SIEMENS

Desigo® Fire Safety – completely safe

A comprehensive portfolio of innovative and industry-leading technology

Desigo® Fire Safety – a complete family

Intelligently protects a wide variety of environments, from simple to complex

When fires are detected as soon as they start, the chances are much greater that people, assets, and buildings will stay safe. Desigo® Fire Safety is a comprehensive fire safety system that offers fast and reliable detection of fire, smoke, and carbon monoxide, together with optional voice communication, alarm signaling and complete operator control.

Designed with state-of-the-art technology, and backed by Siemens' extensive fire safety knowledge and expertise, Desigo Fire Safety offers a high level of flexibility and scalability for facilities of all sizes. Our components can quickly and easily adapt to new conditions and are compatible with existing and future products. For example, when the function of a room changes, our S-LINE detectors, featuring **ASA***technology*™ and up to 26 detection profiles, can be easily modified by changing the application-specific detection profile. Networkable control panels also allow system layout changes at a later point in time, without any significant additional planning effort required. Whether expanding, migrating, or modifying a room, the Desigo Fire Safety system can be reconfigured with minimal, if any, disruption to a building's operations.

**Compact fire control panels –
scalable to meet your requirements**
The Desigo Fire Safety control panel portfolio enables fast, reliable fire detection, the option of intelligent emergency communication capability, and complete operator control, making them the perfect solution fit for a variety of facility types. Fire control panels with or without voice, fire terminals, remote terminals, and displays are all straightforward and easy to operate.

The Desigo fire control panel with optional Intelligent Voice Communication system offers a simple and cost-effective upgrade for facilities that would normally use only horn appliances for audible signaling. It also provides full-featured everyday and emergency voice capabilities for applications requiring a compact solution without the complexity of a larger system. The Intelligent Voice Communication System enables emergency communication capabilities that can address urgent events and everyday announcements, including customized messaging to precise locations.

With Desigo networkable fire control panels, up to 16 panels can be connected through peer-to-peer networking. This ensures a building stays flexible to meet the needs of today and tomorrow.

- Compact, networkable control panels, with optional voice, are easy and intuitive to operate. Required information is displayed in a clear and comprehensible way.
  – See all fire and non-fire emergency events on a single display
  – Control a network of systems as though it were all a local panel
  – Enjoy the flexibility and peace-of-mind of communicating everyday and emergency messages when you select a panel with voice
- A networkable fire terminal for operation remote from the control panel
- A stand-alone control panel covers smaller applications
- Marine and harsh environment approved enclosure and accessories provides outstanding protection under challenging conditions

Smart detectors with a No False Alarm Guarantee
A broad range of standard and advanced multi-criteria detectors provides coverage for clean to dirty environments. Advanced, S-LINE detectors feature our patented, award-winning Advanced Signal Analysis technology (**ASA**technology™) to detect fires as early as possible, even in demanding environments. **ASA**technology™ prevents false alarms caused by deceptive phenomena like steam, dust or machine exhaust gases. The technology is so highly reliable that S-LINE detectors include a No False Alarm Guarantee. This means that in the unlikely event a properly set and maintained S-LINE detector should trigger a false alarm, Siemens will pay for the fire call.

Peripheral devices provide a complete, customizable solution
Air duct housings, innovative audible sounder bases, including 520 Hz low frequency capabilities that meet requirements for sleeping spaces, notification appliance circuits (NACs), and speakers create comprehensive safety.

Desigo® CC Management Station
The Desigo® CC (Control Center) management station enables monitoring and control of Desigo Fire Safety panels from a central point. Its powerful capabilities make it easier to keep a facility safe with features such as the ability to support up to 64 real-time IP cameras for a live view of events. It can also integrate the Siemens APOGEE® Building Automation System to provide a Total Building Solution for comfort and fire safety.

Total Building Solutions
Siemens creates safer environments with fire alarm, life safety, and security solutions that are tailored to a customer's specific application, requirements, and budget. A complete product platform streamlines multiple disciplines – from building automation to security, fire safety and mass notification.

Our fully integrated solutions and services help customers achieve their goals and expected outcomes:
– EngineeringAdvantage™ Program provides tools, education, and support for Fire Protection Engineers
– Healthcare Accreditation™ Program organizes, manages, and tracks reporting requirements for The Joint Commission healthcare accreditation programs
– National Account Program ensures quality and consistency across multiple facilities

Siemens legacy of protection
Siemens is known for innovation, technology leadership, and superior quality. Our products are backed by 160 years of experience in fire safety and the knowledge we've gained through worldwide installations. No one understands fire better than Siemens.

Highlights

- Stand-alone and networkable control panels for applications of various sizes

- Intelligent Voice Communication System enables mass communication capabilities, including customized messaging that addresses urgent events and everyday announcements

- Advanced S-LINE detectors with patented **ASA**technology™ and a No False Alarm Guarantee

- Marine approved enclosure and accessories available for marine and harsh environments

- A complete range of peripheral devices, from notification appliances to manual pull stations

- Flexible and scalable fire protection system can be adapted to new conditions and expanded as requirements change

- As all components are one family, seamless integration between them is guaranteed

- Cost-effective and efficient system maintenance with remote analysis and evaluation capabilities

- A complete product platform streamlines multiple disciplines – from building automation to security, fire safety and mass notification

- 24/7 Local support services ensure an optimally performing fire and life safety system throughout a building's lifecycle

Control panels

Flexibly meet a building's needs, today and tomorrow

The Desigo Fire Safety panel portfolio comprises networkable control panels with optional voice for more complex applications, a stand-alone control panel for compact applications, and a networkable fire terminal for operation remote from the control panel. The different control panels increase flexibility in system planning and ensure a system remains scalable for the future.

Control panels and fire terminals are easy and intuitive to operate for simple, safe, and stress-free operation in case of an event. They display the required information in a clear and comprehensible way. Customized messages are easy to understand and follow in the event of an alarm.

Unique features let you quickly put a system into operation from one access point. For example, you can manually adjust the detection profile of each connected detector at the control panel. The intelligent auto-configuration function supports finding the connected devices – automatically. As a result, Desigo Fire Safety offers instant fire detection capability without delays created by manual configuration. In addition, the networkable control panels have an integrated degrade mode that is automatically activated. It ensures that notification appliances or other outputs are activated in the event of failure, and that alarm conditions of connected C-NET devices are forwarded to reach security personnel, occupants, or the fire department on time.

Networkable control panels with optional voice communication

Networkable control panels, with or without voice communication, can easily accommodate all types of applications. Control panels with voice equip facilities that would normally use only horn appliances with mass communication capabilities, giving them the ability address emergency events and everyday communication, including customized messaging to precise locations.

Flexible circuit wiring and single control panels, with models that connect up to 252 or 504 detectors and peripheral devices, make Desigo Fire Safety a scalable solution that can be modified to accommodate future changes in building structure. The control panels can also be optionally integrated into the Desigo CC management station.

An integrated degrade mode activates automatically. This ensures that devices and other panels that are operating normally are activated in the event of failure in another part of the system – and successfully reach security personnel, occupants, or the fire department. Furthermore, the panel software continuously checks the panel to ensure proper operation.

The fire terminal (FT2050) can be conveniently located to allow for quicker reactions to faults and alarms. From this location, users can view and control all events and functions of the entire network. The remote display (FT2014) and remote terminal (FT2015) locally display alarms, faults, and shutdowns using the same event text as a control panel. The remote terminal also allows users to acknowledge, silence, and reset events.

Networkable control panels with optional voice communication

With a compact footprint, FC2025 (fire) or FV2025 (fire with integrated intelligent voice communication) accommodates up to 252 devices.

For more complex applications, FC2050 (fire) or FV2050 (fire with integrated intelligent voice communication) accommodates up to 504 devices.

– Flexible circuit wiring allows each group of 252 devices to be split between one to four circuits
– Two notification appliance circuits (expandable to four with expansion module) for visual indication appliances
– Peer-to peer networking allows up to 16 panels to be connected
– Optional releasing module for a pre-action deluge or clean agent extinguishing system
– Optional Digital Alarm Communication Transmitter (DACT) sends system information to off-site monitoring stations

– **Application areas:**
  Data centers
  Schools
  Libraries
  Banquet halls
  Industrial buildings/ manufacturing facilities
  Power generation
  K-12 schools and campuses

  Low mid-rise hotels and motels
  Retail (mall, convenience)
  Medical office/ office parks
  Sporting venues/ theaters/ concert halls
  Banquet halls
  Churches
  Apartment complexes

Stand-alone fire control panel

Networkable fire terminal

Control panel FC2005, for simpler applications, connects up to 50 devices via either one class A or two class B circuits.

The fire terminal, FT2050 allows full access to system controls and maintenance of the networkable panels at additional points in a building.

– An RS485 connection allows you to install remote terminals to view and operate the panel from another location in the building
– A built-in Digital Alarm Communication Transmitter (DACT) sends system information to off-site monitoring stations

– Same view, control functionalities, and maintenance and reporting capabilities as control panels

– **Application areas:**
  Retail shops
  Medical offices
  Dry cleaners
  Small restaurants
  Strip malls
  Banks
  Small office or commercial buildings

– **Application areas:**
  In a hotel lobby, e.g., a control panel would be installed where it is inconspicuous with the terminal in a more accessible area

Detectors for all types of environments

A comprehensive offering of detectors, including S-LINE models with **ASA**technology™, provide the versatility needed to protect clean, dirty, or normal environments. Additionally, their selectable detection profiles and dynamic algorithms interpret signals in real time.

The C-LINE detectors feature cost-efficient options with detection algorithms that are suitable for typical standard commercial applications.

Demanding applications like data centers or industrial production facilities require exceptional detection technology, our advanced portfolio of S-LINE detectors. S-LINE detectors feature **ASA**technology™ and a No False Alarm Guarantee for an extremely fast and highly reliable detection response, whether in a sensitive or harsh environment.

Designed with intelligent technology, the detectors quickly and reliably analyze the main criteria for fire, smoke, heat, and carbon monoxide. They are also immune to deceptive phenomena like steam, dust, or gas. The basis for **ASA**technology™ is the optical sensor arrangement that uses state-of-the-art forward and backward light scattering technology. It provides optical analysis of smoke particles and improves the detection capability of the detectors, making them virtually immune to false alarms. This ensures business continuity without unnecessary and costly interruptions – and increased fire safety for people and assets.

S-LINE detectors offer up to 26 application-specific detection profiles that can be set to meet the exact, prevailing environmental conditions. Should the room usage change frequently, you can also easily and quickly switch between selected detection profiles. This ensures that your application is permanently and reliably protected.

S-LINE detectors also have two optical and two thermal sensors. The redundant sensors improve the reliability of the detectors, meaning if one sensor should fail, the detector will still provide highly reliable operation. The detectors comply with NFPA 76 (Telecommunication Standard) and are classified as Very Early Warning Fire Detectors (VEWFD). This means they are extremely sensitive and thus provide very early detection.

Detecting carbon monoxide

For maximum life safety, Desigo Fire also offers an S-LINE detector for all fire criteria: smoke, heat, and carbon monoxide (CO). The additional CO sensor ensures earliest detection of all CO-generating fires. It can also detect CO independently from fire. Therefore, when an application requires both fire and CO detection, only one detector is needed. This minimizes product, installation and maintenance costs. The CO detection profile can be set separately from the **ASA**technology™ detection profiles and complies with the requirements of the fire safety and carbon monoxide codes and standards UL 2075 and NFPA 720.

S-LINE Detectors with ASA*technology*™

Fire detector FDOOT441

– 20 Plus detection profiles to meet specific environmental conditions
– Unique dual optics (forward and backward light scattering technology) offer the most reliable detection with virtually no false alarms
– Redundant optical and thermal sensors for maximum reliability and failsafe operation
– UL listed as a high sensitivity pre-alarm
– Meets NFPA 76 requirement (Telecommunication Standard) as a VEWFD (Very Early Warning Fire Detector)
– 8 selectable temperature settings, ranging from 135°F (57°C) to 175°F (79°C)
– Offers programmable options for fixed temperature, rate-of-rise, and a selectable "Low Temperature" warning should the temperature drop below 40°F (4°C)
– RoHS compliant

Multi-purpose fire and CO detector FDOOTC441

Identical features to the OOH941, plus an additional CO sensor:
– Selectable as a multi-criteria addressable detector, smoke detector, heat detector, or independent CO detector
– Detects CO-generating fires as well as CO independent from fire
– Only one detector is needed for fire and CO (instead of two) to comply with life safety regulations
– UL 2075 listed as a CO Life Safety detector and meets NFPA 720 requirements
– Provides field programmable, customizable supervisory signals for temperature or CO levels

C-LINE Detectors

Multi-criteria fire detector FDOT421

– Addressable detector
– Single optical (photoelectric) and thermal (heat) sensor
– Utilizes detection algorithms for early detection of a wide range of fire signatures
– Selectable sensitivity levels

Optical (photoelectric) smoke detector FDO421

– Photoelectric, light-scattering, addressable point detector
– An economical solution and perfectly suitable for normal commercial applications
– Operating temperature range of 32°F (0°C) to 120°F (49°C)
– UL listed for direct in-duct plenum usage (without a duct housing)

Thermal (heat) detector FDT421

– Intelligent thermistor-based heat detector
– 8 selectable temperature settings, ranging from 135°F (57°C) to 175°F (79°C)
– Offers programmable options for fixed temperature, rate-of-rise, and a selectable "Low Temperature" warning should the temperature drop below 40°F (4°C)

Input module FDCIO422

– Provides addressable control inputs and outputs simultaneously
– 4 inputs and 4 outputs that can be used independently
– Both class A and B monitoring available

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