

AIR CONTROL



# 26 SCD

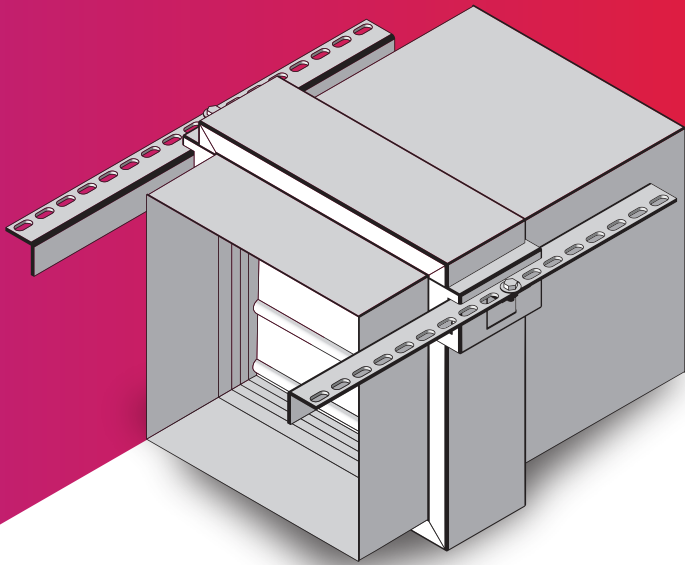
SMOKE CONTROL  
DAMPER



- BS EN 12101 Part 8 in full
- BS EN 1366-10 in both directions
- BS EN 1366-2 in both directions
- Tested for two hours
- Maximum leakage 200 m<sup>3</sup>/h/m<sup>2</sup>
- Single or multi-compartment use
- 16 second opening and closing
- Power open / power close actuator
- Maximum single section 1,000 x 1,000 mm
- For automatic alarm systems

# 26 SCD

## SMOKE CONTROL DAMPER



### Product overview

Smoke control is paramount for saving lives. Advanced Air are proud to introduce a new low leakage smoke control damper to our range – for ventilation ductwork and dedicated smoke extract ventilation for installation with both commercial and residential buildings.

To be effective, smoke control dampers need to react quickly. Our damper operates within 16 seconds and meets all necessary requirements of BS EN 12101 Part 8 for either single or multi-compartment use with automatic systems. Our dampers have been tested to remain open or to maintain their integrity in the closed position for two hours. The dampers have been designed with easy installation in mind for both wall or ductwork installation.

Where a separate control panel is required, we offer our System 42 addressable control panel. This panel offers a comprehensive solution meeting complex control requirements and stringent safety regulations for fire and smoke control. Initially it was designed to control and monitor fire and smoke control dampers, but this system also allows for other equipment such as AHUs, fans and ventilation louvres to be monitored.

Our System 42 control panel has added flexibility to connect to a Building Management System (BMS) for remote control and monitoring.

### Testing

Under the Construction Product Regulation (CPR) and Building Regulations smoke dampers must meet the requirements of BS EN 12101-8 to enable the dampers to be CE labelled. This standard clearly states that spring return motors are not a requirement and cannot be used.

Within the standard the dampers must be tested to BS EN 1366-10. This test requires the dampers to start in a closed position and after 30 seconds have elapsed, the damper is powered open and the damper must remain open for the duration of the test.

Most damper installations will be covered under multi-compartment, for this the dampers must also be tested to the BS EN 1366-2 fire test. This test requires dampers to be in the open position at the start of the test and after 30 seconds have elapsed, the damper is powered closed.

For the classification, the damper was tested with the actuator inside and outside of the furnace in both BS EN 1366-10 and BS EN 1366-2 tests.

At present inline duct-mounted smoke dampers are not covered by the current standard and when they are not installed within the wall or the side of a duct. However, we have carried out a successful test for two hours for the smoke damper being mounted in-duct, and away from the wall, to BS EN 1366-10 procedures.

### Classification

The product standard BS EN 12101-8 also includes BS EN 13501-4 that determines how a smoke damper will be classified for use under the CE label.

The damper has been tested for two hours in a wall, with the actuator inside the furnace and outside for use up to 500 Pa and has been cycle tested to 10,000 open / close operations, suitable for single or multiple compartments.

### Material construction

The frames are formed from 1.6 mm galvanised mild steel, with a 25 mm flange which is 110 mm deep. The blades are manufactured from 1 mm galvanised mild steel, and are double skinned achieving low leakage without the need of synthetic blade seals. Linkage is direct drive, and includes the unique knee lock mechanism. The unit is housed in a fully welded galvanised case manufactured from 1.2 mm galvanised mild steel.

The damper has AFS brackets welded on each side, manufactured from 1.2 mm galvanised mild steel with a slot to allow the 50 x 50 support rail for independently support from drop rods.

The damper can be supplied with 430 grade stainless steel blades as an option.



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## SMOKE CONTROL DAMPER

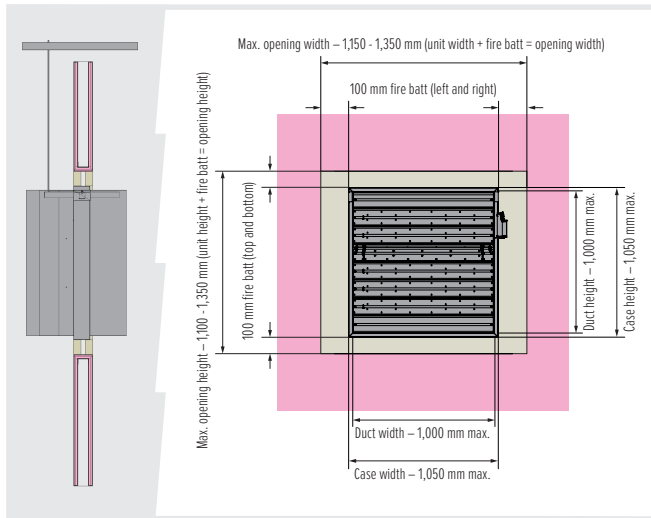
### Installation

Under the CPR and Building Regulations, dampers are to be installed as tested for the CE label to apply. We have tested many variations, so it is important that damper installation is considered as early as possible in the layout design.

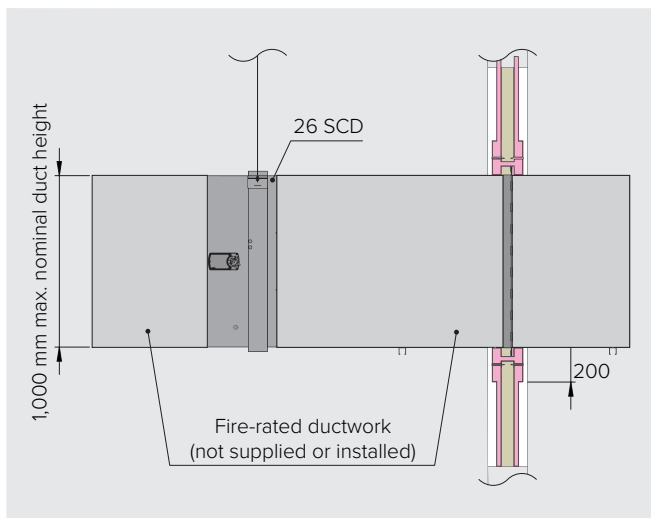
For the smoke dampers installed in the wall they are fitted with the AFS (Adjustable Frame System) that includes a slotted angle for connecting support drop rods, so it is independently supported, with fire batt installed around the damper to seal the opening given the most flexibility.

For standard installation mounting in ductwork in-line, the damper includes AFS brackets mounted on the side for connection with a 90 mm slotted angle for connecting drop rods to give independent support.

### 26 SCD – Wall AFS installation



### 26 SCD – In-line duct AFS installation (away from wall)



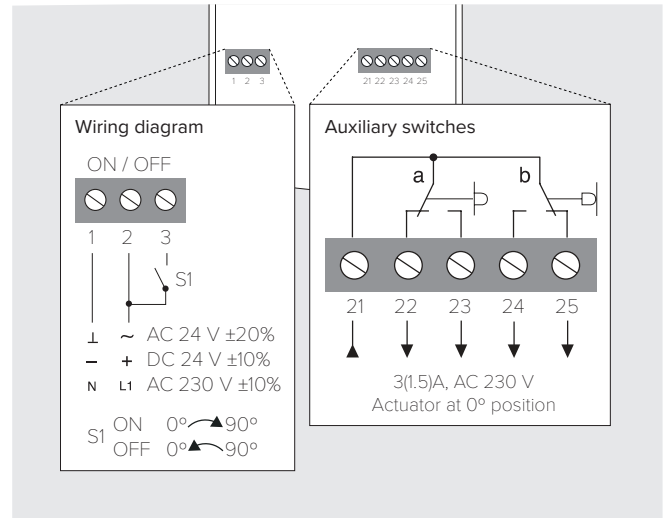
### Wiring and electrical

Supplied as standard with 2 metre flying leads. If connecting to the Advanced Air System 42 Control Panel, 2 metre plugged leads are supplied to ease electrical connections on site (longer leads optional).

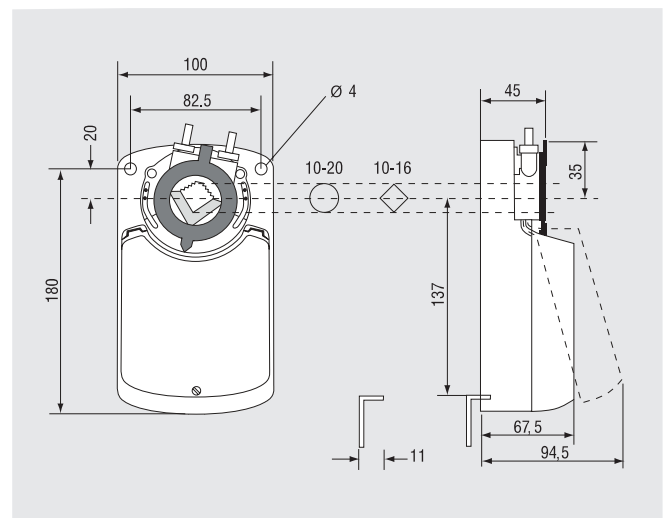
### Actuator

The actuator is mounted horizontal to the ductwork as standard – vertical mounting is available as an option. Power open / close within 16 seconds, to meet BS EN 12101 Part 8.

### 26 SCD – Actuator wiring diagram



### 26 SCD – Actuator dimensions



## Fan Coil Units

Standard range of innovative fan coil units, incorporating EPIC ECM Fan Technology®

## Terminal Units

Single and dual duct CAV / VAV units, fan-assisted VAV including a low profile option

## Air Distribution

Full range of grilles, louvres, diffusers and linear slot

## Air Control

Extensive array including fire, smoke and fire / smoke dampers

## Control Systems

Full range of standard or bespoke control systems, including hardwired and addressable options

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### Research and development

Our development programme has resulted in new products being launched and for 2019 will include new circular fire and fire / smoke dampers, new barrel slot diffusers, and new smoke dampers to the new standard BS EN 1366-10.

### Product testing

Investment in testing facilities ensures that all products' raw data is published and project testing for clients is also available.

### On-site support

As part of our after sales service we have a dedicated team of engineers that can visit site.

### Maintenance

We offer maintenance packages for all products supplied. With a team of site engineers, all products are maintained to the highest standard.

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