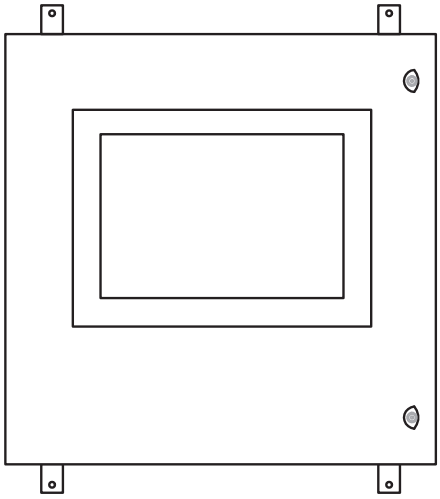


ACTIONPAC LNS5 & SAFEGARD V5

Panel Installation Datasheet

ELECTROSTATIC SENSITIVE DEVICE

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.

ALWAYS READ THIS DOCUMENT BEFORE INSTALLATION. PLEASE RETAIN FOR FUTURE REFERENCE.

Mounting

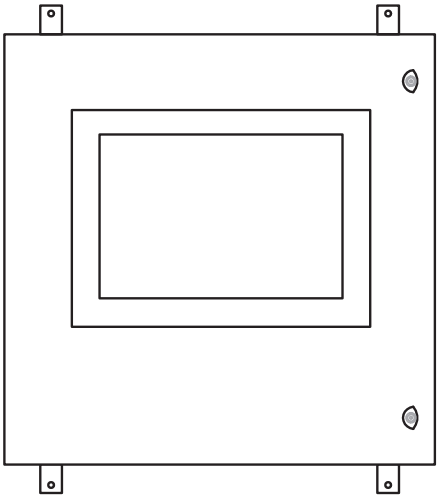
- Only use the mounting brackets provided.
- The height of the unit above the floor level should be chosen so that the centre of the PC is just above normal eye level (approximately 1.5 m).
- The unit should be placed in a naturally vented area and this area should be considered fire safe and free from high levels of shock and vibration.
- Conditions should not arise which may allow the temperature in this area to reach or exceed the operating temperature of the unit.
- Do not locate the unit where access to its internal components and connections are restricted.
- Flush mounted panel option available.

WARNING: Observe all health and safety procedures when lifting or moving this equipment.

Preparation

- Only trained and qualified personnel should be allowed to install, replace or service this equipment. Installation should be in accordance with the relevant local safety standards.
- The mains wiring should comply with IEC 60227 or IEC 60245.
- A fused spur or circuit breaker should be included as part of the installation.
- The fused spur or circuit breaker should meet the relevant requirements of IEC 60947-1 and IEC 60947-3.
- The fused spur or circuit breaker should be in close proximity to the equipment and be within easy reach of the operator.
- The fused spur should be marked as the disconnecting device for the equipment.
- The fused spur or circuit breaker should not interrupt the protected earth conductor.
- This equipment MUST be earthed.

Mounting Diagram



Panel sizes & weights

There are 5 typical panel sizes, as below;

	W x H x D (mm)	Approx weight	Handling
Size 1:	500 x 500 x 210	25 kg	Two people
Size 2:	600 x 600 x 210	30 kg	Two people
Size 3:	600 x 800 x 210	35 kg	Three people
Size 4:	800 x 800 x 210	40 kg	Three people
Size 5:	800 x 1000 x 300	55 kg	Forktruck

Wire mains supply feed in right hand side of top gland plate

UPS Batteries

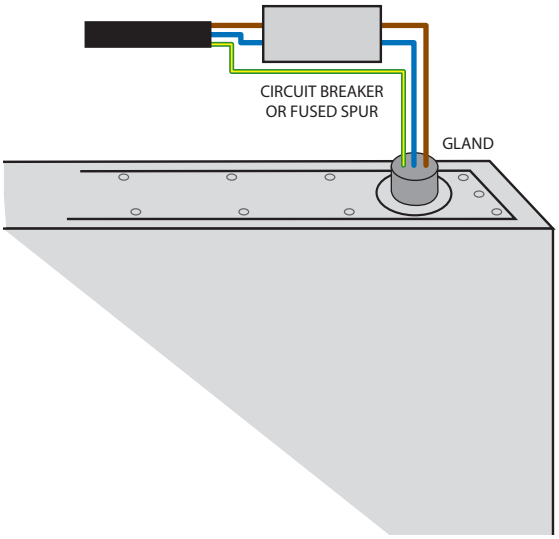
Control panels fitted with a Phoenix Contact battery are supplied with battery fuses removed and cable tied to the battery for installation prior to power being turned on. These batteries leave Safegard fully charged.

Should the panel be placed in storage for more than 4 months, it is recommended that the power be applied to the panel to allow the battery charge to be maintained.

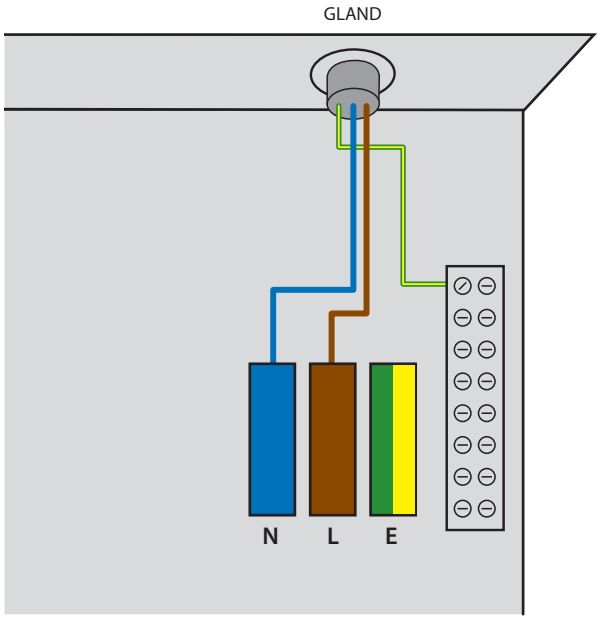
Installation

1. Disconnect the local supply before commencing any work on this equipment.
2. Wire the mains supply feed in accordance with wiring diagram 1. When complete, secure the mains cable using a cable gland.
3. Wire the incoming mains cable in accordance with wiring diagram 2. Max incoming power cable is 4mm^2.
4. Wire the incoming live (brown) and neutral (blue) wires to the mains terminal.
5. Connect the incoming earth (green and yellow) wire to the protected stud / earth bar.
6. The mains cable should be fitted in such a manner that, should the cable be subject to strain, the earth wire would be the last wire to break loose.
7. Finally, the mains wires should be tie wrapped to prevent slippage. Once wiring is complete, apply power to the equipment.

Wiring Diagram 1 (Mains supply feed)



Wiring Diagram 2 (Incoming mains cable)



Inputs

- The input terminals are numbered 201, 202, 203, etc.
- Wire the first input as shown across and repeat for subsequent inputs.
- The input cable diameter should be 0.5mm² to 2.5mm² max.
- Limit cable runs to 100m and avoid running input cables near sources of mains or noisy environments.

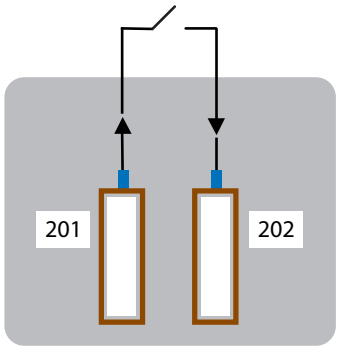
Outputs

- The relay output terminals are numbered 401, 402, 403, etc.
- Wire the first output as shown across and repeat for subsequent outputs.
- It is the user's responsibility to ensure the switched equipment is adequately protected.
- As a precautionary measure, a standard 1AT fuse is used to protect each output which must only be used to switch up to 24v AC/DC. The value of this fuse may have to be modified in accordance with the user's requirements. The user is responsible for the replacement policies of any fuses whose value deviates from the standard 1 AT fuse supplied.
- The non-fused terminals 401, 403, 405, etc. should be regarded as the output terminals to the switched equipment.
- The fused terminals 402, 404, 406, etc. should be regarded as the input terminals from the switched equipment. The two terminal wires from each output should be tie wrapped together to prevent slippage.

Maintenance

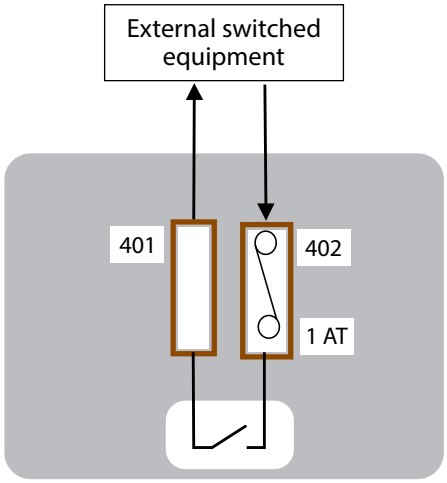
Mains terminal fuse replacements:
2A T 250 VAC
Output terminal fuse replacement: 1A T 250 VAC
Suggested replacement: Bussman S504 series.

Input Wiring



INPUT	TERMINAL NUMBER
INPUT 1	201, 202
INPUT 2	203, 204
ETC.	

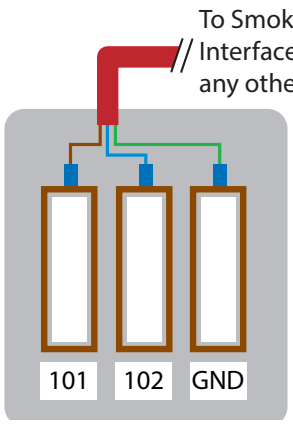
Output Wiring



OUTPUT	FEED (FUSED) TERMINAL	RETURN TERMINAL
Output 1	402	401
Output 2	404	403
ETC.		

NB. Maximum switched load 1A at 24V AC/DC.

Panel Network Wiring



NETWORK	TERMINAL NUMBER
NETWORK 1	101, 102, GND
NETWORK 2	103, 104, GND
ETC.	

The network terminals are numbered 101, 102, GND, 103, 104, GND, etc. Wire the first network as shown and repeat for subsequent networks.

Warning:

This is a life safety smoke/fire damper control & monitoring system and the network cables are fundamental to the stable and reliable operation of the system.

Network Cable Rules:

1. Network cable size or manufacturer should NOT be mixed on a cable segment. If extended a network cable it should be of the same type as the original cable.
2. All devices to be wired in a "daisy chain" radial circuit.
3. Standard network rules apply i.e. network cables must NOT be run alongside any mains voltage and/or high frequency sources. If SFDI-M's are wired in areas of high voltage such as plant rooms/lift lobbies, network cable must be installed in dedicated conduit.
4. Maximum TOTAL wire length for cable segment = 1000M.
5. Maximum number of SFDI-M on a network channel is 120.
6. SFDI-M 's on a life safety system should be wired on a dedicated power supply.

Network Cable Spec Recommendation:

Cable Options:

Prysmian (Pirelli) FP200 Gold, 2 Core +GND, 1.5mm^2

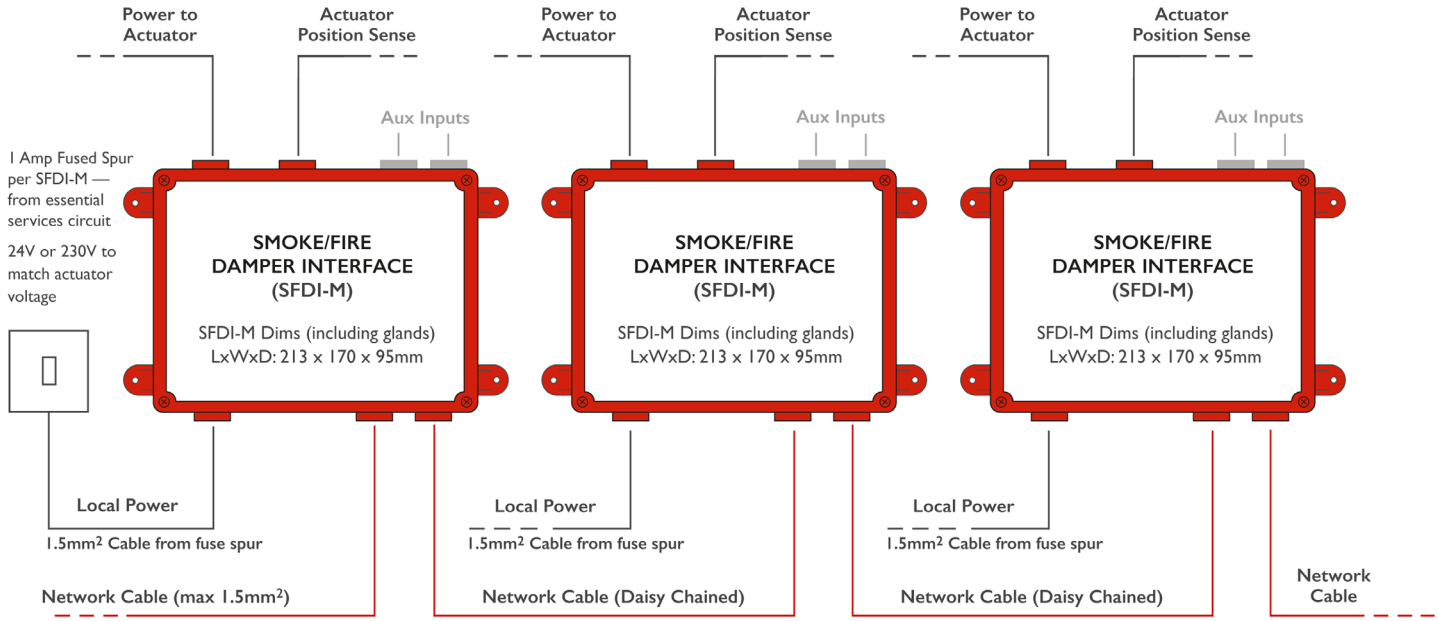
Prysmian (Pirelli) FP Plus, 2 Core +GND, 1.5mm^2

Firetuf FT30, 2 Core +GND, 1.5mm^2

Firetuf FT120, 2 Core +GND, 1.5mm^2

Consult SGS if adding to an existing system or for non fire resistant cable options.

Field Network Wiring



Specification

Supply

Input voltage	(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	SPCO mechanical relay contacts
Maximum switched load	1A at 24 V AC/DC

Environmental

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

Conformance

EMC	EN 55011: 2009+A1:2010 EN 61000-6-6: 2016 EN 61000-3-2: 2014 EN 61000-3-3: 2013
LVD	EN 61010-1: 2010 + Corr 1

CE Complies with European standards

WARNING: 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 information herein is subject to change without notice. We do not assume any liability arising out of the use of this product. Purchase of goods and services is subject to Safegard Systems standard terms and conditions.

Actionair and Safegard are brand names of Swegon Air Management and Safegard Systems respectively and both companies are part of the Swegon Group.

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