

We detect, warn and suppress **FIRE** for the protection of life, assets and property.

We are

FirePro.

UK & IRELAND



Welcome

Thank you for taking the time to take a look inside this short introduction to what we are all about. Professionally, you may have nothing to do with fire safety, but it's worth a reminder just to say, think about when you're at home, going out, on holiday or away on business, fire safety is most definitely your business, not to the point of being obsessive, but just adopting some basics to reduce risk by being aware. If you are responsible for specification, design, installation, commissioning, maintenance or management of fire detection & suppression systems, please read on, we are not new, but the thinking is.

FirePro.

My name is Tony Hanley, I am the MD and founder of FirePro UK. My career in the fire systems engineering industry spans >30 years. I am now in my 13th year as a volunteer Board Director for the Fire Industry Association, and served on WG4 (competency) in the Hackitt review.

Our mission is simple; - "Our engineering experience allows us to bring quality fire system technologies together to deliver unique, efficient and effective fire protection systems that will detect, warn and suppress fire, so as to protect life, assets and property".

Our product portfolio is centred around FirePro, a modular condensed aerosol fire suppression product, complemented by Securiton early warning fire detection systems and Fireclass fire detection & alarm systems.

We deliver this via a UK & Ireland network of trained competent, third party accredited fire systems engineering specialists.

If you believe that fire safety is just ticking a box, meeting minimum requirements to prove compliance, we may not be for you.

This booklet is intended to showcase just how everyday fire risks may be protected, at comparably minor expense, thus reducing disruption, downtime, and of course, cost of brand reputation, following a fire.

We have proven examples of doing just that.

Finally, it's important that I say thank you to all of our super distributors, for believing in us, and the products we offer. We know we don't win all your business, we can't, as there simply isn't one product that is the panacea to protecting all fire risks as each has their own tradeoffs, and we are no different, but we do clearly have, and know our strengths that serve our market very well.



Protecting our NHS

FirePro UK are proud to be able to openly demonstrate how our innovative engineering was applied to protect a bank of Hospital sterilisation machines, and saved the day following a repeat fire event.

When fire occurs within a mission critical machine and the operation is lost, its only at that time, the full implications are truly recognised.

We offer technologies that simplify the engineering and design of fire protection systems that can detect and instantly suppress fire inside machinery, which is neither costly or complex.

In this case, loss of just one of three machines caused by internal fire caused significant disruption to patient care services. Although the fire was limited to one machine only, the clean-up and redecoration of smoke and water damage prompted the closure of the unit for a period of time, all at great expense.

A second fire occurred seven months later. This time it was a different story, as all of the units were fitted with FirePro modular fire suppression, which when activated immediately extinguished the fire, as well as performing ancillary signalling, meaning that by the time Fire & Rescue services arrived, there was no fire to fight, and internal machinery damage was minimal. If you would like a copy of the case study presentation, please email us at sales@fireprouk.com

Protecting Rechargeable Appliances

From power tools to mobility vehicles, rechargeable technology containing batteries (of many kinds) are now part of our society. Even without automatic fire detection and fire suppression, there are a number of housekeeping measures to reduce the risk of fire, that may be adopted, for instance, separating sources of ignition from combustibles, or keeping fire exits clear. The image on the left is simply how not to do it. Storing mobility vehicles on a fire exit.



The image below shows purpose built storage for mobility vehicles positioned in a safe place, outside, which is ideal, but not always possible.

We often see the basic adaptation of an internal part of an existing premises to accommodate storage and recharging of electrical equipment. Passive fire protection measures would always be required to ensure adequate compartmentation and prevention of fire spread.

An extra smoke detector installed in the space will only provide warning when smoke levels have reached a certain obscuration level, meaning that a fire is well underway.

Irrespective of how close the premises are located to a Fire station, the contents of a room containing batteries and recharging equipment will accelerate growth of a fire, therefore far earlier intervention is required, which may be achieved utilising aspirating fire detection technology, which can detect fire at the very early stages, up to 30 times faster than a standard smoke detector.

A local dedicated fire suppression system may be installed to function in unison, which is a very simple, low cost and effective way to ensure that in the event of fire, the local power and ventilation to the space is automatically cut off, the fire & rescue services are alerted, the fire alarm is activated, and the FirePro fire suppression is released, thus inerting the space.

Our network of installers across the UK & Ireland can easily engineer a suitable solution to protect such spaces from fire.



Protecting Cupboard Spaces

In the building life cycle, existing or new cupboard spaces are often built to afford room for electrical distribution, patch panels, cleaners materials, security or fire equipment and the like.

These spaces can grow from temporary to permanent measures without the consideration of where they may be located or the implications of a fire breaking out from within.

Passive fire protection measures would require that such spaces are afforded correctly labelled, suitably fire rated, secure doors, especially when located on stairwells and within fire escape routes.

In the case of custom built, or extra wide spaces, the cost of suitable fire rated doors may be prohibitive, in which case, using the services of a chartered fire engineer, and consulting with all relevant stakeholders, it may be possible to consider alternate mitigating measures to afford alternate protection.

Our image on the right shows a fire escape with 2 x 4m wide cupboard spaces. The image on the below right shows that both contain three phase switch gear and comms patch panels. Whilst the bi-fold doors are fairly solid, the nature of their openings mean that they are not fully fire rated.

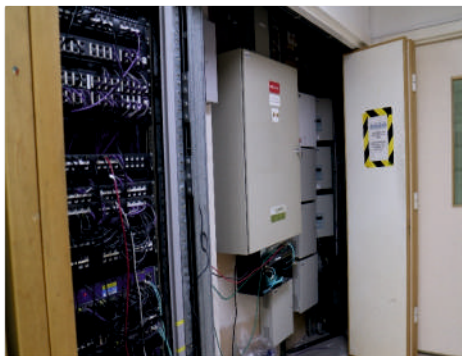
We were able to assist the clients fire consultant in this application by proposing an engineered mitigating measure for the protection of the cupboard space and preservation of the fire escape.

This was achieved by the installation of automatic fire detectors installed inside and outside of the cupboard area as well as the adjoining ceiling void, and a local FirePro fire suppression system to protect inside the cupboard space, and released by manual means ONLY.

Internal management control and first responder processes were drawn up detailing that in the event of a fire detector activating locally from within the cupboard or adjoining space, provided that the fire alarm is genuine, trained 24-hour on-site staff will evacuate the area, and manually release the FirePro into the cupboard space, by means of secure local key operated switch.

Our network of trained installers can engineer bespoke fire protection solutions efficiently and at low cost. You will find them at www.fireprouk.com/installers

FirePro.



Reinventing
Safety

Loft Spaces / Heritage / Voids

FirePro.

Reinventing
Safety



Loft spaces, and voids may sometimes be used as general storage, or in applications such as domestic housing where solar panel systems are installed, the control and energy conversion gear is also normally located in the loft space.

In older and heritage premises, various spaces and wall voids (even where spaces are sterile), present a risk of fire spread as a result of the being unable to adequately fire stop compartments, due to age and construction.

This is yet another application where efficiently engineered fire protection systems may be provided utilising the appropriate fire detection technology suited to providing the earliest warning of fire, which is configured to ensure local energy sources are shut down, ventilation is cut off and suitable warning is given.

All of our installer network across the UK and Ireland are accredited by BAFE or LPCB for competency, and as experts in their respective fields will be able to assess and advise on how best to afford early warning of fire in such fire risks.

If it is decided that the detection system may be further enhanced by adding FirePro condensed aerosol fire suppression, the modularity of the technology allows its adaptation to protecting risks of most types and spaces from very small to large.

The range of Fireclass fire detection and alarm systems are versatile and flexible enough to monitor and protect from small spaces to very large.

Securiton are a specialist manufacturer of reliable linear heat detection systems, as well as aspirating early warning systems.

FirePro fire suppression technology may be configured to release against client bespoke requirements, for instance, manual release only, release on configured signalling, even remote release via SMS. There are no pressurised cylinders or pipes, and maintenance is minimal, hence capital and operating costs are also lower by comparison.

We can combine all three technologies to provide the right solution. You can see more at www.fireprouk.com

Diesel Generator Protection



FirePro.

Reinventing
Safety

Diesel generators are a mission critical item of plant that are designed to provide standby emergency power to a premises or operation when the general supply fails.

Normally, the generator will be housed in its own custom enclosure and sited close to or on top of a premises or located internally within a designated area.

Traditionally, pressurised gas extinguishing or water mist systems are employed to afford the means of fire suppression to protect the space. The suppression agent is usually connected to a local control panel and automatic fire detectors strategically located within the risk space to provide warning of fire.

The mode of operation is governed by applicable standards and codes and will usually operate in two operating modes - manual (room occupied) or automatic (room not occupied). In manual mode, the suppression agent will only release if manually activated. In automatic mode, staged co-incidence signalling is required from two opposing automatic

fire detectors, which initiates local shutdowns (air / power) and a countdown release timer (usually 30 seconds) commences, at the timer expiry, the agent is released into the space.

FirePro operates on almost identical principles of operation, with the main physical difference being that there are no pipes or pressurised cylinders, as FirePro is wall or ceiling mounted which you can see in this image.

Pressurised cylinders must be tested every ten years, FirePro has a fixed certified lifetime of 15 years, with minimal maintenance.

You will see on page 12 of this booklet a list of sample installations undertaken by our distributor network throughout the UK & Ireland, during 2018, a lot of which are the protection of diesel generator enclosures.

If you would like more information please see our website at www.fireprouk.com

Battery Storage Protection

Where standby emergency power is needed large banks of batteries are usually installed together with an uninterruptible power supply system (UPS).

Battery manufacturers are constantly striving for ever improving operating efficiencies therefore battery technology is changing rapidly. This also includes for the automotive industries, in particular hybrid vehicles, and much more.

Containerised banks of Li-Ion batteries are now also proving more common place as the commodity of local power generation and reselling comes onstream.

We advocate that by selecting the appropriate fire detection technology, that will provide the earliest possible warning of fire, it affords the system user a critical time window to take reactive measures as deemed appropriate to prevent a small issue escalating into a large one.

You will see in this image the batteries are stored on custom racking, to which is affixed linear heat detection cable rated at 70°C to both the underside and topside of each battery shelf. The linear heat detection is configured with an opposing zone of conventional smoke detection, and a third (non co-incidence) zone of aspirating fire detection.

This means that an alarm may be raised at the earliest stages, via the aspirating fire detection system or linear heat detection cable, enabling human

intervention to determine the next steps as deemed appropriate at the time.

We also advocate that release of a fire suppression agent (in this case FirePro) should be the final measure following defined steps of intervention as described.

All of our installer network across the UK and Ireland are accredited by BAFE or LPCB for competency, and as experts in their respective fields will be able to assess and advise on how best to afford early warning of fire in such fire risks.

If you need further support or assistance then our contact details are on the reverse, we will be delighted to assist.



FirePro.



Plant / Boiler / Lift Motor Rooms



detectors located at high level and within extract ductwork throughout. This operates on a standalone basis, directly connected to the premises fire alarm system, which when activated will alert site security to investigate by means of graphics visual aid.

A Securiton ADW linear heat detection system (please see http://bit.ly/ADW_Now) was chosen to afford linear heat detection throughout. The system is programmed to compensate in changes of ambient temperature by means of external probe that

references internal and external temperature, thus reducing the possibility of false alarms. The system operates on the principle of monitoring air pressure through a 7mm tube which in this case was copper, but may be stainless steel or Teflon for sensitive areas such as food preparation and or pharmaceuticals.

In most premises, there will be designated space for building plant such as controls equipment, boilers, lift motors and more. The size will be dictated by the size and age of the premises also what operating plant it contains

As this area is the heart beat of a premises and its operation, the consideration as to the impact of its loss to fire may be seriously considered.

It is perfectly permissible to provide standard automatic fire detection and local warning of fire to these areas under current regulations, and for some, that may be enough, as it's a tick in the box.

This plant room serves a hospital in London, it is on two levels and is protected with three varying types of fire detection to provide early warning and FirePro fire suppression. The array of fire detection comprises of analogue addressable automatic fire

A second opposing co-incidence zone of fire detection was installed using the Securiton ASD aspirating smoke detection system (please see <http://bit.ly/FireproASD>), which also covers the entire space.

Together these two technologies provide the zonal detection for the FirePro fire suppression system, which is engineered as the final measure following defined steps of intervention all as described.

FirePro is sold in 86 countries worldwide, and has product approvals from numerous certification authorities, including LPCB.

Large Space Protection



The need to provide fire protection for large spaces is sometimes driven by insurance and or local authority requirements. This usually means installing a fixed and dedicated sprinkler system, or perhaps, hypoxic fire suppression system.

We advocate the use of all available technologies to protect against fire, and openly acknowledge that sprinklers have a history of proven success.

Likewise, the principle of hypoxic fire suppression systems is theoretically sound, and may prevent fire ignition by the safe reduction of ambient oxygen levels.

In his opening notes, our MD Tony Hanley, stated “there simply isn’t one fire suppression product that is the panacea to protecting all fire risks, each has their own trade-offs, and we are no different”

A challenge for installing an effective sprinkler system may be where town water mains pressure is problematic, or space for water tanks and pump rooms is non-existent.

Hypoxic systems are well suited to protection of number of risks, however as large buildings, in particular “sheds”, do expand, contract and move, causing air leakage, hypoxic systems may struggle to retain correct levels of reduced oxygen by driving compressors, meaning prolonged higher end user operating expense, possibly even loss of cover.

FirePro is sold in 86 countries, worldwide, and has been used on many occasions as the chosen fire suppression agent for the protection of large spaces. FirePro has greater tolerance to leakage, and may be engineered to operate in defined compartments created by automated drop curtains to protect individual or collective risks. Alternately, FirePro may be released into an entire space, as depicted in the above image, which is used for chemical storage (courtesy FirePro Benelux).

FirePro.

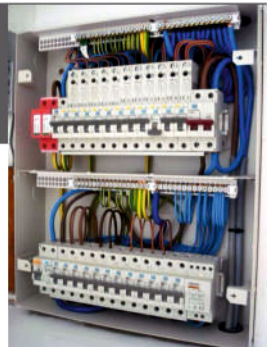
BENELUX

Reinventing
Safety

Protecting Electrical Distribution Spaces



 Reinventing Safety



Whether in or out of Europe, the UK fire protection industry could take some learning from practices abroad, say for instance, Israel, (guided by NFPA standards), has legislation requiring mandatory fire protection of all enclosures containing three phase electrical power distribution.

In South Korea, in every residential high-rise premises, it is mandatory to protect the electrical distribution system from the intake through to the local distribution fuse boards on each level, not forgetting electrical risers and cupboards.

It could easily be argued that British & European Standards are sufficient, and once again this comes down to “do I just want to tick a box” or, are there compelling reasons or risks that affect the safety of the occupants that require review.

The image above shows a main intake (HV/LV) room, also a local distribution board. Electrical distribution is usually fed up a building via dedicated riser shafts, which may be completely open or sealed on each level.

The protection of HV/LV rooms is afforded on a room flood engineered basis, using appropriate methods of automatic fire detection, linked to a co-incidence control panel with ancillary shutdowns and eventually, the release of FirePro fire

suppression as the final measure following defined steps of intervention as described previously.

Protection of riser spaces may be afforded using either aspirating, linear or point automatic fire detection, configured to shut down power and air movement where required with optional release of FirePro to suppress and inert the environment.

Protection of local distribution boards may be achieved with either standalone FirePro units equipped with a local heat sensor, or connected to either a remote manual control panel for either automatic or manual selective release.

It goes without saying that in all cases Passive fire protection measures should be employed using a competent contractor, to ensure that compartments are correctly fire stopped, any pipes and cables pass correctly and safely between compartments and any doors to compartments are correctly labelled, suitably fire rated, secure type.

Our network of installers across the UK & Ireland can easily engineer a suitable solution to protect such spaces from fire and are detailed on our website at www.fireprouk.com/installers or contact us directly and we will assist you.

Selection of FirePro Projects

2018/2019

2018 / 19 Selection of UK & Ireland FirePro Projects

Site / Client	Protecting
Birmingham Women's NHS Hospital	Standby generator
Local authority waste recycling	Waste Incineration Plant
Formula 1 Racing Team	Engine test facilities / Electrical cabs
Chelsea & Westminster NHS Trust	New plant room
Global Airline	4 x Air liner cabin training fuselage
Tower 42 London	Comms equip room
Cox Powertrain	Engine manufacturing facility
Electricity Supply Co	Various substation CO ₂ retrofits
UK Airport Control Tower	Electrical intake / Transformer rooms
London Based Global TV Media Broadcast Co	Various
Birmingham Children's Hospital	Standby generator x 2
Warwick University	Various
Electricity Supply Co	London new build substation
Ocean Engineering	Various marine engine space projects
London FTSE 100	Standby generator x 3
RUH NHS Trust Bath	Various
Underwriters Laboratories	SER facilities
Large Mineral Mining Co	Electrical distribution protection
Royal Free Hadley Wood Hospital	Standby generator
UK DFRMO Projects	Various
Premiership Football Club Stadium	Standby generator x 2
Li-Ion Battery Manufacturer	42 x Storage containers sited in UK
US Data Ctr Provider	Various
Performance Car Motor Manufacturer	Brake test facility
Barking Havering NHS Trust	Protection of sterilisation machines
Leicestershire Premises	Luxury hotel diesel generators x 2
Electricity Supply Co	Li-ion Battery Storage Facility

Selection of Global FirePro Projects

For full details please see - www.firepro.com/en/case-study-applications

Glencore Mining Australia	Sub station
LNG Liquefied Gas Egypt	UPS & battery storage
Tetra Pak Asia	Lab room equipment
Coen Tunnel Netherlands	Electrical cabinet protection
Pfizer Africa	Warehousing
Delft University of Technology Benelux	Li-Ion battery storage

FirePro is not a gas or water, neither is it a powder. It is a dry fine particulate that reacts at molecular level to extinguish fire. It is sold in over 86 countries globally.

As well as protecting critical assets from fire, here are just a few supporting reasons why the product is the leader in its field.

- ✓ EPA certified as “safe to use in occupied spaces” (Dec 2018).
- ✓ It does not produce harmful or toxic gases when in contact with a fire.
- ✓ It does not reduce oxygen content within the risk when discharged.
- ✓ Modularity means it may protect small spaces to total flooding applications.
- ✓ Independently certificated by KIWA Netherlands - 15 year fixed life span.
- ✓ It is all electrical installation, wall or ceiling mounted.
- ✓ We can train your appointed fire systems specialist. No need to change.
- ✓ There are over 35 trained installer distributors covering UK & Ireland.
- ✓ It is fully transferable from risk to risk (with engineering support).
- ✓ Will provide low cost of ownership from procurement to maintenance.
- ✓ Is installed in less time than conventional gas extinguishing systems.
- ✓ May be rapid re-deployed in hours to re-arm – not days/weeks/months.
- ✓ It is not a pressurised gas therefore cylinders are not required.
- ✓ There is no floor space sacrifice to accommodate pressurised cylinders.
- ✓ Is not subject to hydraulic design, pipe fabrication, or installation.
- ✓ Reduces risk of injury to persons caused by accidental cylinder detonation.
- ✓ No special transportation requirements may be hand carried.
- ✓ Does not require over pressure venting of enclosure required.
- ✓ Will not leave harmful residues or deposits unless left for considerable time.
- ✓ Box units certificated by LPCB (Feb 2018).
- ✓ Does not require F-Gas compliance or certification.
- ✓ May replace obsolete / dangerous CO2 fixed systems.



About Fireclass



Although we are primarily focused on specialist fire detection and fire suppression, our network of installers have enquired about conventional, and analogue addressable, fire detection and alarm systems.

We know that all fire products, irrespective of advancement, are only as good as the hands that are designing, installing, commissioning and maintaining them, which is why we insist upon our installers attaining third party accreditation via BAFE or LPCB approval schemes.

We chose to represent FireClass, an open-protocol, fully approved suite of quality fire products designed and manufactured in Europe. FireClass technology is part of Tyco International, the world leader in fire and security solutions. We know that the products are supported by a team of expert engineers and designers with experience in a wide range of environments from simple conventional systems to complex integrated systems for hazardous industrial installations.

Although we can see technically FireClass systems can do some innovative things that other brands may not be able to, our installer network always knows there is choice to demonstrate to their clients what the preferred brand of fire systems equipment they are proposing, which should be a simple decision based on ease of use, operational reliability and resilience to false alarms, for which FireClass fits the bill.

COLTRACO Ultrasonics | since 1987

The investment in a pressurised gas fire suppression system to protect mission critical data halls and computer rooms is vast. The operational efficiency to extinguish fire, relies heavily on correct agent concentration levels for the respective volume covered. Leakage of just one of many cylinders may have a significant impact in extinguishing a fire or not.

Servicing of pressurised cylinders is reliant on physical inspections, mostly annual. Mechanical pressure gauges may sometimes be unreliable, hence the status of a pressurised gas fire suppression system may be unknown between checks.

Permalevel Multiplex is the first system worldwide that is capable of monitoring the liquid level of critical fire suppression cylinder systems on a constant basis. It gives a facility total visibility on the real-time status of all cylinders 24/7/365.

FirePro UK are proud to be appointed as distributor for this innovative piece of British engineering, and to avoid any impact on budgets, the system is available via leasing arrangements, through approved third party finance, just ask us how at sales@fireprouk.com

FirePro On The Road

Accredited CPD Learning



CPD stands for Continuing Professional Development (CPD) and is the term used to describe the learning activities professionals engage in to develop and enhance their abilities. It enables learning to become conscious and proactive, rather than passive and reactive.



We offer an accredited 1 hour CPD learning session on FirePro condensed aerosol fire suppression technology. This can be held at your premises (by appointment) or a remote venue, for a minimum of 8 people.

The course is designed to provide an introduction to the design; installation; commissioning and maintenance of FirePro condensed aerosol fire suppression systems. At the completion of the delegates attendance we register attendees with the CPD organisation who in turn issue the certificate and log the individuals attendance.

Mobile Demonstration Unit

Our mobile demonstration unit debuts in Birmingham at the NEC for the Fire Safety Event exhibition. The vehicle is provided to support all of our distributor network for client demo / open days, and is a state of the art, custom built mobile showroom come classroom for delivering seminars, showing and demonstrating products and generally meeting specifiers, end users, and distributor team days, all in a relaxed learning and informative environment.

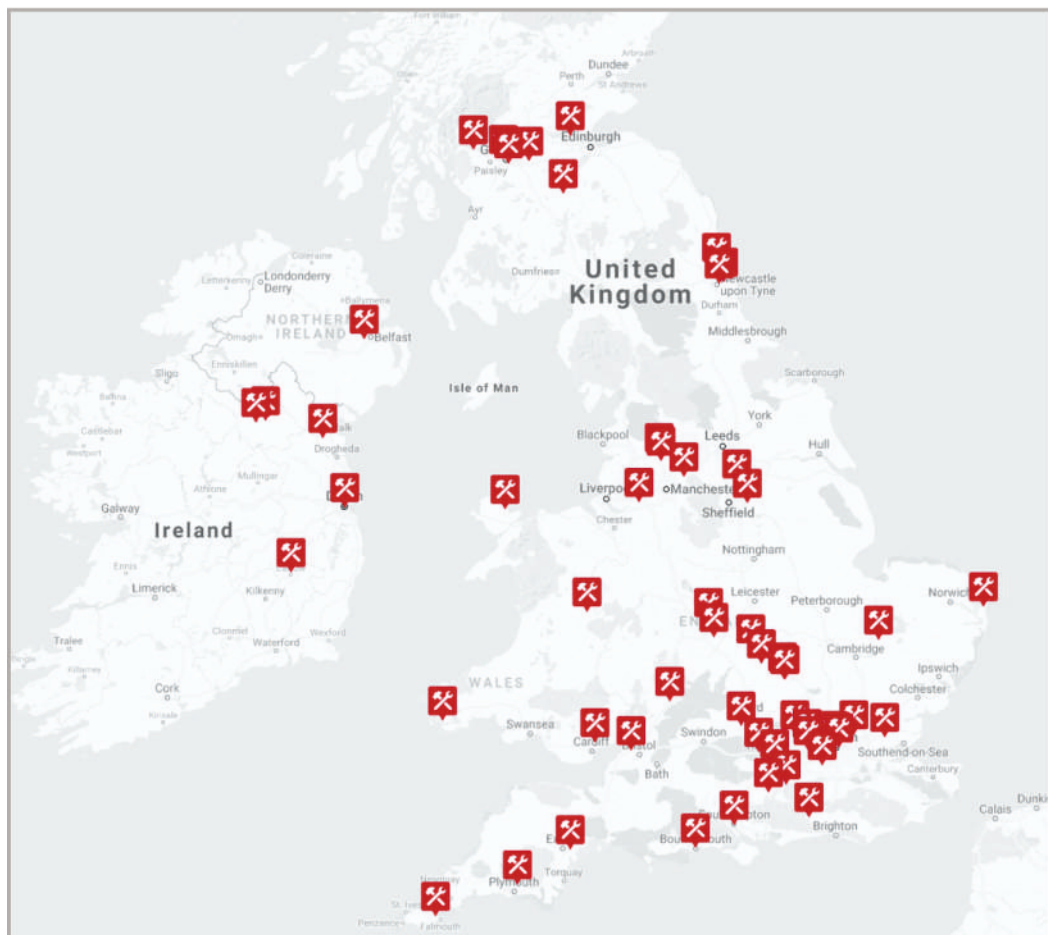


If you would like more information, please contact us via

sales@fireprouk.com or on our website at www.fireprouk.com

We hope you find this brief introduction informative and useful. You can find product data sheets, certification and supporting information together with distributor details on our website. To keep updated with innovative technology, applications in a news briefing, just send an email, and we will add you to our list.

FirePro UK does not install or maintain directly, we provide customer choice by appointing, training and fully supporting a UK & Ireland network of fire systems engineering specialists that are third party certificated via BAFE or LPCB. Here are just a few, there is a full listing at www.fireprouk.com/installers



FirePro.

UK & IRELAND



FIRECLASS

FirePro UK Ltd, St Albans House, 54 St Albans Rd, Kingston-Upon-Thames, Surrey KT2 5HH United Kingdom

T +44 (0) 8000 314333

E sales@fireprouk.com

W www.fireprouk.com

© copyright 2019 FirePro UK Ltd FirePro UK Ltd is a registered Company in England No 7510376