

124 - Fire Detection & Alarm Systems

Collective or Conventional Systems

The basic fire alarm configuration consists of a central panel with detection devices and alarm sounders wired in a number of radial circuits.

The control panel will indicate in which detection circuit (zone) an alarm or fault condition has been generated and will operate common or zonal sounders and auxiliary commands (for example door release or Fire Brigade signalling).

Siemens Equipment Range:

Control and Indication : FC10 series

Detection : FS20 Collective ranges

Analogue Addressable Systems

This type of system improves dramatically on the basic collective systems by using loop wiring, device isolators and software programming to increase the system reliability and provide individual identification of devices in alarm, fault or detector status.

In addition to the 'normal', 'fire' or 'fault' status the system is capable of identifying detectors which require maintenance due to soiling. The analogue signal is processed within each detector with the status of every unit being available from the control panel at all times.

This enables optimum service intervals and also relieves the effort involved in performing costly periodic checks.

Siemens Sinteso™ Fire Detection Systems

Sinteso™ is the new fire detection system from Siemens consisting of the two product lines C-LINE and S-LINE. With C-LINE the smoke and heat signals are evaluated with detection algorithms (DA). With S-LINE the smoke and heat signals are evaluated with *ASAtechnology™*.

ASAtechnology™ stands for "Advanced Signal Analysis" and is based on application algorithms.

The main difference to the C-LINE is in the technological sophistication of the signal evaluation. To improve identification and visibility, *ASAtechnology™* has higher priority in media communications. **Sinteso™** fire detection systems offer the best price / performance ratio in the fire detection market.

The **S-LINE range** is intended for advanced applications where detection is required as early as possible or for environments with a high potential for false alarms. The detectors have different algorithms derived from the latest generation of applications (*ASAtechnology™*), and from which the appropriate choice can be made depending on the circumstances.

The **C-LINE range** is intended for standard applications, where the high-performance technology of the S-LINE detector is not required.

Nevertheless, the C-LINE includes detection features which are comparable to those on the Siemens Interactive AlgoRex® detectors.

Siemens Sinteso Equipment Range:

Control and Indication : FC10 series

Detection : Sinteso™ neural fire detectors, wide spectrum smoke detectors, linear smoke detectors, heat detectors, infrared flame detectors.

Graphical Management Package

Siemens MM8000 Danger Management System incorporating Graphics

The MM8000 is a professional danger management and monitoring system for integrating a variety of security and safety systems. Primary users of the MM8000 are security guards and members of the fire brigade.

Other users are the shift managers responsible for investigating event history and the creation of analytical reports based on historical data. The system can be configured to provide text only display of the entire sub systems or full graphical representation of the protected areas.

Voice Evacuation Systems

The **Siemens E100 VA System** is a digital voice actuated alarm and evacuation system. The system forms a new product family with various extension stages from the stand-alone system right to the complex networking system that is linked to the fire alarm system.

New European standards recognise that voice evacuation systems are becoming an integral part of fire detection systems and need to be treated with the same high standards.

These new standards are almost released and the E100 Voice Alarm system has been specifically designed to meet them. The E100 Voice Alarm system is fully compatible with our range of AlgoRex® and Sinteso™ fire detection systems.

E100 complies fully with EN 60849 – electro-acoustical emergency warning systems and the draft standard prEN 54-16.1 – Components for voice-actuated alarms in fire alarm systems, voice-actuated alarm centres.

Siemens Systems Migration

Siemens are committed to the lifecycle of your system and we are always conscious of the demands of the ever evolving world of technology. Siemens Migration solutions offers you long system lifecycles by ensuring that future technology is always compatible with former and future systems to maintain your business continuity.

Our drive is to offer the latest detection and alarm technology to protect your employees, premises and processes at an economical cost and with minimal disturbance to your business. Siemens achieve this through backwards and forwards compatible equipment such as the latest innovation **allowing the installation our latest Sinteso™ detectors directly into existing Algorex bases and cabling**. This ensures premises can benefit from the latest detection technology resulting from limited installation costs and disruption to business continuity.

Siemens Migration Equipment:

Control and Indication : E3M140 Line plug-in module for addressed Sinteso™ devices.

Detection : FDOOT241-A3 Sinteso multi-protocol detector for modernizations of AlgoRex, AnalogPLUS systems. FDB241 Sinteso base adaptor for modernizations of AlgoRex & SIGMASYS systems.

Current Fire Detection Design Standards

BS-5839 - Part 1 : 2002 : Fire detection & alarm systems in buildings.

EN-54 - Pts 2 & 4 : 1998 : Power supplies & control / indicating equipment.

BS-6266 : 2002 : COP - fire protection for electronic equipment installations.

BSEN-54 : Various parts covering detection & alarm devices.

Levels of Protection : BS-5839 Part 1 : 2002.

Property Protection:

P1 : System installed throughout all areas of the building.

P2 : System installed only in specified areas of the building.

Life Protection:

L1 : System installed throughout all areas of the building.

L2 : System installed as for L3, but with additional protection in specified areas of the building.

L3 : System installed in all escape routes & generally in any room with an opening onto an escape route.

L4 : System installed in escape routes only.

L5 : A system designed to provide some form of specific protection not covered by an L1 to L4 system. Normally as part of a fire engineered solution or a requirement of a fire risk assessment.

Note : L1 to L4 above should also satisfy the recommendations of a Category M system.

M : System fitted with manual call points only.