



FIRELIGHT DUO

PRODUCT DESCRIPTION

Firelight Duo is a natural smoke and day to day ventilator which permits the entry of natural daylight. It has been tested in accordance with EN 12101-2.

APPLICATIONS

Firelight Duo is suitable for use in commercial, industrial and municipal buildings.

FEATURES AND BENEFITS

- Dual-purpose design – Provides both natural smoke ventilation and day-to-day ventilation, with the added benefit of natural daylight entry.
- High thermal and acoustic performance – Fully thermally broken construction and excellent acoustic insulation (up to 49 dB) help improve energy efficiency and occupant comfort.
- Flexible sizing and infill options – Available in mm increments up to 2500 × 3000 mm, with a wide choice of glass, polycarbonate, or insulated aluminium infill panels (16–50 mm thick).
- Certified safety and performance – Tested to EN 12101-2 for smoke ventilation, window and door standards (Class 4 air permeability, Class C5 wind load, Class A9 weather resistance), and fall-through resistant to GS-BAU-18.
- Discreet, low-profile design – Only 120 mm high when closed, ensuring minimal visual impact on the building envelope.
- Versatile control options – Operated via pneumatic cylinders or electric actuators (24 V DC or 230 V AC) with options for thermal release, sensors, or manual control.

Product Description

The Firelight Duo is a high-performance natural ventilator designed to provide both automatic smoke control and day-to-day ventilation. Its flaps allow natural daylight to enter the building, enhancing indoor comfort and reducing the need for artificial lighting.

Tested in accordance with EN 12101-2, the Firelight Duo is built entirely from high-quality materials. Its main structure is made from corrosion-resistant, durable aluminium, while multi-level EPDM and TPE seals around the unit ensure excellent weather resistance and ultra-low air permeability.

Fully thermally broken, the Firelight Duo helps minimise heat loss and condensation risk. The ventilator flaps are available in a choice of insulated aluminium, polycarbonate multi-wall sheets, or insulated glass – with various thicknesses and designs to suit different project needs.

Designed for versatility, it comes in a wide range of sizes and flange types, making it easy to install on most roof types or integrate into glazing systems. Its robust yet low-maintenance construction delivers long-term energy efficiency.

Manufactured in an ISO 9001-certified facility and CE marked, the Firelight Duo also meets the highest classifications for window and door standards:

- **EN 12207** – Air permeability: Class 4
- **EN 12208** – Weather resistance: Class A9
- **EN 12211** – Wind load resistance: Class C5

Performance + Specification Info

- **Thermal performance:** 100% thermally broken construction reduces condensation risk and improves energy efficiency
- **Air tightness:** Class 4 (EN 12207)
- **Weather resistance:** Class A9 (EN 12208)
- **Wind load resistance:** Class C5 (EN 12211)
- **Smoke ventilation compliance:** Certified to EN 12101-2
- **Acoustic performance:** Up to 49 dB sound insulation
- **Snow load resistance:** Up to SL 6941
- **Wind load resistance:** Up to WL 9440
- **Ventilation durability:** RE 1000 + 10,000 cycles for daily ventilation
- **Thermal insulation (U-values):** From 1.01 W/m²K depending on infill
- **Fall-through protection:** Complies with GS-BAU-18
- **Ambient temperature resistance:** Down to -15°C
- **Low-profile design:** Only 120 mm high when closed
- **Sizes available:** From 1000 × 1000 mm up to 2500 × 3000 mm, in mm increments
- Infill panel options:
 - Insulated aluminium panels
 - Transparent or opaque polycarbonate sheets (16–50 mm)
 - Double or triple insulated glass
- **Colour options:** Wide range of standard and custom RAL finishes
- **Manufacturing quality:** CE marked and produced in an ISO 9001-certified facility

Operation & Controls

The Firelight Duo is designed for flexible, reliable operation in both emergency and day-to-day ventilation scenarios. It is equipped with robust hinges that preserve the unit's form and function over time.

Opening Mechanisms

- **Double-acting pneumatic cylinders** (lock in open and closed positions)
- Electric actuators:
- **24 V DC** for standard installations
- **230 V AC** for faster opening and simplified wiring

Actuator Mounting Options:

- Attached to the **control channel**
- Mounted directly to the **rain channel** using brackets – allowing increased daylight entry due to the absence of internal lid profiles

Control Options:

- **Automatic thermal release:** Available with trigger temperatures of 68°C, 93°C, or 141°C
- **Sensor-based control:** Wind and rain sensors
- **Manual operation:** Via wall-mounted control panels or integrated systems

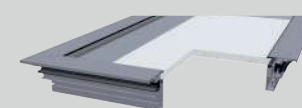
Optional Add-ons:

- **Wind baffles:** Aluminium or glazed options to improve aerodynamic performance

Flap Variants

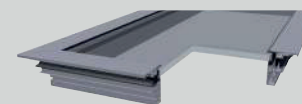
Depending on the application and the customer's requirements, the lids of a Firelight Duo can be equipped with appropriate infill panels. All commercially-available infill panels can be used with a thickness of from 16 to 50 mm. The total weight of the panel should not exceed 60 kg/m².

There are various infill panels available:



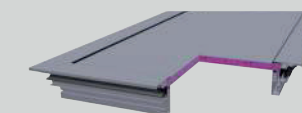
Polycarbonate

Transparent or opaque polycarbonate, 16mm or 25mm thick, or up to 50mm available on request



Glass

As standard double 32 mm thick insulating glass or customized insulating glass up to 50 mm thick. Triple insulating glass can be used without any problems.



Aluminium insulated panels

Outer skin 2 mm thick aluminium, polyurethane infill panel with a density of 30 kg/m³, thermal conductivity 0.030W/(mK), inner skin 2 mm thick aluminium. As standard 25 mm thick, available with other panel types available on request.

Controls

Control channel control
With 2 actuators

Control channel control
With 4 actuators

Bracket control

