



# Kingspan Ecovision PN Data Sheet

Façade ventilation window for natural ventilation, air inlet and natural smoke ventilation with pneumatic control system



Daylighting Solutions  
Natural Ventilation Solutions  
Smoke Management Solutions  
Service & Maintenance  
Building Automation



# Kingspan Ecovision PN

## Description

The Ecovision PN façade ventilation window can be used for smoke ventilation (SHEV - CE-certified according to EN 12101-2 and compliant with NF S 61-937-1 and NF S 61-937-7), and/or as an air inlet.

It can be installed in façade on all types of supports, such as glass curtain wall, or in roof, integrated into northlight. The opening system features two pneumatic actuators and the vent can be opened to a 60° angle depending on the type of opening and the dimensions. Two types of opening are available: bottom hung inward opening or bottom hung outward opening.

Ecovision PN is available with thermally broken profiles (Premium version) and standard profiles to cover a wide range of applications. The two types of profiles and their multiple adaptations mean the Ecovision EL can be used in concrete façades, aluminium joinery and curtain walls.

Multiple choices are available for the glazed panel: single, double or triple glazing, sandwich panel, Multiwall Polycarbonate (MWPC) and MWPC with AeroTech®.



## Advantages

- Flexible and adaptable to all types of building façades and all configurations.
- Thermal insulation using thermally broken profiles and AeroTech® glazing or other special glazing solutions.
- Contributes to bioclimatic building design as foreseen by RT 2012 thermal regulations - in relation to natural daylight on façades and ventilation (calculation of Bbio index).
- Natural ventilation available on smoke ventilation windows at no extra cost.

## Standard description

Ecovision PN smoke ventilation opening vent compliant with NF EN 12101-2, thermally broken aluminium profiles with RAL 9006 finish as standard (other colours available on request), 44.2/16/44.2 double-glazing (or other), pneumatic open/close control system.

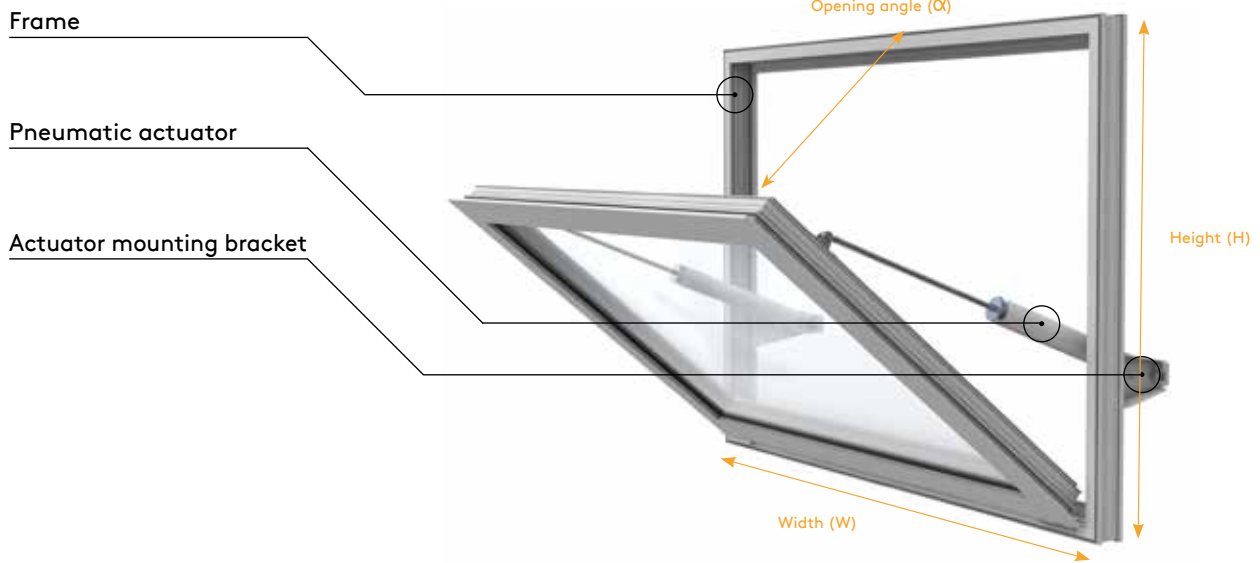
## Wide range of applications for new builds and renovation

Stairwells, passageways, halls and conservatories, for roof-mounting, 90° installation in northlight.

- Public buildings: retail outlets, schools, sports facilities.
- Commercial and industrial buildings.
- Multi-occupancy buildings.



## Description



## Profiles can be adapted to needs



Width: 50 mm

Standard version:  
standard profile.



Width: 65 mm

Premium version:  
Thermally broken profile  
(TB) for buildings requiring  
optimised insulation.



Width: from 20 to 34 mm

Adapter profile for  
curtain wall.



### Types of opening



Bottom hung window inward opening



Bottom hung window outward opening

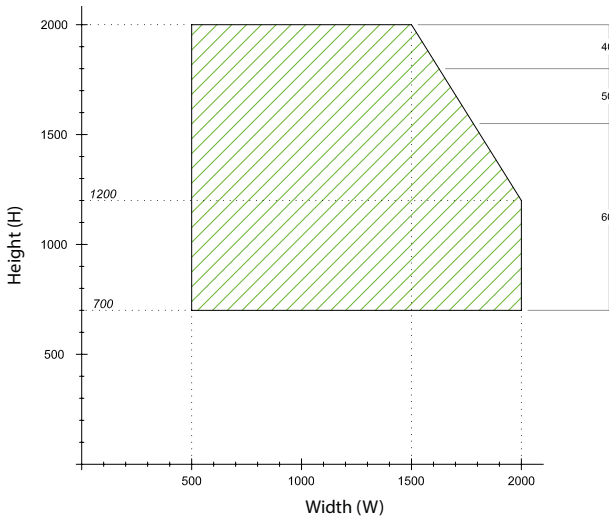
### Pneumatic opening system

Pneumatic actuators: reliable and powerful



The frame features two pneumatic drives 40 mm in diameter. The paired actuators are fitted on each side of the fixed frame using a bracket the same colour as the frame. The copper circuit and/or connection to the compressed air circuit is very discreet and concealed in the coated aluminium profile.

- Maximum opening angle: 60° (depending on frame dimensions).
- Opening time less than 60 seconds.
- Copper circuit pre-installed.



Dimensions

Bottom hung inward/outward opening



## Smoke ventilation performance and classes (according to EN 12101-2)

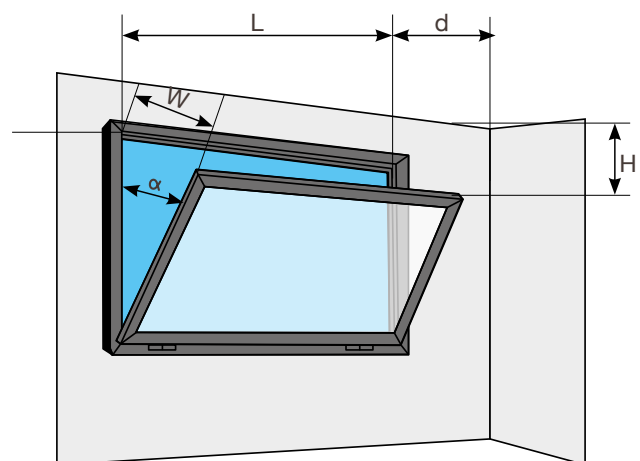
Name	Class	Meanings / Observations
Operation	Type B	Opening and closing from the ground
Aeraulic surface Aa	Aa	Effective smoke ventilation surface of SHEV using dimensions of opening vent and aeraulic coefficient Cv
Aeraulic coefficient	Cv	Aeraulic efficiency of SHEV: varies according to dimensions, type of opening, type of profile, opening angle and configuration of installation site
Resistance to heat	B 300	Operating test at a temperature of 300°C
Reliability	RE 1000 (smoke ventilation only) + RE 10,000 (natural ventilation)	Number of smoke ventilation /ventilation open / close cycle tests
Wind load	WM 1500	Wind load resistance
Low temperature	T (00)	Unit meets French requirements
Pitch	0°	Vertical application (only on building façade)
AEV Class (Air-Water-Wind)	Air = A4 Water = E7 Wind = V3	NF EN 12207 and NF EN 1026: Air permeability NF EN 12208 and NF EN 1027: Water tightness NF EN 12210 and NF EN 12211: Wind resistance

## Acoustic values

Dimension	Glazing	Thickness Glazing	R <sub>w</sub> Glazing	R <sub>w</sub> Prod.	R <sub>A, tr</sub>
1200 x 1200	Acoustic aluminium glazing	43 mm	-	41 (-1;-6) dB	35 dB
	44.2A /16 Argon /6	31 mm	42 (-2;-6) dB	41 (-1;-4) dB	37 dB
	66.2A /16 Argon /44.2A	37 mm	48 (-2;-6) dB	43 (-1;-4) dB	39 dB

## Aeraulic performance for natural smoke ventilation

The Cv coefficient varies according to the dimensions and opening angle. Please contact us to discuss your project.



## The complete solution for your natural smoke ventilation system

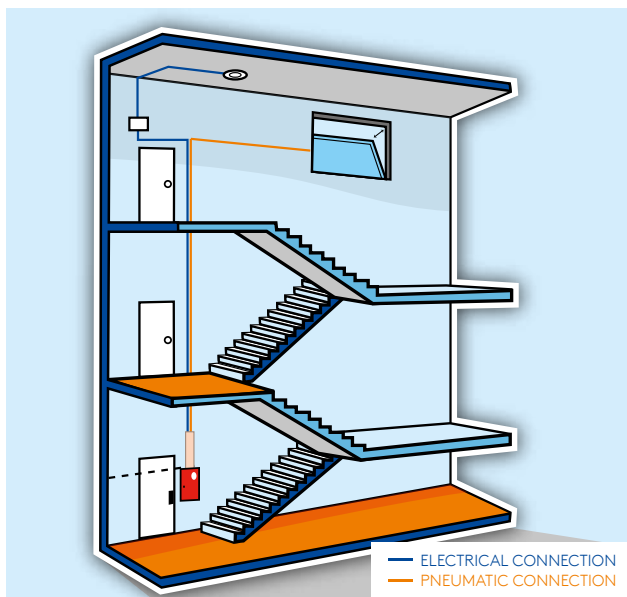
Kingspan Light + Air offers the best solution to control your natural smoke ventilation equipment according to applicable regulations. You can also use your smoke ventilation openings as natural air vents to ensure comfort throughout the building.



## Principle of a pneumatic smoke ventilation (and free ventilation possible)

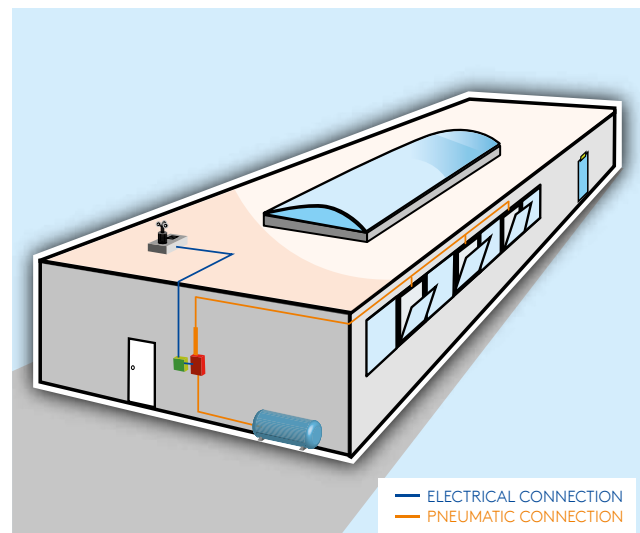
### Stairwell - Category 3 A

In this configuration, the Ecovision PN is controlled by an Open/Close pneumatic control box containing an electric module that is activated by the smoke detector and relay.



### Industrial building with ventilation

In this "industrial" building (zone < 500 m<sup>2</sup>, the Ecovision PN vents provide natural smoke ventilation and natural free ventilation for the building. The opening mechanisms are controlled by an Open/Close comfort pneumatic control panel connected to a wind and rain unit.



## Options

- 1. Paint / Anodised finish**  
Inside/outside dual colour possible on TB profiles (Premium).
- 2. Position sensors**  
Standby and/or fire open position.
- 3. Special glazing**  
Thermal, heat-deflection, acoustic, burglar-proof treatments.
- 4. Finishes available**  
Aluminium with RAL paint finish.  
Anodised aluminium.

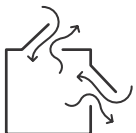


## Accessories

- Finishing profile
- Skirting
- Seal cover
- Guttering
- Junction profile



## Did you know?



"In general, we spend 80 % of our time inside buildings."



"90% of fire victims die because of smoke inhalation!"

## Kingspan Light + Air at your service

Kingspan Light + Air is a manufacturer as well as a service provider with a network of service engineers and in-house CFD and fire engineering expertise. Proper, preventative, pre-emptive maintenance of Smoke & Heat Exhaust Systems undertaken by qualified specialists will not only ensure the highest levels of safety and security but also mean savings in time and money.

The comfort of a partner who takes care of everything: ask your local representative for more information about the services available in your country.



## Certifications



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## INTERNATIONAL

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For the product offering in other markets please contact your local sales representative or visit [www.kingspanlightandairinternational.com](http://www.kingspanlightandairinternational.com)

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