



PNEUMATIC  
MECHANICAL  
HEAT DETECTION

FIRE  
DETECTION

# **SIMPLE AND EFFECTIVE FOR ANY EXTINGUISHING SYSTEM**



SIEX has developed an innovative, **FULLY AUTOMATIC, STANDALONE FIRE DETECTION SYSTEM** to replace conventional ones, ensuring the activation of a fixed fire fighting system with maximum speed, efficiency and safety.

A fusible link or heat-sensitive bulb will detect any possible fire, resulting in the activation of the extinguishing system either thanks to its location on the cylinder valve, for protecting small areas, or remotely, forming a complete network of automatic fire detection for large volumes. Furthermore, these systems operate without any electrical power and can be used in any hazard regardless of location.

The main advantage of this technology is that the detection may be calibrated at many different temperatures: 57, 68, 74, 79, 93, 100, 121, 138, 141, 182, 204, 232 and 260 °C, and different calibrations may be used within the same detection network. Where required, the use of fast response detectors allow early activation.

**FOR ALL HAZARDS  
AND EXTINGUISHING  
SYSTEMS**

# **UNDER ALL CIRCUMSTANCES**

This detection can be used to complement a conventional system or to completely replace it; it is particularly recommended in cases in which, by the very nature of the hazard, a fire might put the electronic detection system out of operation, such as the protection electrical transformers.

Its adaptability makes it ideal for use in small confined spaces, since the mechanical detection is fitted to actuation port of the cylinder valve, thus simplifying the system as a whole, since it does not require any conventional detection or control panel.

It can be used successfully in large spaces, both inside any building or outdoors, thanks to its robust design. It is able to monitor the status of the hazard with the greatest safety and efficiency without false alarms even in the event of frequent variations in temperature or adverse conditions, even in those cases in which electronic detection equipment is not recommended.

# THE DETECTION SYSTEM

The SIEX-NTD™ system allows the use of various different devices which are sensitive to the heat from a fire:

## HEAT-SENSITIVE LINK

Formed by two metallic pieces bonded by solder calibrated to a given temperature, and which will separate in the event of fire. The temperature can be selected depending on the temperature expected in the hazard itself, over a wide range.

## HEAT-SENSITIVE BULB

This component inside a small bracket performs the fire detection. Selection of the burst temperature of the heat-sensitive bulb depends on the temperature expected in the protected hazard. These devices may be normal or fast response, adaptable to any requirement.

## REMOTE DETECTION

One or more mechanical-pneumatic heat detectors located inside the enclosure guarantee fast and effective detection in the event of unforeseen circumstances, whatever they may be, preventing even disastrous damage from resulting in the activation of the system. Thanks to the innovative design of the SIEX-NTD™ system, large volumes can be covered with total flexibility and adaptability.

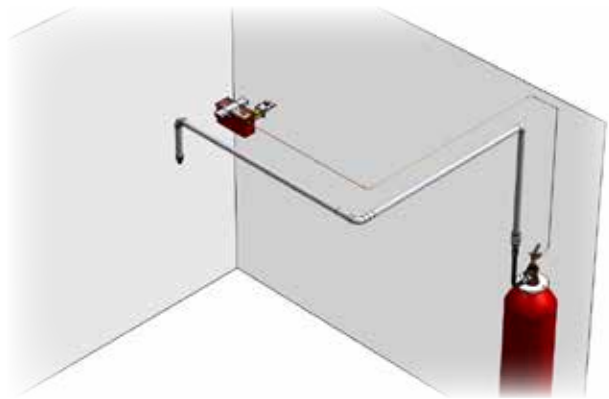
## LOCAL DETECTION

Specially designed for small enclosures, the sensing device is located on the bottle itself, resulting in a compact, easy to install extinguishing system, providing efficient detection with no need for any additional electronic detection.

# APPLICATIONS

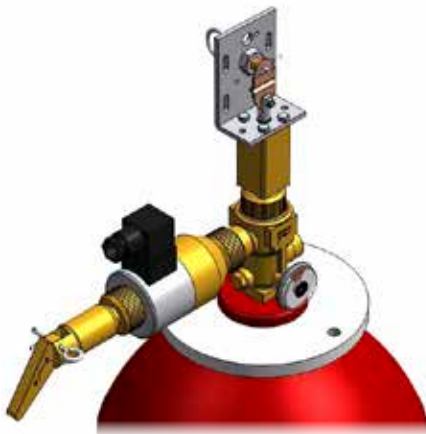
## REMOTE DETECTION:

ELECTRICAL PANELS  
ELECTRICAL TRANSFORMERS  
ELECTRICAL GENERATORS  
DATA CENTERS  
SERVICE STATIONS  
PETROCHEMICAL INDUSTRY  
MINING  
OFF-SHORE  
BOATS AND YACHT  
ENGINE COMPARTMENTS: AGRICULTURE / TRANSPORTS / ETC.  
CNC MACHINES  
AUTOMATIC TELLERS



## LOCAL DETECTION:

DRY CHEMICAL COLLECTORS  
SMALL CONFINED SPACES  
SERVERS  
SMALL MACHINERY SPACES  
NARROW COMPARTMENTS ON BOATS  
VEHICLE ENGINE COMPARTMENTS  
TRANSPORT CONTAINERS  
WASTE COLLECTION CONTAINERS  
STORAGE WITH DANGEROUS MATERIAL  
WIND TURBINES



# BENEFITS

## WIDE RANGE OF ACTIVATION TEMPERATURES

The use of a wide range of temperatures, which may even be combined, means any hazard can be protected with complete flexibility. It may also utilize fast response detection elements.

## NO ELECTRICAL POWER REQUIRED

Making it ideal for use in isolated hazards or those in which the power supply cannot be guaranteed, thereby ensuring the continuity of detection.

## MAINTAINS FUNCTIONALITY UNDER ALL CIRCUMSTANCES

There are many hazards which, in the event of fire, can put any conventional electronic detection system out of service, preventing the extinguishing system from actuated when it is most needed. The pneumatic-mechanical heat detection system developed by Siex is able to trigger the discharge of extinguishing agent under these circumstances, either as the main or auxiliary detection system.

These systems do not require extensive training or specialization, and can be quickly and easily installed.

## **SIMPLE TO INSTALL**

Thanks to the simplicity of its design and high efficiency, it is ideal for use in narrow compartments such as engine spaces, small boats, electrical panels, etc.

## **COMPACT DETECTION SYSTEM**

It can be installed using fusible links or heat-sensitive bulbs, the latter of which can be normal or fast response. Both fusible links and heat-sensitive bulbs are supplied with a wide range of operating temperatures.

## **DESIGN FLEXIBILITY**

The SIEX-NTD™ pneumatic-mechanical heat detection system was developed to provide maximum reliability and robustness even in the harshest conditions, with changing environmental conditions.

## **PREVENT FALSE ALARMS**

The simple, compact design means minimal maintenance requirements for checking the correct status of the detection system. A pressure gauge located in each of the detectors allows the equipment status to be checked at any time.

## **EASE OF MAINTENANCE**



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