



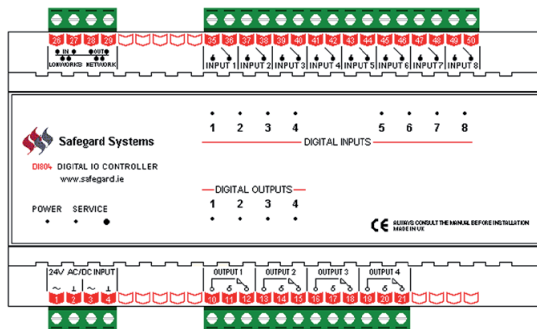
Safeguard Systems

THE DAMPER SPECIALIST COMPANY



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

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 Safeguard DI804 module is a LonWorks® device that provides eight digital inputs and four relay outputs.

This module is normally used to interface to local AHUs etc.

Installation Instructions and Datasheet

DI804 Digital Input Output Interface



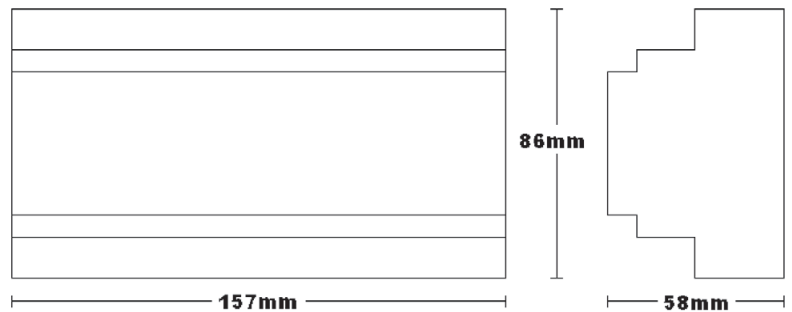
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Dimensions and Mounting

The compact and robust design of the DI804 enclosure allows the unit to be mounted to a duct, block wall or stud wall using 35mm DIN-rail.

Ensure the DI804 is accessible for future maintenance purposes.



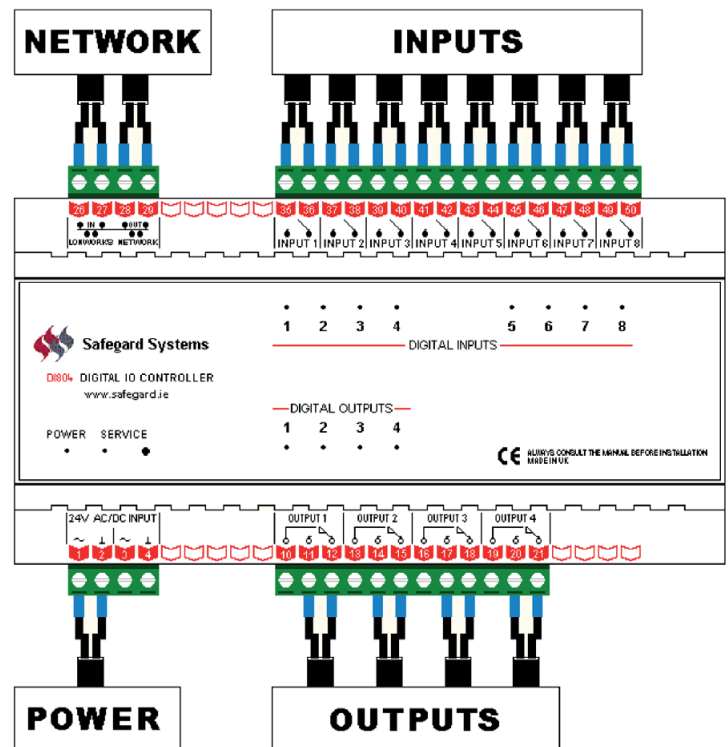
Preparation

- 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 connectors can accommodate cable diameters up to 2.5mm². It is recommended that all wires be crimped to ease installation and replacement of the product.

Installation

1. Disconnect the local supply before commencing any work on the DI804.
2. Wire the DI804 in accordance with the wiring diagram shown across.
3. It is recommended that the network cables are not run alongside any high voltage or high frequency sources. Also, network cables must not be mixed on an individual network as they have very different electrical characteristics and could render the system unreliable.
4. Once wiring is complete, apply power to the DI804. The green power LED should illuminate to indicate the presence of power.
5. The DI804 is now ready to be configured using a standard LonWorks tool such as LonMaker or the Safeguard system.

Wiring Diagram



LED Behaviour

Wink function: Service LED flashes for 5s.

Active inputs and outputs (failsafe) are indicated by their respective LEDs.



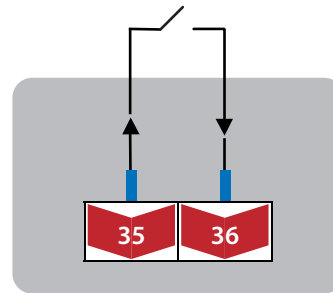
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Inputs

- The volt free input connectors are numbered 35 - 50.
- Wire the first input as shown across and repeat for subsequent inputs.
- Please note that the input channels are not optically isolated and are independent of one another; therefore, use of a common ground between inputs should be avoided.
- The input cable diameter should be 1mm² or 1.5mm²
- Limit cable runs to 100m and avoid running input cables near sources of mains or noisy environments.

Input Wiring

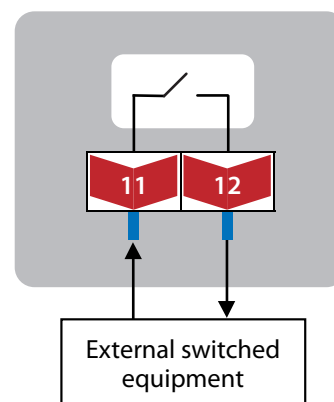


INPUT	CONNECTOR NUMBER
INPUT 1	35, 36
INPUT 2	37, 38
INPUT 3	39, 40
INPUT 4	41, 42
INPUT 5	43, 44
INPUT 6	45, 46
INPUT 7	47, 48
INPUT 8	49, 50

Outputs

- The relay output connectors are numbered 10 - 21.
- 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.
- The two terminal wires from each output should be tie wrapped together to prevent slippage when switching mains equipment.

Output Wiring



OUTPUT	CONNECTOR NUMBER
OUTPUT 1	11, 12
OUTPUT 2	14, 15
OUTPUT 3	17, 18
OUTPUT 4	20, 21



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Specification

LonWorks

Neuron chip	FT 3150 V13, 10 MHz
Transceiver type	TP/FT-10
Service functions	Service pin, service LED and neuron ID self-adhesive tag

Supply

Input voltage	(24 ± 2.4) V AC, 50 Hz (24 ± 2.4) V DC
Maximum power consumption	10 W

Inputs

Contact type	Non-isolated dry contacts
Sense current	15 mA at 12 V DC

Outputs

Contact type	SPCO mechanical relay contacts
Maximum switched load	3 A at 230 V AC 3 A at 30 V DC

Environmental

Operating temperature	-5 °C to 70 °C
Storage temperature	-20 °C to 70 °C
Humidity	25 % RH to 90 % RH at 70 °C
Maximum altitude	2000 m

Conformance

EMC	EN 55022 EN 61000-6-3
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Enclosure

Material	Lexan 940 and Noryl V0-1550
IP rating	IP 20
Flammability	UL 94V-0
Pollution	Category 2
Dimensions	157 mm x 86 mm x 58 mm (L x W x D)

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.

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