# Natural Ventilation & Smoke Control Panels CPS-M1 S

Product Technical Statement: 114277

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Inbuilt 72-hour standby battery backup BMS interfacing, Auto close at loss of power, Certified panel

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# Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include self-assessment and technical information by manufacturer





Natural Ventilation & Smoke Control Panels confirms that this minimum level of assurance has been met or exceeded by the following:

Approval of Components and Systems - G 517002



The following information has been provided by Natural Ventilation & Smoke Control Panels demonstrating how this product complies with the <u>Building Product Information Requirements</u>.

#### **Technical Statement**

#### **Product Class**

CLASS 2

#### **Product Description**

Flexible design for implementing decentralized, central and combined systems.

- · AdComNet bus system for seamless networking of two or more CPS-M1 control panels
- Incorporated failsafe 72-hour battery backup
- Auto close on loss of power functionality to ensure that windows or louvres are never stuck open during a power failure
- BMS integration can accommodate both high level (modbus, KNX or BacNet) and low level integration with third party systems
- Tested and certified to ISO 21927-9, VdS 2581, VdS 2593, VdS 2344, DIN EN 12101-10 and EN 62368-1:2014 + A11:2017
- Exact position feedback of drives through ACB technology
- Integration of internal & external temperature, Co2, wind & rain, wind & directional sensors including FIP activation
- Configurable smoke and ventilation functions using D+H software SCS
- Control panel housing steel sheet in varies sizes
- · Control panel housing is lockable

#### Scope of use

Ventilation Type

Smoke Ventilation: Used to control smoke and heat ventilation actuator drives in the event of a fire, improving safety and reducing damage

Natural Ventilation:

Used to control actuator drives for natural airflow for daily ventilation , enhancing indoor air quality and comfort

Control Zones

Controls Varies Zones: Determine how many zones need to be controlled based on the building layout and ventilation requirements

Products to be controlled by the CPS-M1-S Control Panel

Chain Drive Actuators: Ideal for window automation, providing precise control for natural & smoke ventilation.

Linear Actuators: Suitable for automating louvres, operable windows, operable ventilators & skylights.

Locking Drives: Ensure secure closure of windows and louvres.

Weather Sensors: Monitor environmental conditions to optimise ventilation.



# masterspec partner

#### **Company Contact Details**



Brand: Natural Ventilation &

Smoke Control Panels

Company: EBSA NZ Limited

Physical Charann Place Address: Avondale

Auckland

Postal Address: PO Box 27261

Mount Roskill Auckland

Telephone: 64 09 8840025

Email: <u>sales@ebsa.co.nz</u>

Website: https://www.dh-partner.com/int/en

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Building Management Systems (BMS): Integrate and control various building systems for efficiency and comfort

#### **New Zealand Building Code (NZBC)**

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

• Clause C5 Access and safety for fire fighting operations: Performance C5.7, C5.7(b), C5.8

EN 12101-10: This standard pertains to smoke and heat control systems. Specifically, Part 10 focuses on power supplies. Compliance with EN 12101-10 ensures that control panels used in smoke and heat control systems meet the necessary safety and performance requirements.

ISO 21927-9: another standard related to smoke and heat control systems. In this case, Part 9 specifies requirements for control equipment. Compliance with ISO 21927-9 ensures that the control equipment—such as control panels—meets international standards for functionality, reliability, and safety.

• Clause F7 Warning systems: Performance F7.3.3

Battery Backup (Standby Power): Having a battery backup system with a standby power duration of 72 hours is essential. During power outages or emergencies, this backup power ensures that the smoke and heat control system remains operational. It allows for continued ventilation, smoke extraction, and fire safety measures even when the main power supply fails.

Auto Close on Loss of Power: This feature is critical for safety. When the main power supply is lost, the smoke control system will automatically close dampers, louvres, or other ventilation openings. This action prevents smoke from spreading throughout the building and helps maintain safe evacuation routes.

Line Monitoring for Field Cabling: Monitoring the field cabling is essential for fire safety. By continuously checking the integrity of cabling connections, faults or damage can be detected promptly. This monitoring ensures that the smoke and heat control system remains fully functional and reliable.

• Clause G4 Ventilation: Performance G4.3.1

Natural Ventilation: Designed to control automated 24v/dc equipment for the purpose for natural ventilation in buildings, contributing to architectural sustainability.

Integrated sensors including internal & external temperature / Co2 / Rain / Wind & Speed are all powered by the control panel, the control panel uses algorithms to provided opening positions to maximise internal and external weather conditions

#### **Notes**

C5.7 -Control panel indicates which zone is in a fire condition.

-Control panel switches provide the ability for firefighter to open or close automated windows or louvres in a fire condition.

C5.7(b) - Control panels have indication switches provided that have light indication of active fire mode or standby mode.

- Control panels are operated by onsite FIP panels to activate in fire mode.

C5.8 - Control panels provide the operation to ventilate smoke out the building and this creates a visual path for people and fire fighters to leave and access the building.

- Control panels are provided with fail safe 72-hours of standby battery backup.

F7.3.3 - Control panels when selected can be provided with audial alarms in fire condition

G4.3.1 - Control panels provide feedback from internal & external temperature and Co2 sensors to power automated windows/louvres to open or close.

#### Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

Tested and certified according to International Standards:

ISO 21927-9, VdS 2581, VdS 2593, VdS 2344, DIN EN 12101-10 and EN 62368-1:2014 + A11:2017, fulfils the building authority requirements in accordance with DIN 18232-9

EN 12101-10 Smoke and heat control systems - Part 10: Power supplies

ISO 21927-9 Smoke and heat control systems — Part 9: Specification for control equipment

#### Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



VdS

Approval of Components and Systems - G 517002

# Natural Ventilation & Smoke Control Panels CPS-M1 S

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D+H has been suppling control panels / automated chain & linear actuators into New Zealand estimated 20 years

EBSA established in New Zealand 8 years ago, EBSA is a licenced partner to distribute / commission / maintain and service all imported D+H products.

#### **Product Criteria**

### **Design requirements**

Ventilation Type

Smoke Ventilation: Used to control smoke and heat ventilation actuator drives in the event of a fire, improving safety and reducing damage

Natural Ventilation: Used to control actuator drives for natural airflow for daily ventilation, enhancing indoor air quality and comfort

Control Zones

Controls Varies Zones: Determine how many zones need to be controlled based on the building layout and ventilation requirements

Products to be controlled by the CPS-M1-S Control Panel

Chain Drive Actuators: Ideal for window automation, providing precise control for natural & smoke ventilation.

Linear Actuators: Suitable for automating louvres, operable windows, operable ventilators & skylights.

Locking Drives: Ensure secure closure of windows and louvres.

Weather Sensors: Monitor environmental conditions to optimise ventilation.

Building Management Systems (BMS): Integrate and control various building systems for efficiency and comfort.

#### Installation requirements

Installation Requirements

Do not commence installation unless all preparatory work is of the required standard.

Anchor control panel to the specified location.

Confirm if it will be top or bottom entry for field cable connections

Remove the necessary amount of cable glands at the top or bottom of the control panel to allow for the field cabling to be installed in the control panel.

A 240VAC supply is to be isolated locally at each panel and terminated inside each panel, this is to be supplied and installed by an electrical sub-contractor

#### Maintenance requirements

Ensure the batteries are functioning correctly by performing a load test.

Verify that all cables are securely connected and have not come loose.

Check that the control panel housing is secure and can be locked properly.

Conduct a thorough test of the control panel and all connected devices to ensure they are operating correctly.

#### Warrantees

3 year manufactures warranty

5 years installation warranty

## **Company Product Information**

### Environmental

Sheet steel housing, various sizes due to modular design per project bases.

Electrical components & modules

The service life of electrical control units for SHEV and ventilation systems from D+H Mechatronic AG is optionally specified at 25 years according to the manufacture.

The reference service life is for the features, which are reported in the EPD report.

Contact EBSA for EPD (Environmental Product Declaration)

#### **Quality Assurance**



ISO 9001 (Quality Management)

#### Relationships

# **Natural Ventilation & Smoke Control Panels CPS-M1 S**

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#### **Videos**

**Working Projects** 

## **Building Product Information Requirements**

#### Manufacturer

Legal Trading Name: D+H Mechatronic AG

Company Website:

https://www.dh-partner.com/int/en

**Contact Number/s:** +4940605650

#### Importer

Legal Trading Name: EBSA NZ Limited

Business Email: sales@ebsa.co.nz

Company Website:

www.ebsa.co.nz

**Contact Number/s:** +64 09-8840025

### **Product Identifier**

CPS-M1-S CPS-M1-020 / 040 / 060 / 080

### Warnings

This product has no warnings associated with it.



Date last validated: 23 January 2025



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