

Safe evacuation
Line card



**Protect your
people and
property**



EATON

Powering Business Worldwide



Life Safety

When it comes to protecting life and property, there's no room for compromise. Eaton's Life Safety products help detect, notify, evacuate and protect against a range of threats in today's most complex and challenging environments.

A long history of expertise in the life safety industry

We offer solutions to protect people and property

In a constantly changing world, owners and operators of commercial, residential and industrial buildings must keep up-to-date with the changing nature of risk. Safe evacuation is becoming more challenging due to a number of external influences.

Market leadership

Our leading solutions deliver top performance with the expertise, reliability and scalability that your business requires

Heritage of innovation

- CEAG
- Fullcon
- Wheelock
- Menvier
- JSB
- Crompton
- Blessing
- CAPRI
- Nugelec
- Luminex
- Scantronic

Life Safety

Eaton Life Safety Portfolio offers wide range of products in Emergency Lighting; Fire detection, signaling & notification; Installation materials and Mains Lighting

and address the needs of end users, contractors, integrators, specifiers and distributors from different industries and segments.

Life Safety solution products portfolio



Market segments





Life Safety

Emergency lighting

In a constantly changing world, owners and operators of commercial and industrial buildings must keep up-to-date with the changing nature of risk. Safe evacuation is becoming more challenging due to a number of external influences.

What are the risks businesses face today?

The ongoing risk of fire

Over a third of businesses never resume operations after a major fire - losing orders, contracts, and key employees. This results in lost jobs and services to the community.

Non-traditional threats

Power outages, terrorism and domestic extremism are a rising cause for evacuation. These risks demand a different approach when planning for safe evacuation. High-profile terrorist attacks can shape regulation.

Each emergency lighting system is important, it protects life and health.

- Escape route marking during regular power supply: Evacuation of a building due to an accident, a bomb threat etc.
- During blackout: Light supply
 - Showing the directions out of the building
 - Illumination of the escape route to guarantee a safe evacuation



Emergency lighting

Innovation, tests and compliance for more reliability

- Eaton constantly innovates for contemporary design and technologies
- Customers light engineering requirements are fully tested at an in-house lighting laboratory. Eaton also exposes newly developed products to extreme conditions and life cycle testing
- As a commitment to deliver high quality for all products and employees, Eaton's emergency lighting manufacturing facilities are certified ISO 9001
- Most of Eaton Emergency Lighting products and complete systems are 3rd party certified

Eco-friendly luminaires all along their life cycle

Eaton's manufacturing plants are ISO14001 & ISO 9001 certified. Eaton is committed to favour the choice of recycled materials and reduce weight and volume of products and packaging. Eaton's LED luminaires are low consumption, prevent from relamping operations as there life time goes up to 50.000 hours.

A large portfolio for a wide range of applications

- Exit sign, escape route, anti-panic luminaires
- Aesthetic solutions
- Indoor or outdoor
- High output
- Special Luminaire solutions: Explosion protected, high ingress protection, Low temperature, high light output, narrow-beam lenses for high bay installations, HACCP suitable
- Central Battery Systems: With AC/DC or AC/AC output
- Central Visualization

For more details on available Emergency Lighting products and solutions, please refer to Emergency Lighting Product Catalogue.



Life Safety

Fire solutions

Eaton manufacture and supply a range of different types of fire systems, meaning Eaton can provide a high quality fire solution whatever the customer need is.

There are a vast array of fire detection systems and devices on the market today, ranging from the relatively simple to the most technically sophisticated. Modern automatic fire detection systems are available in two types, conventional and addressable - which, broadly speaking, tend to be used in smaller and larger installations respectively.

The basics of fire detection

A control panel is the hub of the detection system. All the devices which are part of the fire detection system are connected to this central panel which processes the signals received from the input devices and gives out signals to the output devices.

Input devices such as detectors measure signals of combustion and communicate with panels, which in turn trigger output devices such as an audible or visual alarm device. Fire alarm panels can be further sub segmented into addressable or conventional panels.

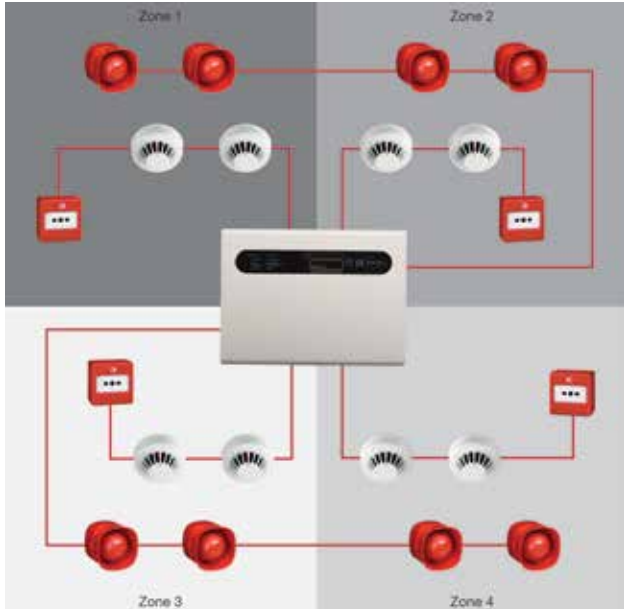
There are various types of fire detection systems each suited to different applications or building types. A fire detection system can vary significantly in both complexity and price, from a single panel with a detector and sounder in a small commercial property to a complex intelligent addressable system in a multi-occupancy building.

A fire detection system can comprise of detection devices, notification devices and manual callpoints. The size of the building determines the number of detectors that would be required. The system works via the control panel receiving signals from the detection devices and then sending transmitting signals to the notification devices.

Conventional fire systems

The philosophy of a conventional system revolves around dividing the building into a number of areas called zones. The detectors and call points within each zone are then wired on a dedicated separate circuit.

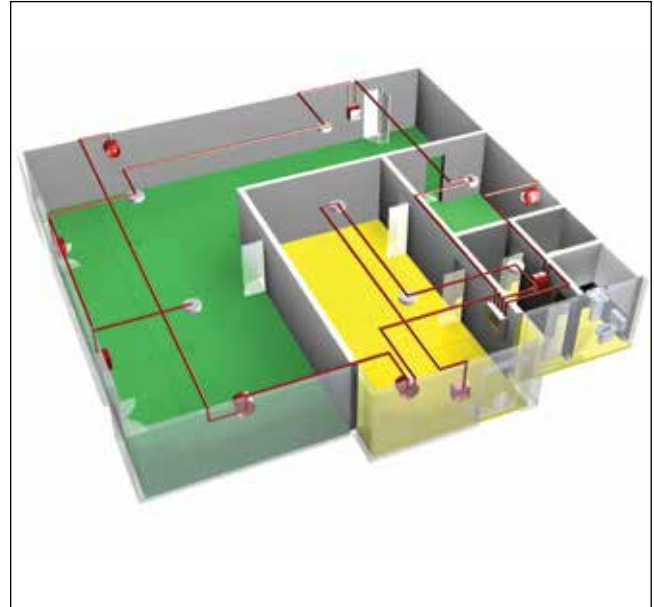
In the event of a detector or call point being triggered, the panel is able to identify which circuit contains the



Typical conventional system architecture

triggered device and thereby indicate which zone the fire alarm has come from. The indicated zone can then be manually searched to locate the triggered device.

With this type of functionality a conventional system is best used in smaller builds where it wouldn't be difficult to locate the triggered device in a given zone.

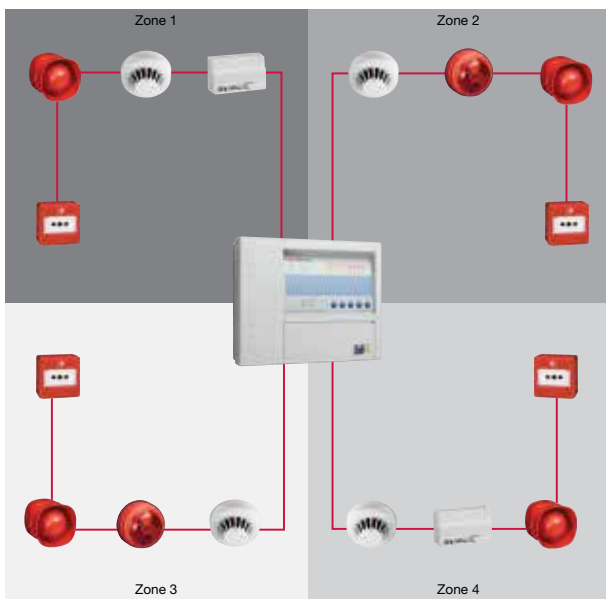


Example conventional system layout

Two-wire systems

Two-Wire systems are based on standard conventional system technology, but it also incorporates additional functionality to enable the callpoints, detectors and sounders for each separate zone to be wired on a single common circuit.

By combining both the detection and the alarm annunciation wiring into a single circuit, considerable savings in installation time and cabling can be achieved.



Two-wire system architecture



Example Two-wire system layout

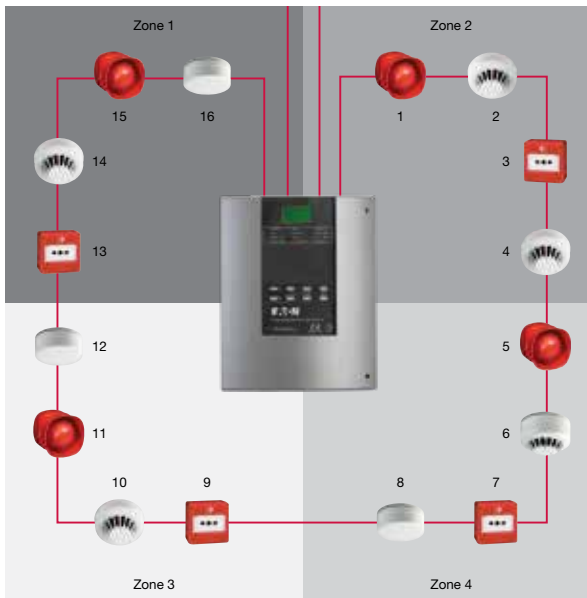
Addressable fire systems

Intelligent addressable systems overcome the limitations of conventional systems as each fire detecting sensor or call point is electronically coded with a unique identification or 'address' which is programmed into the device during installation.

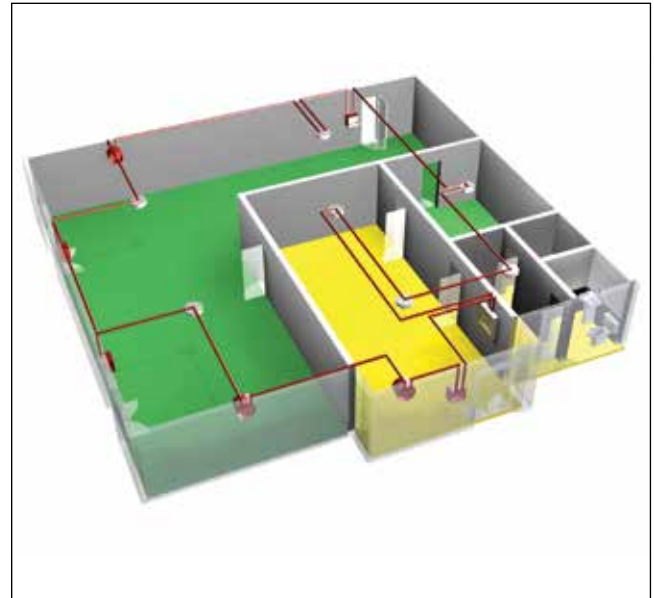
By using each device's unique address, the control panel is able to conduct two way communication with any of the addressable devices connected to the system.

Under normal conditions the control panel continuously interrogates each device in sequence and analyses the reply to determine the status of each sensor or call point. The panel checks whether each device is functioning correctly and also the amount of smoke or heat that the device is currently sensing.

With the functionality of being able to pinpoint exactly which device is being triggered in an alarm or for a fault, addressable systems are perfect for mid to large size builds with multiple rooms and floors.



Typical addressable system architecture



Example addressable system layout

Emergency Voice Communication Systems (EVCS)

What is disabled refuge?

A disabled refuge is a relatively safe area within a building or exit staircase for mobility impaired occupants, allowing building management and emergency services to safely assist these people from the building.

Mobility impairment is defined as not being able to walk 200m continuously without aid, and includes arthritis sufferers, people with leg and back injuries and women over 6 months term pregnancy.



Emergency Voice Communication Systems (EVCS)

What is a fire telephone?

Fire telephones are hardwired full duplex communications systems with monitoring and battery backup and are required in buildings over 4 storeys in many countries in the world (in the UK this is governed by BS9999, 2008). These are provided as a backup to traditional fireman's radio systems, which can fail to operate in many high rise environments due to the large amount of steel in the building, and the "corona" effect of fire on radio broadcasts.

Fire telephones are also required in fire fighting lift lobbies when these lifts are provided within a building. Fire telephones can also be used for fire wardens to call the control point during fire drills and primary evacuation phases before the fire services arrive and assume control.

What is a disabled refuge EVC system?

An EVC System (Emergency Voice Communication System) is a fixed, monitored and maintained, bi-directional, full duplex voice communication system. These systems are designed to assist the orderly evacuation of disabled or mobility impaired people and enhance fire fighters' communication during emergencies.

A disabled refuge system is not just for use during a fire and must be available at all times. Building Regulations insist all new non-domestic buildings with more than one storey provide 'refuge' areas – relatively safe places where people who cannot easily use fire escapes and evacuation lifts, can call for assistance and wait until help arrives.

Simple, effective two-way communication (refuge system) in these areas is essential, firstly to assist rescue teams in determining where assistance is required and secondly to reassure people help is on the way



Life Safety

UL listed fire systems

Underwriters Laboratories Inc. (UL) is an independent product safety certification organization, established in 1894, to develop standards and test procedures for products, materials, components, assemblies, tools and equipment. Chiefly dealing with product safety it also evaluates and certifies the efficiency of a company's business processes through its magnificent system registration programs.

Since the launch of our UL Listed fire product range, several prestigious projects worldwide have been supplied including Hyatt Resort and Spa, Shangri-la at the Fort and Times Square projects in South East Asia and several major projects in the Middle East including the prestigious Riyadh Financial District in the Kingdom of Saudi Arabia.

The Eaton UL range is designed to provide a solution for all sizes of project, from the simple small stand alone system to the large multi panel networked system with PA/VA and BMS integration.

Public address/voice alarm systems

Under BS5839 Pt.8 2013, Voice Alarm (VA) systems are recommended for all public buildings and multi-storey buildings over four floors. VA systems are the quickest way to evacuate the public and staff from a building.

Following fire detection, automated messages control the flow of people in stair wells and corridors allowing an orderly evacuation without panic. These messages are supplemented by spoken messages from the fire service or management suite confirming the validity and need to leave the building. This positive confirmation speeds evacuation and avoids the "false alarm" mentality reducing the risk of death from fire.

Notes:

[illegible]

Eaton's electrical business is a global leader with deep regional application expertise in power distribution and circuit protection; power quality, back-up power and energy storage; control and automation; life safety and security; structural solutions; and harsh and hazardous environment solutions. Through end-to-end services, channel and an integrated digital platform and insights, Eaton is powering what matters across industries and around the world, helping customers solve their most critical electrical power management challenges.

For more information

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Publication no. CA008017EN
August 2023

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