

A Tradition of Fire Protection Innovation



You See Fire Protection

ZETTLER systems protect life without compromise.

Since 1877, the ZETTLER name has been recognized for providing custom communication, fire detection and fire protection systems that push the industry forward while helping to protect lives, property and peace-of-mind. Beyond mere code compliance, ZETTLER systems provide intuitive operation, unmatched flexibility and a proven history of fire protection innovation. This translates directly into long-term costs savings, versatility for future growth and the security of knowing safety isn't being compromised for the sake of convenience.

Only **ZETTLER** products combine cutting-edge technology with performance proven over decades of use in installations across the globe. ZETTLER fire detection systems provide protection without getting in the way – working in the background to safeguard lives and communities. They do this day after day, year after year with the most advanced detection, the highest levels of accuracy and low environmental impact. Protecting life matters. Safety should never be a compromise.

We See

Life
Property
Peace
of Mind



Built on 100 Years of Product Innovation

Built on more than 100 years of product innovation ZETTLER fire detection systems are based on MZX Technology, which is widely recognized as one of the most reliable fire detection solutions available in the market for over 50 years.

Developed in 2000 from integrating Zetfas powerful detection algorithms from Zettler and the Thorn Minerva flexible programming philosophy, the MZX Technology platform brought into the market cutting edge innovations and some of the most advanced sensing technology.

ZETTLER was one of the world's first fire detection manufacturers to transition from analogue to digital communication technology ensuring high levels of system resilience and reliability. Providing reliable communications on all types of new and existing cables in all manner of wiring layouts, the ZETTLER digital protocol continues to operate even if the cable is damaged by damp.

ZETTLER has experienced some of industry's greatest achievements, contributing towards breakthroughs in

early detection and minimising false alarms. ZETTLER systems are also renowned for incorporating some of the best installation techniques, allowing easy and flexible engineering for even highly complex buildings.

The latest PROFILE Flexible and PROFILE panel range bring together the heritage of the MZX platform and provide new benefits to make the ZETTLER system one of the most resilient, reliable, easy to use and serviceable systems available with the broadest level of standards and compliance.

Insightful Fire Engineering

ZETTLER product line provides one of the most robust, reliable and ergonomic fire detection systems on the market with an enviable set of product approvals, listings and certifications. Products, are put through the most extensive certification programs to ensure the highest levels of reliability and performance.



Approvals Beyond Standard

ZETTLER products have global certification from many approval authorities including VdS, LPCB, BOSEC and many others. ZETTLER systems have EN54-13 approval, an independent test of the compatibility between system components, including detectors, ancillaries and panels, to ensure the highest level of reliability and performance.



Ergonomic Design

The ZETTLER PROFILE Flexible fire alarm control panel is designed with key users in mind. It's easy to configure, touchscreen user interface has been ergonomically engineered with an intuitive Info-Button and context sensitive help function to provide you with the information you need about your system's performance quickly and easily.

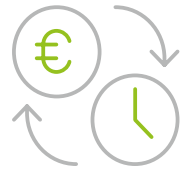


Best in Class Resilience

ZETTLER products are based on MZX Technology which has been built on innovations including MZX Digital communications protocol and Fastlogic detection algorithms to provide a world beating combination of superior fire detection and false alarm rejection.



Lower Life Time Cost & Superior Service



ZETTLER has always stood for high quality and excellent value for money. Today's ZETTLER systems extend this value through the whole lifetime of the fire detection system. The ZETTLER fire detection products are packed with features that start saving money from the day that installation commences. Features to reduce install costs, simplify configuration and speed up servicing are provided as standard. The use of MZX Technology ensures extended life time and forward compatibility with next generation products.



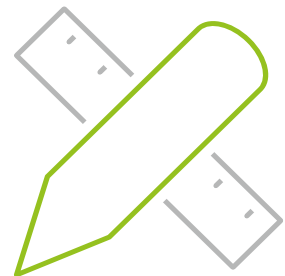
Scalability and Modular Design

The PROFILE Flexible range introduces modular design capabilities with the slot card principle offering the opportunity to build the most economical design which is specifically tailored to the needs of the application. The system can be expanded and adapted to meet your future changing needs.



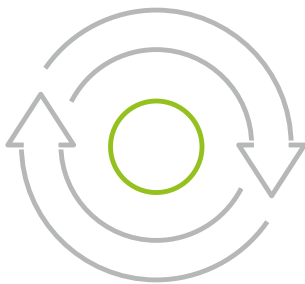
Extended Loop Capacity

Practicalities such as the layout of a building or the number of alarm devices will often dictate the useable size of a detection loop and can result in unused capacity. In order to optimise loop capacity, PROFILE Flexible offers a system design solution with an extended current loop of 1 Ampere. Addressable loops can be connected as shared power (SP) loops or combined as high power (HP) loops. The system designer can allocate all available power and 250 addresses to a single high power loop, or share resources across two shared power loops. This level of optimisation can significantly reduce total installed system cost.



Ergonomically Designed Products

The PROFILE panel has ergonomic design; putting its users at the heart of its design to optimise comfort, functionality and user-friendliness. The panel's intuitive LED touchscreen features an Info-Button providing context sensitive help function and operating instructions. This guarantees fast and reliable assistance even for infrequent users.



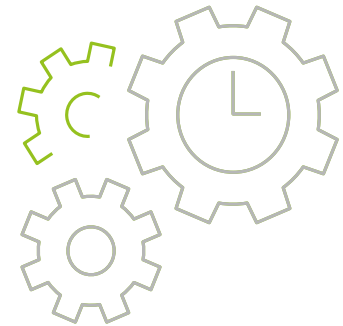
Forward and Backward Compatibility

Future proofing of the ZETTLER product is a key design priority and the MZX Technology system architecture ensures that software, memory and microprocessor upgrades can be easily implemented in the future. In addition compatibility with earlier generation detectors is seamless. Earlier generations of detectors can also be supported by ZETTLER panel accessories such as the Zetfas/STI loop card and the DDM800 Universal Fire and Gas Detection module.



Reflective Sound and Light Monitoring

The sounders and beacons of the ZETTLER range also contribute to the reduced lifetime costs. Sounders with Reflective Sound Monitoring (RSM) and Visual Alarm Devices with Reflective Light Monitoring (RLM) use their integrated microphone and optical sensor to monitor their own operation, providing a quick and simple regular system testing mechanism. Self testing lasts less than one second per device and can be programmed to occur at any time, minimizing disruption to building occupants.



Extended Service Life (ESL)

ZETTLER Generation 6 detectors include the latest ESL optical chamber design which has doubled the service life of the optical smoke detectors. This is useful in all applications but will particularly help in areas where normal smoke detectors quickly get dirty.

Comprehensive Range of Control Panels and Accessories

The ZETTLER range of control panels and accessories include a full range of stand alone addressable, networked addressable and conventional panels. This also includes gaseous releasing panels. These panels have been designed to be resilient, compact, easy to install and configure. They are also forward/backward compatible and intuitive to operate.



Addressable Range

PROFILE Flexible is a powerful fire detection and alarm system that uses MZX Technology at its heart. MZX Technology was originally designed for operation in the most hostile of environments, therefore the system is highly resilient to external factors such as electrical noise, including interference from electrical signals from other devices, and sources of false alarm. With the introduction of a slot card mechanism, PROFILE Flexible panels can be tailored to the specific requirements of the application and the environment being protected. The panel has been specifically engineered to offer increased loop capacity and the option to share loops giving even more flexibility in the systems design and a reduction in installation costs. The touchscreen user interface, with context sensitive help, has been ergonomically engineered so that every operation is made easy. The system combines ease of use with high performance, and through innovation brings lifetime cost benefits to end users.



Conventional Range

The MZX-C and MZX-C+ conventional control panels are suitable for small and simple fire detection systems. They have the capacity for 2 – 32 zones and the possibility of connecting external repeaters. They also support the complete range of EN54 approved series 600 detectors including photo multi-sensor and the CO multi-sensor.



Gas Releasing Panels

The MZX-e is powerful and user-friendly and is the only extinguishing controller approved to both the Extinguishing Standard EN12094 and to the Fire Detection Standard EN54 Part 2 & 4. The panel is easy to install, programme and operate and has extensive configuration options.

Generation 6 Detection

At ZETTLER we understand that a fire detection system is crucial to the safety and protection of a building or environment at all times. People rely on this system every day to help keep them safe and alert them at the earliest possible sign of danger. Detectors in our Generation 6 range have been developed to ensure optimum detection performance and reliability intended to assure false alarm resilience at all times and provide a fast response to threats of fire.



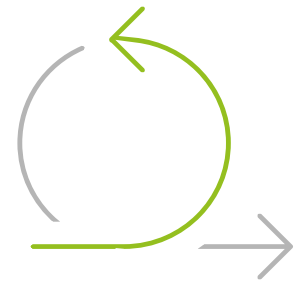
Best Performance with FastLogic

The FastLogic algorithm is designed to achieve faster detection of real fires and slower (preferably no detection) of false alarm sources. Developed in conjunction with the University of Duisburg, which has a database of almost 100,000 fire/non-fire situations, FastLogic uses the information on the level of smoke and heat that the detectors send to the control panel to determine the likelihood that it is a real fire.



3oTEC Triple Sensing Technology

The 3oTec multi-sensor takes the best optical smoke detection technology and combines this with carbon monoxide gas detection and heat detection to provide a universal fire detector with algorithms that provide early detection of slow smouldering fires whilst providing a level of false alarm resilience that simply cannot be achieved with optical only fire detectors.



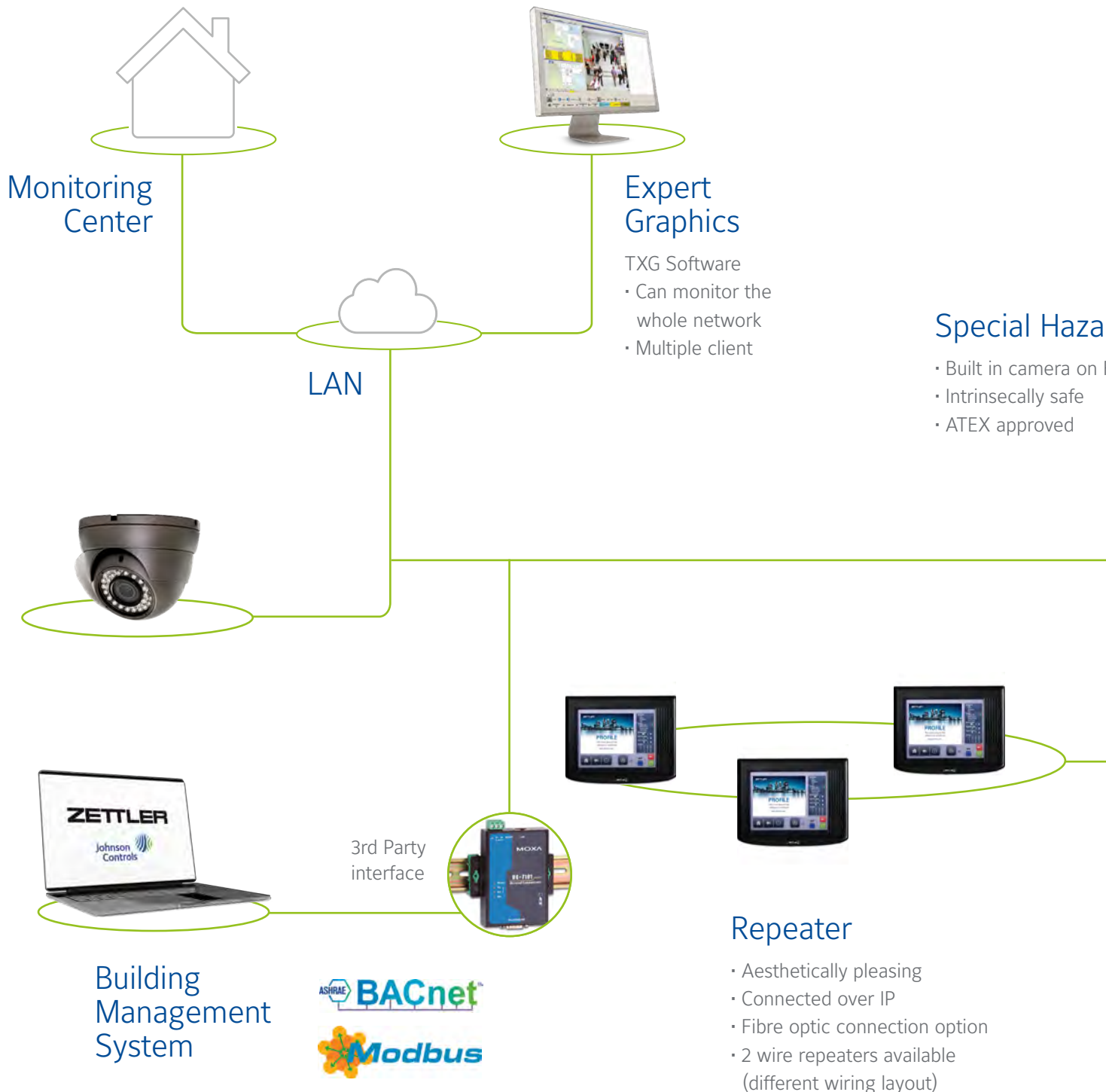
Multiple sensitivity and operating modes

Generation 6 multisensors provide the flexibility to dynamically adapt to an environment depending on the application, risks and time of day. As an example the mode of operation of the 3oTec detector will determine sensitivity to smoke, heat and CO ensuring optimum detection sensitivity at all times. Multiple modes of operation can be used concurrently with both the photo-heat and 3oTec multi-sensors.



Responsive Solutions

ZETTLER technology is renowned for its revolutionary capabilities, by understanding customer needs and usability; ZETTLER systems include advances such as remote access, connected services and integration with building management systems to help anticipate customer needs. ZETTLER systems are scalable, robust, and optimized for a greater long-term return on investment.



* Note: Simplified connection drawings. TLI800 network cards are not shown.

Special Detection

The Zettler system can integrate easily with other special detection devices such as Linear Heat, Beam, Air Sampling technologies.

Fire Alarm Devices

- Low current consumption
- Self test (RSM and RLM)
- 20ms pulse light for higher VAD effectiveness

Gen 6 Detectors

- Multiple approvals
- Single, double and triple technology
- Unrivalled sensitivity and false alarm resilience
- FastLogic algorithm
- Longer lifecycle



PROFILE Flexible

- Modular, up to 32 loops
- 1 ampere loops
- Ergonomic user interface
- Robust and Reliable
- Multiple approvals
- Futureproof
- Easy to maintain

Network

- Up to 99 panels network
- Fibre Optic option for long distance
- EN54-13 approved
- EN54-2 approval over the network, to use distributed panels
- Black box panels available for reduced cost
- 3rd party integration

Special Hazards Require Special Solutions

Flame Detection

The FlameVision FV300 is a range of array-based flame detectors that use a multi-infrared array to detect flame and provide positional information so that the location of a flame within the detector's field of view can be communicated. Additionally, an inbuilt CCTV camera can transmit a detector's eye view to a CCTV monitor, with superimposed positional data highlighting the exact position of the source of alarm. FV400 detectors use Triple IR Solar Blind sensing technology and flame detection algorithms to provide high performance sensing capabilities for hydrocarbon fires.

Loop Powered Beam Detection

Loop powered optical beam detectors provide an economic solution in terms of installation and servicing costs for the protection of large areas such as warehouses. Self aligning reflective beam detectors and traditional end-to-end versions are available in the ZETTLER range as well as newly developed Open Area Smoke Detection that uses optical imagers to automatically align, calibrate and detect.

SensorLaser Plus

The SensorLaser™ Plus guarantees fast and continuous fire detection, even in difficult and varying ambient conditions. This linear heat detection system enables long and heavily fragmented facilities such as traffic and supply tunnels, cable routes and conveyor belts as well as large scale buildings such as production halls, cold stores and multi storey car parks to be monitored at all times.

Aspirating Detection

VESDA aspirating smoke detection provides a high sensitivity method for detection of fires at a very early stage. They are ideal for areas such as computer rooms and other high risk and high value areas. The choice of products range from the low cost IAS800 Aspirating Detector unit that is often used to overcome access problems associated with protecting lift shafts, to the LaserPlus detector with multiple sampling pipes and high level MZX interface.

Hazardous Area Detection

Intrinsically safe conventional and addressable smoke and heat detectors ATEX and ITEX approved for use in gas or dusty, potentially explosive atmospheres. For dust applications, where smoke detection can be problematic, a combined carbon monoxide/heat fire detector is available.



Series 800 Detectors



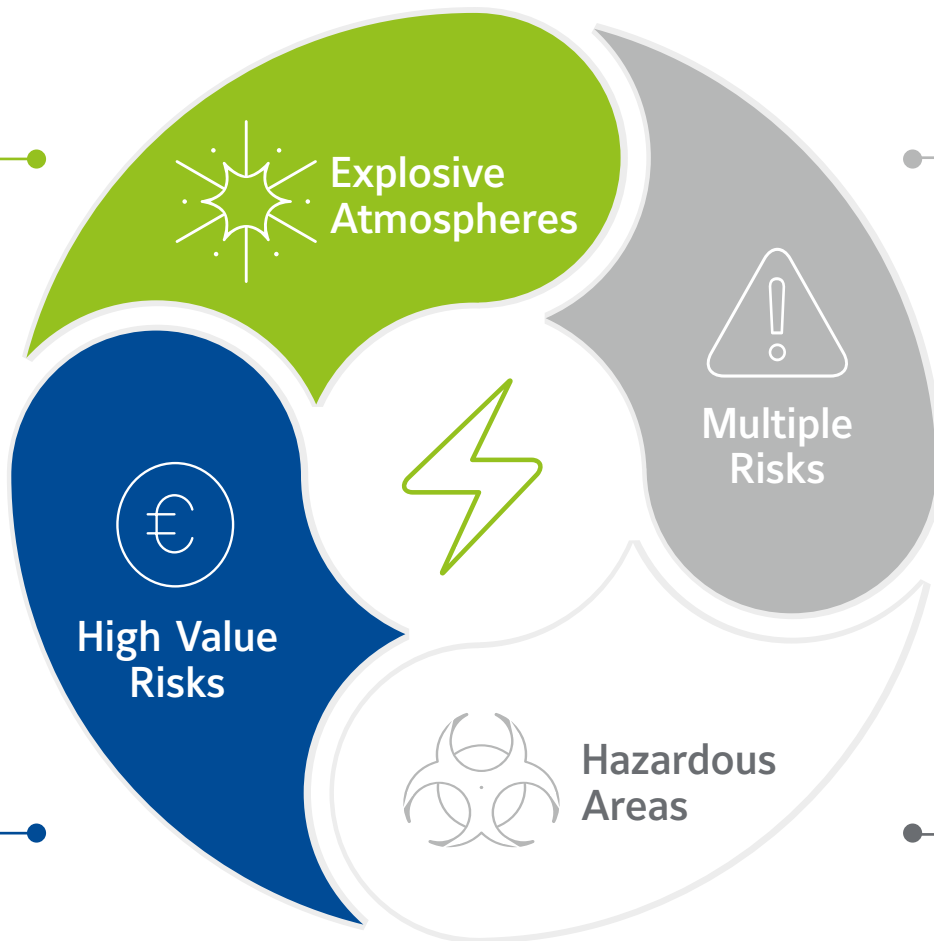
Series 600 Detectors



FlameVision FV400 & FV300



3oTec Triple Sensor



VESDA Aspirating Detector



MZX SensorLaser Plus



Beam Detector



Open-Area Image Smoke Detector (OSID)



IAS800 Aspirating Detector

Solutions to Suit Your Needs

Different environments require different solutions which is why we have developed a wide product portfolio. This enables us to provide you with solutions for applications from light commercial and large industrial to the even more challenging areas of hazardous areas such as oil and gas platforms.



Healthcare

Special care needs to be taken when configuring systems for hospitals, care-homes and healthcare centres as these are places full vulnerable people. Due to the potential lack of mobility of people in these places and the probability that some may well be sleeping (even during the day) the chosen system needs to give the earliest possible warning in the event of a fire.

In addition special alarming and evacuation procedures have to be in place for those with additional disabilities like hearing loss. It is crucial that the detection systems are free from false alarms to minimize disruption to patients who could be undergoing surgery.

Industrial

Manufacturing and warehousing facilities can be areas of high fire risk. Even though they may carry high value items the potential loss in manufacturing can also result in significant loss in market share due to prolonged closure after a fire.

Detection systems in industrial facilities need to deal with harsh environmental conditions (heat, dust, cold, explosive conditions). We provide specialist fire detection products for special hazard environments.

Depending on the nature of the manufacturing and warehousing facility we are able to help plan individually tailored solutions.

Leisure

All leisure facilities such as hotels, cinema, sports venues, auditorium, stadia and even swimming pools run the risk of fire. These facilities particularly hotels, are prone to unwanted alarms. These are usually caused by some unusual occurrence close to a sensor, e.g. smoking a cigarette under a sensor. Early detection is required especially in places where people are sleeping. Our 3oTec, triple sense detector will sound the alarm before flames begin to spread. Most fire victims are killed by carbon monoxide and the 3oTec alerts people at the earliest stages of a fire, hence providing valuable time to evacuate.



Public Sector

Schools, universities, government buildings and prisons usually comprise of many separate buildings that require flexible and networkable systems. Alarm systems in these buildings also need to be easy to use and to clearly indicate where a problem is occurring. The TXG system provides a graphical display making it fast and simple to pin-point a potential fire.

Prisons present a special problem as evacuation is not always feasible. To alleviate this, sabotage resistant detectors can be installed in each cell, or a VESDA aspirating smoke detector. This can help to address any accidental unwanted alarms also.



Energy and Utilities

Nuclear, fossil fuel, renewable power generation, petrochemical, oil and gas production and storage all fall into this category of hazardous environments, where potential fire risks are extremely high due to the large amounts of combustible materials around. In the case of nuclear power the risk of a radiation leak cannot be ignored.

ZETTLER has a wide range of products and systems to protect these industries. We have special intrinsically safe detectors and cabling that is heat resistant and won't create a spark. Our detectors can indicate the presence of flames, smoke, heat and carbon monoxide.



Commercial

In premises such as shopping malls, offices, banks, transport hubs, communications and data processing centres, one of the biggest problems can be evacuating a large number of people from the building in an emergency. In these situations multiple evacuation strategies may be required.

To ensure that business critical functions are not interrupted an alarm verification facility (AVF) may be needed. This provides an automatic resetting function for false alarm signals so they will not activate the master alarm.

Zero Harm to People & the Planet

The ZETTLER fire detection product line has been designed to support Johnson Controls' Zero Harm policy, an increasingly important policy for installers, building owners and occupiers. The ZETTLER Zero Harm program is concerned with minimising the impact to the environment and the risk to the health and safety of those involved during the lifetime of the fire detection system. Whether during the manufacturing process, installation, operation or finally during its removal, recycling and disposal.



Recycling goes further

Returned equipment that fails the re-test is sent for recycling but increasingly our component salvage program removes critical electronic components from the printed circuit boards to help manufacture new service spares to extend service life.

ZETTLER first with Green Passport

As part of an on-going program 95% of the ZETTLER fire detection product portfolio has now been issued with a Green Passport following independent third party analysis of the chemical contents of the products. Like the European government lead free initiative the Green Passport tests the products for minute levels of 14 other hazardous substances. Primarily intended for installations on ships, it's an important environmental stamp of approval.



We Use Technology to Reduce Our Carbon Footprint

Health and Safety

We are constantly redesigning our products to make the lives of our staff and our customers safer and easier. Wherever possible we try to design products that reduce impact not only for people but on the environment too.

About Johnson Controls' Building Technologies and Solutions

Johnson Controls' Building Technologies & Solutions is making the world safer, smarter and more sustainable – one building at a time. Our technology portfolio integrates every aspect of a building – whether security systems, energy management, fire suppression or HVACR – to ensure that we exceed customer expectations at all times.

We operate in more than 150 countries through our unmatched network of branches and distribution channels, helping building owners, operators, engineers and contractors enhance the full lifecycle of any facility. Our arsenal of brands includes some of the most trusted names in the industry, such as Tyco®, YORK®, Metasys®, Ruskin®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell®.

For more information, visit www.johnsoncontrols.com or www.zettlerfire.com.