



Sinteso C-LINE – fire detectors for standard applications



Answers for infrastructure.

SIEMENS



Sinteso: innovation based on experience – from Siemens

Sinteso™ is a comprehensive system for fast, reliable fire detection, alarm signaling and control. It is designed to protect lives and assets and prevent production losses, thereby safeguarding your company's buildings and very survival. Sinteso not only defines the technological state of the art, but also offers almost unlimited scalability, network capability, and further development in harmony with existing products.

The ideal solution for every requirement

■ Safe, precise, and reliable – from detection to monitoring

Reliable detection, fast notification, quick response – Sinteso sets the standard in all three areas. At the field level, for example, with everything from state-of-the-art fire detectors to immunity from false alarms. Fast, fault-tolerant network technology ensures maximum reliability in communication between FDnet devices and the control panel. And the control panels allow simple, intuitive operation, plain text displays and unambiguous instructions – and let security personnel concentrate on the event.

■ Scalable and versatile – to meet every need from “standard” to “special”

The Sinteso fire detection system was developed using decades of our experience in fire protection. In combination with the Sinteso fire detectors, the Sinteso control panels FC2020, FC2040 and the modular control panel FC2060 offer a comprehensive and homogeneous system.

The characteristic feature of the Sinteso family is its flexibility to meet any requirement. In a standard configuration, for example, two loops can be connected to a FC2020 control panel, and four loops to a FC2040, expandable to 4 or 8 loops while using same number of addresses. A comprehensive range of FDnet devices is available for every task.

The result is a comprehensive fire detection system on a shared technology platform with provision for simple, open-ended expansion in the future.

■ Homogeneous and expandable – for greater efficiency throughout the entire life cycle

Economic efficiency is a key factor in the installation phase. For example, the FDnet-powered devices require no additional cabling for power feeding or data transport or for connection to the control panel.

Moreover, Sinteso can be expanded or modernized at any time: Additional devices and lines can be simply connected to the system network (FDnet, FCnet) when a building is expanded. The FCnet is expandable by connecting additional panels via Ethernet.

Efficiency is also ensured whenever you upgrade – because new generations of devices and software versions are “members of the family”. And if you ever want to use rooms for new functions, newly developed parameter sets can be downloaded.

■ Increased fire safety – thanks to communication with other security systems

For comprehensive safety, Sinteso can be quickly and easily integrated into a Siemens Danger Management System via BACnet. The benefit: Security personnel can operate the fire detection system centrally – together with other systems such as video surveillance or access control. This offers increased security because a danger area can be easily monitored with video cameras. The recorded film footage can also be used later to help analyze the cause of an event. With access control, escape routes can be monitored and doors opened or closed quickly.

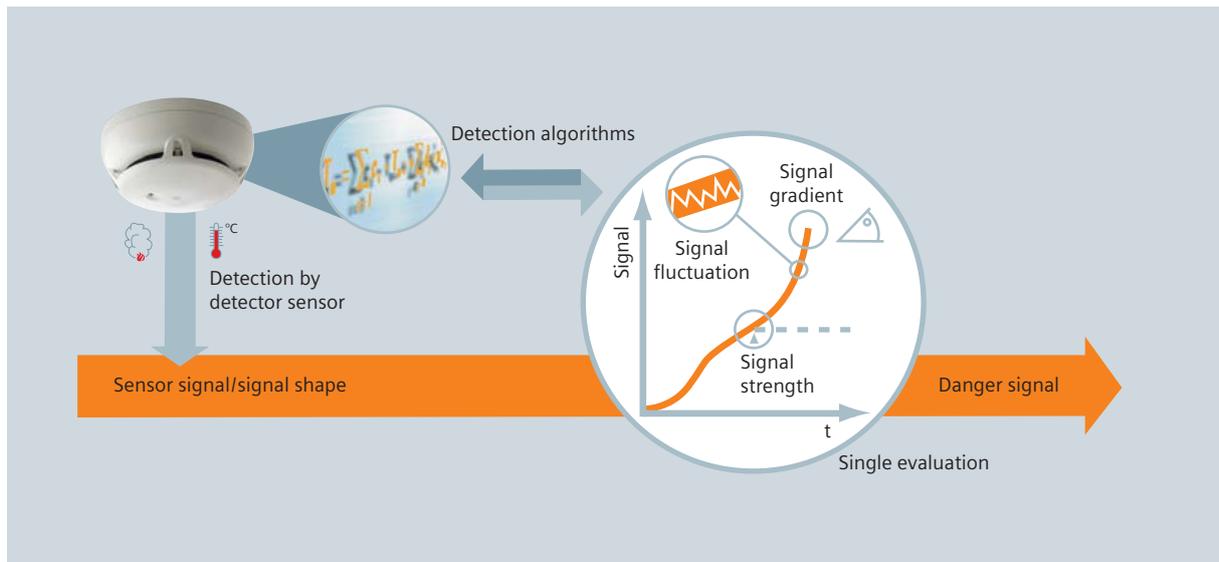
■ All-around safety – due to reliable detection, high availability, and transparent operation

Innovative functions, such as degrade mode and standby functionality with the control panels, further optimize safety. For example, the video fire controller allows visual verification of an event. Redundant sensors increase the availability of the detectors – and turbo isolators as well as loop installation increase the availability of the floor repeater terminals even in case of an open or short circuit.

Highlights

- Comprehensive fire safety system
- Considerable reduction in the number of false alarms
- Usability for systems of any size or complexity
- Flexible, efficient system networks (FCnet and FDnet)
- High system flexibility and expandability
- Networking across all building services via BACnet/IP
- Easy integration into a Siemens Danger Management System
- Communication with other security systems





The standard in fire detection

Whether in hotels, office buildings or movie theaters, Sinteso C-LINE fire detectors are the first choice of investors, planners and operators in normal environmental conditions where only occasional deceptive phenomena occur.

■ **Modern, reliable technology – for compatibility and investment protection**

The addressable technology in a line network, FDnet (Field Device network) permits fast, fault-tolerant communication between C-LINE fire detectors and the control panel. Fire detectors for special application areas, such as the flame detector FDF221, or the alarm sounder can be integrated in the FDnet without difficulty. All existing line systems and cable types can continue to be used. To accommodate future changes of use, the C-LINE detectors can be easily adjusted thanks to integrated detection algorithms.

■ **Reliable in operation – fewer false alarms**

Sinteso C-LINE fire detectors offer very high security on the basis of the newly developed detection algorithms (DA). Before an alarm is activated, the signals recorded by the sensor (such as smoke density, temperature or both simultaneously) are converted to mathematical gradients (intensity, rate of increase and fluctuation) and analyzed by means of detection algorithms.

■ **Fast installation – high efficiency**

Comprehensive fire protection with the latest fire detectors – that's what C-LINE fire detectors from Siemens stand for. However, they offer more than reliable security. C-LINE detectors also convince with a short installation time and minimal operating costs. And this makes them appealing not only to safety managers, but also to investors.

C-LINE fire detectors are suitable for use in office buildings ... in museums ...





■ **Always up-to-date – easily and efficiently**

Whether you are expanding or modernizing an existing system, Sinteso C-LINE detectors are the ideal solution. They can even be implemented on existing line systems.

■ **All-around safety**

Backed by many years of field experience and proven under numerous operating conditions, C-LINE detectors offer comprehensive safety: They exactly analyze the collected signals thanks to their advanced detection algorithms.

And they include a multi-criteria detector for smoke and heat that operates very reliably thanks to an innovative forward and backward scattering principle and that is highly available thanks to redundant sensors.

In addition, the installation of the detectors on the FDnet loop increases safety: In case of a breakdown, alarms are simply redirected the other way to the control panel. Moreover, they can also be displayed locally on a floor repeater terminal.

Highlights

- State-of-the-art detection algorithms for preventing false alarms
- Continued use of existing line networks
- Reliable and efficient fire detection
- Fast installation and efficient operation
- Ideal solution for expansion and modernization

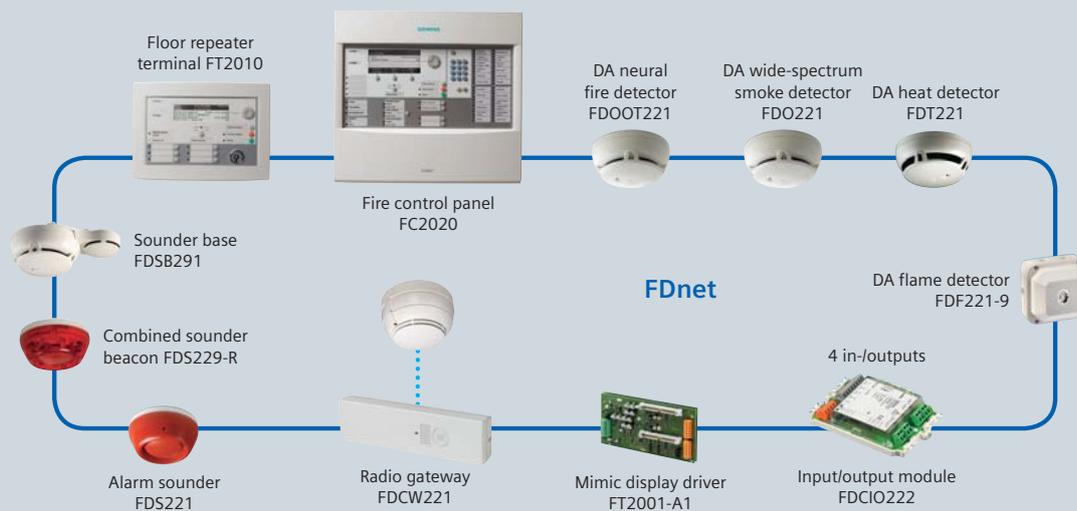
... or in shopping centers



Fire detectors and accessories for standard applications

Sinteso C-LINE detectors are suitable for all standard applications. Addressable FDnet-supplied special detectors such as the neural fire detector or flame detector also ensure precise alarm localization.

DA neural fire detector FDOOT221		Radio gateway FDCW221	
	<p>The neural fire detector detects optical and thermal signals separately and combines them in its neural network. It is suitable for detecting smoldering fires and open fires involving solid materials and liquids.</p>		<p>Bidirectional coupling of up to 30 wireless detectors to the FDnet. The SRD band, a frequency range reserved exclusively for security systems (868 to 870 MHz), is used for this.</p>
DA heat detector FDT221		Alarming devices	
	<p>This heat detector is excellent for detecting open fires and fire outbreaks with a rapid rise in temperature, and can be used as a differential heat detector.</p>		<p>There are two alarm sounders for acoustic alarm signaling, the FDS221 and the FDSB291 which is integrated in the fire detector. The combined alarm sounder with beacon FDS229 provides acoustic and optical alarm signaling.</p>
DA wide-spectrum smoke detector FDO221		Manual call point FDM221	
	<p>This wide-spectrum smoke detector is specially designed for detecting smoldering fires and smoke-forming open fires.</p>		<p>Persons in the danger area can directly trigger a fire alarm manually. The alarm must be activated by depressing the glass cover. Accidental activation can be prevented by means of a supplementary protective case.</p>
DA flame detector FDF221-9		Floor repeater terminal FT2010	
	<p>The flame detector quickly identifies liquid and gas fires – as well as open fires within a building.</p>		<p>Messages from a smaller monitored area, for example a hospital ward, can be displayed on and even handled via a floor repeater terminal. Floor repeater terminals can be directly connected to the FDnet. This reduces installation costs – and increases safety: The display continues to function even in case of an open or short circuit.</p>



With its scalability and network capability, Sinteso is designed to accommodate all of your future requirements, regardless of whether you plan to expand a building or change the function of a room.

Welcome to the world of innovative thinking

■ Innovation

Siemens invests a great deal in both manpower and research and development. This results in a steady stream of new insights, technologies and inventions that enable us to improve the reliability of our products, systems and solutions for the protection of people and assets.

Relying on the highest standard of automatic production processes contributes a great deal to the environment protection. Siemens is at the leading edge of progress in this field and continues to redefine both current and future technologies.

■ Reliability

With Siemens, you are in the very best of hands: Backed by a history of over a hundred years, Siemens is an established and reliable partner. System expansions, migrations and upgrades can be continuously made over a period of years, which ensures your investment for the future.

■ Safety

Innovative products, systems, intelligent solutions and value-added services from Siemens offer you complete fire protection – for everything that is valuable to you, no matter which type of building or how high the risks. Today, tomorrow and for decades to come. That's why countless customers around the world place their trust in Siemens.



Siemens Switzerland Ltd
Building Technologies Division
International Headquarters
Gubelstrasse 22
CH-6301 Zug
Tel +41 41 724 24 24
Fax +41 41 724 35 22

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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