control of the XC10.

## Aspirating smoke detection



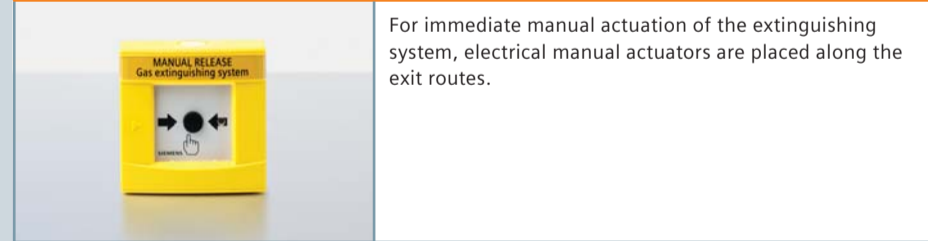
Is a highly sensitive system for the earliest possible fire detection in ventilated archives or libraries, minimizing the risk of fire damage. In an archive or library, it is typically applied in air in- and outputs as well as in the detection system in the room.

## Point type fire detectors



Sinteso S-LINE detectors are used in the archive or library area. The ASA parameter sets provide unsurpassed detection security to ensure early recognition. This is particularly critical in archives and libraries where the likelihood of a smoldering fire is high. This works so well that Siemens offers a Genuine Alarm Guarantee for Sinteso S-LINE fire detectors.

## Electrical manual actuator



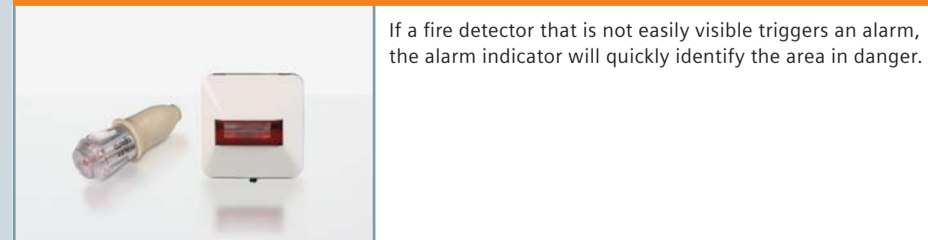
For immediate manual actuation of the extinguishing system, electrical manual actuators are placed along the exit routes.

## Sounder and sounder beacon

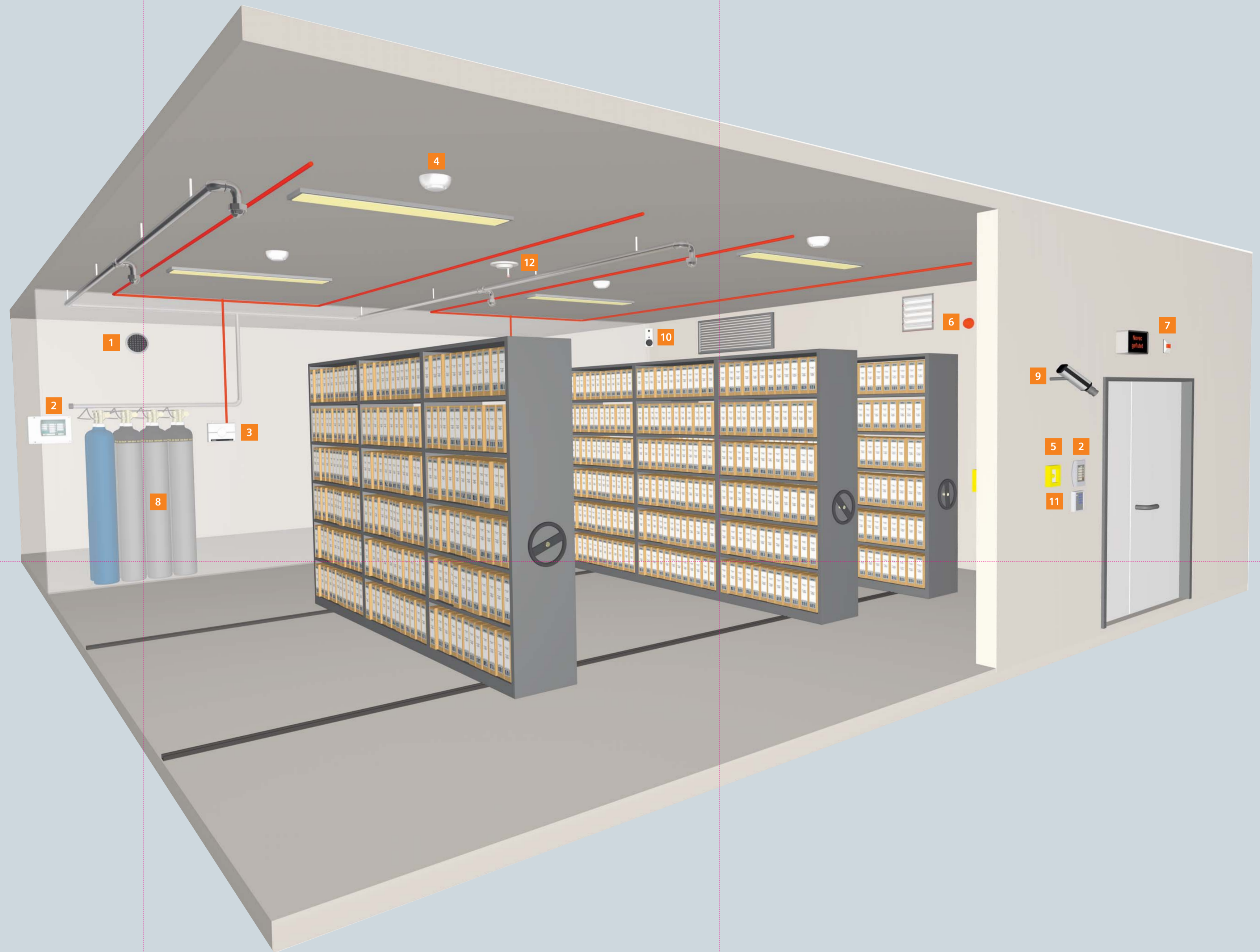


In the archive area, the sounder FDS221 and sounder beacon FDS229 are recommended to alert the occupants acoustically and optically.

## Alarm indicators



If a fire detector that is not easily visible triggers an alarm, the alarm indicator will quickly identify the area in danger.

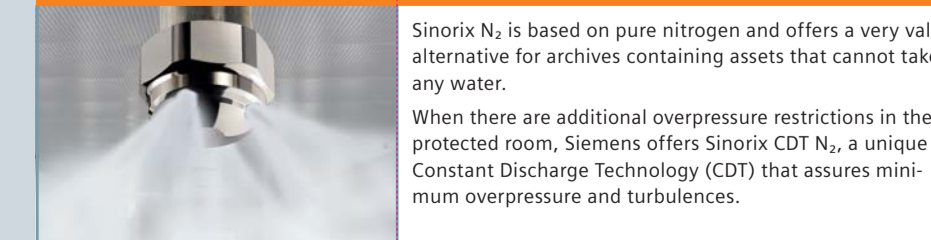


## Extinguishing with Sinorix H<sub>2</sub>O Gas



In the protection of archives and libraries, Sinorix H<sub>2</sub>O Gas offers the highest extinguishing efficiency known today on the market. Based on nitrogen and water, it combines the excellent extinguishing behavior of nitrogen with water mist that cools down burning or heated surfaces. The limited amount of water needed makes it suitable even for very sensitive assets.

## Extinguishing with Sinorix N<sub>2</sub>



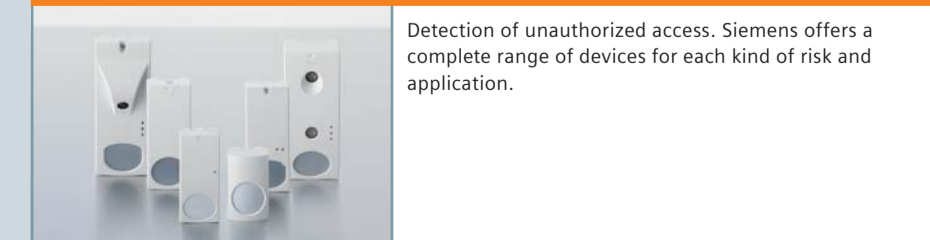
Sinorix N<sub>2</sub> is based on pure nitrogen and offers a very valid alternative for archives containing assets that cannot take any water. When there are additional overpressure restrictions in the protected room, Siemens offers Sinorix CDT N<sub>2</sub>, a unique Constant Discharge Technology (CDT) that assures minimum overpressure and turbulences.

## Video surveillance



The video surveillance system monitors critical zones such as the archive or library entrance area or public areas – to record incidents before and after an event.

## Intrusion detection



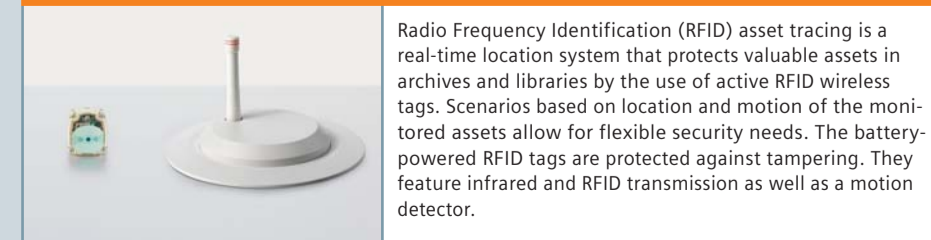
Detection of unauthorized access. Siemens offers a complete range of devices for each kind of risk and application.

## Access control



The access control system provides safe and flexible access authorization, time recording and badge issuing. In an archive or library with high value concentration, pin code or a finger print reader are recommended.

## RFID



Radio Frequency Identification (RFID) asset tracing is a real-time location system that protects valuable assets in archives and libraries by the use of active RFID wireless tags. Scenarios based on location and motion of the monitored assets allow for flexible security needs. The battery-powered RFID tags are protected against tampering. They feature infrared and RFID transmission as well as a motion detector.

Answers for infrastructure.



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The information in this document contains general descriptions of technical options available which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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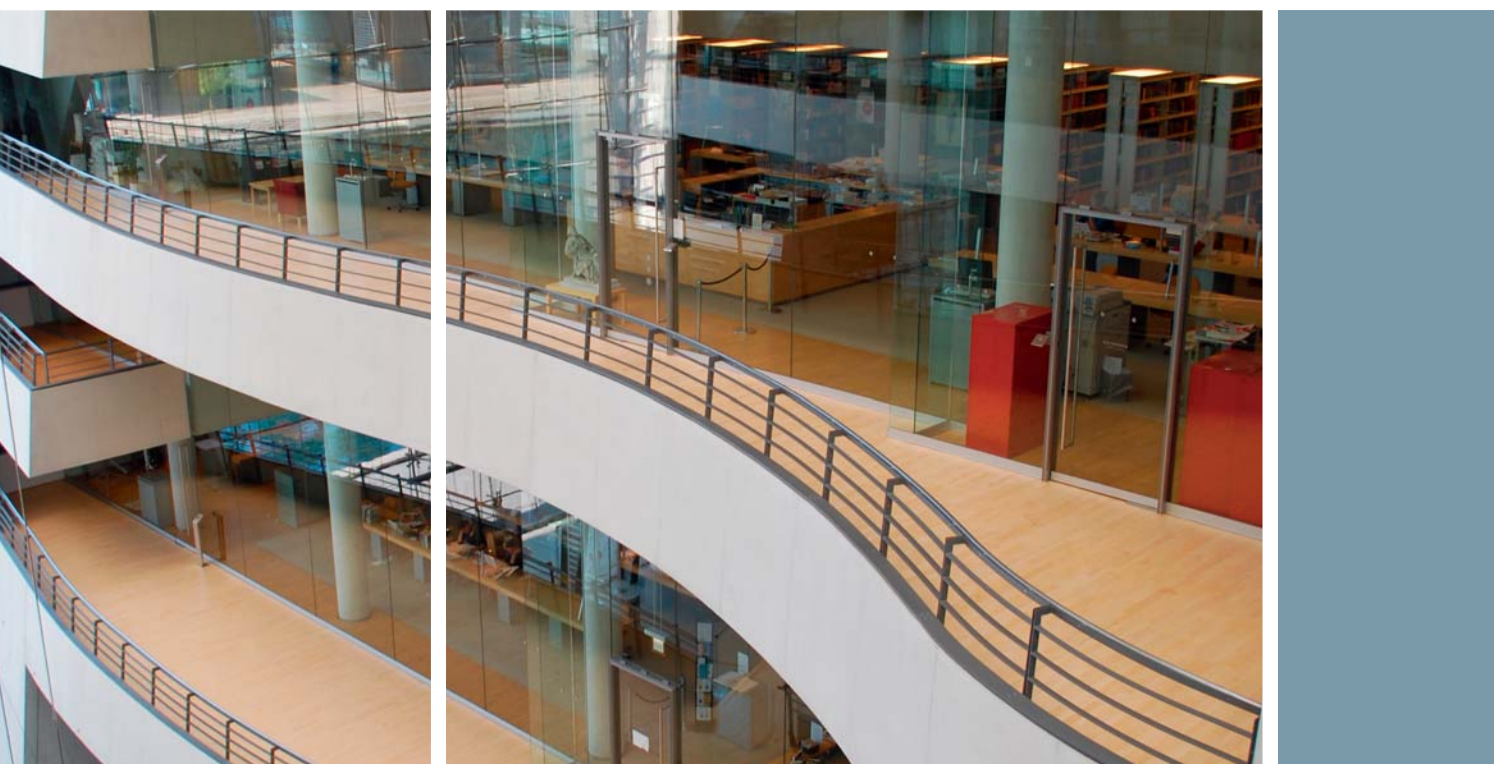
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■ **Megatrends driving the future**  
The megatrends – demographic change and globalization – are shaping the world today. These have an unprecedented impact on our lives and on vital sectors of our public infrastructure. Over the entire world, integrated solutions for industry, commercial and residential buildings and building technologies offers intelligent management through complete building life cycle increase productivity and efficiency.

■ **Innovative technologies to answer the associated toughest questions**  
Throughout a 160-year history of professional research and engineering talent, Siemens has continuously provided its customers with innovations in the areas of heat, energy, industry and infrastructure – globally and locally. Ensures the optimum comfort and highest energy efficiency in buildings. Over the entire world, fire safety and electronic security. Through our research and engineering talent, we have developed a 160-year history of professional products, systems, solutions and services in the fields of electrical installation, building automation, fire safety and electronic security.

■ **Increases productivity and efficiency**  
Through complete building life cycle management through complete building life cycle increase productivity and efficiency.

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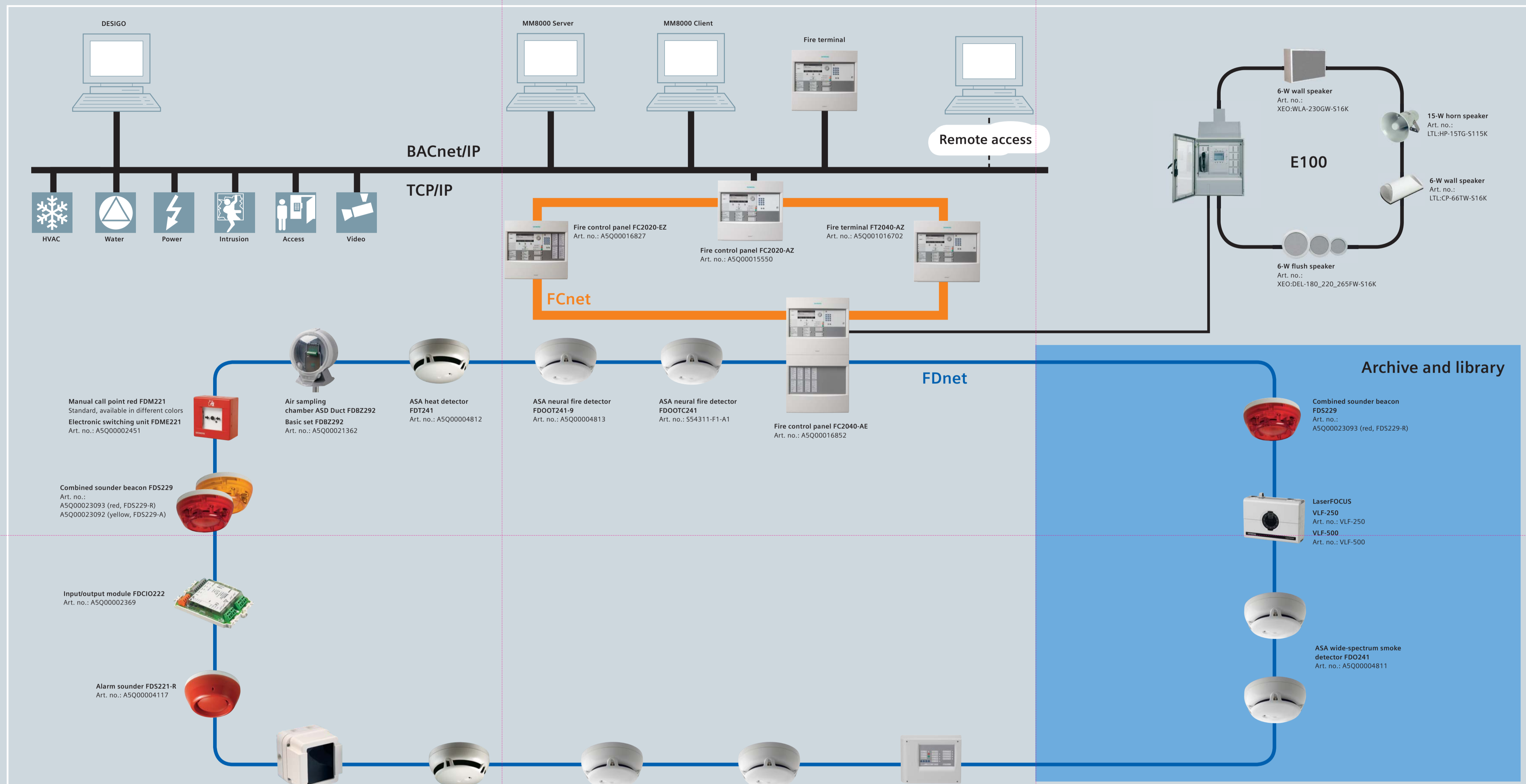
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## Complete solutions for safe archives and libraries – from an experienced partner

Archives and libraries contain valuable and unique records for permanent preservation. No matter where archives are being used – in museums, libraries, public buildings, hospitals and industries – damage by fire and smoke can destroy irreplaceable items. That's why it's important to provide your archive and library with a high level of fire safety.

Siemens' fire safety solutions are tailored exactly to your archive's and library's requirements, offering maximum protection against all risks of fire. Based on the concept of a professional and innovative partner, they provide everything from consulting to commissioning and after-sales service for fire detection and extinguishing.



## Integrating innovative fire safety solutions into your archive and library

**Protecting people and assets**  
Fires and their consequential damage through water pose a great risk for archives and libraries as well as for people and valuable documents. Proof are incidents such as the fire at the university library of Lyon, France in 1999, the disastrous fire at the Herzogin Anna Amalia library in Weimar, Germany in 2004 or the major fire at the famous Universal Studios in Hollywood, USA in 2008 which also destroyed the video archive.

Besides losing usually irreplaceable cultural goods and information, consequences also include high costs for the rescue, drying and restoration of the damaged material. Often, the items are not insured, and when they are, only restoration costs are covered. Once culturally (legal, medical and other documents) and historic values are lost, they cannot be replaced in most cases.

It is therefore recommended that archives and libraries have a high level of fire safety. Preventive and active fire safety is particularly important here. High investments are often made for conservational preservation – but what about protection from fire?

Are you sure, the fire safety concept for your archive and library is still up-to-date?

**More fire safety and security through an integral concept**  
For fire safety in archives and libraries, early and reliable detection of an event and the initiation of appropriate extinguishing measures are critical factors in an effective protection concept. The goal is to detect and extinguish fire as early as possible. If no extinguishing system is installed, the early detection gains time for the intervention forces.

Analyses show that the no. 1 cause for fire safety system failure is the interface between detection, alarming, control and extinguishing. The different systems must therefore be compatible with each other. That's why we offer comprehensive, one-stop fire safety solutions that cover everything from fire detection to evacuation and extinguishing.

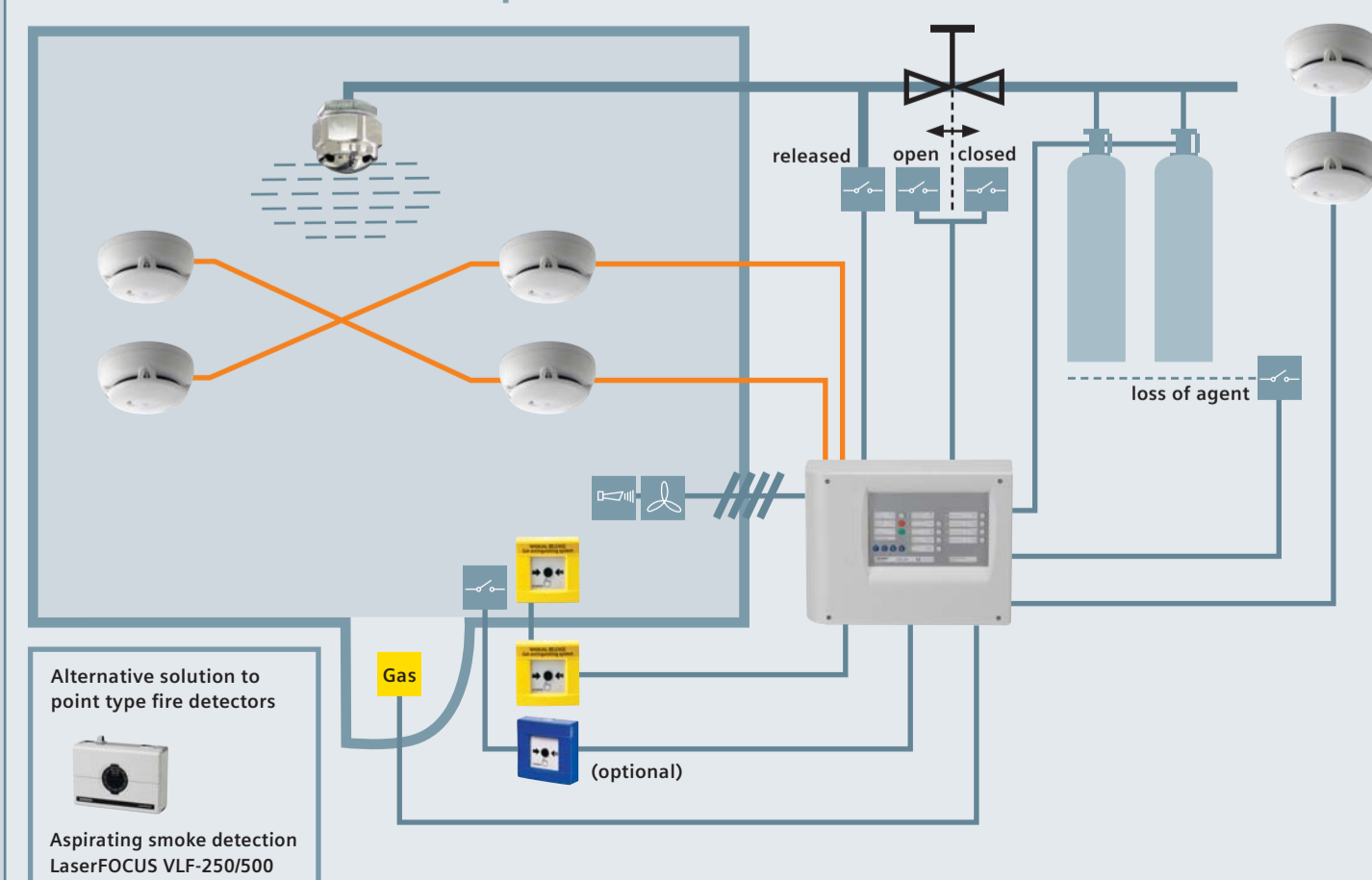
**All-inclusive portfolio**  
We offer more than fire safety and help enhance the overall security of your archive or library, e.g. with access control, intrusion detection or video surveillance systems. Moreover, we take care of your systems throughout their entire life cycle – from consulting and commissioning to choosing a service concept that fits your needs.

**Unique fire safety technology for your archive and library**  
Our fire safety solutions provide earliest possible warning – thanks to unique technologies like our state-of-the-art Sinteso™ fire detectors that even offer a Genuine Alarm Guarantee or our aspiration smoke detection. Combine these with our highly reliable and effective Sinorix™ extinguishing systems that are based on innovative technologies such as the combined gas-water technology Sinorix H<sub>2</sub>O Gas and you will benefit from comprehensive fire safety that meets your requirements.

**Highest standard of safety**  
Backed by more than 150 years of experience in fire safety, our solutions excel through highest possible quality. Incorporating only products that meet industry-specific standards and regulations certified by VdS, LPCB, FM or UL, they comply with the highest safety standards.

- Highlights**
- Safety for people and assets – due to application-specific know-how
  - One integrated solution – from fire safety and security to building automation
  - One project responsible – receive everything from planning and implementation to maintenance from one source
  - Highest possible product quality – solutions comply with industry-specific standards and regulations

### Example of a stand-alone extinguishing system with an XC10 control panel



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