actionair SAFEGARDSYSTEMS

Modbus Damper Interface Catalogue

Two Position Smoke Fire Damper Interface

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SFDI-M / FDI-M / SDI-M
230V / 120V / 24V

CE

THE USER GUIDE & DATA
SHEET MUST BE READ
BEFORE INSTALLATION
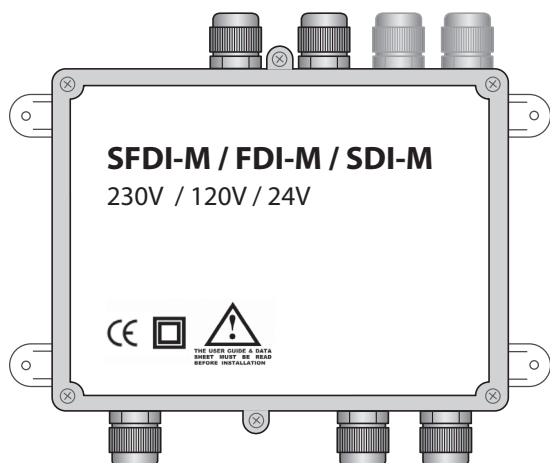
Two Position Damper Interface

The Actionair Damper Interface provides a complete Modbus communication device to control dampers.

ELECTROSTATIC SENSITIVE DEVICE

TWO POSITION SMOKE FIRE DAMPER INTERFACE OPTIONS:

SFDI-M

The Actionair **Smoke Fire Damper Interface** provides a complete Modbus communication device to control any failsafe spring-return smoke fire damper actuator that incorporates two auxiliary switches.
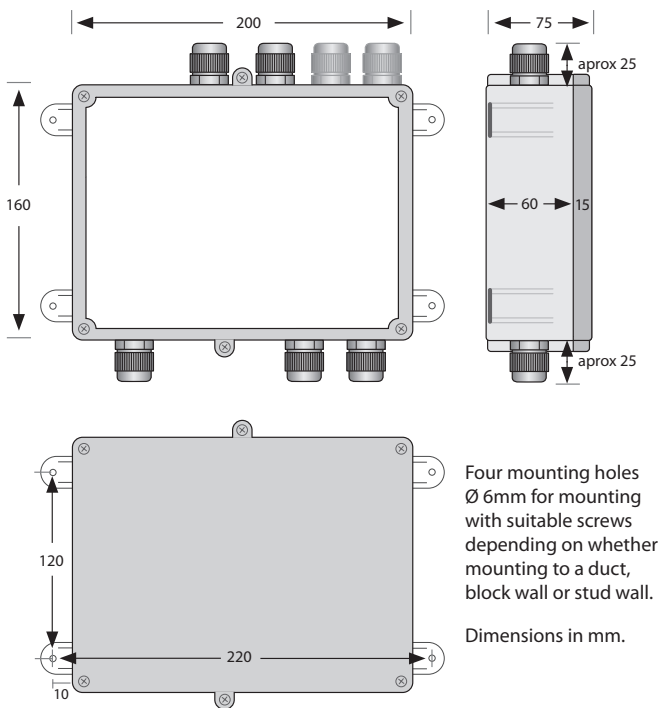
FDI-M

The Actionair **Fire Damper Interface** provides a complete Modbus communication device to failsafe, via an electromagnet, any spring-return fire damper. Monitoring of the open and/or closed position is optional.

SDI-M

The Actionair **Smoke Damper Interface** provides a complete Modbus communication device to control any open/closed smoke damper actuator that incorporates two auxiliary switches.

Please note: Each interface is available in 24V, 120V, or 230V. Please specify a voltage at time of order.

Mounting Diagram

Four mounting holes Ø 6mm for mounting with suitable screws depending on whether mounting to a duct, block wall or stud wall.

Dimensions in mm.

Dimensions and Mounting

The compact and robust design of the interface enclosure allows the unit to be mounted to a duct, block wall or stud wall.

Ensure the Interface is located close enough to the actuator/damper it is controlling/monitoring. Normally, actuator/electromagnet leads are 1m in length. Also, ensure the Interface is accessible for future maintenance purposes.

Please note:

- 150mm clearance required for lid removal and at cable entry points.

- Unused cable entries should be sealed with blind washers.

- Do not drill the enclosure as this will affect its IP rating.

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 2.5mm^2. It is recommended that all wires be crimped to ease installation and replacement of the product.

- The mains wiring should comply with IEC 60227 or IEC 60245.

- A switch or circuit breaker should be included as part of the installation.

- The switch or circuit breaker should meet the relevant requirements of IEC 60947-1 and IEC 60947-3.

- The switch or circuit breaker should be in close proximity to the equipment and be within easy reach of the operator.

- The switch or circuit breaker should be marked as the disconnecting device for the equipment and should disconnect both poles of the supply

Installation

1. Disconnect the local supply before commencing any work on the Interface.

2. Wire the interface in accordance with the wiring diagrams shown following. If the actuator is to be located more than 5m from the Interface then contact Safegard Systems for technical assistance.

3. Please be aware that the switch and auxiliary inputs are not optically isolated. It is recommended that the optional detectors (smoke or heat) use failsafe open contacts to guarantee their detection in the event of a fault condition.

   It is also 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. If FDI-M, the electromagnet failsafe realease is optional. If used, the electromagnet must be protected by a suitable snubber device.

5. If FDI-M, the monitoring of the damper positions is optional.

6. Once wiring is complete, apply power to the DI-M. The green power LED should illuminate to indicate the presence of power.

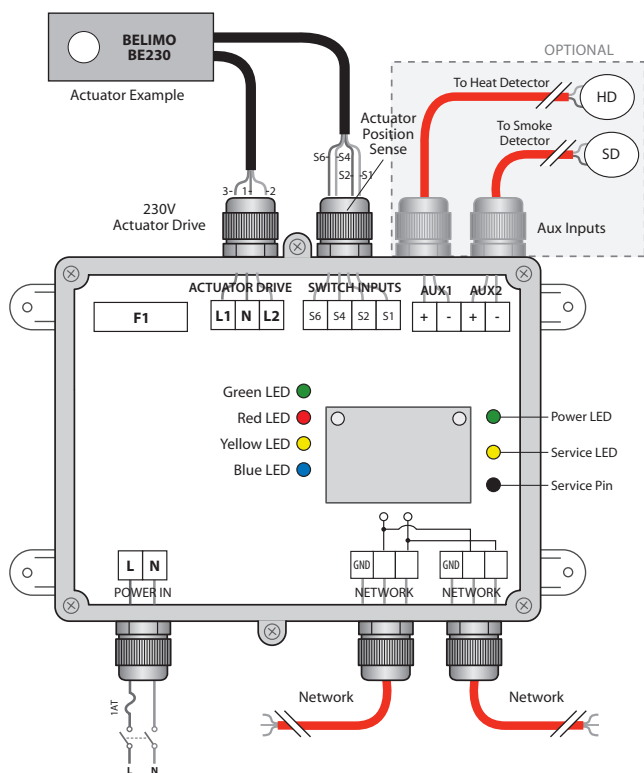7. The Interface is now ready to be configured using a standard Modbus tool or the Safegard system.
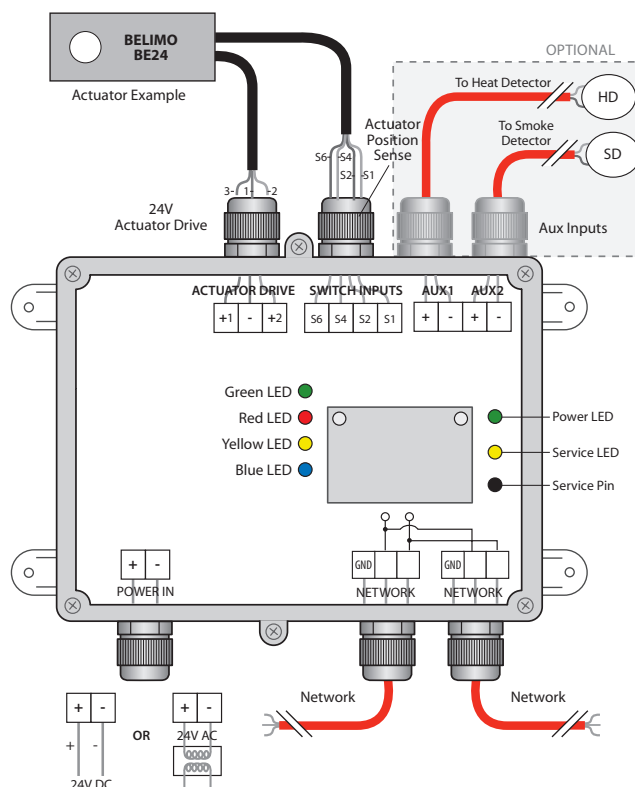
SFDI-M Wiring: 230V & 120V

SFDI-M Wiring: 24V

FDI-M Wiring: 230V & 120V
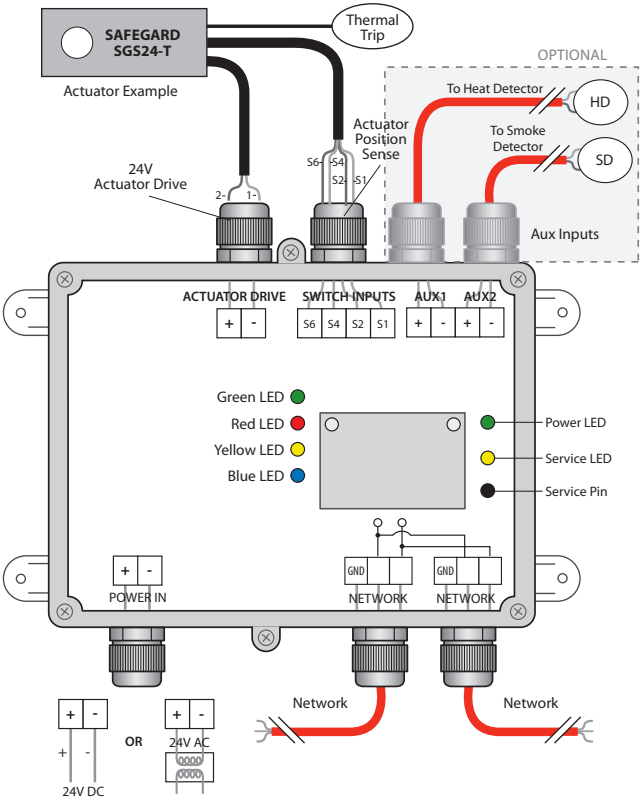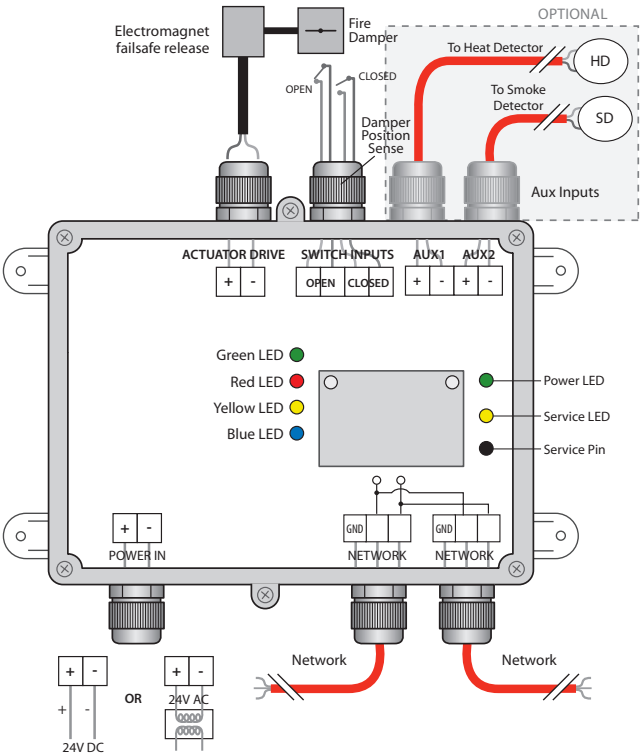
FDI-M Wiring: 24V

SDI-M Wiring: 230V & 120V

SDI-M Wiring: 24V

Maintenance

24V AC/DC version

5 x 20mm, Time-Lag Fuse, 2A rated (see F1 on wiring diagrams); for example Littlefuse 215 series

120/230VAC versions

5 x 20mm, Time-Lag Fuse, 1A rated (see F1 on wiring diagrams); for example Littlefuse 215 series

LED Behaviour

FUNCTION	GREEN	RED	YELLOW	BLUE
Open	On	Off		
Closed	Off	On		
Travelling	Flashing	Flashing		
Fault			Flashing	
Ping				One-shot
Offline	On	On	On	On

Wink function: Service LED flashes for 5s

Two Position Smoke Fire Damper Interface Specifications

Modbus

Chip	Arm Cortex-M3
Service functions	Service pin and service LED

Supply
(please specify at time of order)

Input voltages	(230 ± 23) V AC, 50 Hz
	(120 ± 12) V AC, 60 Hz
	(24 ± 4.8) V AC, 50 Hz
	(24 ± 2.4) V DC
Maximum power consumption	2.5 W

Output

Contact type	DPCO mechanical relay contacts
Maximum switched load	25 VA

Inputs

Contact type	Non-isolated dry contacts
Sense current	10 mA

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

Agency Listings	CE
EMC	EN60730-1:00+A1:04+A2:08 +A16:07 CISPR 22 / FCC part 15, cl. B
LVD	EN60730-1:2005 + …+ A2:2008

Enclosure

Material	ABS base with polycarbonate lid
IP rating	IP 54
Flammability	UL 94V-0
Pollution	Category 2
Dimensions (excl glands)	200 mm x 120 mm x 75 mm (L x W x D)
Dimensions (incl glands)	200 mm x 170 mm x 75 mm (L x W x D)

Note:

Optional HDIE available: 300°C for 2 hour or 600°C for ½ hour applications.
Please refer to Hot Enclosures Catalogue or contact Safegard Systems for details.

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.
Product warranty 12 months from date of delivery.

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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