

CABINET DETECTION

ASPIRATING SMOKE DETECTION



Overview

Many computer rooms, banking environments or switch rooms house their electrical equipment in cabinets. This equipment presents a potential fire risk.

Cheaper, readily available hardware has resulted in the loss of cabinets due to fire being secondary to the massive consequential losses incurred from data loss or process shutdown.

High temperatures experienced within this type of equipment often require significant through-airflow to provide cooling.

A Unique Challenge

Typical cabinet fires will almost always have an electrical source and may smoulder for some time.

High through-airflow will quickly remove smoke from an incipient cabinet fire making it virtually impossible to detect with conventional systems

VESDA[®]



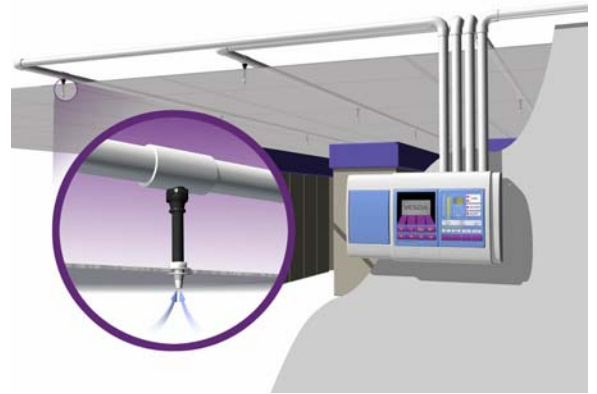
Why Aspirating Smoke Detection and VESDA?

VESDA (Very Early Smoke Detection Apparatus) features the widest range of detection sensitivity, from 0.005% Obsc/m to 20% Obsc/m, (between 1000 times more sensitive to 5 times less sensitive than a conventional detection system). This enables the unit to be set to an optimum sensitivity dependent on the application and enables detection at the very earliest stages of a fire.

VESDA is not affected by high airflows. This allows the pipe run to be located in the main airpath (such as in the airflow path from cooling fans) to provide the earliest detection.

How Does Aspirating Smoke Detection Work?

Air is continuously drawn, from an area, via a pipe network, to a central detector that is continuously sampling for small traces of smoke.



A Typical Cabinet Example

Sampling pipe work is attached to the equipment cabinets and may pass over ventilation grills or utilise capillary sampling tubes to enter ventilated or non-ventilated cabinets.

A LaserSCANNER option can provide addressability to identify which cabinet, or bank of cabinet's house the faulty equipment.

Schematic showing how VESDA can be utilised to protect equipment cabinets.



VESDA®



Where can VESDA be applied?

- ❖ Telecom Switch Rooms
- ❖ Computer Rooms
- ❖ Banking Operations
- ❖ Switch Rooms

Additional Equipment

A portable unit is also available to assist with cabinet detection. This consists of a detector with a remote display and flexible 'sampling probe'. When a general alarm is raised by the VESDA system, the portable unit can be used to pinpoint the exact cabinet that has the developing fire condition.



Companies who rely on VESDA for Cabinet Detection

- ❖ Barclays Bank - UK
- ❖ Allied Flour Mills - UK
- ❖ ESSO - UK
- ❖ Allianz – France

and many more...



VESDA Global Approvals

- ◆ LPCB (UK)
- ◆ VdS (Germany)
- ◆ UL (USA)
- ◆ FM (USA)
- ◆ SSL (Australia)
- ◆ JMI (Japan)
- ◆ AFNOR (France)
- ◆ CNBOP (Poland)

Others pending.

Installation and Performance Standards

- ◆ British Fire Protection Systems Association – Code of Practice for Category 1 Aspirating Detection Systems.
Available from the BFPSA – telephone +44 (0) 20 8549 5855
- ◆ British Standard Institute – BS6266 - Code of Practice for Fire protection of Electronic Data processing installations.
Available from the BSI – telephone +44 (0) 20 8996 7000

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