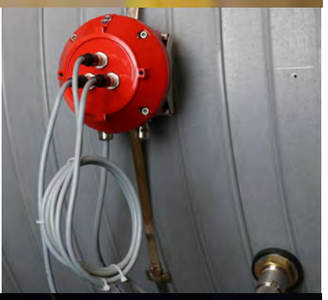
FIRE DETECTION

fire protection
TECHNOLOGIES

GASEOUS SUPPRESSION | WATER SUPPRESSION | FOAM SUPPRESSION | EXPLOSION PROTECTION | FIRE DETECTION | MILITARY & DEFENCE | SPECIAL APPLICATIONS | SUPPORT SERVICES



FLAME DETECTION

Flame Detectors operate in the harshest environmental conditions and offer a solution for virtually any application where there is a fire risk to personnel and high value plant and capital equipment.

We offer flame detection solutions with fast response times, the best area coverage, the highest immunity to false alarms and all the performance and safety approvals you need. Before you decide you need to know the 'pros and cons' of each type of detector as no single detector is suitable for every situation. Apart from hydrocarbon fires, our wide detector range can help with other special fire types eg. hydrogen, ammonia and silane.

Industrial and commercial applications for flame detection include offshore oil and gas platforms, FPSOs, oil and gas pipelines, petrochemical plant, refineries, aircraft hangars, flammable fuel storage tanks, hydrogen filling stations, munitions plants and many more.

CONTROL & INDICATING EQUIPMENT

When you need an intelligent or conventional fire suppression control system for your special hazard application, we have the solution. Our range of control panels are designed to deal with the demands put on a fire protection system when it is expected to perform. When it comes to potential fire and smoke damage to your critical assets, you deserve the best information and the fastest response time.

SPARK DETECTION

Spark detection and extinguishing systems detect and extinguish a spark or burning ember in under 300 milliseconds. Detecting a spark in a pneumatic material transport duct at speeds that often exceed 25 meters per second requires a very sensitive and very fast sensing device. High speed infrared detectors that actually count sparks can quickly actuate a suppression system that utilises water, CO^2 or other extinguishing agent of choice to effectively protect the operating plant from fires and explosions. The detectors automatically and immediately reset themselves so that they stand ready to detect any possible subsequent sparks.

VIDEO FLAME & SMOKE DETECTION

Video Imaging Detection (VID) cameras can see and recognise smoke and flames overlooking large spaces at great distances, while providing video surveillance capabilities as a bonus. They will detect fire in seconds, supply vital situational awareness in the form of live video to remotely located guards, trigger fire alarms, and provide a vast amount of pre-recorded video forensic evidence for future fire investigations.

VID cameras can detect:

- presence of flames within the field of view of the camera
- reflected fire light when flames are obstructed
- presence of pluming smoke clouds
- presence of ambient smoke
- unauthorised intrusion

VID is deployed in conjunction with an advanced IP Network Video Recorder (NVR) platform that can address immediate security needs of your organisation. Large capacity internal storage provides continuous digital video recordings with instant access to current and archived events from virtually anywhere over local and public networks.

THERMAL IMAGING

Our thermal imaging fire detection system is a reliable system for surveillance and recognition of spontaneous fires inside bunkers, coal conveyers, rubbish dumps, paper and cardboard recycling plants and the like. The probability of spontaneous combustion in these areas is high with disastrous effects for personnel and the environment.

Thermal imaging detection systems utilise high performance infrared cameras and a powerful software package to analyse thermographic images to detect hot spots making it a very early warning fire detection system.

The infrared cameras can be mounted on a pan-tilt arrangement and automatically monitor a defined area, continually measuring the surface temperature. Alarm temperatures are programmable as is the area being monitored. Features include image storage and automatic water or foam monitor control.

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"EVERY SOLUTION FOR YOUR SPECIAL HAZARD PROBLEMS"

"Our range of detection products fill the gap providing system performance to protect critical assets"

In Many Applications traditional point type detection is not used in the way or for the purpose they were designed, resulting in inadequate detection performance. New products are continually being developed to deal with the ever increasing needs for these special applications. Our range of detection products fill the gap providing superior system performance to protect your critical assets.

LINEAR HEAT DETECTION - DIGITAL

Digital linear heat detection cable is a conventional style heat detector, capable of detecting a fire along the length of the cable. This simple but effective system can be combined with smoke detectors to deliver multi-purpose systems.

The product range consists of a standard two core cable of various temperature ranges, including the only FM approved heat detector for temperatures below 68 degrees Celsius. The XLT type cable has an alarm temperature of 57 degrees Celsius and is purpose built for cool room / freezer environments. Included in the range is a dual temperature sensor cable, and an alarm point locator. Digital linear heat detection is a cost effective and simple way to provide heat detection with continuous detection along its total length.

LINEAR HEAT DETECTION - FIBRE OPTIC

In today's complex industrial environments, the potential for down time and financial losses caused by overheating and fire can be disastrous if not detected and located quickly.

Temperatures are recorded along the sensor cable as a continuous profile and the system is capable of detecting fire and overheat conditions over distances up to 10 km. The Fibre Optic system uses a semi-conductor laser diode and revolutionary evaluation procedures to reliably detect small temperature change along the length of the cable. Suited to long continuous cable runs fibre optical heat detection is another weapon in the arsenal of detection products.

LINEAR HEAT DETECTION - MICROCHIP

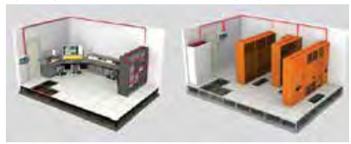
Linear Heat detection is increasingly becoming the first choice in fire protection, with ever increasing complex application and the potential for loss and down time, the right choice is critical to business continuity. In many applications traditional point type detectors are not used in the way or for the purpose they were designed.

Micro Chip linear heat detection is becoming a preferred alternative for many of these applications. This system from Listec is an intelligent Micro Chip linear heat detection system capable of rapidly and accurately detecting temperature changes of (±0.1°C) along its length (up to 2.8 km), with multiple alarm thresholds including fixed point, rate of rise and pre-alarm. Add that to the systems fast response time, simplicity, flexibility and ease of installation, Micro Chip linear heat detection will become the new bench mark in linear heat detection.

ASPIRATING SMOKE & GAS DETECTION

VESDA very early warning smoke detection solutions provide the earliest possible warning of an impending fire hazard. VESDA buys time to investigate an alarm and initiate an appropriate response to prevent injury, property damage or business disruption. And because VESDA has the industry's widest sensitivity range and multi-level alarms, even minute levels of smoke can be detected before a fire has time to escalate.

As the No. 1 ASD brand specified by fire professionals around the world, VESDA is synonymous with reliable, high-performance



OUR COMMITMENT *"To provide our customers with the best possible service, the highest quality products and the right solution for your needs"*

PRODUCTS:

Gaseous Suppression

- Inert Gas (IG-01, IG-55, IG-100, IG-541)
- Novec 1230™ Fluid (FK-5-1-12)
- FM-200® (HFC-227ea.)
- Carbon Dioxide (CO_2)
- Hybrid Systems (N_2 / Water)
- Pressure Relief Vents
- Enclosure Integrity Testing Equipment
- Pipe & Fittings

Water Suppression

- Water Mist - High Pressure
- Water Mist - Intermediate Pressure
- Water Mist - Low Pressure
- Hybrid Systems (Water / N_2)
- Monitors & Delivery Systems
- High Speed Deluge

Foam Suppression

- Foam Concentrates
- Foam Proportioning
- Foam Delivery Systems
- Compressed Air Foam
- Foam Concentrate Testing

Explosion Protection

- Explosion Suppression
- Explosion Isolation
- Explosion Vents & Pressure Relief
- Spark Suppression
- Explosibility Testing

Fire Detection

- Linear Heat Detection - Digital
- Linear Heat Detection - Fibre Optic
- Linear Heat Detection - Micro Chip
- Flame Detection
- Video Imaging Detection
- Spark Detection
- Control & Indicating Equipment
- Thermal Imaging Detection
- Aspirating Smoke Detection

Military & Defence

- Military Vehicles
- Naval Vessels

Special Applications

- Micro Environment
- Oxygen Reduction
- Kitchen Protection Systems
- Dry Chemical
- Vehicle Systems
- Marine & Offshore
- Vapour Mitigation
- Li-Ion Fire Systems

Support Services

- Design / Engineering
- Technical Support
- Services & Testing

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'Every solution for your special hazard problems'