

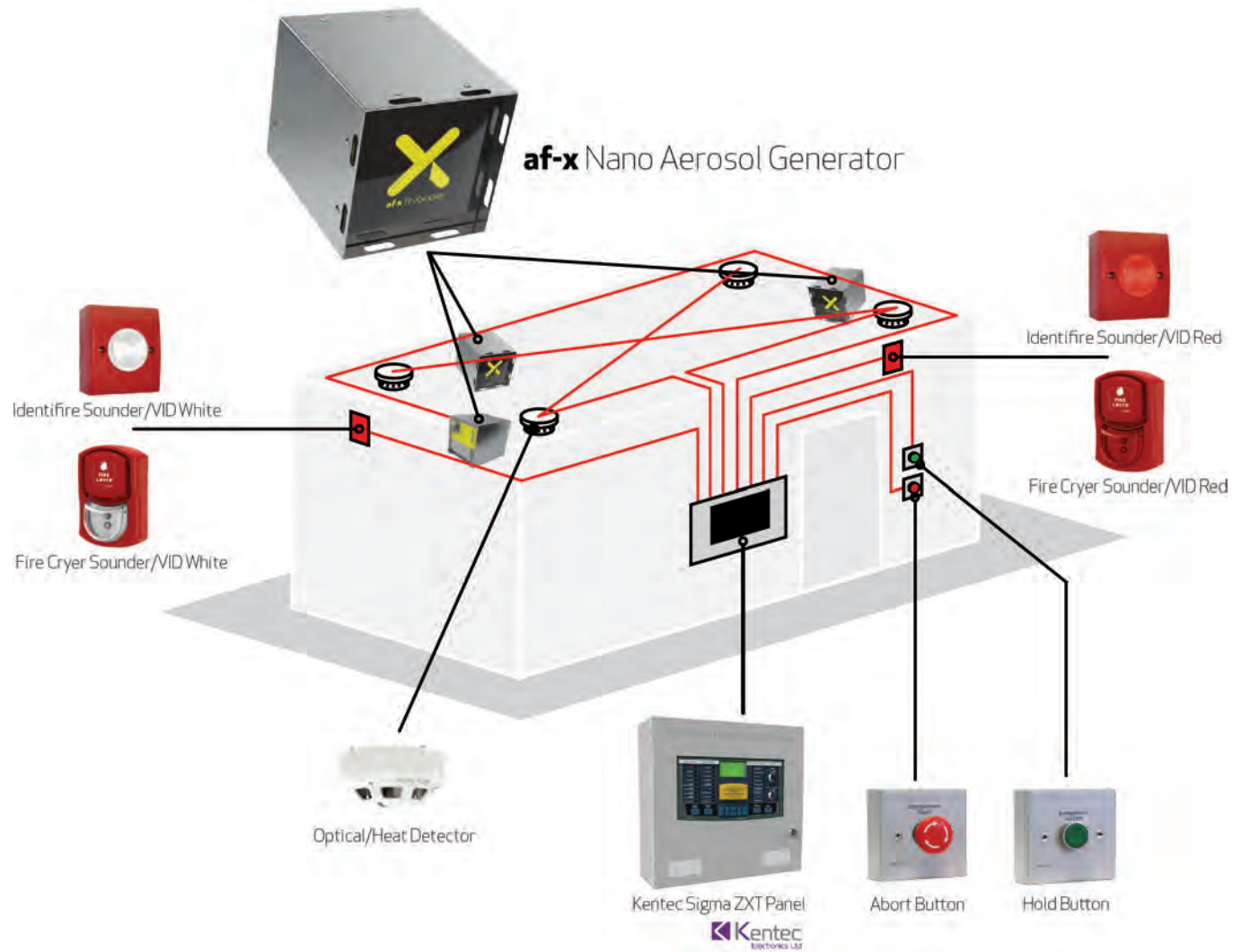


## system brochure



**X** | af·x fireblocker | aerosol fire suppression

**X** | af·x fireblocker | visual system schematic



## **X** | af·x fireblocker | faster than fire!

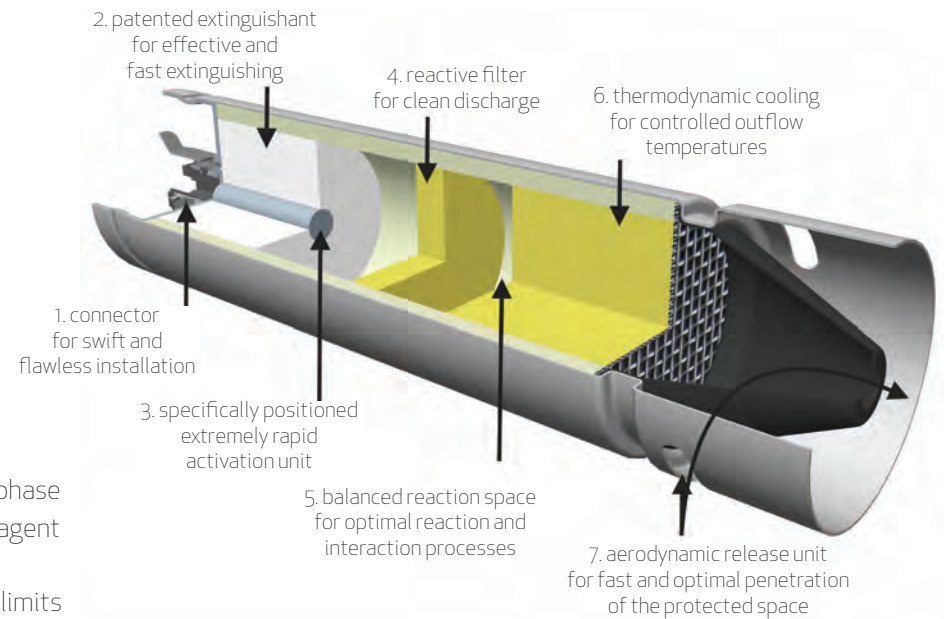
An environmentally friendly, socially responsible, automatic fire suppression system that uses aerosol technology to rapidly suppress fire. Patented **af·x** fireblocker Nano & Carbon aerosol fire suppression systems rapidly extinguish fire with a dry compound mist. Harmless to man, animals and the environment. This compact, simple to install, simple to maintain system offers a greener and safer solution to fire suppression.

### Significant User Advantages

- Environmentally Friendly - Zero Ozone Depletion Potential (ODP) Low Global Warming Potential (GWP)
- Modular - Simple to add or amend when adapting room space or relocating
- Compact - Space saving footprint, no pipes, no cylinders, no pumps, no pressure vents
- Low TCO - Simplified installation and reduced maintenance regime for low total cost of ownership
- Safe - Non harmful to humans, animals or machinery at design application rates
- Time Saving - Quick and easy to vent after discharge

**X** | af·x fireblocker

faster than fire thanks to seven special virtues



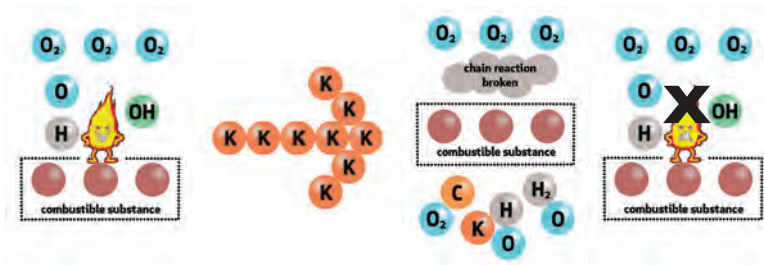
### Significant Product Advantages

- Hold Time - Nano particles suspend in the air for extended suppression hold time
- Faster Extinguishing - Enhanced more effective conversion of solid to quenching phase
- Aerodynamic Nozzle - Faster homogeneous distribution of aerosol extinguishing agent
- Lower Outflow Temperature - More effective aerosol projection
- Safer Healthier - The only aerosol in the quenching phase that falls below all IDLH limits
- Negligible Residue - After Nano discharge residue is barely visible to the human eye
- Integrated Connector - For simpler, quicker installation and aids reduced maintenance time

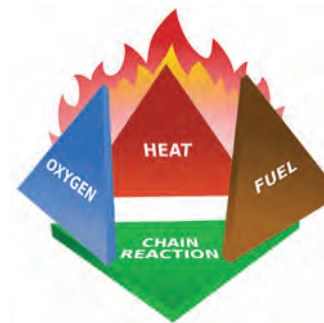
## **X** | **af·x** fireblocker | how does it work?

### Aerosol Fire Technology

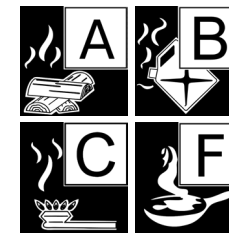
**af·x** fireblocker aerosol suppression agent extinguishes fire by stopping the combustion reaction at a molecular level, without affecting the oxygen content. In conventional suppression systems, an element is removed from the fire triangle. The extinguishing effect of an aerosol suppression agent is more intelligent, as underlying the fire triangle is a fire tetrahedron. At the molecular level, fire is nothing more than a chemical reaction and unstable molecules float around within that chemical reaction.



**BLOCKING THE CHAIN REACTION**



**FIRE TETRAHEDRON**



**FIRE CLASS**

Upon activation, the **af·x** fireblocker dry extinguishing agent converts to an aerosol cloud of nanoparticles and these particles immediately block the chain reaction at a molecular level. Very little extinguishing agent is needed for this, with the added benefit that fire stops immediately. All **af·x** fireblocker potassium based aerosol suppression systems have a life span of up to 15 years and **af·x** fireblocker are suitable for extinguishing fire in classes A, B, C and F and are suitable for the protection of electrical installations up to 75,000 volts.

### Aerosol Fire Suppression & Lithium-Ion

The first tests with **af·x** fireblocker Nano condensed aerosol as a lithium-ion extinguishing agent show that if the risk area remains closed, the aerosol controls the fire. A benefit of extinguishing with **af·x** fireblocker Nano aerosol is a rapid decrease in temperature in the room with lithium-ion fires. During testing the enclosure temperature dropped from almost 1000 degrees Celsius to 80 degrees Celsius in a very short time.

## **X** | af·x fireblocker | benefits & applications

### **Small Spaces Source Protection**

From 1 to 15sq m, **af·x** fireblocker aerosol generators are activated by an integral Bimetal switch (65°C), these self-activating units do not require a control panel and can be mounted directly inside the protected space. Ideal for, electrical distribution cabinets, CNC machines, switch gear housings, transformer cabinets, compressor rooms, IT cabinets, the list is almost endless.

### **Larger Room Spaces Automatic Activation**

Wall mounted **af·x** fireblocker aerosol generators operate with several manufacturers control panels and choice of fire detection type, examples include; optical and heat point detectors, aspiration, liner heat cable, IR & UV flame detection and video fire detection.

### **Compact and Lightweight**

Aerosol technology offers tremendous economy of space, plus the subsequent savings with installation, shipping and transport all assist with lowering the carbon footprint.

### **Simple Installation**

Protected spaces do not need to be fully air-tight and there is no need for pressure-relief venting. Next to these installation advantages, aerosol units are easy to demount should the protected area need to be renovated or amended for change of use.

### **Long Service Life**

Aerosol generators are based on a solid compound. By consequence the service life stated for aerosol is usually 15 years, which is in accordance with most international regulations (product life is 15 years).

### **Suitable for Source Protection**

Most fires start small, go unnoticed and are discovered too late. All **af·x** fireblocker extinguishing generators can be equipped with a Bimetal thermal switch for stand alone activation of aerosol extinguishant when the temperature exceeds 65°C.

### **Non Pressurized**

Upon activation the solid compound is converted to a cloud of nanoparticles. A slight overpressure develops inside the generator steel housing, so the cloud of fire suppressant can rapidly mix with the atmosphere, without any over-pressure build-up.



## **X** | af-x fireblocker | product range

### Nano Series

The **af-x** fireblocker Nano product uses nanoparticles for a faster homogeneous distribution of aerosol, providing a more efficient fire suppression process.



**Model:** af-x fireblocker Nano CS  
**Article:** 10-15-130-03-02  
**net m<sup>3</sup>:** 2.6  
**weight extinguishing agent:** 150g



**Model:** af-x fireblocker Nano CM  
**Article:** 10-15-150-03-02  
**net m<sup>3</sup>:** 7.2  
**weight extinguishing agent:** 450g



**Model:** af-x fireblocker Nano BM  
**Article:** 10-15-350-03-02  
**net m<sup>3</sup>:** 42  
**weight extinguishing agent:** 2,550g



**Model:** af-x fireblocker Nano BL  
**Article:** 10-15-370-03-02  
**net m<sup>3</sup>:** 72  
**weight extinguishing agent:** 3,900g

### Carbon Series

The **af-x** fireblocker Carbon product range is a dry aerosol fire extinguishing system, blocking the fire reaction at a molecular level.



**Model:** af-x fireblocker Carbon CS  
**Article:** 10-18-130-03-05  
**net m<sup>3</sup>:** 5.5  
**weight extinguishing agent:** 720g



**Model:** af-x fireblocker Carbon CM  
**Article:** 10-18-150-03-05  
**net m<sup>3</sup>:** 11  
**weight extinguishing agent:** 1,420g



**Model:** af-x fireblocker Carbon BS  
**Article:** 10-18-330-03-05  
**net m<sup>3</sup>:** 36.8  
**weight extinguishing agent:** 4,800g



**Model:** af-x fireblocker Carbon BM  
**Article:** 10-18-350-03-05  
**net m<sup>3</sup>:** 73.6  
**weight extinguishing agent:** 9,600g



**Model:** af-x fireblocker Carbon BL  
**Article:** 10-18-370-03-05  
**net m<sup>3</sup>:** 110  
**weight extinguishing agent:** 14,400g

### Control Applications



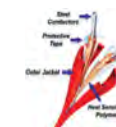
**Model:** af-x MCU (Monitoring & Control Unit)  
**Article:** 21-10-361-00-01  
**capacity:** Up to 2 generators per MCU  
 Up to 8 MCU per extinguishing line



**Model:** af-x Bimetal Switch  
**Article:** 23-30-843-00-00  
**capacity:** 1 generator (CS/CM)  
**detection:** 65°C activation 1 generator  
**operating temperature:** -40 ~ +85°C



**Model:** af-x TEC Linear Heat Detection Controller  
**Article:** 21-10-598-00-00  
**power:** 2 x 1.5vdc AA battery  
**control and alarm:** fire, fault, low battery  
**capacity:** 1 generator  
**detection:** max cable length 10 m



**Model:** Protectowire Linear Heat Cable  
**Article:** 23-40-415-00-00 /416 /418  
**cable:** 68°C / 88°C / 108°C



**Model:** af-x Test Lamp Connector Hood  
**Article:** 30-30-310-00-00  
**capacity:** generator simulator test

## **X** | af-x fireblocker | product range

### Control Panels

Extinguishing control panels compatible with af-x fireblocker Nano and Carbon generators.



**Model:** DECU3 Control Panel  
**Article:** 21-10-450-00-01  
**ext power supply:** 11 to 32v dc  
**capacity:** up to 3 generators with 24v  
**alarm:** fault, fire detection and extinguishing  
**environmental:** IP65 rated



**Model:** Micro-FEP Control Panel  
**Article:** 21-10-460-00-01  
**ext power supply:** 6 to 28v dc  
**capacity:** up to 5 generators in series (with ETB)  
**alarm:** fault, fire detection and extinguishing  
**environmental:** IP66 rated



**Model:** Kentec Sigma XT  
**Article:** K11031M2  
**battery capacity:** 2 x 12v 7amh max  
**capacity:** up to 16 generators in series (with MCU)  
**alarm:** fault, fire detection and extinguishing  
**detection:** 3 detection zones



**Model:** Kentec Sigma ZXT  
**Article:** K19231XM2  
**battery capacity:** 2 x 12v 7amh max  
**capacity:** up to 16 generators in series (with MCU)  
**alarm:** fault, fire detection and extinguishing  
**detection:** 3 detection zones  
**memory:** 1000 event log



**Model:** Kentec Synchro XT  
**Article:** A31161M3  
**battery capacity:** 2 x 12v 12amh max  
**capacity:** up to 16 generators in series (with MCU)  
**alarm:** fault, fire detection and extinguishing  
**detection:** Up to 16 zones of addressable detection (Hochiki / Apollo)  
**memory:** 500 event log



**Model:** af-x Maintenance Keyswitch  
**Article:** 25-10-621-00-00  
**capacity:** isolate 1 extinguishing line  
 ON = system in maintenance  
 OFF = system active

### Accessories



**Model:** Sigma Hold Off Button Red  
**Article:** KB901000M10  
**mount:** surface



**Model:** Sigma Abort Button Green  
**Article:** KB13470M10  
**mount:** surface



**Model:** Detection  
**Article:** Hochiki & Apollo  
**type:** optical, thermal, CO multi-sensor, aspiration, linear heat cable, wireless



**Model:** Sounder/Strobe  
**Article:** Vimplex & Hochiki  
**type:** sounder, strobe, sounder/strobe



**Model:** Voice Sounder  
**Article:** Vimplex Fire Cryer  
**type:** voice sounder, voice sounder/strobe



**Model:** Call Point  
**Article:** Hochiki & Apollo  
**mount:** surface  
**type:** yellow, blue, red

## 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<sub>2</sub>)  
Hybrid Systems (N<sub>2</sub> / 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<sub>2</sub>)  
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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