



GENERAL

IMPORTANT SAFETY

READ THE INSTRUCTIONS IN THIS MANUAL CAREFULLY BEFORE STARTING

This product has been manufactured in compliance with strict technical and safety rules, in accordance with CE regulations. This manual is addressed to any person in charge of installing the Detex device, preferably a qualified electrician, as well as to any user for whom the system is installed. Before installing and using this product, carefully read the important instructions for your safety and that of users during the installation, commissioning and maintenance of this product.

This system meets strict operating and safety standards. As an installer or maintenance engineer, an important part of your job is to install or maintain the system so that it operates efficiently and safely.

To perform a safe installation and obtain a good operation, it makes you:

Perform each installation step exactly as indicated.

Comply with all electrical, high current, low current, local, regional and national regulations. Observe all caution and safety recommendations given in this manual.

Use a dedicated power line to power the device.
In any case, it is recommended that the system be installed by an approved installer.

The instructions are sufficient for most installation sites and maintenance conditions.
If you need assistance, contact us directly or your authorized dealer/installer for further instructions.
The manufacturer or distributor cannot be held responsible for improper installation or maintenance, including failure to follow the instructions contained in this document.



When wiring:

DANGER

Electric shock can cause bodily injury or death.

Only a qualified and experienced electrician should perform the wiring and connection of this system.

Do not energize the unit until all connections are complete or reconnected and checked to ensure proper grounding.

**Ground the device in accordance with local electrical regulations.
Once installation is complete, leave this manual handy for future reference.**

WHAT IS THE DETEX©?

The Detex© is the **world's first ductless autonomous smoke detector and extractor**. It automatically detects fire smoke, initiates its absorption at a **rate of 192m³/h**, filters the gases produced by the fire to 0,3 micron and purifies the ambient air :

- It aspires and retains the soot present in the fumes to avoid poisoning,
- It filters carbon dioxide and makes the atmosphere more breathable
- It reduces carbon monoxide by 6%
- It lowers the room temperature by 30)C and allows better visibility
- It works for 30 minutes in total autonomy after a power cut
- It is equipped with an incorporated smoke alarm compliant with standard NF-EN-14604

A certified and award-winning technological innovation, patented worldwide

The Detex© is a worldwide patented french technological innovation, The first model of wich won the Prevendica safety/Safety Innovation Award (2015). It was developped by Experts, notably with the collaboration of CREPIM, DT Filtre and SDIS Nord (Lille Fire Brigade).

All the Detex© components are certified to French, European, American and/or Canadian standards, and guaranteed for 10 years (excluding battery : 2 years)



All the certifications have been obtained from leading organizations, and all the Detex© installations have been validated by leading control offices.

PRINCIPLES AND METHODOLOGY FOR THE IMPLEMENTATION OF THE DETEX©.

1. Positioning the devices according to the nature of the premises, based on the following criteria :
 - a) In premises of more than 300 m² (100m² for blind premises), on ground floor or above :
 - One Detex© for each 50 m² if the calorific potential is normal;
 - One Detex© for each 30 m² if the calorific potential is high.
 - b) In all the common horizontal circulations :
 - One Detex© for each 7 linear meters interval;
 - One Detex© for each 5 linear meters interval, in the event of a non straight circulation
 - c) In all the stairwells
 - d) In all the airlock areas.

OPERATING PRINCIPLES

Upon automatic detection, the smoke is treated early through the Detex© devices located in the ceiling. The treatment of fumes is favored by the existence of air intakes, wide circulations, a large ceiling height, and the absence of dead ends.

The existence of sufficient and adequately distributed air intakes increases significantly the efficiency of the flue gas treatment, and reduces notably the concentration of toxic grases, as well as the ambient temperature. It should be noted that the simulation shall demonstarte that smoke thickness is never in excess of 1,8m.

The implementation of the Detex© solution gives good results, based on compliance with the safety and uses instructions.

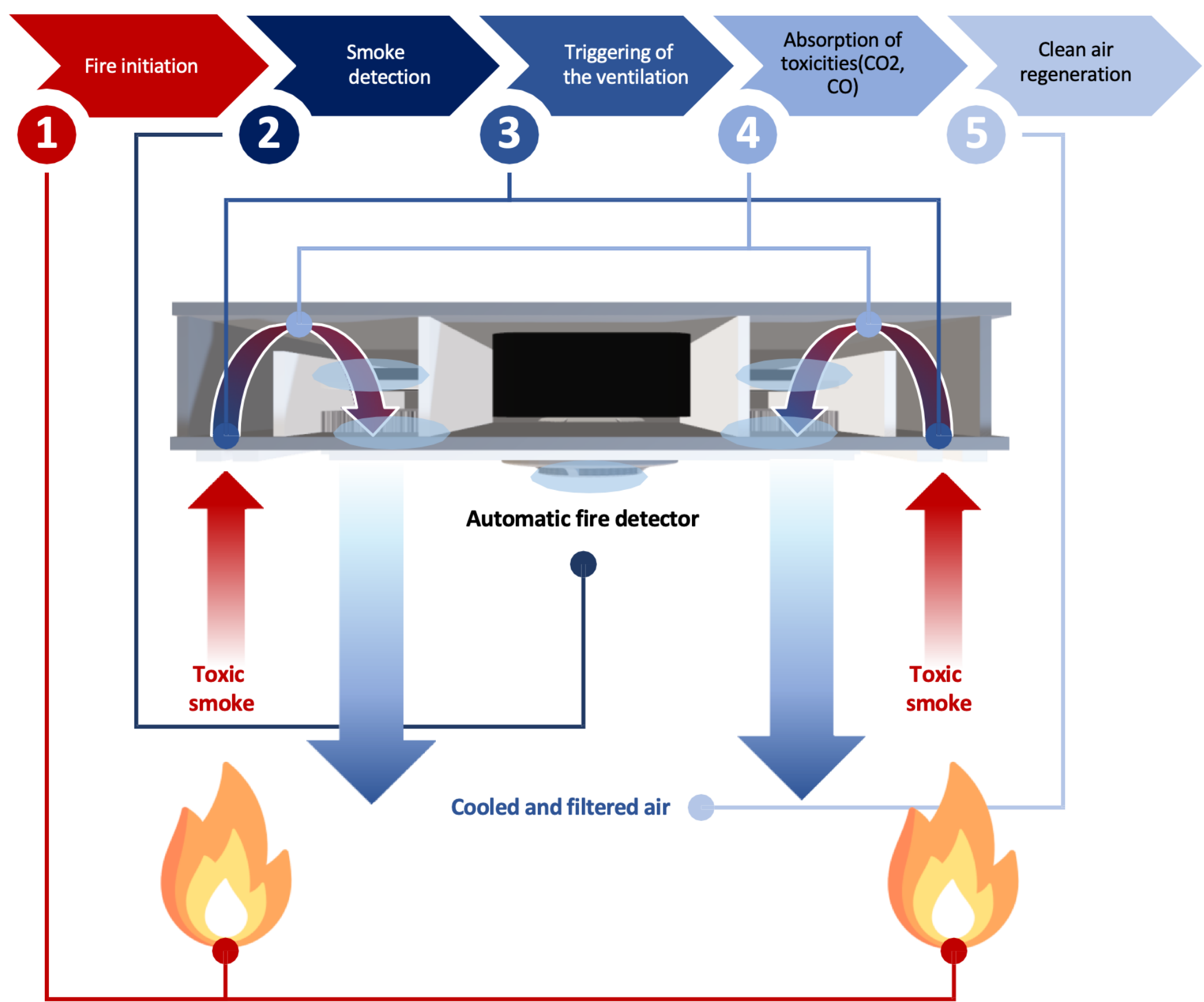
OPERATING PRINCIPLES

With automatic detection, the smoke is treated early through the Detex © located on the ceiling. The treatment of smoke is favored by the air intakes, the wide circulations, a good height under the ceiling and the absence of dead ends.

A sufficient and properly distributed number of air intakes increases the efficiency of combustion gas treatment and reduces the concentration of toxic gases, as well as the temperature. Note that the simulation should show that the thickness of the smoke never exceeds 1.80 m in height.

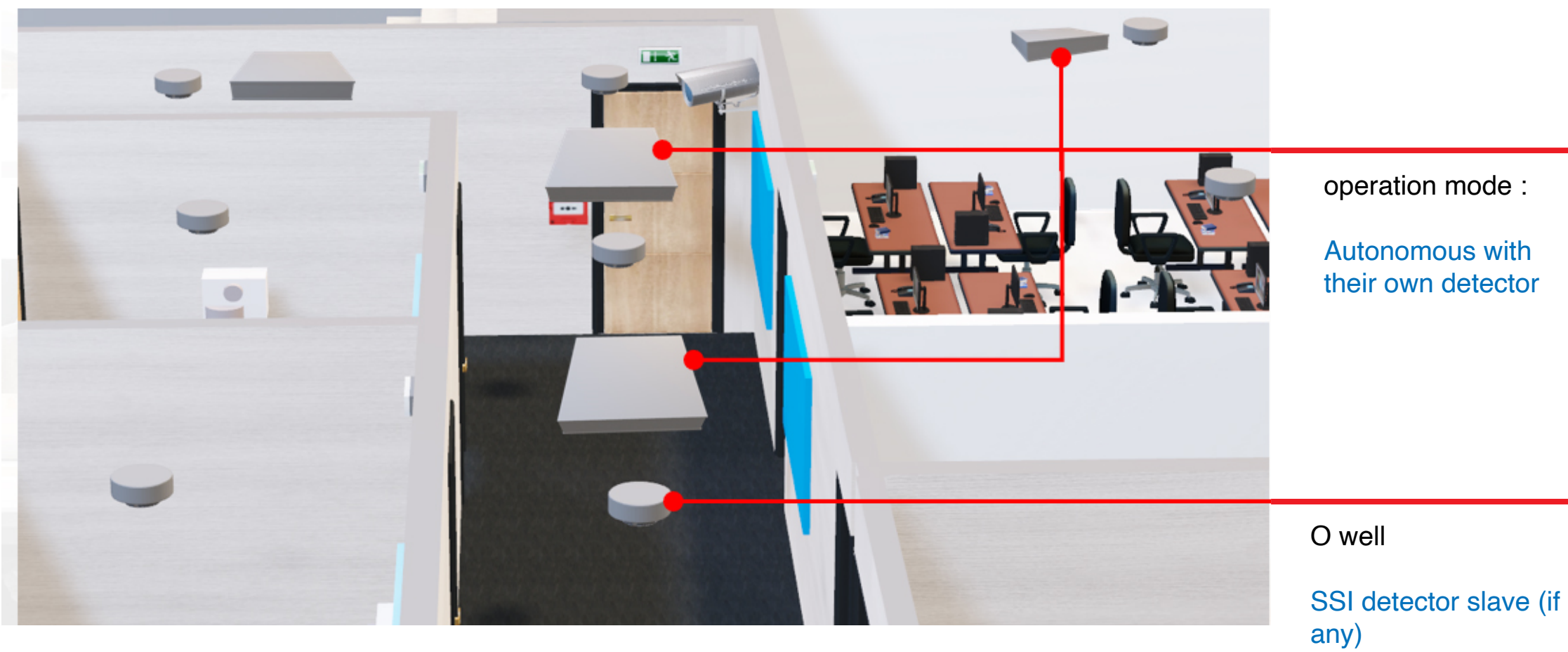
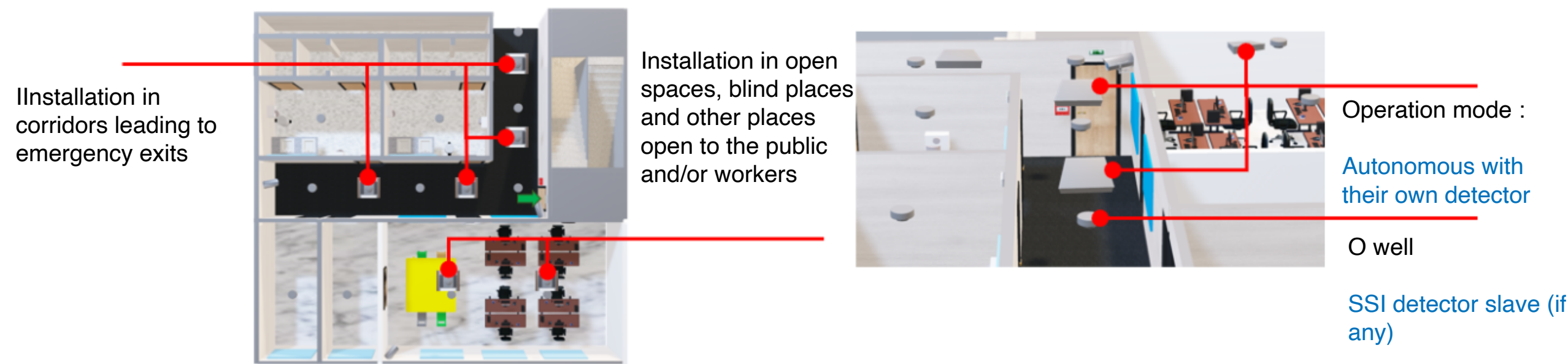
The installation of Detex © leads to good results based on compliance with the communicated instructions for use and safety.

HOW THE DETEX© WORKS?



The Detex system, consisting of a smoke detector, activates the built-in siren as soon as the first smoke particles are detected. The ventilation system then starts to suck up and retain the soot present in the smoke and filter the toxic gases greater than 0.3 microns in total autonomy and this for a minimum of 30 minutes after the first power cut.

PRINCIPLES AND METHODOLOGY FOR THE IMPLEMENTATION OF THE DETEX SYSTEM



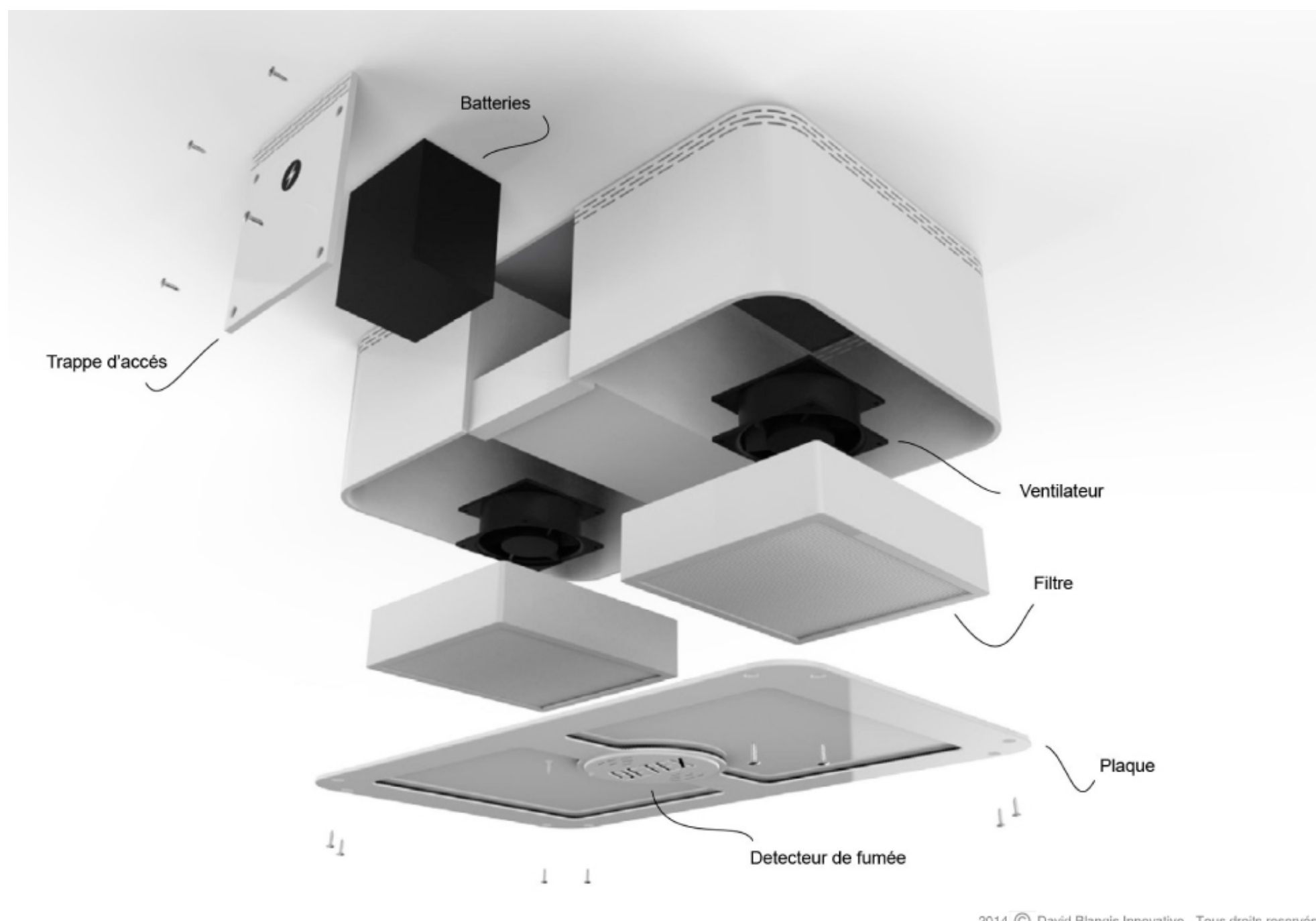
The DETEX device monitors and extracts fumes in a defined area. It is necessary to install enough devices to cover the entire area, to ensure better protection.

The installation of the system can be either stand-alone or slaved to an SSI unit. The DETEX system is compatible with all types of SSI or CMSI control units. It is specially designed and adapted for:

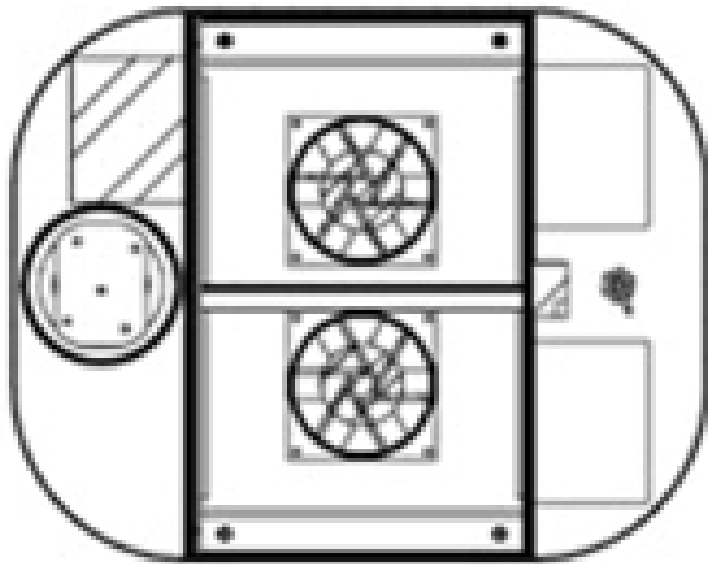
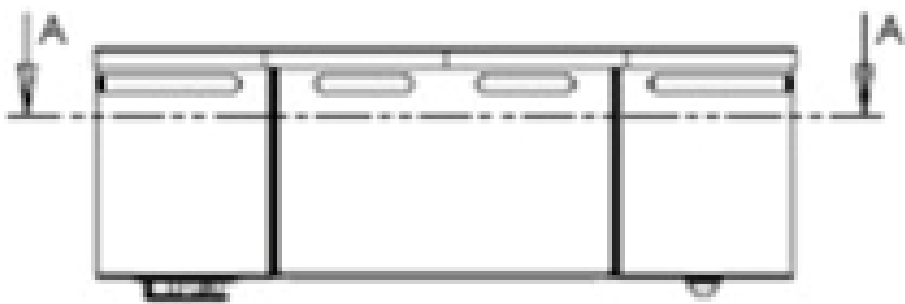
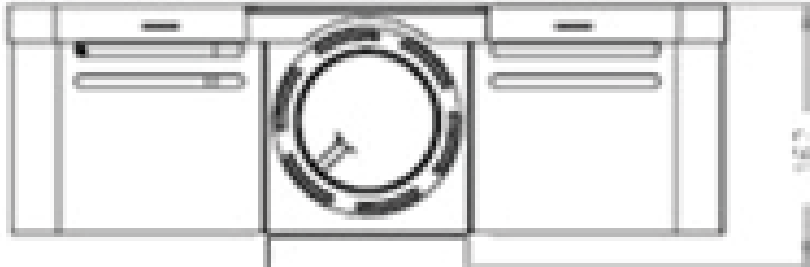
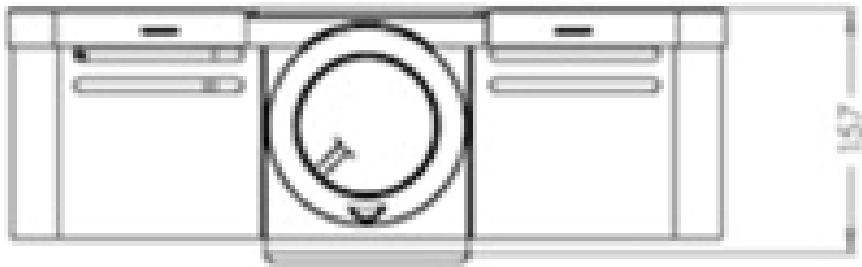
- Buildings open to public,
- Classified establishments,
- Workplaces, offices,
- Schools, nurseries, museums
- IT Rooms,
- Hotels, hospitals, care facilities,
- High-rise buildings,
- Railway, airway and maritime transport,
- Residential buildings,
- etc.



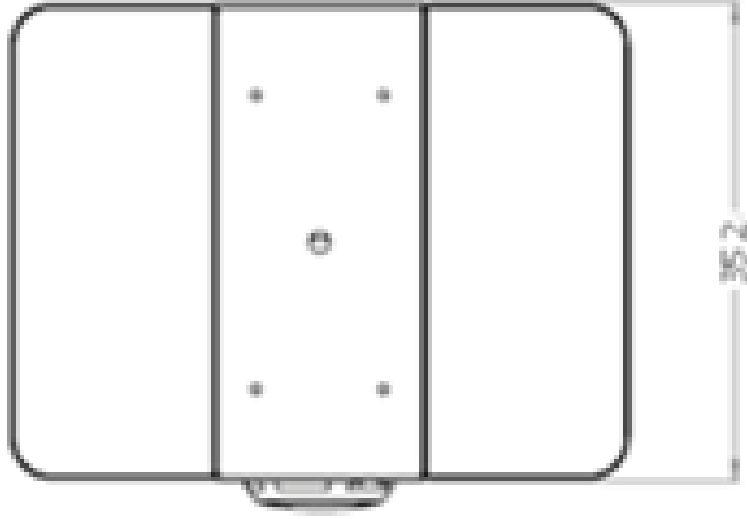
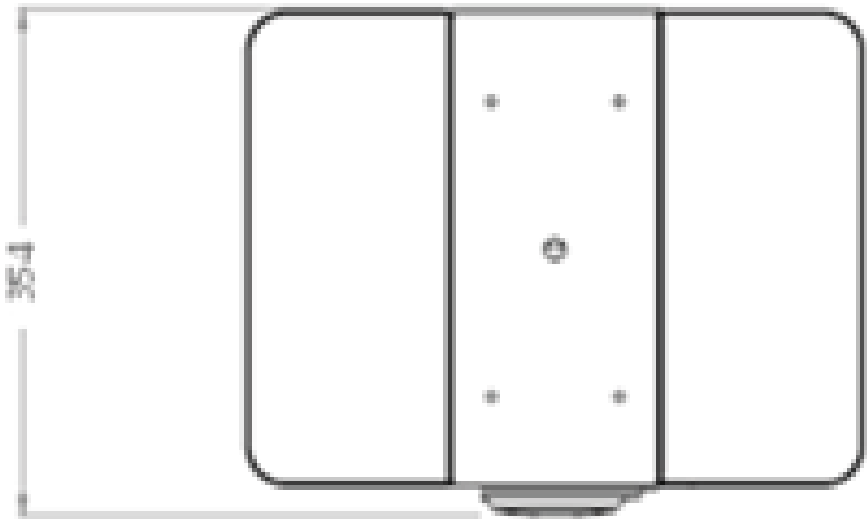
TECHNICAL CHARACTERISTICS :



- **Certification:**
 - Filters: certified to European standard EN 1822.
 - Smoke detector: certified European standard NF 14604 and CE.
 - **Detector sensor:** electronic photo.
 - **Low battery indicator:** device with a light and sound alert.
 - **Detector power supply and autonomy:** 9-volt alkaline battery with 5-year autonomy.
 - **Backup battery:** AGM S12V- 7Ah FR, autonomy of 30 minutes, life of 2 years.
 - **Alarm:** piezoelectric siren integrated into the Vesta detector.
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- **Filter:** H13 laminar filters, 0.3 micron filtration with a minimum volume flow rate of twice the volume of a 50m³ room over 30 minutes.
 - **Automatic self-test:**
 - **Smoke detector:** tests its sensor, electronics and battery voltage
 - **Operating temperature:** from 0 °C to 50 °C.
 - **Hygrometry:** from 0% to 93% RH.
 - **Mains connection:** 220 V power supply, 12 V 5000 mA output, 3 wires.
 - **Audio signal:** >85 dB(A) at 3 m and >94.5 dB(A) at 1 m.
 - **Light signal:** light indication by LED.
 - **Functional check:**
 - Detector: red light signal once per minute. The test button ensures the proper functioning of the device once a month or after each battery change.
 - Detex: a load check must be carried out manually every 6 months by pressing the push button.
 - **Equipment:** anti-insect grille on the smoke detector to prevent accidental triggering.
 - **Dimensions:** 460 x 354 x 352mm.
 - **Mass:** 7.5 kg.
 - **Material:** VO polycarbonate 960° incandescent wire and 30% fdv polyamide.
 - **White colour ;** possibility of customizing the box.



COUPE A-A



INSTALLING THE DETEX SYSTEM

Installation of the appliance should preferably be carried out by a qualified electrician or a licensed installer.

First, retrieve the mounting base (see image below).



Using a pencil, mark the locations where the screws and dowels will be placed. Then drill, using a screwdriver drill or a suitable perforator, the holes using a drill bit suitable for the diameter of the dowels, then firmly screw the fixing base. Connect the Detex to the mains, observing the wire colors and electrical regulations.

It is recommended, when fixing the device, to orient the base of the smoke detector so that the indicator is visible as soon as you enter the room or the room where the DETEX extractor-detector is installed.

Then fix the Detex on its support. Open the battery access door, place the battery inside and connect the jumper wire. Finally, place the Vesta smoke detector battery.

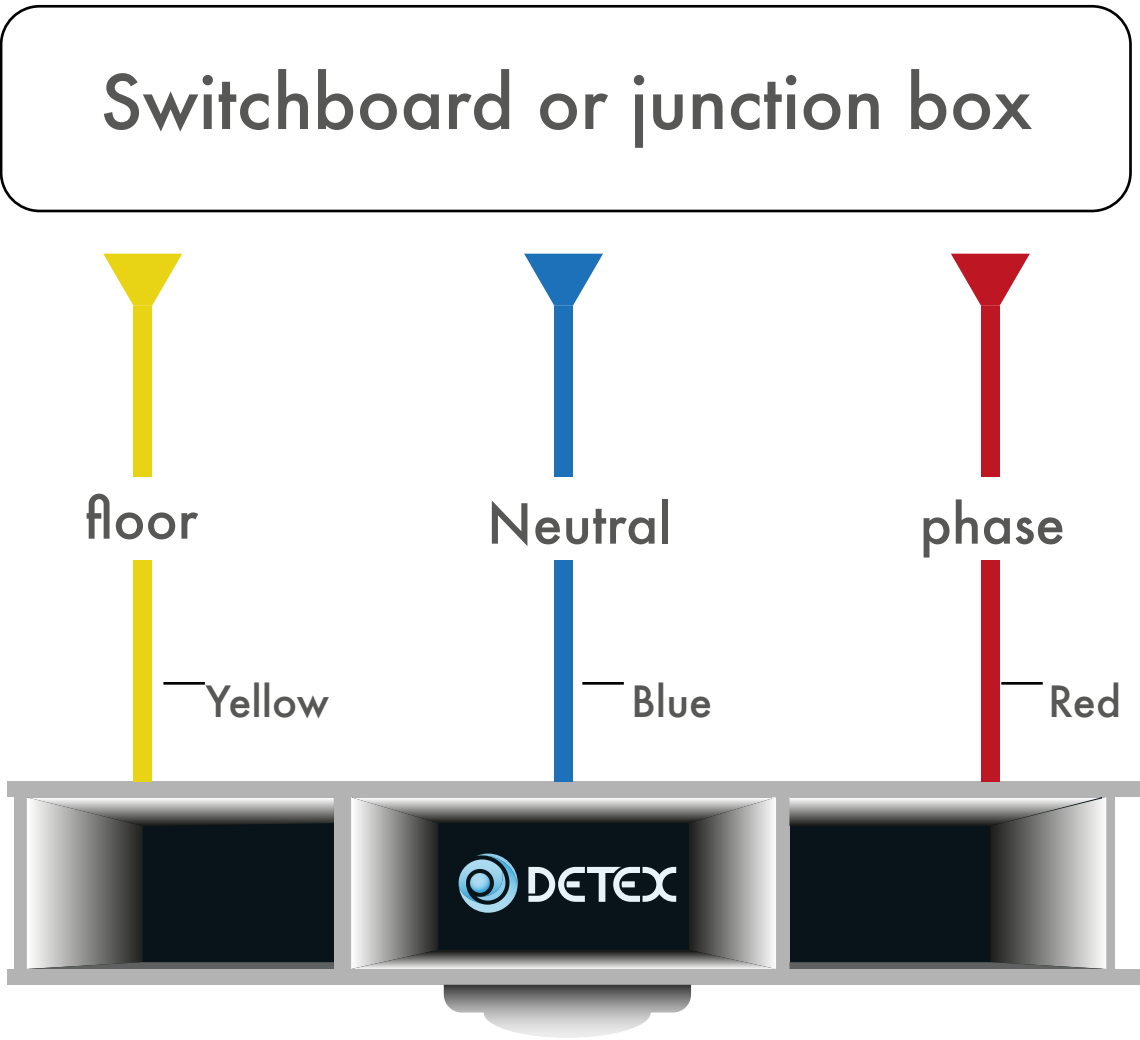


CONNECTION DIAGRAM

NOTE: It is necessary to strip the end of the cables with a length of 8 mm to ensure a good tightening in the connector.

Then fix the Detex on its support. Open the battery access door, place the battery inside and connect the cable bridge. Lastly, insert the Vesta smoke detector battery.

The first start-up of the Detex must imperatively be carried out on the mains with the battery connected.



CONNECTION DIAGRAM CONTROLLED OR ADDRESSABLE

Description of terms and functions

- Area

A building or establishment is generally divided, for fire safety purposes, into several volumes, each corresponding, as the case may be, to a room, a level, a stairwell, a sector or a compartment. A zone can correspond to one or more of these volumes or to an entire building. The Detection Zones (Z.D.) and the Safety Zones (ZS) defined below do not necessarily have the same geographical limits.

- Detection Zone (Z.D.)

Detection Zone (Z.D.): zone monitored by a set of detectors or Manual Call Points (D.M.) to which corresponds a common signaling in the Control and Signaling Equipment (ECS) of the Fire Detection System (S.D.I.). In the case of an addressable ECS, the detection zone is programmable and corresponds to one or more points. In the programming menus, it is called detection zone.

- Safety Zone (Z.S.)

Defined geographical area in which the Fire Safety Centralizer (CMSI) carries out a series of operations likely to secure the defined geographical area. Securing a zone consists of implementing at least one of the following functions:

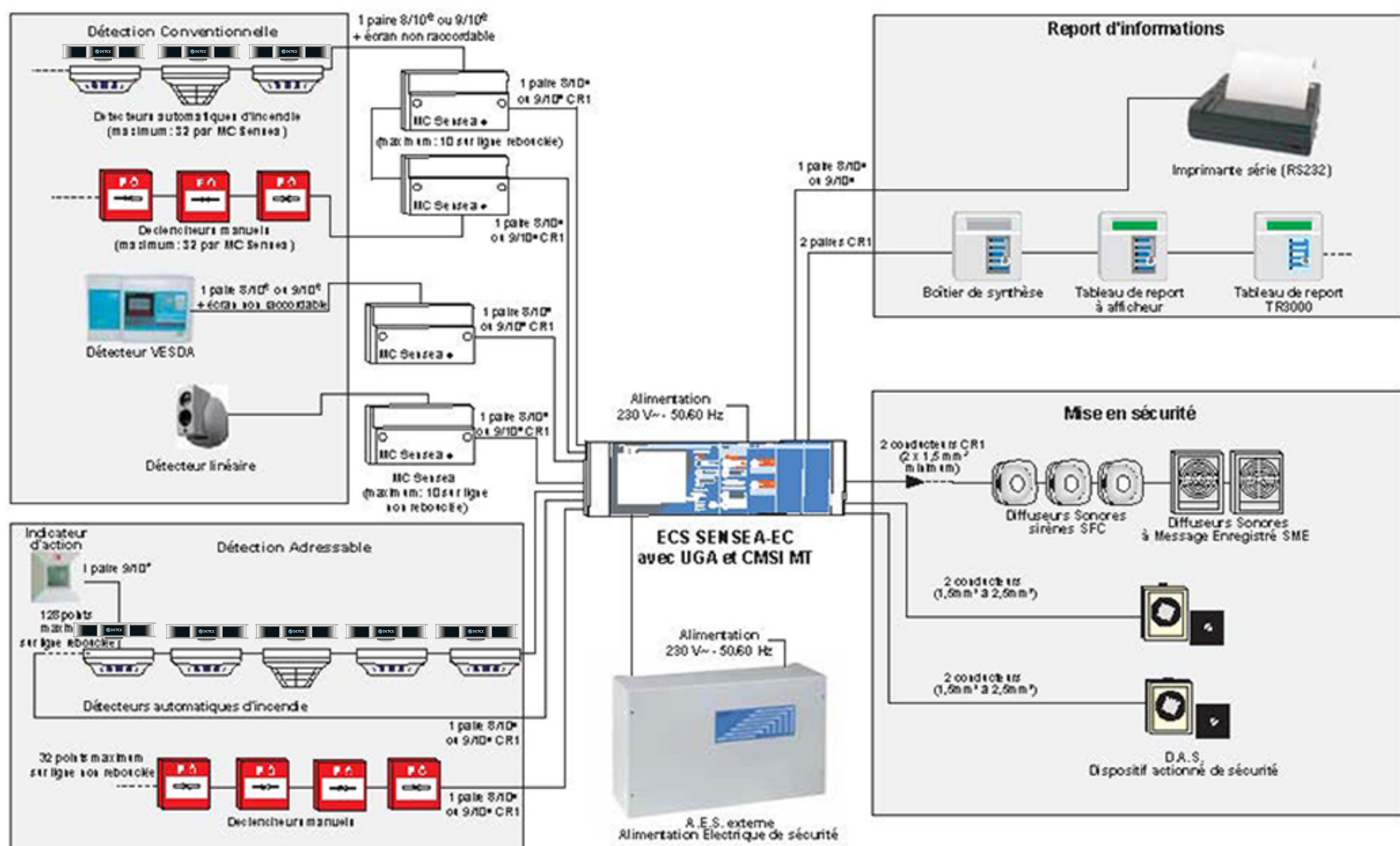
- compartmentalization,
- smoke extraction,
- evacuation.
- Alarm Management Unit (U.G.A.)

Subset of alarm equipment that may be an integral part of the C.M.S.I., whose mission is to collect information from manual call points or the fire detection system, manage it and trigger the general alarm process.

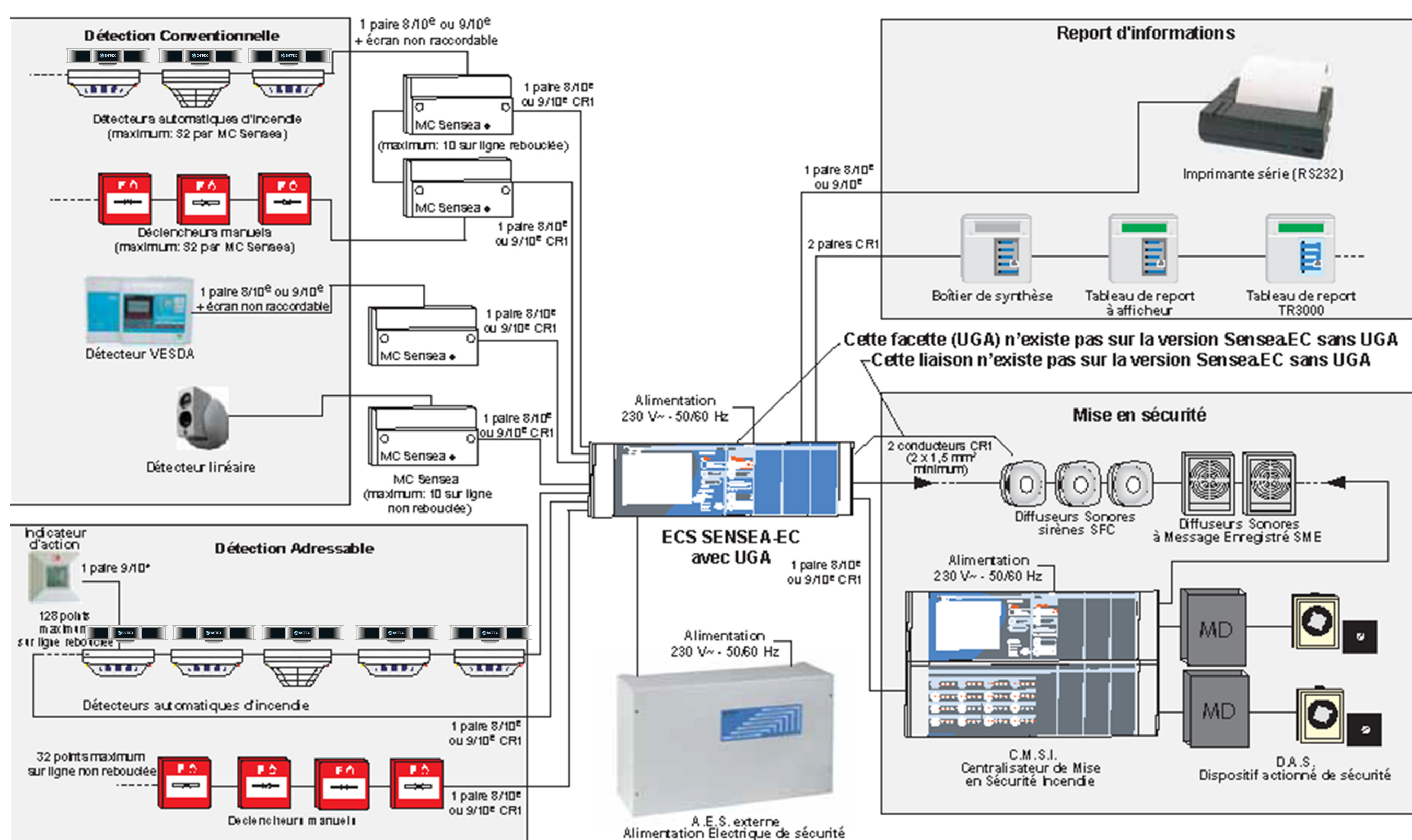
The U.G.A., associated with detection zones by programming, is controlled by detection zones.

The U.G.A. can be located either on the ECS or on the CMSI.

BLOCK DIAGRAM WITH INTEGRATED UGA AND CMSI



BLOCK DIAGRAM (WITH OR WITHOUT INTEGRATED UGA) CONNECTED TO AN EXTERNAL



CAUTION: Illustrations in this document are shown with a UGA feature installed.

Everything concerning this function and the principle of installation, in the texts and drawings, are given by way of example only. Each installation must be the subject of a specific study and design by a qualified and approved professional. The manufacturer cannot take any responsibility whatsoever in the event of misinterpretation or adaptation to a given situation.

Functioning test :

Press the test button on the top of the sensor for a few seconds:

- The sensor light is flashing.
- After a few seconds, the alarm signal is turned and engages the fans which means the Detex is working properly.
- **Be aware that during this test, the detector emits a loud sound and it is recommended to step aside the device.**

To ensure proper operation of your Detex, it is recommended to perform the same test once a month and after each battery replacement.



To ensure that your Detex is working properly, it is recommended that you perform the same test once a month and after each battery change.

COLOUR CODE LEDS :



- Green : on battery
- Green + red : on mains
- Green + red + yellow flashes : on battery and mains



Replacement battery

Your Detex is equipped with an AGM S12V-7Ah FR battery with a 2 years lifetime approximately (in normal functioning). Every 6 months, the user must test the battery, to cut the general power, by pressing and holding the push button ,detector smoke : if the battery is -60% of its capacity, an audible alert snaps, if the battery is fully charged, there is no audible alert. When there is a sound alert, the user has to change the battery. To do it :

Open the access door located on the opposite side of the smoke detector, according to the image below:



Disconnect connection threads and replace the original battery with a battery of the same reference (AGM S12V-7Ah FR). Then, reconnect thread, observing the direction of the connection and close the hatch.

MANTENIMIENTO DETEX

DETEX MAINTENANCE

The Detex does not require any particular maintenance with the exception of changing the battery, changing the detector battery (approximately every 5 years, an audible alarm from the detector warns of the need for its replacement) as well as cleaning summary. The frequency of cleaning depends on where it is located.

If the Detex is placed in a dusty environment, it should be cleaned more regularly with a vacuum cleaner and a soft cloth to remove any dust from the suction inlets and any dust on the detector.

After first use, the Detex must imperatively be deposited in a collection area for waste electrical and electronic equipment (WEEE) or be returned to the supplier but under no circumstances be thrown in the trash.

Maintenance of the DAAS: see manufacturer's instructions.

INSTALLATION MAINTENANCE AND OPERATION

The following operations must be carried out periodically by competent personnel:

- maintenance of security sources;
- routine maintenance of mechanical and electrical components according to the manufacturers' instructions;
- maintenance of the security system in accordance with the regulations and in accordance with the manufacturer's instructions.

The operation and maintenance rules are defined as follows:

The system must be maintained in good working order. This maintenance must be ensured:

- either by a competent technician authorized by the establishment;
- either by the installer of each piece of equipment or his authorized representative.

However, the systems must still be covered by a maintenance contract.



In all cases, the contract entered into with the natural or legal persons, or the instructions given to the technician attached to the establishment, must specify the periodicity of the interventions and provide for the rapid repair or exchange of faulty elements. Proof of the existence of this contract or of the written instructions must be able to be provided and transcribed into the security register.

Facility personnel should be instructed in the operation of the system.

The operator or his representative must ensure, at least once a week, the correct operation of the installation and the ability of the electrical and/or pneumatic safety supplies to meet the requirements of the regulations.

The operator must have repairs carried out under his responsibility as soon as possible. The operator must always have a stock of small spare supplies for the models used.

Important :

Do not paint the DETEX.

Do not cover the suction inlets.

In case of malfunction of the Detex device, please refer to the manufacturer's advice.

The sound signal can surprise and be strident. In order not to damage your hearing, it is advisable to move as far away as possible from the device when the signal sounds.

The DETEX device is not intended to extinguish a fire. In the event of a fire, be sure to behave correctly: stay calm, warn the fire brigade, save people in danger as well as yourself, try to extinguish the incipient fire. If the fire proves to be larger and no extinction is possible, immediately leave the place where you are.

Standing Notes:

- **The operator maintains a safety register**
- **Updating and posting of fire instructions (general and specific)**
- **Updating of plans: A plan of the establishment, in conformity, is affixed at the entrance and at each level.**

The builders, owners and operators of establishments open to the public are required, both at the time of construction and during operation, to comply with the prevention and safeguard measures specific to ensuring the safety of persons; these measures are determined taking into account the nature of the operation, the dimensions of the premises, their method of construction, the number of people who can be admitted there and their ability to avoid the effects of a fire.