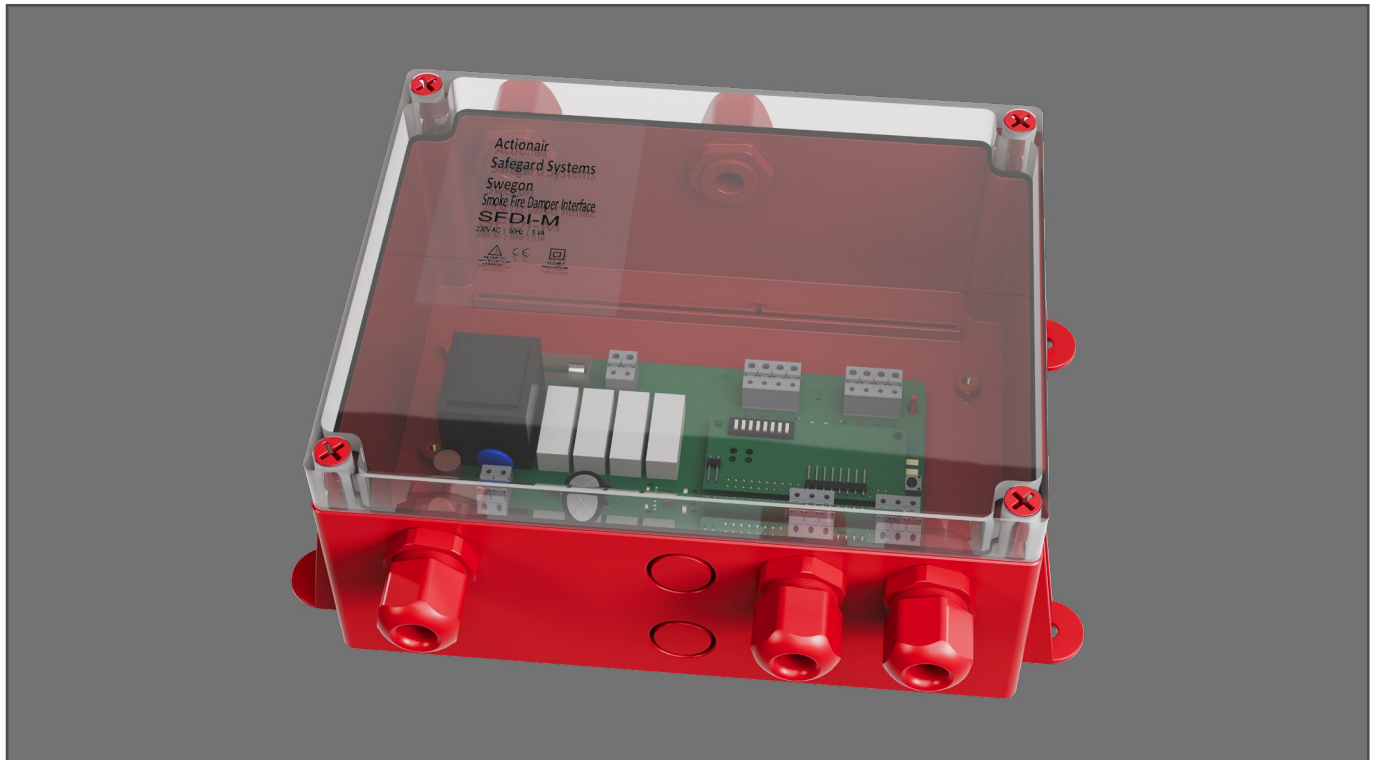


# SFDI

## Smoke Fire Damper Interface

TWO-POSITION DAMPER INTERFACE (SFDI-M/FT, FDI-M/FT, SDI-M/FT)

MODULATING DAMPER INTERFACE (3P-SFDI-M/FT)



### QUICK FACTS

- Interfaces between the Safeguard intelligent control panel and the damper actuator.
- Controls and/or monitors damper actuator positions.
- Different versions available for control of spring return, drive-open/drive-closed, and modulating actuators.
- Compact and robust design of the interface enclosure.
- Can be mounted to a block wall or a stud wall.
- Each variant available either for 24 V or 230 V power supply.

### Smoke Fire Damper Interface

Safeguard Damper Interface is a communication device that controls and/or monitors spring-return, drive-open/drive-closed, and modulating damper actuators.

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

Safeguard Damper Interface is available with Modbus (M) or LonWorks (FT) communication protocols.

While two-position dampers are controlled or monitored centrally through the damper control system, modulating dampers can additionally be balanced from the interface itself or by the Building Management System (BMS)

Safeguard Damper Interface has compact dimensions and is robust enough to withstand normal wear and tear in most environments.

## Options

### Two-Position Damper Interface (SFDI-M/FT, FDI-M/FT, SDI-M/FT)

The Safeguard Systems Two-Position Damper Interface provides a communication device to control or monitor dampers.

#### Smoke Fire Damper Interface (SFDI-M/FT)

Controls a failsafe spring-return smoke fire damper actuator that incorporates two auxiliary switches.

#### Fire Damper Interface (FDI-M/FT)

Monitors the open and/or closed fire damper position.

#### Smoke Damper Interface (SDI-M/FT)

Controls any drive-open/drive-closed smoke damper actuator that incorporates two auxiliary switches.

**NOTE:**

Each interface is available in 24 V or 230 V supply.  
Please specify a voltage at the time of order.

### Modulating Damper Interface (3P-SFDI-M/FT)

The Safeguard Systems Modulating Damper Interface provides a communication device to control a single modulating actuator that incorporates two auxiliary switches.

#### Auto Mode

Damper can be set from the control system to a balanced position, or to drive-open or closed (damper configuration mechanically set), or failsafe via spring-return.

#### Learn Mode

Damper can be set to its required balanced position via the set point potentiometer.

#### Local Mode

Damper can be modulated via a 2–10 V signal from the Building Management System (BMS). In the event of a fire alarm or firefighter's override input, the damper control system will take control away from the BMS and react according to the input(s).

**N.B.:**

Local mode does not apply to drive-open/drive-closed (DODC) actuators.

**NOTE:**

The interface is available in 24 V or 230 V supply (both driving a 24 V actuator).  
Please specify a voltage at the time of order.

## Functions

| Function   | Description                                                                                                                                                                                          | Two-Position DI | Modulating DI |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|
| Open       | Damper blade is open.                                                                                                                                                                                | ✓               | ✓             |
| Closed     | Damper blade is closed.                                                                                                                                                                              | ✓               | ✓             |
| Balanced   | Damper blade is in a predefined position, between fully open (90°) and fully closed (0°).                                                                                                            |                 | ✓             |
| Travelling | Damper blade is travelling.                                                                                                                                                                          | ✓               | ✓             |
| Fault      | Damper or damper interface is in fault.                                                                                                                                                              | ✓               | ✓             |
| Ping       | Ping sent (See <i>Terminology</i> , p4).                                                                                                                                                             | ✓               | ✓             |
| Offline    | Damper or damper interface is offline.                                                                                                                                                               | ✓               | ✓             |
| Save mode  | If an actuator position cannot be reached, actuator save mode will halt attempts for the actuator to reach its final position after 10, 20 or 30 attempts. This can be set in the Safeguard Builder. | ✓               | ✓             |
| Wink       | Wink sent (See <i>Terminology</i> , p4).                                                                                                                                                             | ✓               | ✓             |
| Learn mode | Set up the balanced position for the damper.                                                                                                                                                         |                 | ✓             |

## Technical Information

### Modbus (M)

|                      | Two-Position<br>Damper Interface | Modulating<br>Damper Interface |
|----------------------|----------------------------------|--------------------------------|
| Chip                 | Arm Cortex-M4                    |                                |
| Service<br>Functions | Service pin and service LED      |                                |

### Lonworks (FT)

|                      | Two-Position<br>Damper Interface | Modulating<br>Damper Interface |
|----------------------|----------------------------------|--------------------------------|
| Chip                 | FT6050                           |                                |
| Service<br>Functions | Service pin and service LED      |                                |

### Supply\*

|                                 | Two-Position<br>Damper Interface                                            | Modulating<br>Damper Interface |
|---------------------------------|-----------------------------------------------------------------------------|--------------------------------|
| Input Voltages                  | (230 ± 23) V AC, 50 Hz<br>(24 ± 4.8) V AC, 50 Hz<br>(24 +4.8 /24 -2.4) V DC |                                |
| Maximum<br>Power<br>Consumption | 2.5 VA 24V AC/DC<br>4.5VA 230V AC                                           | 1.3 W                          |

\*Please specify at the time of order.

### Output

|                          | Two-Position<br>Damper Interface  | Modulating<br>Damper Interface   |
|--------------------------|-----------------------------------|----------------------------------|
| Contact Type             | DPCO mechanical<br>relay contacts | SPST mechanical<br>relay contact |
| Maximum<br>Switched Load | 200 VA                            | 50 VA                            |

### Inputs

|               | Two-Position<br>Damper Interface | Modulating<br>Damper Interface |
|---------------|----------------------------------|--------------------------------|
| Contact Type  | Non-isolated dry contacts        |                                |
| Sense Current | 10 mA                            | 10 mA per input                |

### Enclosure

|                                                | Two-Position<br>Damper Interface | Modulating<br>Damper Interface |
|------------------------------------------------|----------------------------------|--------------------------------|
| Material                                       | ABS base with polycarbonate lid  |                                |
| Ingress Protection<br>(IP) Rating              | IP 54                            |                                |
| Insulation                                     | Double                           |                                |
| Flammability                                   | UL 94V-0                         |                                |
| Pollution<br>Degree Rating                     | Category 2                       |                                |
| Dimensions, mm<br>(L x W x D), excl.<br>glands | 213 x 170 x 95                   |                                |

### Environmental

|                          | Two-Position<br>Damper Interface | Modulating<br>Damper Interface |
|--------------------------|----------------------------------|--------------------------------|
| Operating<br>Temperature | -10-75°C                         |                                |
| Storage<br>Temperature   | -20-70°C                         |                                |
| Humidity                 | 25%-90% RH at 70°C               |                                |
| Maximum<br>Altitude      | 2000 m                           |                                |

### Compliance

|                                           | Two-Position<br>Damper Interface                                             | Modulating<br>Damper Interface          |
|-------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------|
| Agency Listing                            | CE                                                                           |                                         |
| Electromagnetic<br>Compatibility<br>(EMC) | EN60730-<br>1:00+A1:04+A2:08<br>+A16:07;<br>CISPR 22 / FCC part<br>15, cl. B | EN60730-<br>1:00+A1:04+A2:08<br>+A16:07 |
| Low Voltage<br>Directive (LVD)            | EN60730-1:2005 + ...+ A2:2008                                                |                                         |



Electrostatic Sensitive Device



LonMark Certified



Double Insulated



Indoor Use Only

## Disclaimers

- The information herein is subject to change without notice. Safeguard Systems Ltd do not assume any liability arising out of the use of this product.
- Purchase of goods and services is subject to Safeguard Systems Ltd 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 Safeguard 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.

## Terminology used in this document

Ping - a command to test the connectivity and responsiveness of a networked device.

Wink - a command to identify a networked device.

## Related Documentation

- Smoke Fire Damper Interface (SFDI) Installation and Maintenance.
- V5 Damper Control Panel Product Sheet.
- Safeguard V5 Catalogue.

## Documentation feedback

Please send any comments on this document to:

We appreciate your comments.

## Obtaining Documentation

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