INSTALLATION AND MAINTENANCE

Actionpac LNS5 DCP

2026/07/31

Actionpac LNS5 Damper Control Panel

actionair
by Swegon

Contents

Preface

Disclaimers

- The information herein is subject to change without notice. Actionair by Swegon do not assume any liability arising out of the use of this product.
- Purchase of goods and services is subject to Swegon Terms and Conditions.
- If not agreed otherwise, all wiring is by others.

Warnings ⚠

- Read and understand this document before installation. Follow all the instructions.
- This product forms part of a life-safety system. Failure to correctly store, handle, install, and maintain the product will directly put at risk the lives of the occupants and the fabric of the building.
- Unauthorised modifications to Actionair by Swegon panels and devices are not allowed, and will render the warranty void.
- The responsible body shall be made aware that, if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

The panel contains electrostatic sensitive components. Please observe precautions for handling electrostatic sensitive devices.

Explanation of safety warnings

DANGER Danger indicates a hazard which, if not avoided, **will result in death or serious injury.**

WARNING Warning indicates a hazard which, if not avoided, **could result in death or serious injury**.

CAUTION Caution indicates a hazard which, if not avoided, **could result in minor or moderate injury.**

NOTICE Message not related to personal injury.

Safety Notes

- Only allow trained and qualified personnel to install, replace, or service this equipment.
- Adhere to the relevant local safety standards.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Description of the user

This document is intended for a competent user. They should have sufficient knowledge, skills, and experience to perform electrical installations safely and correctly.

Conventions used in this document

Bold: Emphasis

Abbreviations used in this document

BMS - Building Management System
C - Connector
E - Earth
FT - Lonworks
GND - Ground
L - Live
LED - Light Emitting Diode
M - Modbus
N - Neutral
S - Switch

Related Documentation

- LNS55 Damper Control Panel Product Sheet.
- Smoke Fire Damper Interface (SFDI) Installation, Operation and Maintenance.
- Actionpac LNS5 User Guide.

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Technical Information

Enclosure

Material	Mild steel
Ingress Protection (IP) Rating	IP 30
Finish	RAL 7035 structured powder coating

Sizes

Sizes	Dimensions, mm (W x H x D)	Weights, kg (approximate)
1	500x500x210	25
2	600x600x210	30
3	600x800x210	35
4	800x800x210	40
5	800x1000x300	55

Supply

Input Voltages	(230 ± 23) V AC, 50 HZ
Maximum Power Consumption	750 VA

Inputs

Contact Type	Volt-free dry contacts
Sense Current	10 mA at 12 V DC per input

Outputs

Contact Type	Volt-free dry contacts
Maximum Switched Load	1 A at 24 V AC / DC

Environmental

Operating Temperature	0-40°C
Storage Temperature	-15-45°C
Humidity	80% RH at 31°C decreasing linearly to 50% RH at 40°C
Maximum Altitude	2000 m

Conformance

Electromagnetic Compatibility (EMC)	EN 61000-6-1: 2016 EN 55011: 2009 + A1: 2010 EN 61000-3-2: 2014 EN 61000-3-3: 2013
Low Voltage Directive (LVD)	EN 61010-1: 2010 + Corr 1

Maintenance

Mains Terminal Fuse Replacement	2 A T 250 VAC
Output Terminal Fuse Replacement	1 A T 250 VAC
Suggested Replacement	Bussmann S504 series

Indoor Use Only

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Storing the Control Panel

- To properly store a control panel, you must protect it from dust, dirt, and physical damage. Place it in a dry and secure location, away from environmental hazards, and within a protective box or a cabinet.
- Ensure that the control panel is accessible only to authorised personnel to maintain system integrity and security.
- Place the panel into a naturally vented area that is considered fire safe and free from high levels of shock and vibration.
- Do not allow the temperature in this area to reach or exceed the maximum operating temperature of the panel (40°C).

The panel contains electrostatic sensitive components. Please observe precautions for handling electrostatic sensitive devices.

Handling

Risk of injury due to heavy load.

Please apply the appropriate manual handling procedures when handling the control panel.

Control Panel Sizes	Control Panel Dimensions, mm (W x H x D)	Control Panel Weights, kg (approximate)
1	500x500x210	25
2	600x600x210	30
3	600x800x210	35
4	800x800x210	40
5	800x1000x300	55

Table 1. Control Panel Sizes, Dimensions, and Weights.

Uninterruptible Power Supply (UPS) battery

To facilitate the installation before the power is turned on, the UPS battery in the control panel is supplied with the fuses removed.

The battery leaves the production fully charged.

If the control panel is to be kept in storage for more than four months, apply the power to the control panel to maintain the battery's charge.

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Mounting the Damper Control Panel

Location

- Place the control panel into a naturally vented area that is considered fire safe and free from high levels of shock and vibration.
- Do not allow the temperature in this area to reach or exceed the maximum operating temperature of the panel (40 °C).

Before attempting to mount the panel

> **⚠ WARNING** Risk of injury due to heavy load.

- Be aware of the control panel dimensions and weights. Observe all health and safety procedures when handling the control panel. See *Table 2* below.
- Ensure unrestricted access to the control panel, and its internal components and connections.
- Place the control panel at the height where the centre of the PC is just above normal eye level (approximately 1.5 m).

Mounting the damper control panel

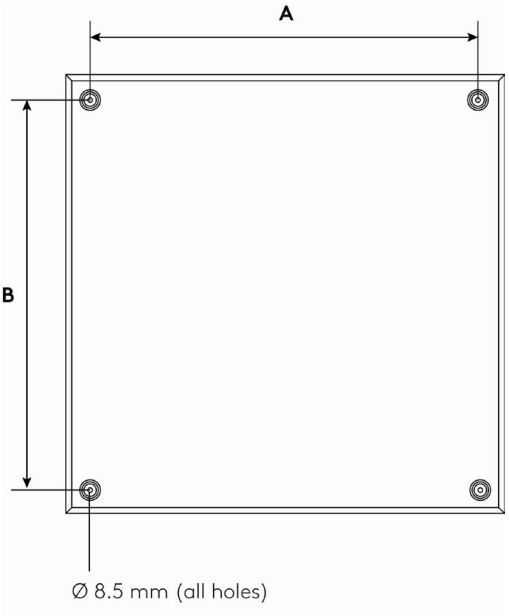

Figure 1. Mounting Diagram.

- Drill four holes as per *Figure 1* and *Table 2*.
- Use appropriate screws and fittings for the material of your wall.
- Ensure the control panel is level and properly aligned.
- Only use the mounting brackets provided.
- Flush mount brackets are available on request.

Control Panel Sizes	Control Panel Dimensions, mm (W x H x D)	Control Panel Weights, kg (approx.)	Distances between Holes, mm	
			A	B
1	500x500x210	25	460	460
2	600x600x210	30	560	560
3	600x800x210	35	560	760
4	800x800x210	40	760	760
5	800x1000x300	55	760	960

Table 2. Control Panel Sizes, Dimensions, Weights, and Distances between Holes.

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Installation

Precautions

- Only allow trained and qualified personnel to install the control panel.
- Adhere to the relevant local safety standards.
- The mains wiring should comply with **IEC 60227** or I**EC 60245.**
- You **must** earth the control panel.

DANGER	Danger of electric shock if the control panel is not earthed.

Fused spur and circuit braker

- Include a fused spur and a circuit breaker as part of the installation. They must both meet the relevant requirements of **IEC 60947-1** and **IEC 60947-3**.
- Place the fused spur and the circuit breaker near the control panel and within easy reach of the operator.
- Mark the fused spur and the circuit breaker as the disconnecting device for the equipment.

Installation

1. Disconnect the local supply.
2. Wire the mains supply feed. *See Figure 2*.
3. Secure the mains cable using a cable gland.
4. Wire the incoming mains cable: live (brown) and neutral (blue) wires to the main terminal. *See Figure 3.*

NOTE:

Maximum incoming mains cable size is 4 mm^2.

5. Connect the incoming earth (green and yellow) wire to the protected stud or earth bar. *See Figure 3.*

NOTE:

Fit the mains cable in such a manner that the earth wire should be the last to disconnect if subjected to strain.

6. Tie wrap the mains wires to prevent slippage.
7. Apply power to the control panel.
8. Ensure the gland plate is put back into place.
9. Lock the panel.

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Wiring diagrams

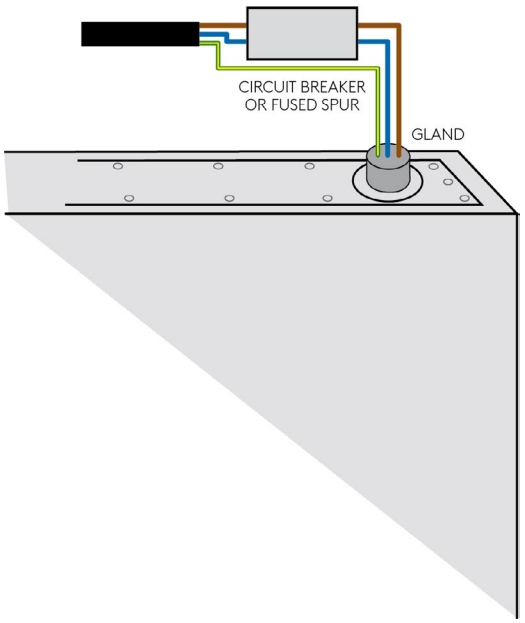

Figure 2. Mains Supply Feed.

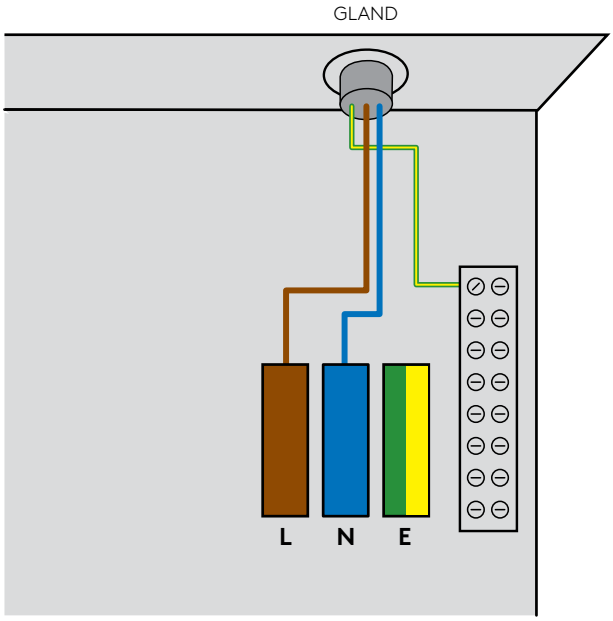

Figure 3. Incoming Mains Cable.

WARNING	Keep the control panel closed to ensure no wires are exposed that could cause electrical shock.
NOTICE	Keep the control panel closed to prevent the internal mechanisms from being exposed to dust, dirt, and moisture.

Wiring Inside the Damper Control Panel

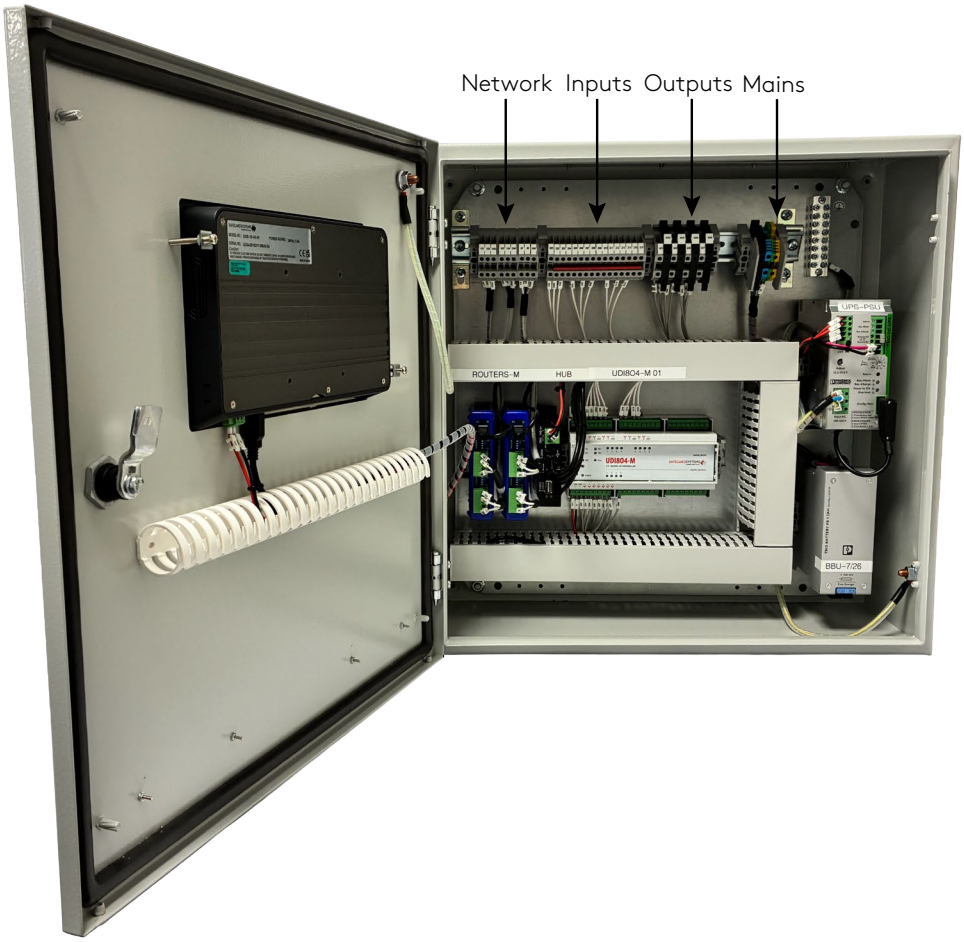

Figure 4. Wiring Inside the Control Panel

Network

The network terminals are numbered 101, 102, GND, 103, 104, GND, etc.

Wire the first network as shown in *Figure 5* and repeat for subsequent networks.

NOTE:

See **SFDI IO&M** for network cable rules and cable recommendations.

Panel network wiring

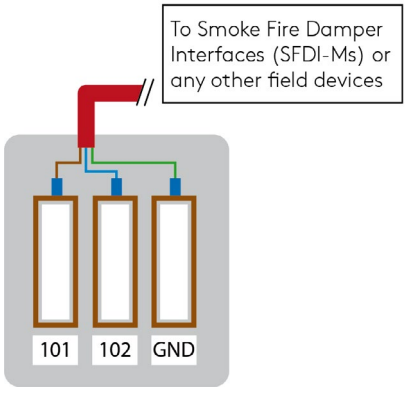

Figure 5. Panel Network Wiring

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Inputs

The input terminals are numbered 201, 202, 203, etc. Every input consists of two terminals:

Input	Terminal Number
1	201, 202
2	203, 204
Etc.	

Table 3. Inputs and Terminal Numbers.

Wire the first input as shown in *Figure 6* and repeat for subsequent inputs.

Use input cable diameter 0.5 - 2.5 mm^2.

Limit cable runs to 100 m.

Avoid running input cables near sources of mains, or noisy environments.

Input wiring

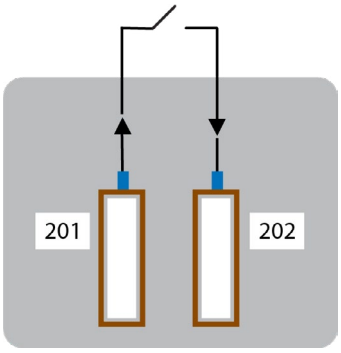

Figure 6. Input Wiring

Outputs

The relay output terminals are numbered 401, 402, 403, etc. Every output consists of two terminals:

Output	Feed (Fused) Terminal Numbers	Return (Non- Fused) Terminal Numbers
1	402	401
2	404	403
Etc.		

Table 4. Outputs and Terminal Numbers.

Wire the first output as shown in *Figure 7* and repeat for subsequent outputs.

Regard fused terminals as the input terminals from the switched equipment, and the non-fused terminals as the output terminals from the switched equipment.

Tie wrap the two terminal wires from each output together to prevent slippage.

NOTE:

The maximum switched load is 1 A at 24 V AC / DC.

Output wiring

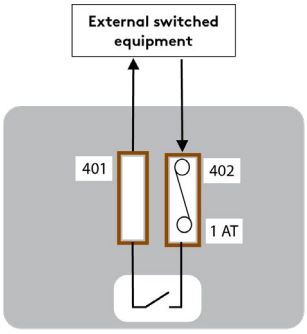

Figure 7. Output Wiring

Output protection

A standard 1 AT fuse is used to protect each output. It must only be used to switch up to 24 V AC / DC.

The user may have to modify the value of this fuse to suit their requirements.

NOTE:

The user is responsible for the replacement policies of any fuses whose value deviates from the standard 1 AT fuse supplied.

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Typical Network Schematic with SFDI-M Wiring Detail

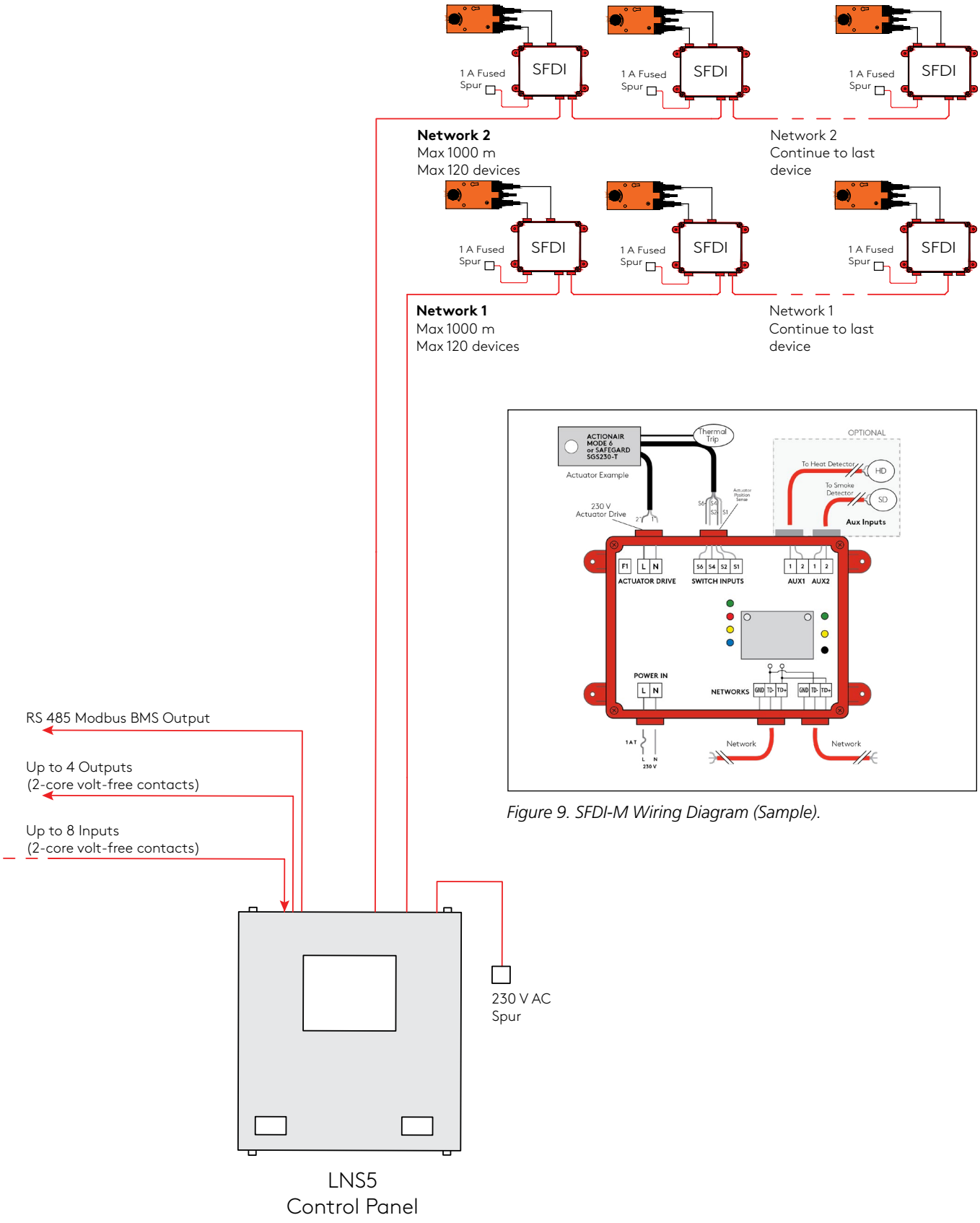

Figure 8. Typical Network Schematic.

Figure 9. SFDI-M Wiring Diagram (Sample).

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