

Actionpac LNS5

Bespoke Intelligent Damper Control and Monitoring System



QUICK FACTS

- Powerful and very flexible functionality accommodates any last minute changes to strategy, zones, damper quantities, references and descriptions, and enables standardisation of software (no bespoke site specific versions required).
- Dedicated damper control panel for control, testing, and monitoring of fire dampers and smoke dampers.
- Optional networking of panels to a central control and monitoring panel.
- Designed to work with all Actionpac life safety dampers.
- An open and interoperable protocol ensures future compatibility and lowers life-cycle maintenance costs.
- Allows for phased commissioning.
- Can cater for environmental occupancy (energy saving) as well as the building's smoke/fire strategy.

ACTIONPAC LNS5

Actionpac LNS5 is an addressable passive fire protection system for managing fire and smoke control dampers within HVAC (Heating, Ventilation, and Air Conditioning) systems. The system supports complex cause-and-effect scenarios, such as customised zone containment, pressurisation, and smoke extraction.

The user-friendly system provides an advanced tool that simplifies installation and commissioning of dampers and peripheral devices. Its server architecture delivers benefits such as reduced commissioning time, simplified operation and scope for future growth, and complete flexibility.

The embedded computer incorporates solid-state technology for maximum reliability.

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System Components

Actionpac LNS5 Damper Control Panel



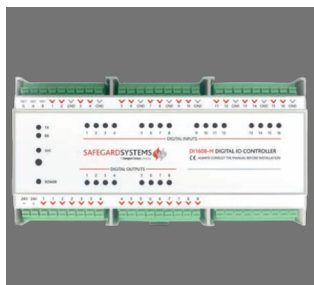
The Actionpac LNS5 system consists of either a 10 or 15 inch embedded computer depending on the panel size, the uninterruptible power supply (UPS), and preloaded software. The system communicates with damper interfaces to provide intelligent control and monitoring of motorised dampers and monitoring of manual fire dampers. The data network cabling enables substantial reduction in costs when compared with conventional systems. Digital input/output devices can be accommodated on the network cable or located within the panel enclosure.

The embedded panel computer is supplied with Actionpac LNS5 software and operates on an embedded platform, which is extremely user-friendly.

The server architecture delivers benefits such as flexibility, reduced commissioning time, ease of configuration, simplified operation, future system growth, full diagnostics for system and device integration along with optional automatic scheduled damper testing.

For further information, please refer to Actionpac LNS5 Damper Control Panel Product Sheet.

Digital Input / Output Device



This device accepts 8 to 16 volt-free contact inputs into the Actionpac LNS5 system. Typical inputs would be from fire alarm panels, firefighter's override switches, manual call points, and smoke detectors.

This device also provides 4 to 8 relay outputs to be driven from the Actionpac LNS5 system. Typical outputs would be to fans and BMS systems.

Complex strategy (cause-and-effect) lists, including priorities, can be driven from this input/output device, which is located within the embedded panel PC enclosure. Other input/output devices are available for panel or field location.

For further information, please refer to Actionpac LNS 5 DIO Product Sheet.

Damper Interface



Actionpac Damper Interface is a communication device that controls and/or monitors spring return, drive-open/drive-closed, and modulating damper actuators. It is required for each fire or smoke damper used with the Actionair LNS5 system.

A series of LED indicators provides instant feedback on the relevant functions of the device, including position, fault and the online/offline state.

Actionpac Damper Interface is available as Modbus (M) or LonWorks (FT) communication protocol.

While two-position dampers (SFDI-M/FT, FDI-M/FT, SDI-M/FT) are controlled or monitored centrally through the damper control system, the modulating dampers (3P-SFDI-M/FT) can in addition be balanced from the interface itself or by the Building Management System (BMS).

For further information, please refer to Actionpac LNS5 SFDI Product Sheet.

HOT Damper Interface Enclosure



The High Operating Temperature (HOT) Damper Interface Enclosure offers protection of the various interfaces to control and monitor FSD Smoke Control dampers up to 400°C for 30 minutes.

The enclosure consists of two separate materials. The outer casing has endothermic properties that significantly slow down the internal temperature rise in a high temperature emergency condition. The inner casing is a special thermal insulating material.

For further information, please refer to Actionpac LNS5 HDI Product Sheet.

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Typical Network Schematic with SFDI-M Wiring Detail

Networked devices are wired in a simple daisy-chain (in and out). No cable stubs permitted.

Recommended Cables

- Prysmian (Pirelli) FP200 Gold, 2 Core + Earth, 1.5mm²
- Prysmian (Pirelli) FP Plus, 2 Core + Earth, 1.5mm²
- Firetuf FT30, 2 Core + Earth, 1.5mm²
- Firetuf FT120, 2 Core + Earth, 1.5mm²
- AEI Firetech Enhanced, 2 Core + Earth, 1.5mm²

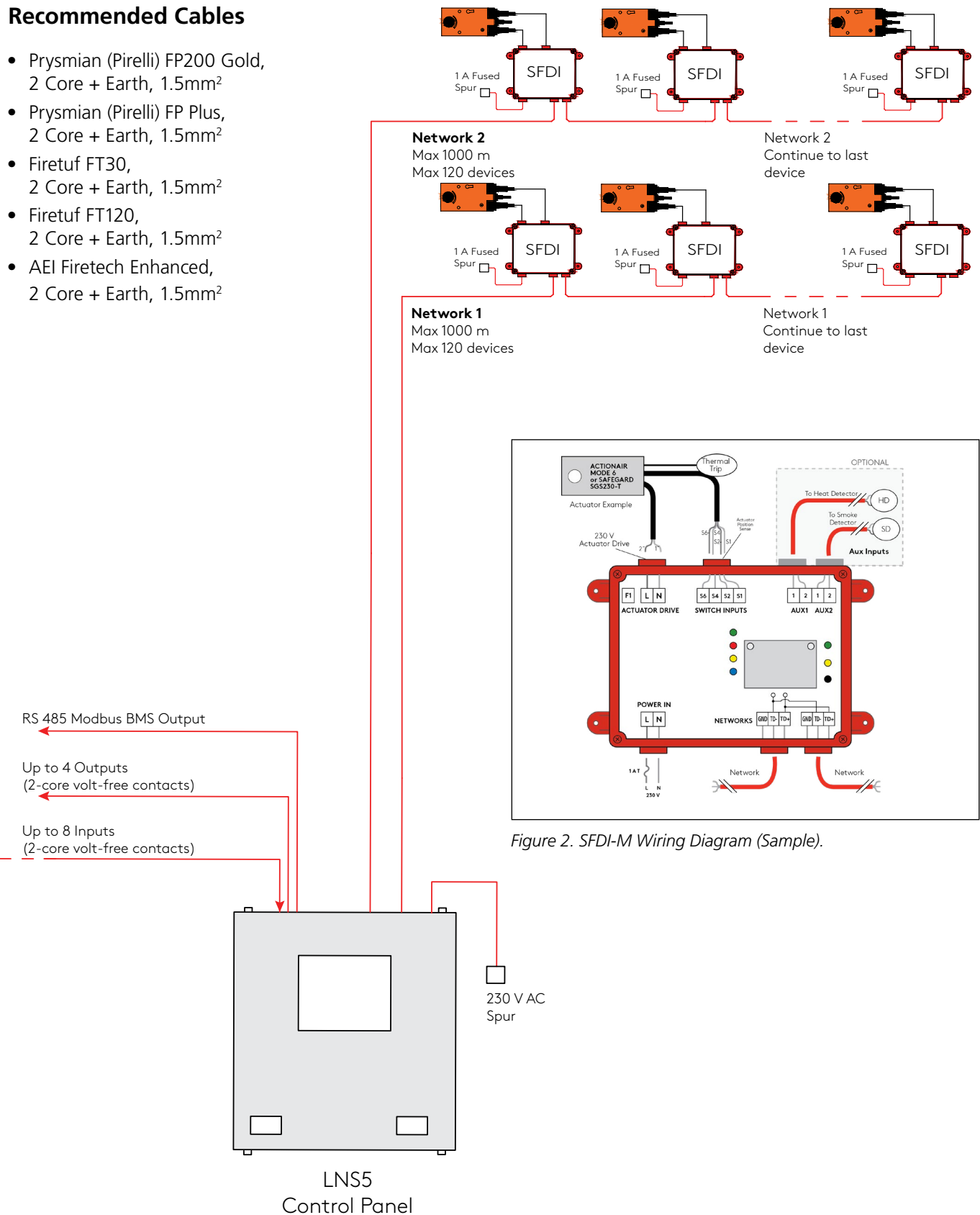


Figure 2. SFDI-M Wiring Diagram (Sample).

Figure 1. Typical Network Schematic.

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Why Work with Actionair by Swegon?

Cause-and-Effect Assistance

Our team are experienced in working with both consultants and contractors, and can give you key guidance as to the elements you should consider when developing your cause-and-effect strategy.

Typically, complex systems will involve:

- Fan control.
- Linking to the BMS.
- Firefighter override panels.
- Multi-position smoke dampers.
- High operating temperature smoke extract.
- Automatic zonal control.

We can advise how best to incorporate firefighter override panels and how they can be linked to the smoke extract fans in the affected zones of the building.

System Commissioning

Actionair by Swegon provide a comprehensive after sales service to include pre-commissioning checks and a complete commissioning service for all our products.

Our standard commissioning service includes the following:

- Attendance at all necessary induction courses and site familiarisation.
- Final connections of outputs to system from fire alarms, override switches, BMS, etc.
- Final connections of each damper interface unit (electrical contractor to have ensured all necessary cables are entered into enclosure glands).
- Establishing communication to each damper interface unit.
- Confirmation of damper movement to check operation.
- Configuring of the relevant cause-and-effect.
- Demonstration / witnessing of 10% of dampers installed (full witnessing available by special request).
- Client training on the system.
- Customer service.

Actionair by Swegon provide quality products backed by a dedicated team committed to providing the very best in customer service.

We offer experienced technical backup, comprehensive sales, administrative customer support, and product commissioning.

Maintenance Plans

Actionair by Swegon preventative maintenance plans have been developed to meet our customers' specific needs. Our service engineers will ensure your system is kept in full working order. They will:

- Analyse communications.
- Check UPS and system logs to ensure no outstanding actions.
- Replace the UPS battery every three years.
- Check whether staff have experienced any problems.
- Operate all smoke or fire dampers (where permitted).
- Repair defective items during visit (if possible).
- Simulate all system inputs, and confirm and check outputs (where permitted).
- Do any software upgrades.
- Provide support from our in-house engineers via telephone, email, or interactive collaboration apps.
- Update training (if required).
- Provide warranty for additional equipment fitted.

Actionair by Swegon

Maintenance and Service Division



Disclaimers

- The information herein is subject to change without notice. Safegard Systems Ltd 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

- 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.
- 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.
- Unauthorised modifications to Safegard panels and devices are not allowed, and will render the warranty void.

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.

Related Documentation

- Actionpac LNS5 User Guide.
- Actionpac LNS5 Damper Control Panel Installation and Maintenance.
- Smoke Fire Damper Interface (SFDI) Installation and Maintenance.

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