## FIRE DAMPERS ISONE+





To ensure maximum safety and prevent the circulation of smoke in the event of fire, fire dampers must be installed on ventilation ductwork in commercial buildings.

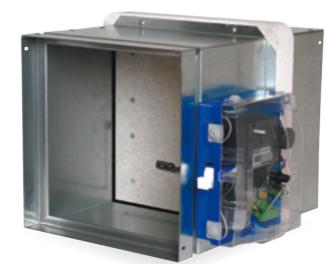
Fire dampers can be either circular or rectangular in form, and can be installed in walls or floors. They feature a pivoting vane that is open in normal operation but which closes automatically in the event of fire, thereby ensuring an airtight seal to prevent flames and hot gases spreading between rooms. As Aldes has been a leading provider of fire protection solutions for over 30 years, its products are renowned for their reliability, their ease of installation and their ability to adapt to operational requirements over time, taking into account the needs of the whole building sector, from construction project management to maintenance.



# **ISONE**+ advantages



- Manufacturer since 1980.
- Over a million fire dampers installed around the world.
- Products tested beyond European requirements under a minimum pressure of 500 Pa for all products.
- Dampers tests under real conditions in both fire propagation directions.

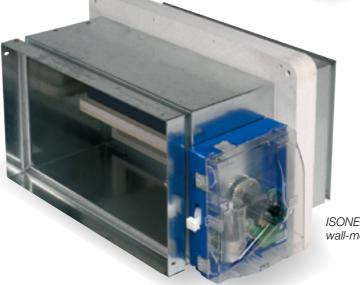


ISONE+ FdP



compared to traditional installations and inspections





ISONE+ wall-mounted



**ISONE 1500** shell

#### Arange to satisfy all configurations

- Flush-mounted range available in 2 versions:
- Minimal pressure loss to minimise pressure losses created by airflow passing through,
- Minimum dimensions to adapt to confined spaces.
- Only wall-mounted range on the market, ideal for mounting on light partition walls.
- Fire rating reports obtained on main supports, mounting in all positions (horizontal and vertical vane), under 500 Pa and 1,500 Pa in both fire propagation directions.
- Class B as defined by European standard EN 1751, limiting energy loss.

#### Adapts over time to operating conditions and new standards due to upgradeable mechanism



- Mechanism options can be specified at time of order or on the website at a later time (reset motor, signal contacts, etc.).
- Extremely easy to upgrade: can be inserted or removed with one hand in 3 minutes, no tools required!



- Quick and cheap to install due to conventional mortar seal.
- Wall-mounted range attached with screws in a few minutes.
- Full mechanism installed with one hand in just 3 minutes.
- Damper inspection times shortened to 2 minutes per damper.



# The Aldes upgradeable mechanism



ISONE+ FdP (low pressure loss) equipped with mechanism

## Plus points

- Adapts to operating needs and standards requirements over time.
- Average verification time per damper reduced to 2 minutes.
- Full mechanism fitted by hand in less than 3 minutes.
- Reset motor power consumption in standby position = 0.
- Airtight respecting class B EN 1751.

## Plan for the unexpected with this mechanism

The ISONE upgradable mechanism offers many options, selected while the product is being produced, or using add-ons on site at a later time.

### Activation options

- FTE 70 thermal fuse trip A stainless steel thermal fuse link is screwed into the mechanism casing.
- Electromagnetic trip Operates on external command (e.g. Fire safety control system) via shunt trip (VDS) or power cut-off (VM).
- Manual control White handle built into unit for activation without removing cover.

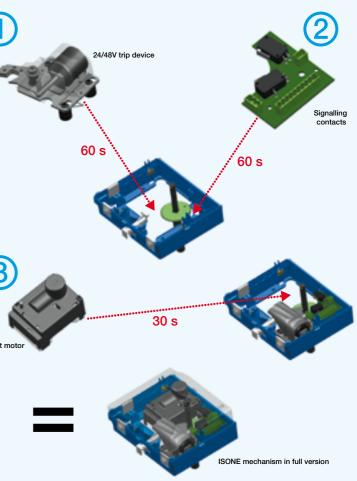
#### Reset options

- Manual reset Possible without removing cover.
- EHOP 30S reset motor Moves vane back to standby position without action on damper. Can be installed and removed with one hand, no tools.

#### Signalling options

- Contacts indicating that the vane is closed (FCU1) or open (DCU1) or both.
- Optional dual-pole contacts.

An automatic function controller to facilitate inspections, verifications, adjustments that must be done before an installation is activated or a maintenance intervention. The controller connects to the electrical terminal of an Aldes fire damper to simulate the sequences of the central control system and perform functional tests on all the devices (trip device, contacts, motor). The Aldes Control pack is portable, autonomous and can be recharged at the mains.



**The Aldes Control pack** 



"Make it easier to activate and control your systems"

# The ISONE+ range the most extensive, advanced range on the market

The range features different references to ensure perfect suitability with all types of buildings:

## Flush-mounted range\_\_\_\_



The products in the ISONE+ flush-mounted range feature two metal sleeves on either side of a refractory material composite.



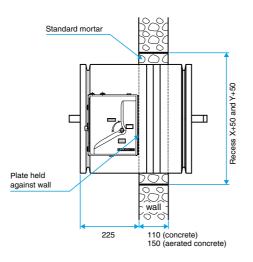
#### (Low pressure loss)

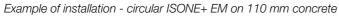
Their design minimises pressure losses due to the passage of air. Available in circular form (Ø 100 to 315 mm) and rectangular form (from 200 x 200 mm up to 800 x 600 mm).

## EM

#### (Minimum dimensions)

They are specially designed for confined spaces, offering reduced size and weight compared to traditional dampers. Available in circular form (Ø 100 to 1,000 mm) and rectangular form (from 200 x 200 mm to 1,500 x 600 mm or 1,200 x 900 mm).









ISONE 1500 with sleeve

ISONE 1500 with shell

#### **Isone 1500**

Specially suited for installations with pressure ratings between 500 and 1,500 Pa.

Featuring rectangular duct elements made of refractory material, sleeves (rectangular ducts) or shells (circular ducts) are fixed to the ends to connect to the aeraulic ductwork.

Available as ISONE 1500 shell (Ø from 160 to 1,000 mm) and ISONE 1500 sleeve (from 200 x 200 mm to 950 x 1,000 mm or 1,500 x 500 mm).

## Plus points

- Multi-position fire damper.
- Optimised aeraulics and dimensions.
- Easy installation.

### Wall mounted range

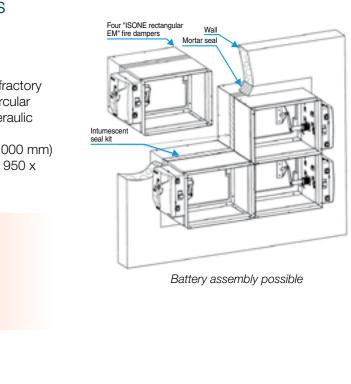


- Extremely simple to install and modular.
- No mortar or mounts required.
- Screw attachment possible therefore removable.



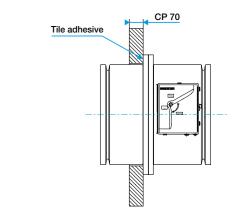
All installation methods are described in the technical documentation available





The products in the wall-mounted range feature two metal sleeves on either side of a refractory material composite. These fire dampers are extremely simple to install and are especially suited for light partition walls. Available in circular form (Ø 100 to 560 mm) and

rectangular form (from 200 x 200 mm to 800 x 600 mm).



Example of installation - circular ISONE+ AP

# Regulations



For over 10 years, the European Union has been gradually implementing the "Construction Products" directive on a product by product basis.

Today, it is the turn of fire dampers and cartridges to be upgraded to respect CE marking. Aldes assists stakeholders in the sector during this transition phase.



#### Reminder of principal changes \_\_

- New fire resistance testing and classification methods.
- New European vocabulary concerning fire resistance.
- New certificate to replace former documents (reports).

CF 2h - under 500 Pa E I 120 S - i O – Ho / Ve – under 500 Pa

- E: Integrity against fire (corresponds approximately to the former Fire Retardant).
- I :Insulation (El corresponds approximately to our former Fire Damper).
- 120: duration in minutes.
- S: Smoke leakage.
- i <> o: the damper is tested for fire in both directions.
- Ho: the damper is tested when mounted horizontally.
- Ve: the damper is tested when mounted vertically.
- **500 Pa:** the negative pressure applied to the damper during the fire resistance test.

#### ALIENTION

- Ensure that the fire rating corresponds to the intended use.
- Ensure that the service pressure does not exceed the test pressure.



#### Fire damper cartridges

## Also discover our range of cartridges

Aldes fire damper cartridges are available in diameters from 100 to 200 mm and El 60 S - (ve ho i <> o) and El 120 S - (ve ho i <> o).

## Aldes, specialists in "Integrated solutions for well-being in buildings"

#### **ISONE** references



San Carlos Hospital, Madrid, SPAIN



Bellepierre Hospital, REUNION island



#### Futuroscope, Poitiers FRANCE



Trento High School, ITALY

# Aldes, supplier to businesses

Educational buildings, child care centres, office buildings, hospitals, etc, the commercial sector is highly diverse. These buildings are subject to specific restrictions, which project management must take into account when determining the appropriate ventilation and smoke exhaust solutions.

#### With over 15,000 product references, Aldes offers a full range for the commercial sector:

- ventilation (exhaust and heat recovery),
- smoke exhaust products (fresh air and smoke exhaust ducts, NF smoke exhaust dampers, smoke exhaust fans, etc.).

#### Since Aldes was established in 1925, its ambition has evolved:

offer building occupants a quality of air, temperature comfort and optimum safety, while ensuring sustainable control of building energy consumption.

### aldes.com



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