

ATI

Aéraulique Technologie Innovative



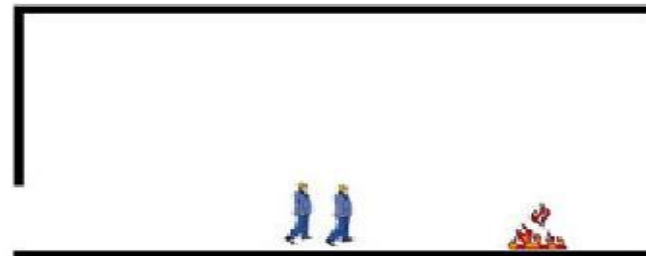
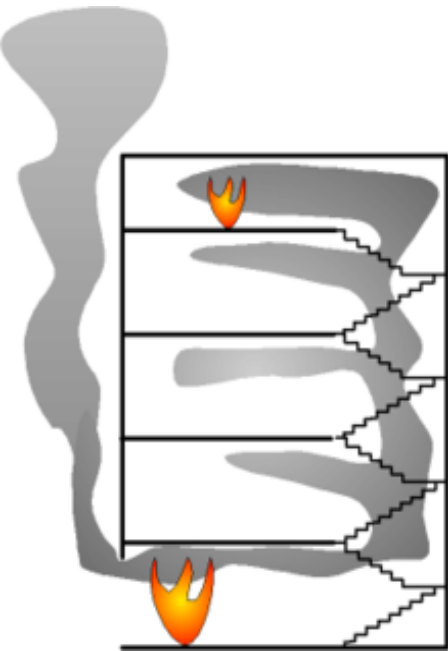
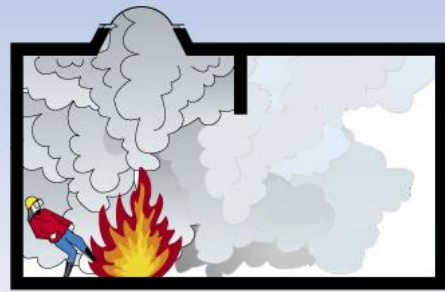
DETEX
Ma bulle de survie

**MADE IN
FRANCE**
BREVET MONDIAL

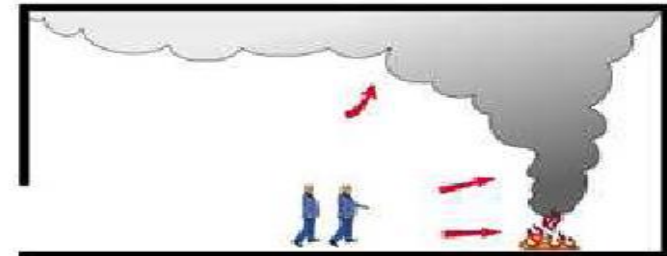
**ENSEMBLE
Sauvons des vies !**
DETEX, le 1^{er} détecteur-extracteur de fumées
autonome et sans conduits au monde.

Why do smoke kills?

- Fires lead to three main types of pathologies: burns, trauma related to falling materials and to the escape of victims, and **smoke poisoning**.
- For a very long time the **fire related smoke** toxic risk has been underestimated. It has been known since the 1980s that **80% of deaths are related to the inhalation of toxic fumes**.
- The majority of fire victims and deaths occur in **house and building fires**. This was explained by the change in the nature of the interior fittings of the houses and more particularly by the introduction in the habitat of more and more synthetic polymers.
- In practice, the degradation of materials during a fire produces heat, fumes, toxic gases and oxygen depletion in the ambient air in an enclosed space. It is the conjunction of these factors that makes the seriousness of victims of fire.



Démarrage du feu



Après 1 minute



Après 3 minutes

80% des décès sont provoqués
par les fumées asphyxiantes



Current situation & Potential market

■ In France:

- ✓ Market worth 3 billion €
- ✓ 25 000 employees.
- ✓ More than 300,000 fires, industrial sites and individuals combined (declared to the insurance companies each year).
- ✓ 80% of deaths from fire are caused by smoke.
- ✓ In 2008, 14,159 people were injured, lightly or severely, during fires. 402 people were deceased.

The future of the fire market is therefore in the treatment of fumes.



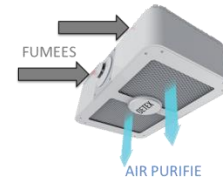


More than a simple fire detector,
Detex saves lives



Philosophy

- New concept for fighting fire: Creating a survival zone.



- We concentrate our efforts on the fight against fumes generated during a fire.





More than a simple fire detector,
Detex saves lives



Current regulations

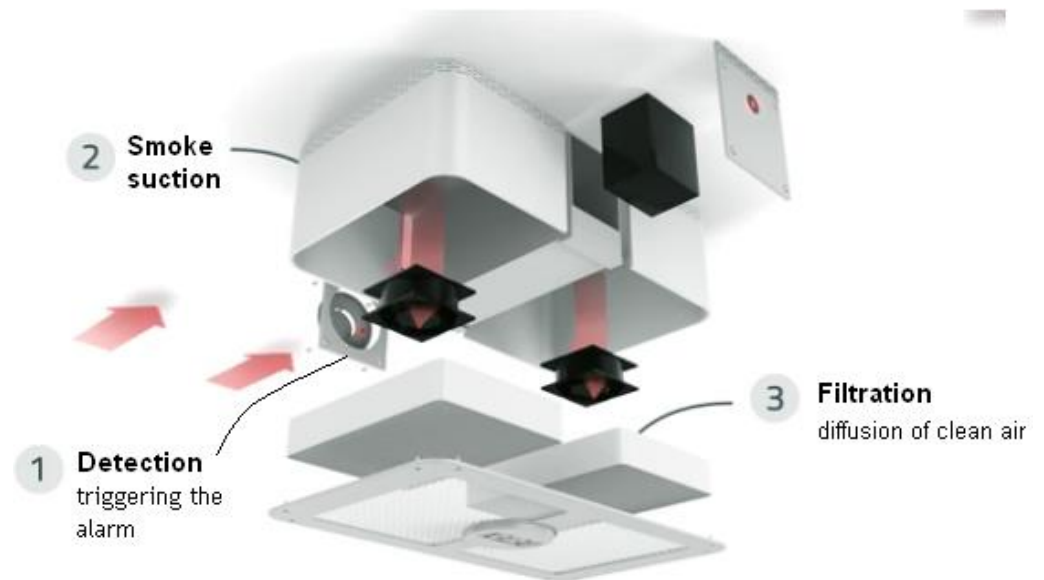
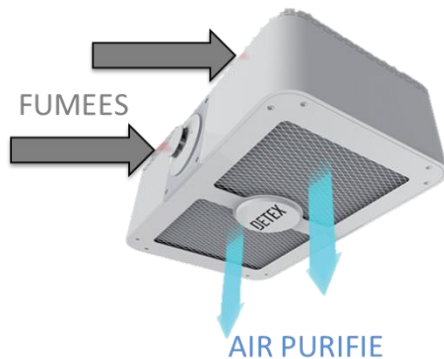
The law requires detection and smoke extraction in:

- ✓ Residential buildings
- ✓ Public places
- ✓ Skyscrapers
- ✓ Workplace
- ✓ Heritage buildings and classified installations



The Detex

- How does it work?
 - Detex includes an autonomous detector and a filtration box.
 - When the detector is triggered, the Detex initiates air absorption at a rate of 192 m³ / hour, filters out the gases produced by the fire and treats the ambient air to purify it.





DETEx

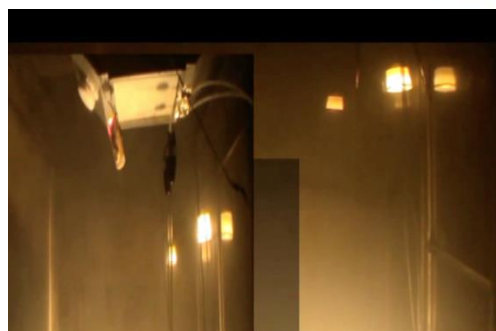
My bubble of survival



Détecteur de fumée / DAAF



detex test fumées



Crepim video



DETEx

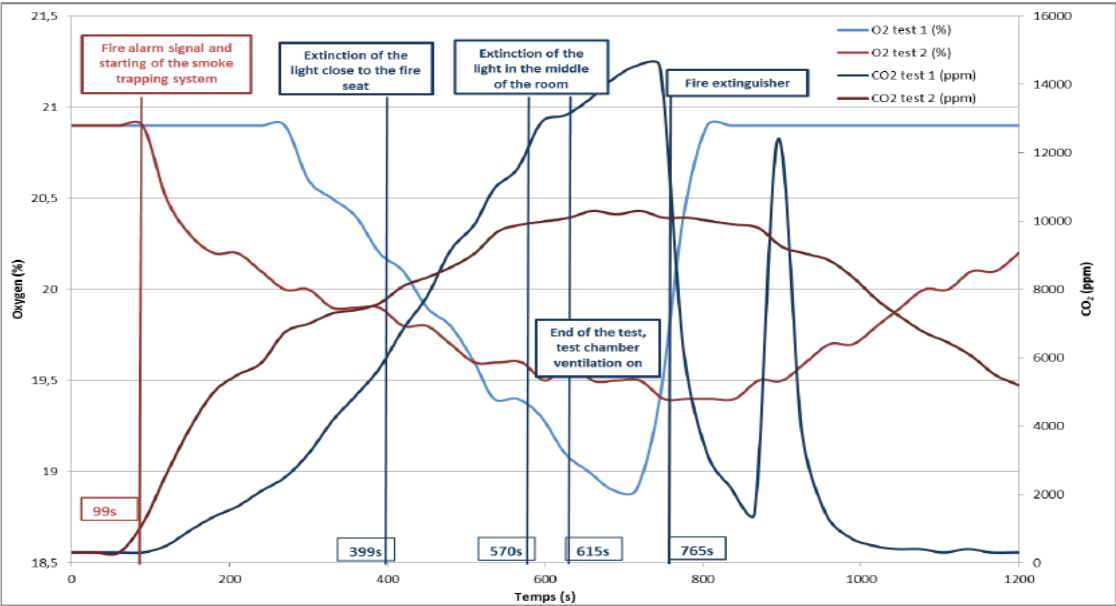
Ma bulle de survie

Technical & commercial benefits



1. Efficiency: Air filtration / environmental improvement

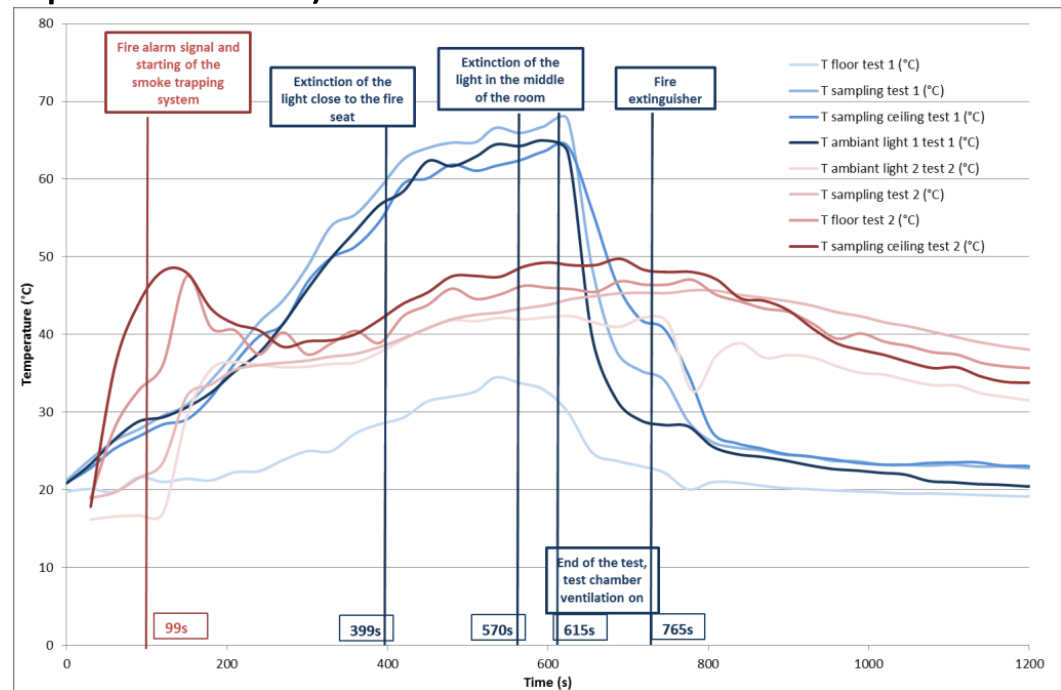
- Sucks and retains the soot present in the fumes to avoid poisoning (filter 0.3 microns)
- Reduction of **carbon dioxide** by 31%
- Reduction of **carbon monoxide** by 6%



gas	Critical concentrations (mg/m ³)	Critical concentrations (vppm)	Max reference test (vppm)	Max smoke evacuation test (vppm)	Efficiency of the smoke trapping system (%)
CO ₂	72000	36420	14900	10300	- 31%
CO	1380	1104	500	471	- 6%

1. Efficiency: Air filtration / environmental improvement

- Removal of **hydrogen sulphide**
- Decrease **temperature** of a smoked room 30% (significantly delaying room flare)
- Maintenance of an acceptable **oxygen** level of 19%
- Treats a volume of **192m3 / h**
- Increase visibility (decrease panic effect)



1. Efficiency: Air filtration / environmental improvement

Detex will allow you to:

☐ To evacuate as quickly as possible all persons present on the risk level;

- DETEX processes 192 m³ / hour of air, which helps to maintain a breathable atmosphere and significantly limits smoke poisoning.
- Allows to save time while waiting for the arrival of the firefighters.
- The cleared atmosphere increases visibility and reduces panic

☐ To slow the propagation of fire and the rise of T ° C;

- DETEX delays flashover, backdraft and other thermal phenomena by avoiding smoke stratification
- Creates a protective bubble where the temperature will be lowered (-30%)
- No addition of O₂
- Constant flow 192 / m³ / H with survival zone 2m²

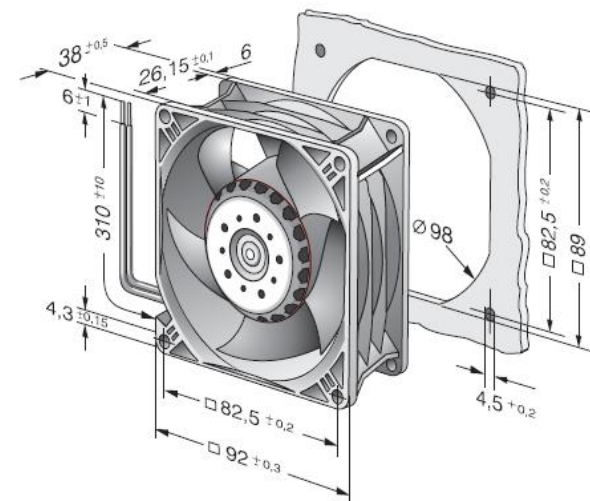
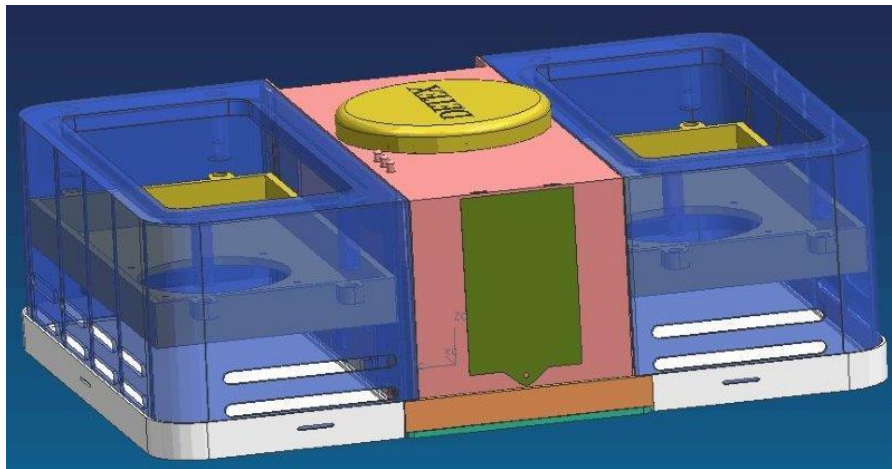
☐ To help the action of firefighters ;

- By facilitating the evacuation of people in good health conditions, security services can intervene faster on fire.



2. French engineering

- ✓ 100% French Invention
- ✓ Made with high quality components
- ✓ Assembly and inspection 100% made in France.
- ✓ Warranty 10 years
- ✓ Operates 30 min in total autonomy after power failure
- ✓ It can be installed without authorization
- ✓ Unique on the market: patented and certified system.
- ✓ It can be coupled (optional) to an already existing Fire Safety System :
 - Detection
 - Actuation via the control panel
 - And even a manual actuator linked to the control panel



3. Easy maintenance

Indication of continuous operation by LEDs:

Colour Code of the LED :

- **Green** : battery operating
- **Green + red** : work on 220V
- **Yellow flashing**: recharging the battery



- The user should check the battery every 6 months. To do this, switch off the AC power to switch on the battery power, if the battery is charged, no sound alert will sound. If the battery is less than 60%, an alarm will be triggered indicating the battery needs to be replaced. It will therefore be necessary to replace the battery and perform the test again.



CREPIM : European test laboratory

- CREPIM has measured, guaranteed and validated the performance of the Detex.
- CREPIM is recognised and accredited by:





Certifications:

- Autonomous detector : certified NF-EN14604
- Filters : certified EN 1822
- Plastic certificate : PC V0 960°
- Detex : certified CE



Certifications:

Price of innovation

international Patent



inpi BREVETS D'INVENTION, CCP, TPS, MARQUES, DESSINS ET MODELES **cerfa** N° 134571

Code de la propriété intellectuelle - Livret 1 et 19
DEMANDE D'INSCRIPTION AU REGISTRE NATIONAL D'UN ACTE AFFECTANT LA PROPRIÉTÉ OU LA JOUISSANCE D'UN DÉPÔT page 1/2

15 rue des Minimes - CS 50003 - 93057 Courcouronnes Cedex
Pour plus d'infos : 01 61 00 00 00 ou 0 820 210 211

Cet imprimé est à remplir soigneusement à l'encre noire.

REGISTRE NATIONAL DES BREVETS
N° d'inscription: 0 204 616
Date d'inscription: 26/01/2015

NOM ET ADRESSE DU DEMANDEUR OU DU MANDATAIRE A QUI LA CORRESPONDANCE DOIT ÊTRE ADRESSÉE
CABINET PLASSERAUD
31 Rue des Poissonceaux
CS 40009
59044 Lille Cedex

Vos références pour ce dossier (brevets) FR 1354171 DBS/CDG

2. DEMANDEUR (partie à l'acte d'inscription)
Nom ou dénomination sociale: CLAEYS
Prénoms:
Forme juridique: Société à responsabilité limitée
N° SIREN: 3 4 3 9 4 4 8 8 0
Rue: 931 Avenue du Général de Gaulle
Adresse: Code postal et ville: 5 9 9 1 0 BONDUES
Pays: FRANCE
N° de téléphone (brevets):
N° de télécopie (brevets):
Adresse électronique (brevets):

3. AUTRE PARTIE À L'ACTE ☒ S'il y a d'autres parties à l'acte, cochez la case et utilisez l'imprimé «Suites»
Nom ou dénomination sociale: DT FILTERS
Prénoms:
Forme juridique: Société à responsabilité limitée
N° SIREN: 3 8 9 7 1 1 7 9 7
Rue: 931 Avenue du Général de Gaulle
Adresse: Code postal et ville: 5 9 9 1 0 BONDUES
Pays: FRANCE

4. NATURE DE L'OPÉRATION CONSTATÉE PAR L'ACTE À INSCRIRE Cochez la case si cette demande d'inscription est déposée simultanément à:
☐ une déclaration de renouvellement de marque
☐ un recours en restauration ou une demande de relevé de déchéance

Transmission totale de propriété ☒
Transmission partielle de propriété ☐
Concession de licence ☐
Résiliation de licence ☐
Constatation d'un droit de gage ☐
Radiation d'un droit de gage ☐
Saisie ☐
Autre (à préciser) ☐

Applications

In all areas that can not (or hardly) be equipped with standard or mechanical smoke extraction systems:

- Impossibility of putting in place a smoke extraction outlet on the roof or on the façade
- Impossibility of using an extraction sheath

Underground corridors/spaces



Horizontals circulations



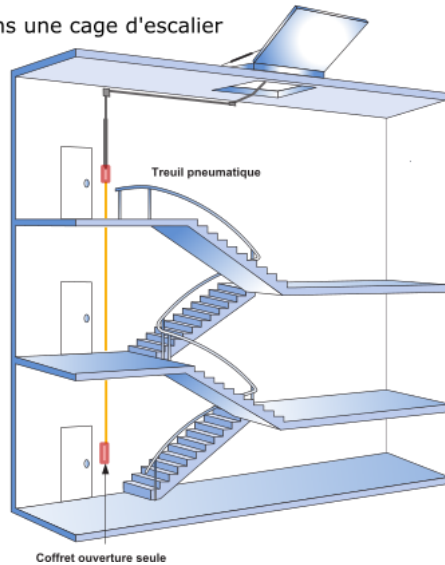
Secured waiting shutters



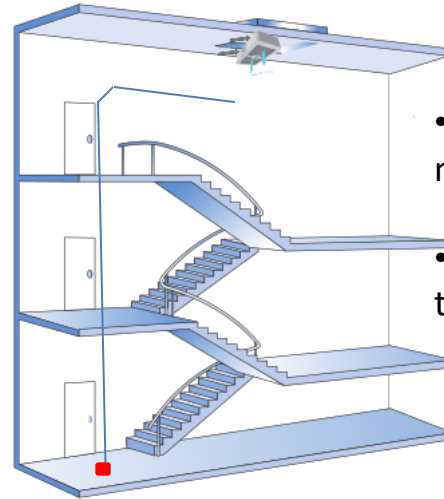
Staircases



installation de désenfumage naturel
dans une cage d'escalier



installation de traitement de l'air
dans une cage d'escalier



- As soon as a smoke extraction system natural or mechanical is not feasible
- Due to the structure of the room to be desensitized the DETEX is the ideal solution

A DETEX installation does not require:

No extraction duct

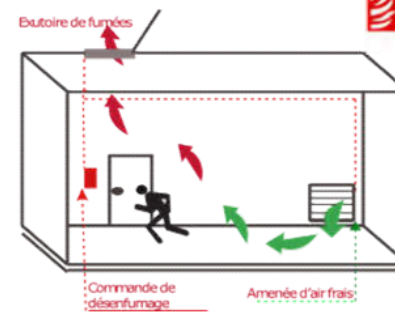
No air supply

All you need is a 220 V power supply, on an independent fuse box

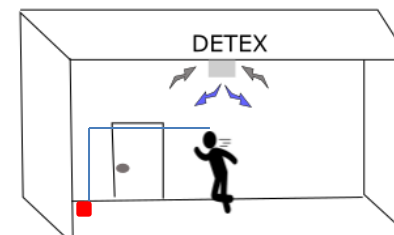
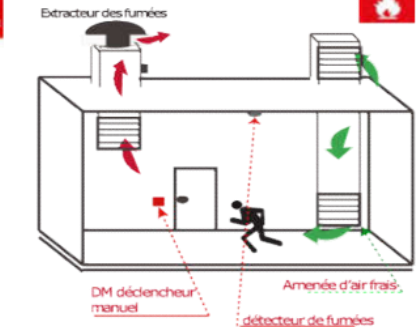
It can be autonomous or controlled by

A manual trigger

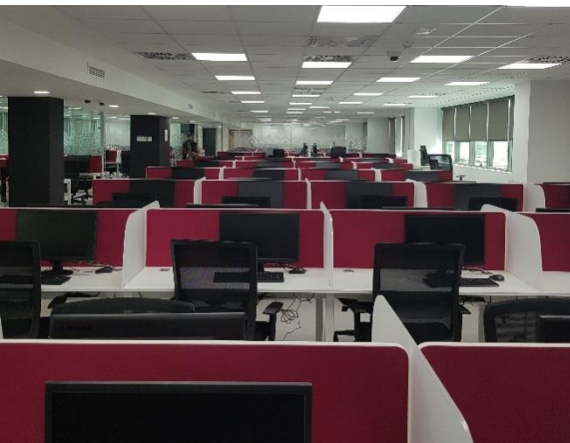
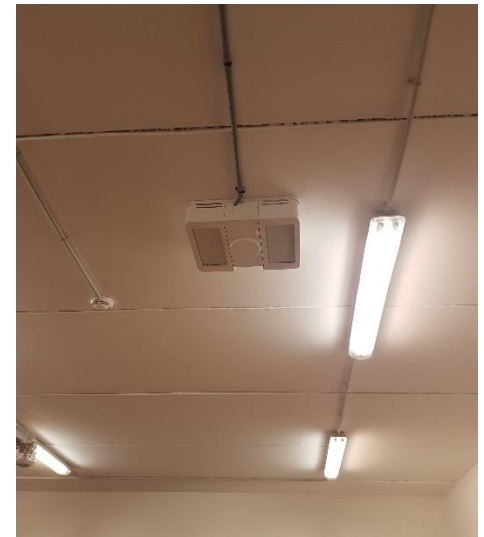
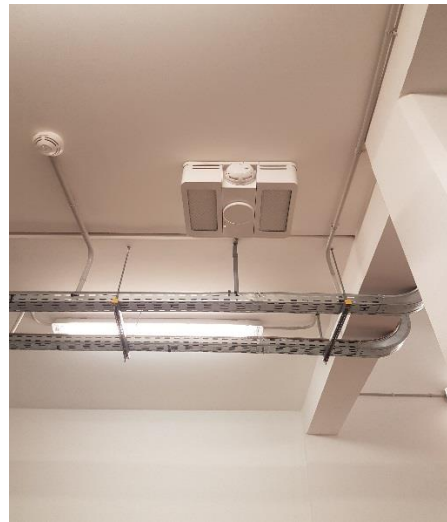
DESENFUMAGE NATUREL



DESENFUMAGE MECANIQUE



Applications



Applications



Hotels



Museum
& Art



Office



Hospital



Events

Public spaces

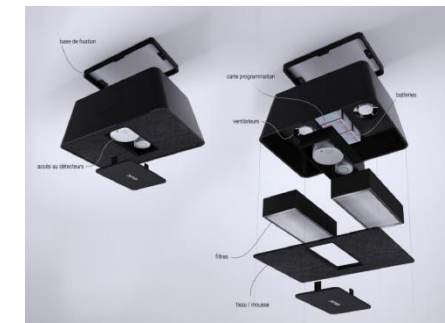




To go further...



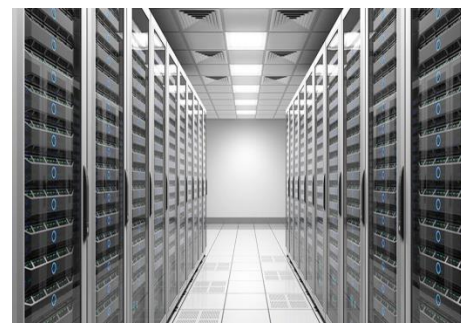
IP20
IK07



- Its design and color are customizable as an option (concealed, with light and can be decorated with a micro-perforated),
- Detex 600x600 mm for office installations with optional light included.

... Detex evolve

- « clever » autonomous detector
- Laser to show the survival zone
- Reduction of the carbon monoxide by 100 % within 18 months!
- Detex designed for industries where the height can go up to 5 or even 7m.



More than a simple fire detector,
Detex saves lives

Characteristics of Detex slot in smart 3000

Embedded in a false ceiling.
Intelligent and automatic management of the lighting : you save without effort or constraint.
Combine sobriety of Detex + energy efficiency of LED lighting for maximum energy savings.
Fully autonomous cell with dual intelligent detection and simplified programming by HELVAR application for smartphone.
Immediate and automatic ignition.
Configuration by auto-learning.
Constant and economic lighting in energy.
Easy installation (1 cable of 3x1.5 mm).
Input voltage 200-265 VAC 50/60Hz.
Power 36 W.
Lifespan 50 000h.
Dimension 595•595•159.

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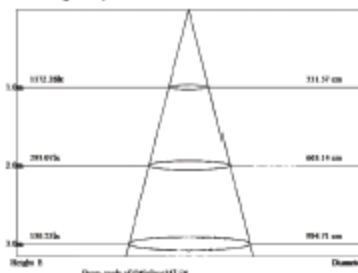
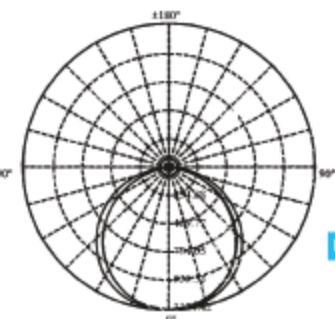
size

The first smart LED light that automatically monitors and adjusts the lighting in your buildings and offices to manage and sustainably reduce your energy costs.

Control by smartphone application (Helvar)

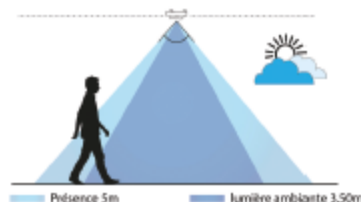
Characteristics

- Immediate and automatic ignition
- Configuration by auto-learning
- Constant and economic lighting in energy
- Easy installation (1 cable of 3x1.5mm)
- Input voltage 200-265 VAC 50/60HZ
- Power 36W
- Luminous flux 3900lm
- Color rendering index : 82
- Color temperature 4000k
- Beam angle 120°
- Power factor 0.98
- Lifespan 50 000h
- Dimension 595*595*159
- Operating temperature : -20°C to 40°C, 10-80% Rh
- Storage temperature -20°C to 40°C, 10-80% Rh



Product	Format	Lumens
DETEx slot in smart	595 x 595 mm	3900 lm

Option : BA14 frame on request
Other dimensions : contact us



Characteristics

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