

Intelligent fire protection for your building

Integrated fire damper control, reliable fire detection and comfortable building management – all in one system.

[siemens.com/firedampercontrol](https://www.siemens.com/firedampercontrol)

Reliable fire control can save lives

Fire protection systems have to be highly reliable. One of their core tasks is fire control. In the event of fire, they trigger acoustic and optical warning signals and have an impact on the technical systems of the building control. For example, they dispatch elevators to a defined floor, open the elevator doors, close doors between individual fire zones and influence the ventilation system. Closing fire dampers seals off individual fire zones from smoke and prevents it from spreading. In corridors and escape routes, smoke dampers are opened to allow poisonous combustion gases to be extracted for safe evacuation. The ventilation system keeps escape routes free from smoke through targeted overpressure.

An innovative solution from Siemens

Siemens offers a unique, intelligent solution for reliable fire detection and efficient fire damper control – integrated into a management platform. This helps save both time and effort.

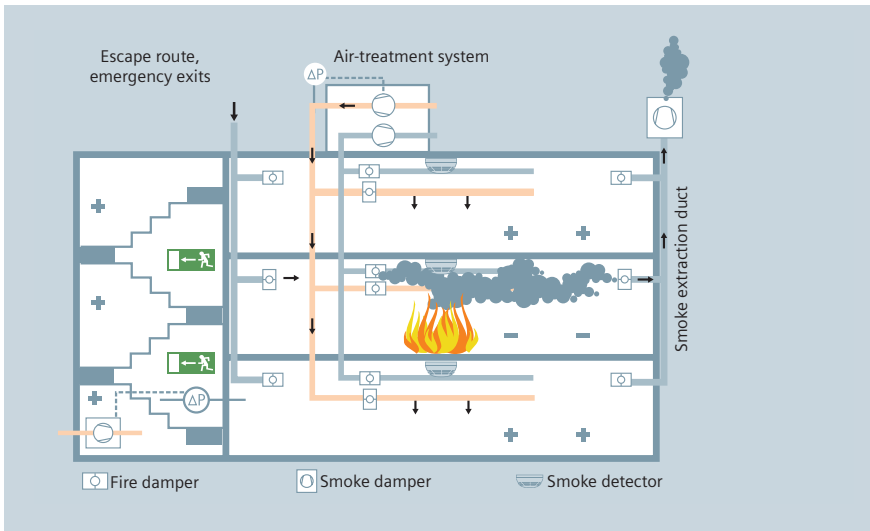
Faster, easier installation and increased safety

A programmed fire control panel from Siemens serves as fire damper control unit. It utilizes the fire control matrix, which is based on the fire safety concept and the country-specific norms and regulations. The panel no longer has to be wired directly to each fire damper. The corresponding input/output modules can now be installed in close proximity to the fire dampers, while these modules are connected to the fire control panel via a field bus system installed as a loop.

This EN 54-approved technology reduces the wiring effort, installation time as well as the number of cables needed – and thus the fire load. The loop design of the communication wire additionally ensures that the system functions optimally even in the case of a line break or short-circuit. Information is simply redirected back around the loop to the control panel or fire dampers in the other direction.

Highlights

- Easy integration into fire protection systems, management platforms and automation stations from Siemens
- EN 54-approved solution and fail-safe technology enhance safety
- Loop technology protects communication against short-circuits and interruptions
- Easy planning, commissioning and extension
- Display, operation and test activation via the management platform
- Saves time and effort for recurring tests



Optimal interaction of ventilation and fire protection system to ensure highest safety in the event of fire.

Fail-safe loop technology

To control the fire dampers during a fire incident, Siemens offers the cable-saving loop technology at both the field and panel levels. This facilitates planning, installation and commissioning, optimizes maintenance and saves both time and effort.

Furthermore, communication with the individual devices is monitored, ensuring highest availability: if the loop is damaged by a short-circuit or line break, the system will still be fully functional. The fault is detected and can be eliminated. If there's more than one fault, the system switches into safe operation*: the fire dampers will be automatically closed.

Flexible networking

The fire damper control unit can control the fire dampers of an individual system or of a plant network. It can be integrated into a cluster of fire control panels from Siemens. This means that additional panels, loops and fire dampers can be easily added, as required. Via the backbone, several clusters can be connected to form an EN 54-compliant overall system with up to 64 control panels. Moreover, individualized extension and modernization solutions allow existing fire protection systems from Siemens to be extended and upgraded step by step with the latest fire detection technology. The fire damper control unit from Siemens is compatible with other fire protection systems.

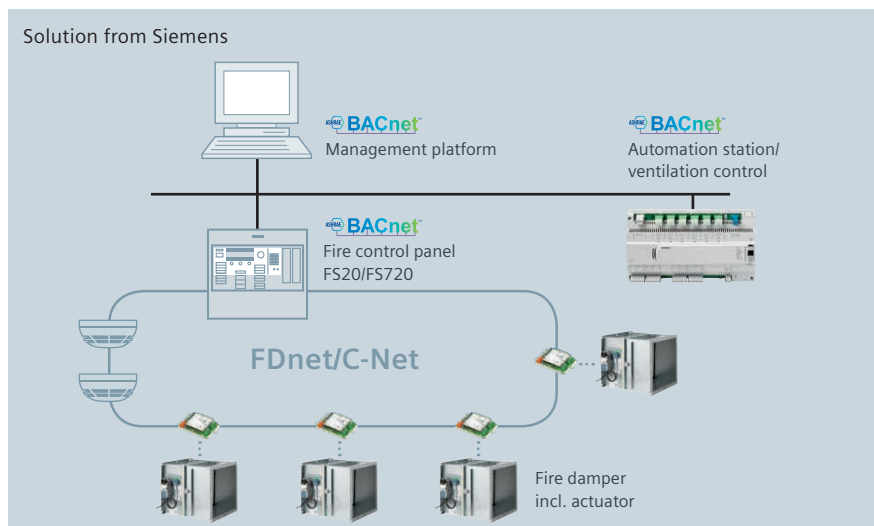
Complete integration of operation, display and ventilation control

The position of the fire dampers is shown on the display of the fire damper control unit in clear text – or, alternatively, via optional LED modules or on the management platform from Siemens. In addition, every fire damper can be individually controlled via the operating panel of the fire damper control unit. If required, optional fire indicator panels can also be fully integrated. The fire brigade can always react to any given situation, by overruling the pre-programmed controls and intervening directly.

Control and position monitoring of the fire dampers can also be carried out via a connected management platform from Siemens. As the fire dampers can be controlled centrally – either separately or all together – tests and function checks can be completed faster and more cost effectively.

The BACnet communication protocol enables full integration with the Desigo™ PX controller used for ventilation control.

Fire dampers can be easily and efficiently integrated into fire protection systems, management platforms and automation stations from Siemens.



* Fail-safe position of the input/output modules

Siemens Switzerland Ltd
 Building Technologies Division
 International Headquarters
 Gubelstrasse 22
 6301 Zug
 Switzerland
 Tel. +41 41 724 24 24

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