Kentec
Electronics Ltd

Sigma ZXT
Extinguishant
Control Panel

Sigma ZXT

Introduction

Early warning fire extinguishant systems and detection technology can detect a fire and automatically release a fire suppression agent to eliminate fire within seconds. Stopping a fire within the first few moments minimises damage to equipment and assets and subsequent loss of operational productivity.

For many businesses, the right protection not only needs to protect your investment but also ensure uninterrupted business operations.

A development of its proven Sigma XT range, the Sigma ZXT provides controls and indications for a single-area extinguishing release system, enabling targeted extinguishing that limits damage and reduces costs. Three conventional detection zones provide the alarm 'trigger' required to activate the release of extinguishant, and the system can be configured to release the extinguishant on an alarm from any single zone or combination of multiple zones.

The Sigma ZXT has an event log which records event data from the panel such as alarms, faults, configuration changes etc. along with a time and date stamp. This historical visibility is critical for diagnostics, identifying the cause of alarms and faults, as well as reasons for activations. Up to 1000 events can be stored within the panel which can be viewed through the LCD, or can be downloaded and saved using Kentec's Loop Explorer 2 software.

The system, compliant with EN12094-1, can also be configured to provide two extinguishing outputs, either working together as common outputs or as main and reserve outputs. The latter results in the connection to two sets of extinguishing gas cylinders, which enables the customer to return a system to a functional state, quickly, following a release.

A sophisticated, dynamic LCD, which supplements the LED status indicators, provides detailed information on panel status including fault conditions, alarm conditions and extinguishing release countdown. If dynamic mode is chosen, the display changes colour in relation to the panel status, providing immediate and clear visibility of status conditions. While not in dynamic mode, the LCD will be white regardless of status.

To complement the Sigma ZXT there is a range of status indicators which match the look of the Sigma ZXT panel fascia. Status units can be located at any access point to the risk area notifying approaching persons of system status, as well as providing optional Auto/Manual key switches and Manual Release push-buttons.

Sigma ZXT Features

> Secure Event logging 1000 events

> Single area extinguishing panel

> Dual extinguishing outputs with main/reserve configuration option

> Dynamic LCD Display

> Compatible with I.S. barriers

> Non-latching zone input option to receive signals from other systems such as aspirating equipment

> Countdown timer displays time remaining until release

> Supports up to seven, Sigma ZXT four-wire status indicators (also compatible with Sigma SI status units for retrofit applications)

> Larger enclosure option is available

> Approved and certified to EN12094-1, EN54-2 and EN54-4

Sigma ZXT

Sigma ZXT overview

Sigma ZXT provides controls and indications for a single area extinguishing release system. Three conventional detection zones provide the alarm stimulus required to activate the release of extinguishant. Any single zone or a combination of multiple zones can be configured to contribute to the release of the extinguishant.

Event log

Sigma ZXT provides a log of all events which occur on the control panel from alarms, faults, disablements, activations etc. enabling detailed diagnostics to be carried out. The event log provides historical information for the panel, even if the active event has been cleared it is logged in the event log with a time and date stamp.

Event log information can determine whether the system has been activated automatically or by manual intervention, and can be critical in determining the cause of intermittent faults which are non-latching.

The event log can be downloaded onto a computer via a USB link and the Loop Explorer 2 programming software.

Dynamic LCD display

LED status indicators provide detailed information on panel status such as fault conditions, alarm conditions, extinguishing release countdown etc. In Dynamic mode the display changes colour providing clear visibility of panel status. These are as follows:

White – Normal condition

Red – Fire condition, Released condition

Red flashing – During countdown to the released condition

Yellow – Fault condition, Disabled condition and Test condition

Green – Access level 2

Turquoise – Access level 3

There is a configuration option to default to a single white backlight if the customer does not require colour options.

On-screen programming menus

Sigma ZXT is fully programmable through the front fascia. Clear password accessed menu structures allow for easy configuration. Password access separates 'User' controls and settings from 'Engineer' configuration options.

Panel configuration

The panel configuration can be downloaded onto a computer via a USB link and the Loop Explorer 2 programming software. This allows a full record of the commissioning configuration and verification testing to be provided as part of the commissioning documentation. Regular service testing records can be kept using the same technique.

Dual extinguishing outputs

Sigma ZXT can be configured to provide two extinguishing outputs, these can either work together as common outputs or can be configured as main and reserve outputs. Main and reserve outputs allow connection to two sets of extinguishing gas cylinders enabling a customer to return a system to a functional state quickly following a release.

Programmable outputs

Six programmable volt-free outputs are provided within the Sigma ZXT which can be used for controlling remote devices or signal system status remotely, for example to the main fire alarm control panel. Each relay can be programmed for one of fourteen possible functions such as Alarm, Fault, Hold, Abort, Released, etc.

Sigma ZXT status units

Sigma ZXT Status units are mounted remotely from the main extinguishing control panel providing LED indication of status as well as optional Auto/Manual key switches and Manual Release push buttons.

Status units can be located at any access points to the risk area, notifying approaching persons of system status. The addition of the optional key switches and manual release buttons allows persons entering from any access point basic control. Examples of this are Auto/Manual key switch which allows the system to be switched between Auto mode where extinguishing release is triggered by automatic smoke detectors or Manual Intervention (operation of a manual release button), or Manual mode where the extinguishing system can be activated by manual intervention only.

Many users recommend that a system be placed in Manual mode while personnel are within the risk area, preventing possible accidental activation.
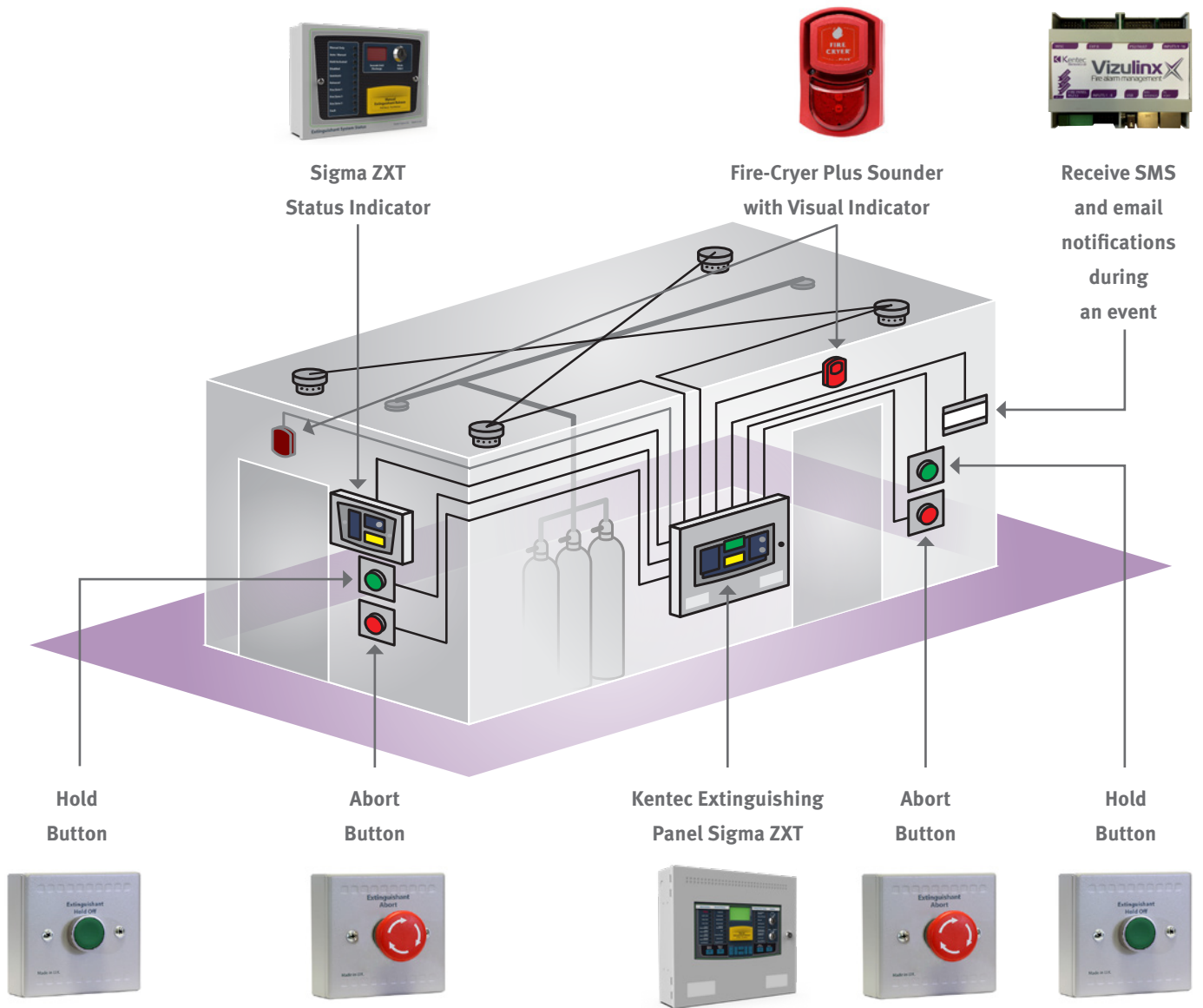
Ancillary output cards

Sigma ZXT is compatible with the existing auxiliary output card. The auxiliary output card provides additional outputs for various status conditions. These outputs can be used for activation of other remote equipment i.e. shutdowns etc or can be used to signal system status to other equipment such as the main fire alarm control panel. Up to seven auxiliary output cards can be connected to the Sigma ZXT control panels.

Backward compatibility

Sigma ZXT is fully backward compatible with the existing SI status units used with the Sigma XT as well as the ancillary output card. This makes the Sigma ZXT ideal for replacement or upgrade of existing Sigma XT extinguishing systems.
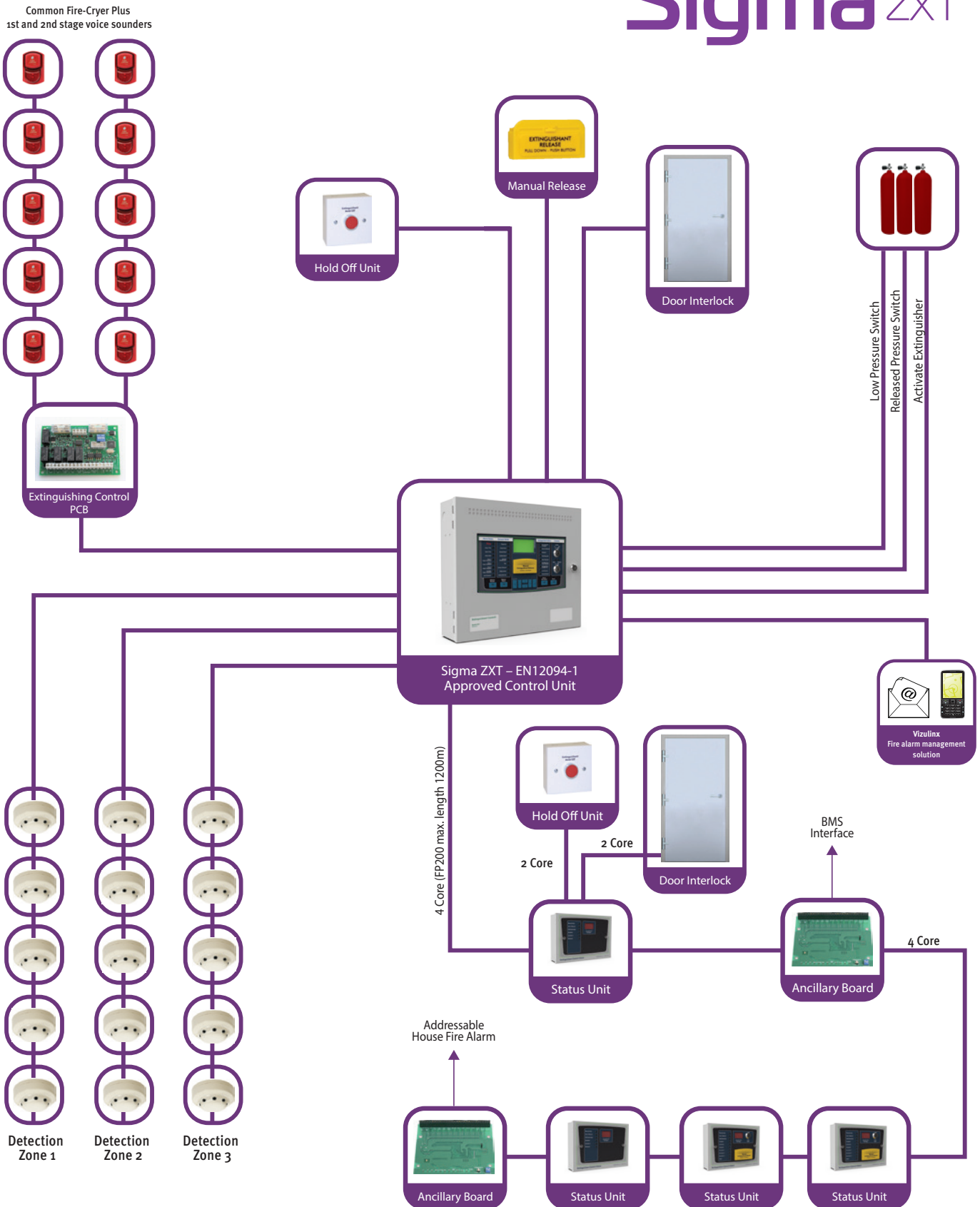
Application Diagram

Sigma ZXT Status Indicator

Fire-Cryer Plus Sounder with Visual Indicator

Receive SMS and email notifications during an event

Hold Button

Abort Button

Kentec Extinguishing Panel Sigma ZXT

Abort Button

Hold Button

Applications

The Sigma ZXT is particularly suitable for the following applications:

- Archive Rooms
- Datacentres
- Energy Centres
- Factories
- Generators
- Industrial Units

- Marine
- Printing and Machine Protection
- Switch Rooms
- Telecomm Rooms
- Tunnels
- Waste Recycling

Network Diagram

Sigma ZXT

Common Fire-Cryer Plus
1st and 2nd stage voice sounders

Extinguishing Control
PCB

Manual Release

Hold Off Unit

Door Interlock

Low Pressure Switch

Released Pressure Switch

Activate Extinguisher

Sigma ZXT – EN12094-1
Approved Control Unit

Vizulinx
Fire alarm management
solution

4 Core (FP200 max. length 1200m)

Hold Off Unit

2 Core

2 Core

Door Interlock

BMS
Interface

Status Unit

Ancillary Board

4 Core

Detection
Zone 1

Detection
Zone 2

Detection
Zone 3

Addressable
House Fire Alarm

Ancillary Board

Status Unit

Status Unit

Status Unit

Sigma XT Extinguishing Control Panel

Building on hundreds of thousands Sigma XT sales in nearly 70 countries, Kentec will continue to manufacture, supply and support the internationally successful Sigma XT extinguishant control panel. The Sigma ZXT is a complementary product to the Sigma XT range.

Company Overview

Kentec Electronics is one of the world's leading life safety solutions manufacturers of conventional, analogue addressable fire detection and extinguishant control panels.

Founded in 1985, Kentec is an end-to-end manufacturer, with everything sold being made in the UK. It employs approximately 240 members of staff in its production facility, head office and research and development department.

In addition to design and manufacture, Kentec provides technical support specified to the local standards and customer requirements of over 90 countries worldwide. With a commitment to meeting the needs of individual national markets, Kentec has achieved a global reputation, resulting in its life safety systems being installed in numerous prestigious sites across the world.

Kentec manufactures products approved to EN54, EN12094, UL864 10th Edition, FM, NFPA, marine classification societies, RoHS 2 Compliant and CP10.

Certificate No. FM 32987
BS EN ISO 9001: 2015

Certificate No. EMS 518118
BS EN ISO 14001:2015

Certificate No. 360
BS EN ISO 9001: 2015

Fire Industry Association

BS-EN12094-1
KM 96761

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