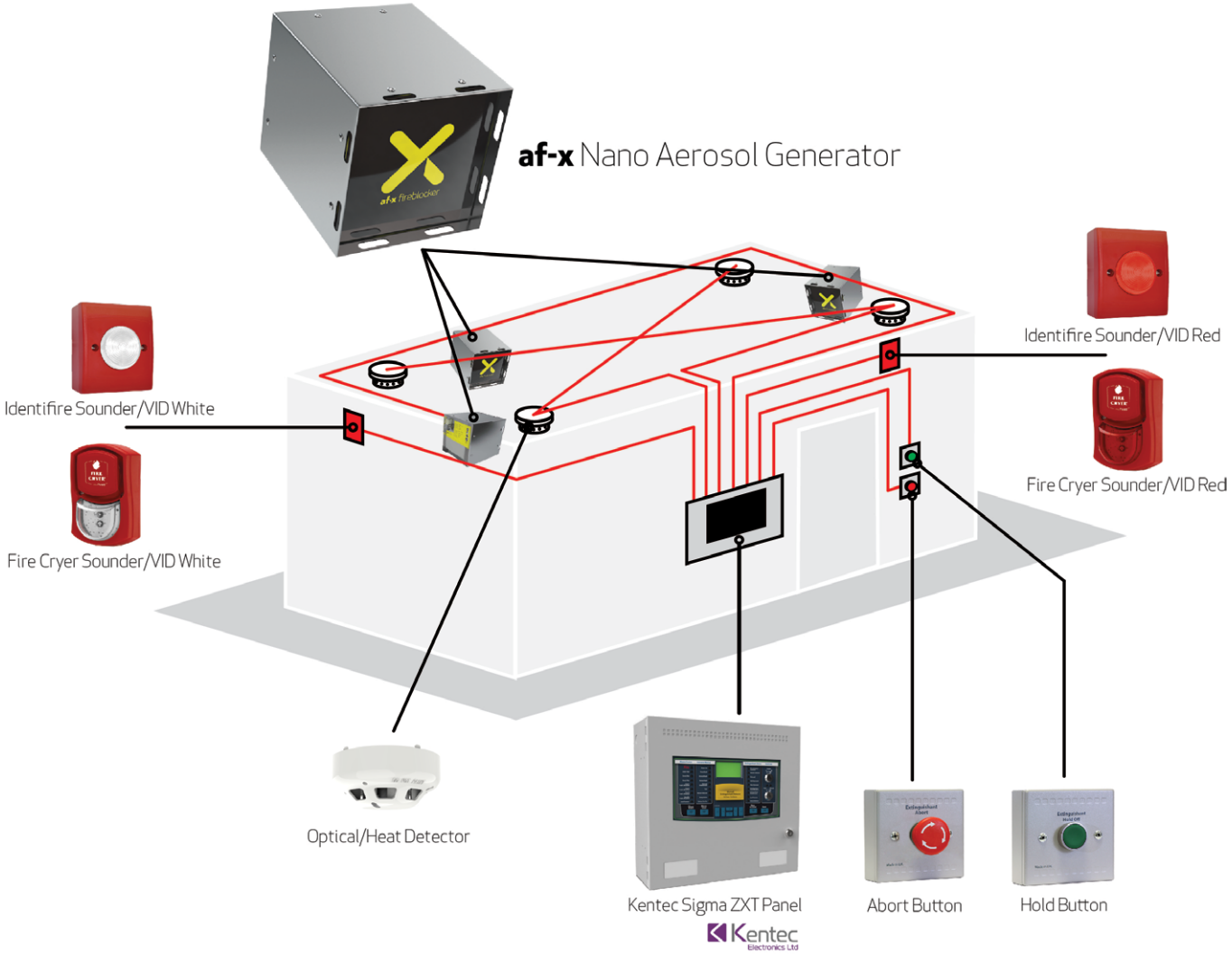
system brochure

af-x fireblocker | aerosol fire suppression

af-x fireblocker | visual system schematic



af-x fireblocker | faster than fire!

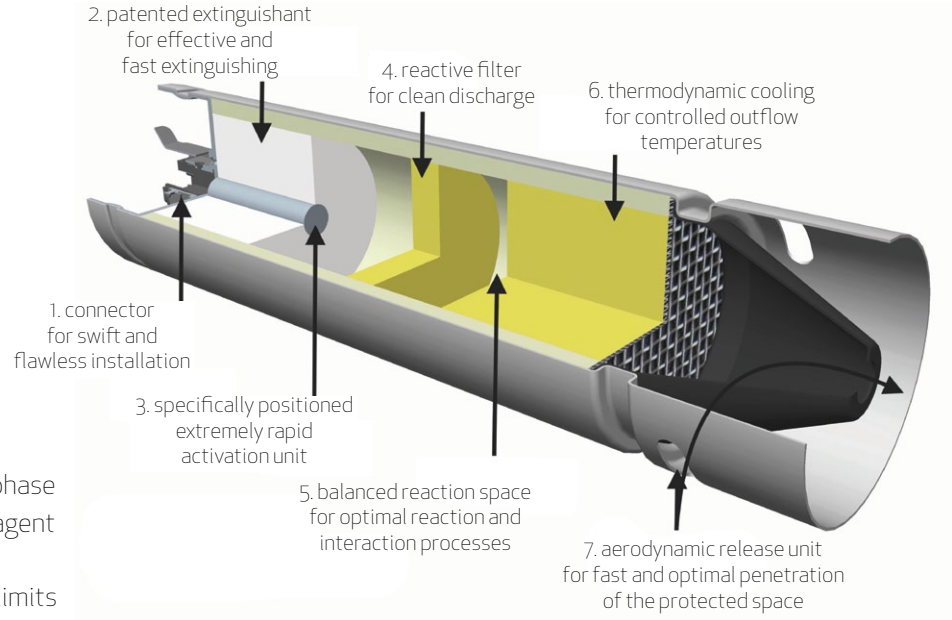
An environmentally friendly, socially responsible, automatic fire suppression system that uses aerosol technology to rapidly suppress fire. Patented **af-x** fireblocker Nano & Carbon aerosol fire suppression systems rapidly extinguish fire with a dry compound mist. Harmless to man, animals and the environment. 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

af-x fireblocker

faster than fire thanks to seven special virtues



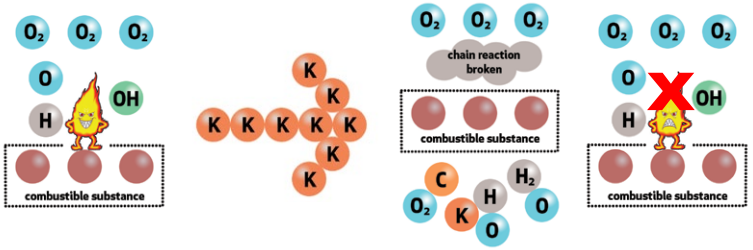
Significant Product Advantages

- 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

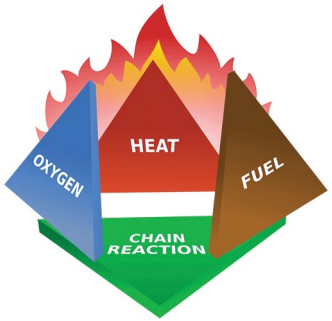
af-x fireblocker | how does it work?

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** fire solutions 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.

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 10 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 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.

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 m³: 2.6
weight extinguishing agent: 150g

Model: **af-x** fireblocker Nano CM
Article: 10-15-150-03-02
net m³: 7.2
weight extinguishing agent: 450g

Model: **af-x** fireblocker Nano BM
Article: 10-15-350-03-02
net m³: 42
weight extinguishing agent: 2,550g

Model: **af-x** fireblocker Nano BL
Article: 10-15-370-03-02
net m³: 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 m³: 5.5
weight extinguishing agent: 720g

Model: **af-x** fireblocker Carbon CM
Article: 10-18-150-03-05
net m³: 11
weight extinguishing agent: 1,420g

Model: **af-x** fireblocker Carbon BS
Article: 10-18-330-03-05
net m³: 36.8
weight extinguishing agent: 4,800g

Model: **af-x** fireblocker Carbon BM
Article: 10-18-350-03-05
net m³: 73.6
weight extinguishing agent: 9,600g

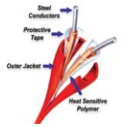
Model: **af-x** fireblocker Carbon BL
Article: 10-18-370-03-05
net m³: 110
weight extinguishing agent: 14,400g

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

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: Vimpex & Hochiki
type: sounder, strobe, sounder/strobe

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

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

af-x fireblocker (uk) ltd
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Cranmore Drive
Solihull
B90 4RZ

Designed, devleoped and manufactured by AF-X International B.V.
Certified compliant: EN 15276-1: 2019 | UL 2775 | NFPA 2010 | AS 5062-2016 | AS 4487-2013 | IMO 1270 | ISO 15779

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