TODAY'S SOLUTIONS
for tomorrow's risks

THE ADVANTAGES AT A GLANCE

The NFPA 2001 lists HFC227 as environmentally acceptable and safe for human exposure. HFC227 is extensively used throughout the world and continent of Africa as a suitable fire protection system and is supported by an extensive service network. Eckoshield® HFC227 cylinders are manufactured in South Africa and are approved to SANS 347:2012 and SABS (South African Bureau of Standards).

- Easy to use
- Maintenance-free
- Easy to install (retrofittable)
- Variety of customer specific operating & releasing temperatures available
- No water being used (gas)
- Scalable
- Robust and shock tolerant
- 3M™NOVEC™ or CO2 as extinguishing agent
- Usable in various applications (home, industry, automotive, etc.)
- Mechanical release; no electric power supply required
- Release mechanism: qualified in the automotive and sprinkler industry

Head Office

Unit 7, Flintstone Park, Gateway Industrial Estate 42 Sarel Baard Rd, Centurion 0157, South Africa PO Box 277, Raslouw 0109, South Africa

Tel: +27 12 621 9400
Fax: +27 12 661 6110

info@fstafrica.co.za
www.fstafrica.co.za

THE CHALLENGE

Washing machines, televisions or industrial power supplies – fires in electric devices are a continuously increasing serious threat. And not only at homes damages caused by fires are increasing.

There is also a significant risk of fire in the industry and automotive sector. Another example are highly valued collections which are subject to persistent fire hazard.

The challenge is to automatically, energy-supply independently, detect and to extinguishing fires already in the early stage, consequently providing more safety.

A system is needed, that can extinguish these fires reliably, fast and easily at any time and without external resources inside a housing.

ECKOSHIELD® FIRE SUPPRESSION **AMFE**

We are the appointed distributor of the Eckoshield AMFE (Automatic Modular Fire Extinguisher) in the SADEC Region of Africa.

The AFME reliably protects devices and equipment in industry, household and consumer electronics such as cabinets, home appliances, televisions, etc. against the dangers of fires. The AMFE detects and extinguishes a fire inside devices, preventing the spread of a fire.

Physical Dimensions Cylinder

Size	Size Diameter x Length [mm]	Size Diameter x Length [inch]	Volume [litre]	Volume [floz]
#0	22 x 128	⅞ x 5.04	0,026	0,81
#1	35 x 154	1⅜ x 6.06	0,080	2,70
#2	40 x 186	1 9/16 x 7.32	0,133	4,50
#3	51 x 251	2 x 9.88	0,267	9,00
#4	51 x 356	2 x 14.02	0,400	13,50
#5	60 x 380	2⅜ x 14.96	0,670	22,60

FIRE AND SECURITY TECHNIQUES

For a world where everyone needs to be protected against the dangers of fire, everywhere and anytime, we have the Automatic Miniature Fire Extinguisher (AFME).

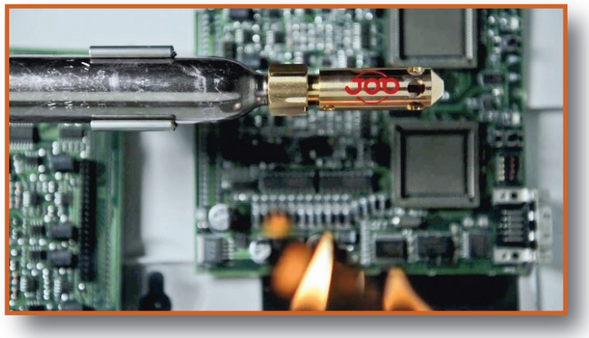
The thermally activated glass bulb initiates a spring-operated mechanism, opens the attached extinguishing agent cylinder and extinguishes a fire without the need for external controls or power. Its variant, the R-AMFE, can additionally be triggered remotely by activating a current signal into the R-AMFE causing a fast and precise increase of the heat at the bulb, ultimately resulting in a burst of the thermobulb assembled and release of the extinguishing gas.

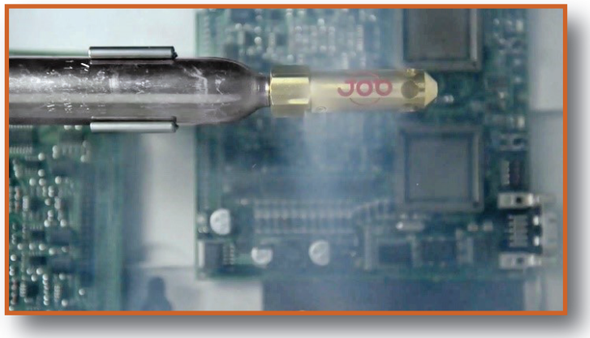
R-AMFE can also work much faster than a traditional AMFE if controlled by a monitoring device which also reads e.g. smoke detector signals and, upon the early detection of smoke, initiates the signal to release the R-AMFE even before significant enough heat buildup.

The applied current defines the time until the R-AMFE is initiated. As application requirements for the R-AMFE are customer specific, consulting the manufacturer is required to define electrical and mechanical details to guaranty reliable and sufficient operation.

THE FUNCTION

Due to rising heat in a fire scenario the pressure inside the glass bulb increases. After the predetermined operating temperature of the heat sensitive glass bulb is reached, the glass bulb bursts into small fragments and triggers a mechanism that releases the gas from the cylinder. The extinguishing medium is released through the holes in the outlet body and extinguishes the fire when the fire is still in an early stage. The quick operation and the effective extinguishing of the fire prevents further expansion of the fire and helps keeping damage small.





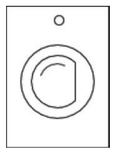
BUILT-IN SAFETY

Eckoshield AMFE (Automatic Miniature Fire Extinguisher) reliably protects devices and equipment in industry, household and consumer electronics such as cabinets, home appliances, televisions, etc. against the dangers of fires.

The AMFE detects and extinguishes a fire inside devices, preventing the spread of a fire.

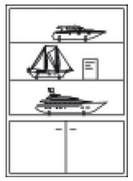
APPLICATION VARIETY

The application spectrum of the AMFE is diverse: It ranges from technical household appliances, exhibits and collections to solutions in a vast variety of applications, both at home and in the industry.

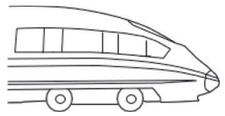


APPLIANCES

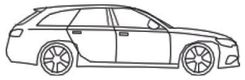
VALUABLE COLLECTIONS



ELECTRICAL CABINETS OR DEVICES



RAIL



AUTOMOTIVE

APPROVALS

The detection device:

JOB sprinkler bulbs are globally certified and carry relevant UL, VDS, LPCB and other certificates.

The pressure cylinder:

The heavy-duty cylinders are manufactured in Germany for robustness and safety.

They carry the PI (Π) mark indicating the compliance with ADR/RID §1.8.7.6.

The extinguishing agent:

3M™ NOVEC™ is a globally used ISO, NFPA, VdS (and others) approved, fire extinguishing agent (FK-5-1-12).

Additionally, it complies with the REACH requirements.

EXTERNAL CYLINDER MOUNTING

Eckoshield AMFE Mounting Kit Cabinet Top

The Mounting Kit for Cabinet tops allows easy installation of the AMFE product line when only limited space is available inside an enclosure that needs to be protected.

The cylinders containing the extinguishing agent are herewith placed outside the actual protected volume / enclosure, whilst the initiation head of the AMFE product series is places inside, able to react thermally (like a sprinkler would do) on temperatures, or by a monitoring device, from an emerging fire at the earliest possible time, opening the attached extinguishing agent cylinder to distribute the 3M™ engineered fluid NOVEC™ inside.