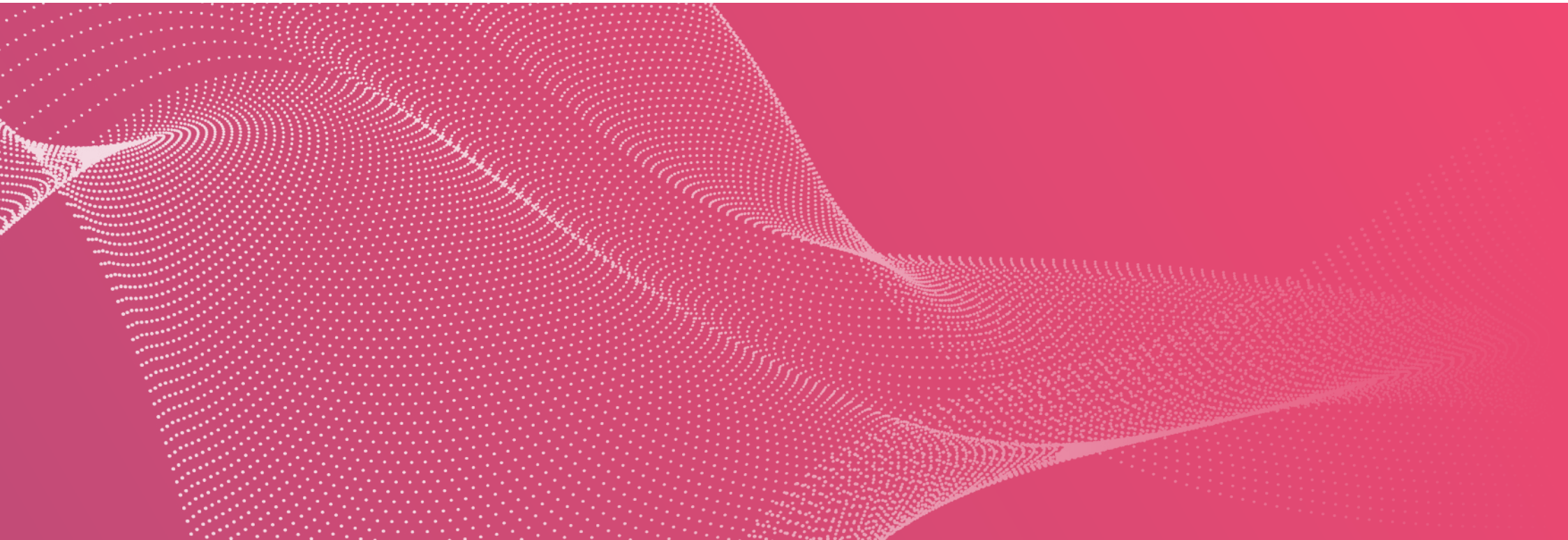
INSTALLATION, OPERATION AND MAINTENANCE

ADVANCEDAIR

26SCD
Smoke Control Damper



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Introduction

Advanced Air (UK) Ltd have been manufacturing a comprehensive range of fire dampers and motorised fire dampers since 1975. We have always taken pride in our products and tested to the highest standards, originally to BS476 and now more stringent testing to CE labelling under the Construction Product Regulation which was introduced 1st July 2013.

All our fire, motorised fire and smoke control dampers have been tested to BS EN 1366-2 and BS EN 1366-10. This is to cover a variety of installations used on sites today. Under CE labelling all dampers must follow the Product Standards BS EN 15650 and BS EN 12101-8 which ensures the product is consistent and supplied to the same specification and standard as tested. Any deviation or changes from the installations in this manual would require the dampers to be subject to a new test or approval sought from Local Building Control.

In line with product standards we are pleased to offer this installation manual covering installation, operation and maintenance instructions together with Health and Safety information. We have also included within this manual an example of the Fire Damper Checklist DW145 Inspection and Handover Check Sheet which is to be completed by the installer. A separate certificate is required per damper.

The installation contained in this manual cover most installation on site. However, there are still installation which Advanced Air (UK) Ltd have not yet tested. We are continually reviewing requirements and continuously developing the products. As additional installation tests are carried out and classified, installations will be added to this manual, and the Declaration of Performance (DoP) updated accordingly.

Health and Safety

Any instruction contained within this manual must be undertaken by competent trained personnel. When completing the installation standard PPE should be used, steel toe cap boots, hard hat, gloves, protective eyewear along with any other specific site or material instructions.

The size and weight of dampers vary, and it may require two or more persons to safely handle and move them. Do not lift the dampers by the blades or the actuator.

For the installation of dampers at high level, the correct lifting equipment shall be used in accordance with the Work at Height Regulations 2005 and specific site rules.

All waste materials should be collected and disposed of defined by the suppliers.

Specification and Ordering

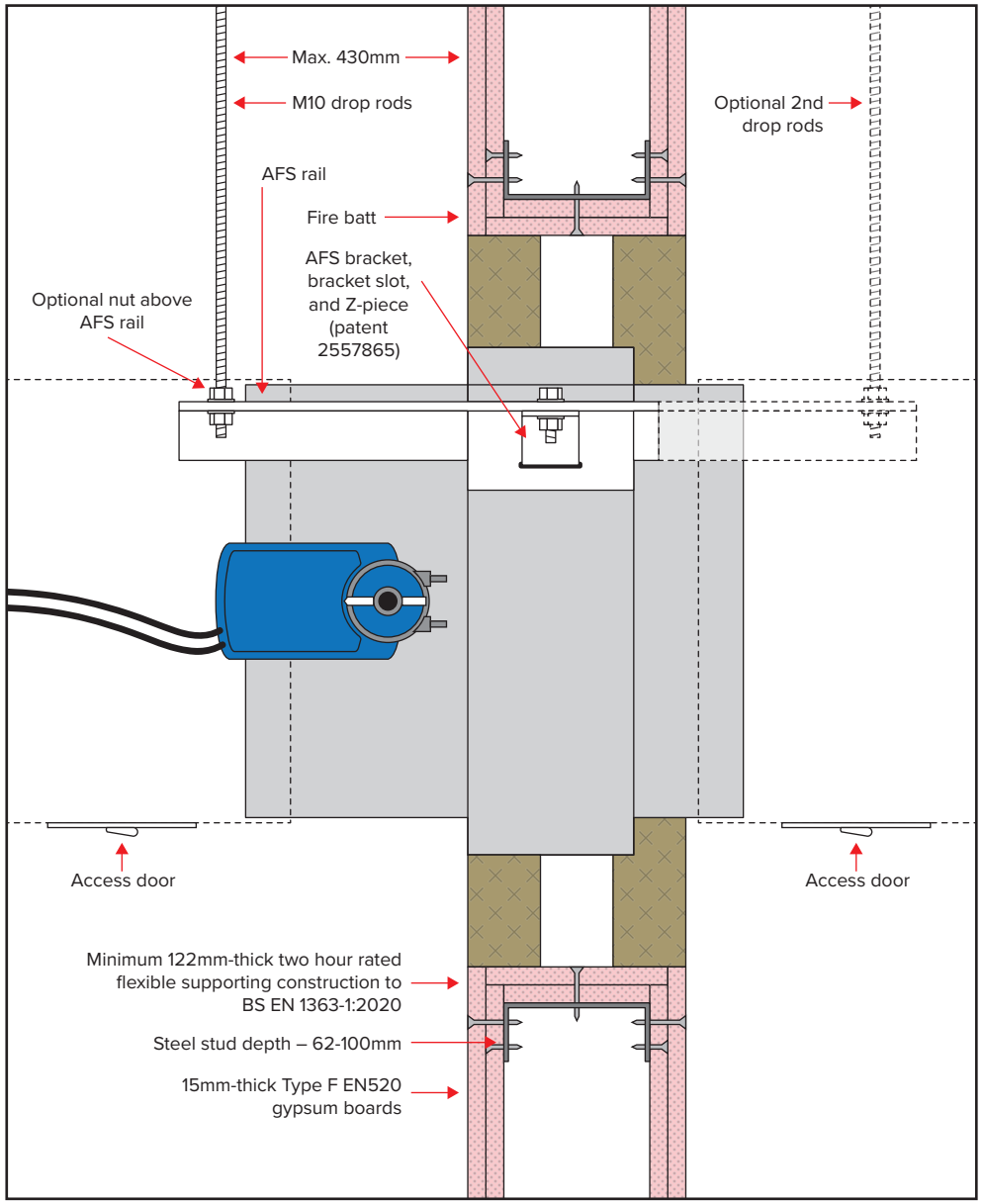
This document is intended to provide technical information only – for specification and ordering advice, please contact our Sales Team on 01842 765 657.

Quick reference summary of installs

26SCD with AFS

Wall type	Duration (mins)	Wall thickness
Rigid construction (blockwork / concrete / masonry walls)	120	Minimum 122mm (minimum 150mm if multi-section)
	90	**NO** test data available
	60	**NO** test data available
	30	**NO** test data available
Flexible construction (Plasterboard walls)	120	Minimum 122mm (minimum 150mm if multi-section)
	90	**NO** test data available
	60	**NO** test data available
	30	**NO** test data available
Remote from wall – duct-mounted, in-line	120	Not applicable
	90	Not applicable
	60	Not applicable
	30	Not applicable
Remote from wall – duct-mounted, side	120	Not applicable
	90	Not applicable
	60	Not applicable
	30	Not applicable

SMOKE CONTROL – 26SCD ADJUSTABLE FRAME SYSTEM FOR TWO HOUR FLEXIBLE SUPPORTING CONSTRUCTION (SUPPORT ONE SIDE)



Preparation

1. Ensure that the damper is kept in a clean dry environment and that there is no damage to the damper.
2. Remove all the packaging before installation.
3. Work out the opening size to be cut using the adjacent table.

Nom. duct size	Width		Height	
	Opening min.	Opening max.	Opening min.	Opening max.
200 x 200mm and above	Nom. duct +194mm	Nom. duct +310mm	Nom. duct +100mm	Nom. duct +310mm
175 x 175mm to 199 x 199mm	Nom. duct +219mm	Nom. duct +335mm	Nom. duct +125mm	Nom. duct +335mm
Below 175 x 175mm	394mm	510mm	300mm	510mm
Circular duct 175mm and above	Nom. duct +219mm	Nom. duct +375mm	Nom. duct +125mm	Nom. duct +375mm
Circular duct under 175mm	394mm	550mm	300mm	550mm

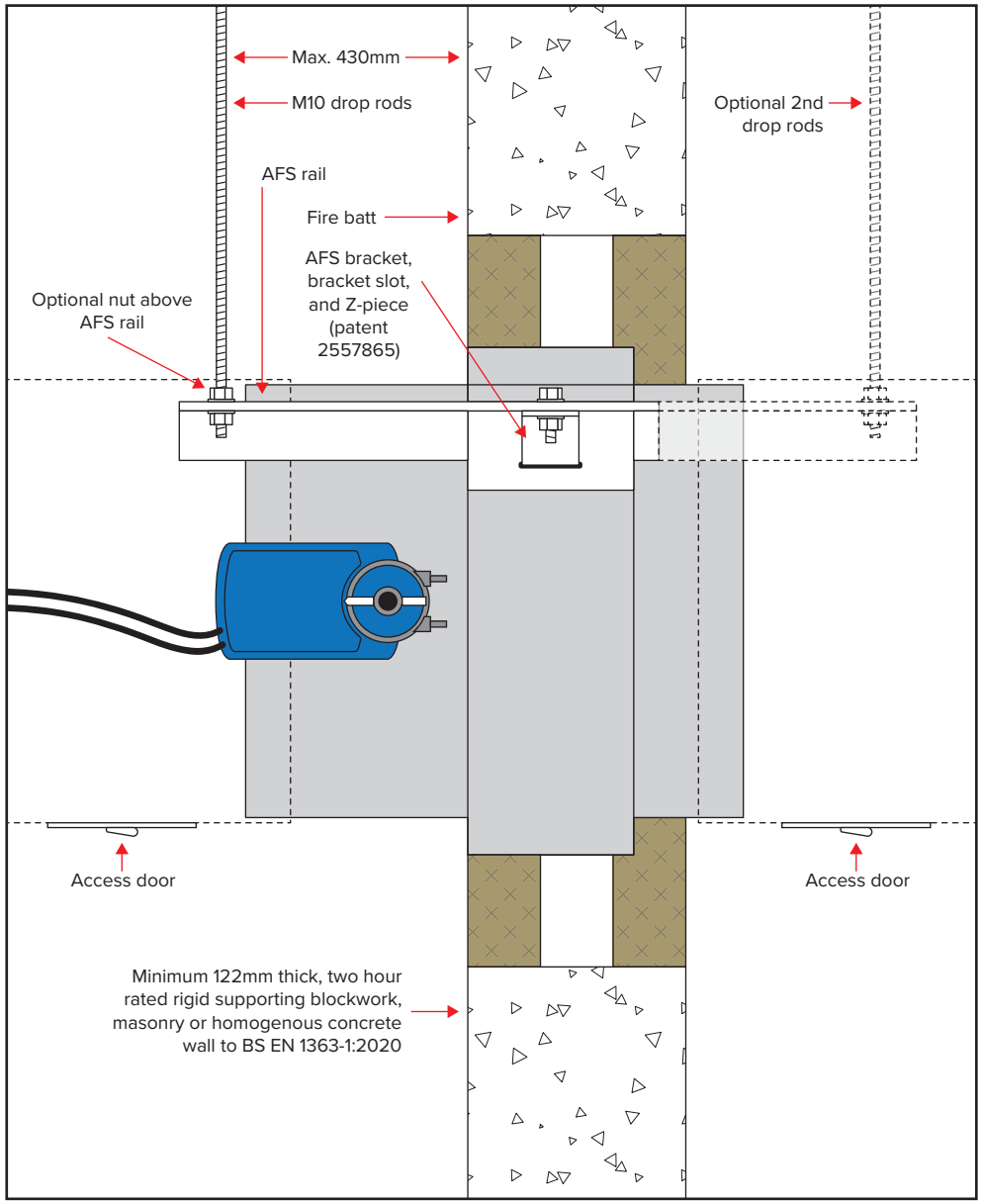
These sizes are based on dampers centralised in the opening. Please also see guidance later in this document regarding AFS dampers installed in fire batt and opening size constraints, which explains non-centralised installations.

Installation sequence

4. The drywall will consist of two layers of 15mm plasterboard each side of steel studwork with an optional 50mm mineral wool insulation. The opening will be a letterbox construction with overlapping layers of plasterboard with an opening clearance around the damper casing in line with the table above.
5. Two M10 drop rods shall be fitted on the side of the drywall to which the access side of the damper will be positioned. These should be securely installed in line with the manufacturer's fixing instructions in a position to match the AFS rail.
6. We recommend a nut screwed above the AFS rail for stability, however installations are fire tested without this nut and it can be omitted to allow for slab deflection.
7. Slide the AFS rails on each side of the damper into the brackets and insert the "Z" piece into the bracket slot pushing it up against the underside of the rail. Insert the 8mm bolt from above into the slot through the "Z" piece fitting the nut until tight to secure the rail.
8. The damper should be mounted centrally in the opening with the access side flush with the wall, as detailed in the drawing. The drop rods are to slide through the slots in the rail and a nut screwed on to take the support of the damper rail. The damper must then be levelled and when in the correct position the nut above the rail should be tightened against the rail.
9. The galvanised mild steel ductwork connecting to the damper spigots must overlap by up to 40mm, leaving a minimum 10mm clearance for any duct expansion in a fire situation.
10. The galvanised mild steel ductwork connections must be sealed with an approved galvanised mild steel ductwork sealer.
11. The connecting galvanised mild steel ductwork must be independently supported within one metre of the connections and have been installed in accordance with DW144.
12. The gap between the damper and the wall opening will need filling with two layers of 50mm thick 140kg/m³ fire batt cut to an interference fit and pushed in to place. All cut edges must be sealed with a fire batt sealant to BS EN 13501-2. A fire rated intumescent mastic to BS EN 13501-2 shall be applied to each joint.
13. For full adherence to DW145, access doors should be fitted on both sides of the damper for inspection and maintenance of the damper (DW145 clause 9.7).
14. When the damper installation has been completed checks should be made to ensure the AFS rails are secure and there is no movement, operation of the damper should be checked.
15. Complete DW145 Fire Damper Checklist.

PRODUCT **26SCD WITH AFS RAILS (WALL)**	APPLICATION **FLEXIBLE SUPPORTING CONSTRUCTION**
CLASSIFICATION REPORT NO. **EFR-20-002148 REV3 RC**	CLASSIFICATION **E120 (Vew i ←→ o) S500 C 10000 AA multi • E120 (Vew i ←→ o) S500 C mod AA multi**
TESTED INSTALLATION METHOD SHOWN. DIFFERING INSTALLATION METHODS TO THIS MUST BE APPROVED BY THE BUILDING CONTROL AUTHORITY (BCA) BEFORE PROCEEDING.	

SMOKE CONTROL – 26SCD ADJUSTABLE FRAME SYSTEM FOR TWO HOUR RIGID SUPPORTING CONSTRUCTION (SUPPORT ONE SIDE)



Preparation

1 Ensure that the damper is kept in a clean dry environment and that there is no damage to the damper.

2 Remove all the packaging before installation.

3 Work out the opening size to be cut using the adjacent table.

Nom. duct size	Width		Height	
	Opening min.	Opening max.	Opening min.	Opening max.
200 x 200mm and above	Nom. duct +194mm	Nom. duct +310mm	Nom. duct +100mm	Nom. duct +310mm
175 x 175mm to 199 x 199mm	Nom. duct +219mm	Nom. duct +335mm	Nom. duct +125mm	Nom. duct +335mm
Below 175 x 175mm	394mm	510mm	300mm	510mm
Circular duct 175mm and above	Nom. duct +219mm	Nom. duct +375mm	Nom. duct +125mm	Nom. duct +375mm
Circular duct under 175mm	394mm	550mm	300mm	550mm

These sizes are based on dampers centralised in the opening. Please also see guidance later in this document regarding AFS dampers installed in fire batt and opening size constraints, which explains non-centralised installations.

Installation sequence

4 Two M10 drop rods shall be fitted on the side of the drywall to which the access side of the damper will be positioned. These should be securely installed in line with the manufacturer's fixing instructions in a position to match the AFS rail.

5 We recommend a nut screwed above the AFS rail for stability, however installations are fire tested without this nut and it can be omitted to allow for slab deflection.

6 Slide the AFS rails on each side of the damper into the brackets and insert the "Z" piece into the bracket slot pushing it up against the underside of the rail. Insert the 8mm bolt from above into the slot through the "Z" piece fitting the nut until tight to secure the rail.

7 The damper should be mounted centrally in the opening with the access side flush with the wall, as detailed in the drawing. The drop rods are to slide through the slots in the rail and a nut screwed on to take the support of the damper rail. The damper must then be levelled and when in the correct position the nut above the rail should be tightened against the rail.

8 The galvanised mild steel ductwork connecting to the damper spigots must overlap by up to 40mm, leaving a minimum 10mm clearance for any duct expansion in a fire situation.

9 The galvanised mild steel ductwork connections must be sealed with an approved galvanised mild steel ductwork sealer.

10 The connecting galvanised mild steel ductwork must be independently supported within one metre of the connections and have been installed in accordance with DW144.

11 The gap between the damper and the wall opening will need filling with two layers of 50mm thick 140kg/m³ fire batt cut to an interference fit and pushed in to place. All cut edges must be sealed with a fire batt sealant to BS EN 13501-2. A fire rated intumescent mastic to BS EN 13501-2 shall be applied to each joint.

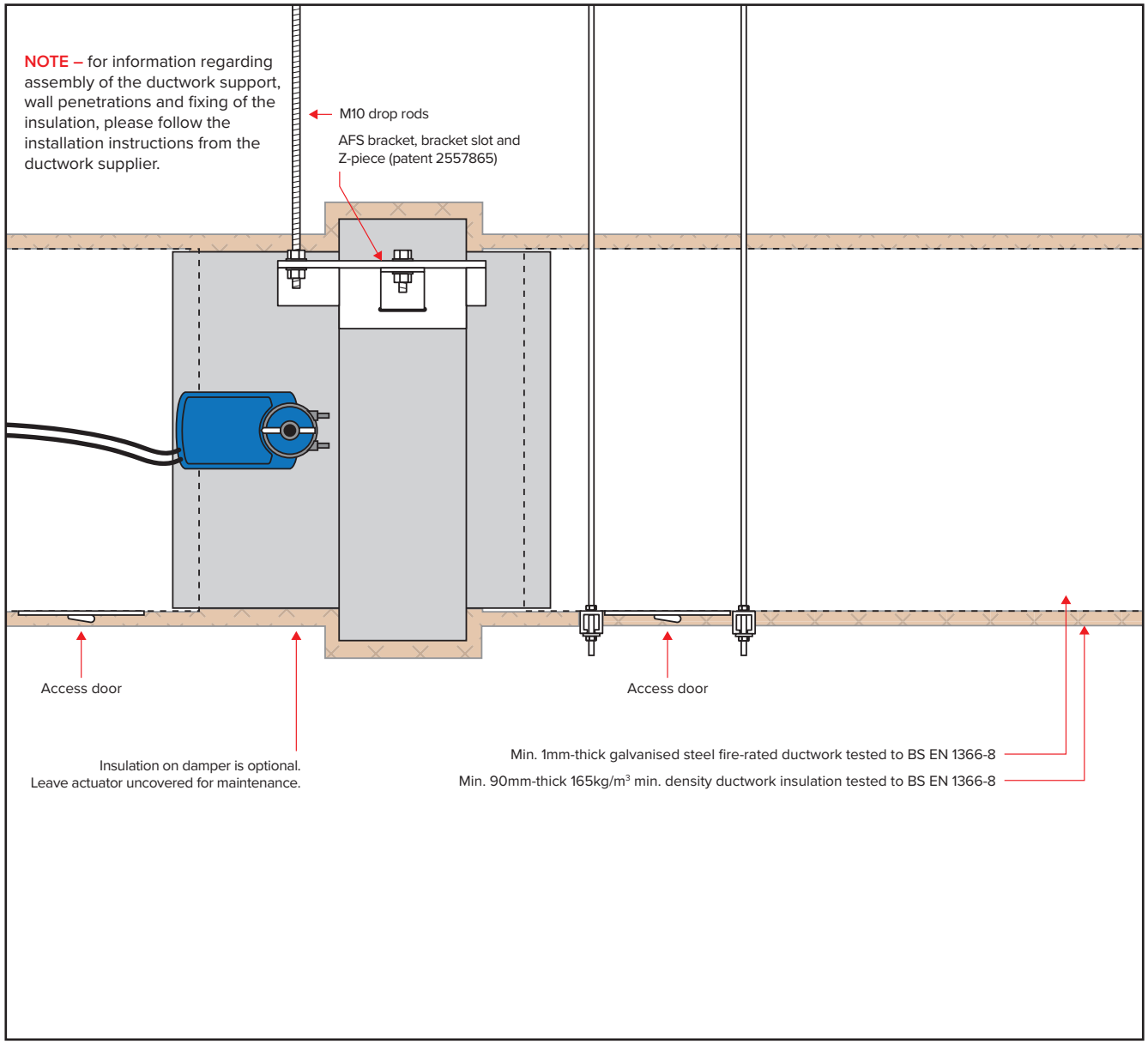
12 For full adherence to DW145, access doors should be fitted on both sides of the damper for inspection and maintenance of the damper (DW. 145 clause 9.7).

13 When the damper installation has been completed checks should be made to ensure the AFS rails are secure and there is no movement, operation of the damper should be checked.

14 Complete DW145 Fire Damper Checklist.

PRODUCT **26SCD WITH AFS RAILS (WALL)**	APPLICATION **RIGID SUPPORTING CONSTRUCTION**
CLASSIFICATION REPORT NO. **EFR-20-002148 REV3 RC**	CLASSIFICATION **E120 (Vew i ←→ o) S500 C 10000 AA multi • E120 (Vew i ←→ o) S500 C mod AA multi**
TESTED INSTALLATION METHOD SHOWN. DIFFERING INSTALLATION METHODS TO THIS MUST BE APPROVED BY THE BUILDING CONTROL AUTHORITY (BCA) BEFORE PROCEEDING.	

SMOKE CONTROL – 26SCD TWO HOUR REMOTE FROM WALL (IN-LINE)

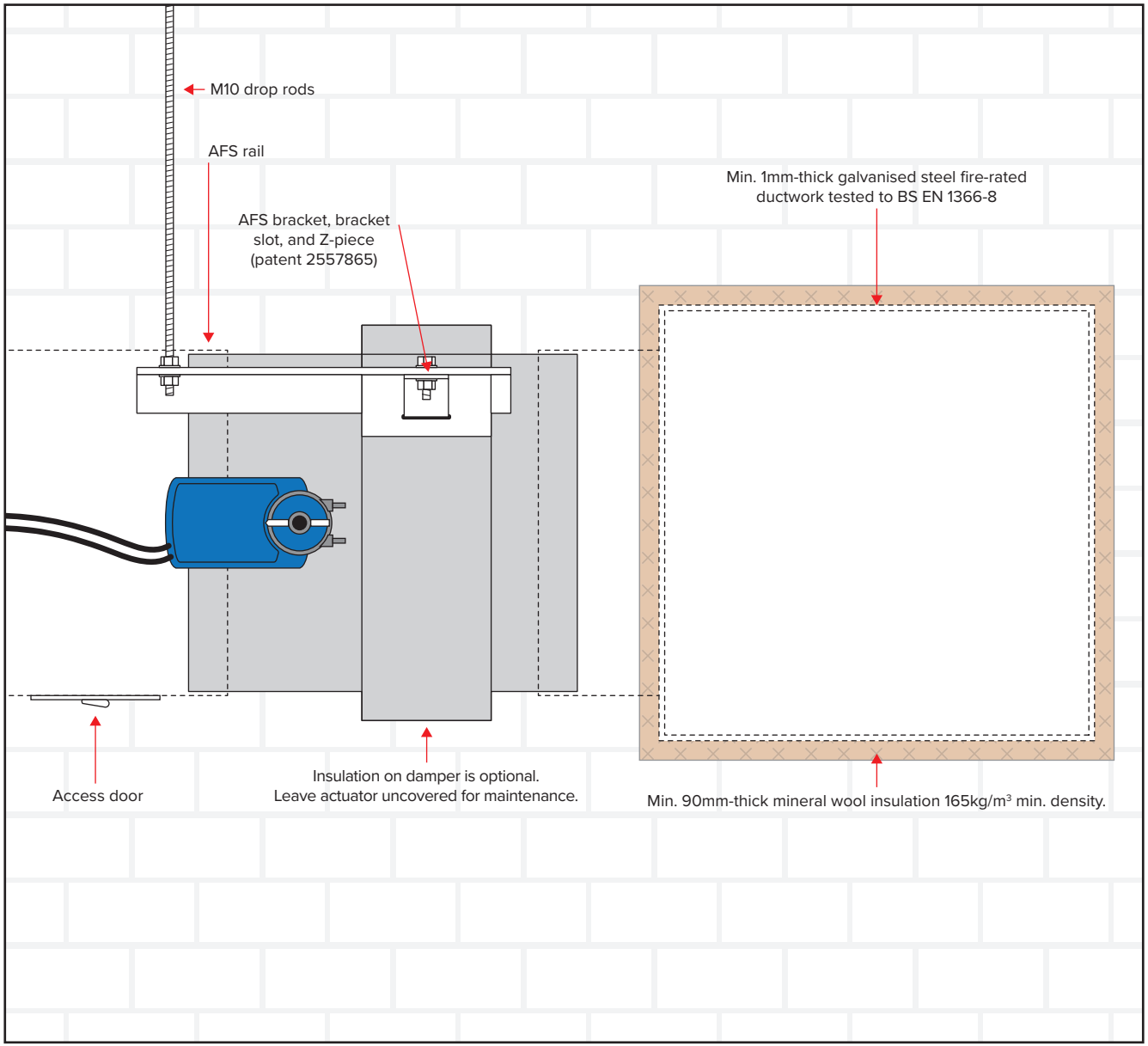


Installation sequence

1. The damper is mounted to the duct using self tapping fixings, at 150mm centres. When the duct is slid over the damper spigot, an overlap of up to 40mm is permitted, allowing for 10mm for duct expansion.
2. Support the damper case using a single piece of Unistrut, hung on M10 drop rods.
3. Galvanised mild steel ductwork, access doors, and sealing of the duct should be in accordance with DW144.
4. The damper operation should be checked to ensure that it fully opens and closes.
5. When the damper installation has been completed, checks should be made to ensure the installation is secure, and there is no movement.
6. Complete DW145 Fire Damper Checklist.

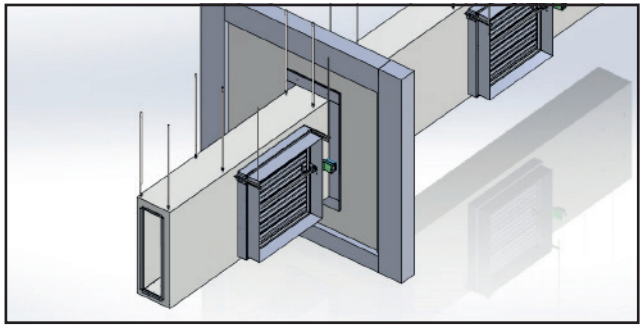
PRODUCT **26SCD WITH AFS RAILS (REMOTE)**	APPLICATION **DUCT MOUNTED, IN-LINE, TWO HOUR REMOTE FROM WALL**
CLASSIFICATION REPORT NO. **EFR-20-002148**	CLASSIFICATION **E120 (Vew i ←→ o) S500 C 10000 AA multi • E120 (Vew i ←→ o) S500 C mod AA multi**
TESTED INSTALLATION METHOD SHOWN. DIFFERING INSTALLATION METHODS TO THIS MUST BE APPROVED BY THE BUILDING CONTROL AUTHORITY (BCA) BEFORE PROCEEDING.	

SMOKE CONTROL – 26SCD TWO HOUR REMOTE FROM WALL (SIDE MOUNTED)



Installation sequence

1. Install drop rod anchor points, and M10 drop rods to support the damper, using the AFS (Adjustable frame system). M10 drop rod lengths should be a maximum of 1,000mm in length. Where longer lengths are required, the bottom 1,000mm of M10 drop rod should be joined to an M16 drop rod above for the remainder of the length, using M16/M10 transition pieces.
2. Slide the AFS rails on each side of the damper into the brackets and insert the "Z" piece into the bracket slot pushing it up against the underside of the rail. Insert the 8mm bolt from above into the slot through the "Z" piece fitting the nut until tight to secure the rail.
3. The drop rods are to slide through the slots in the rail and a nut screwed on to take the support of the damper rail. The damper must then be levelled, and when in the correct position the nut above the rail should be tightened against the rail.
4. The damper is mounted to the duct using self tapping fixings, at 150mm centres. When the damper is slid into the duct, an overlap of up to 40mm is permitted, allowing for 10mm for duct expansion. Seal between damper spigot and duct using high temperature ceramic sealant (≥1,250 °C) to BS EN 13501-1.
5. The connecting galvanised mild steel ductwork must be independently supported within one metre of the connections and have been installed in accordance with DW144.
6. For full adherence to DW145, access doors should be fitted on both sides of the damper for inspection and maintenance of the damper (DW. 145 clause 9.7).
7. The damper operation should be checked to ensure that it fully opens and closes.
8. When the damper installation has been completed checks should be made to ensure the AFS rails are secure and there is no movement, operation of the damper should be checked.
9. Complete DW145 Fire Damper Checklist.



PRODUCT **26SCD WITH AFS RAILS (WALL)**	APPLICATION **DUCT MOUNTED, SIDE MOUNTED, TWO HOUR REMOTE FROM WALL**
CLASSIFICATION REPORT NO. **EFR-20-002148 REV3 RC**	CLASSIFICATION **E120 (Ved i ←→ o) S500 C 10000 AA multi • E120 (Ved i ←→ o) S500 C mod AA multi**
TESTED INSTALLATION METHOD SHOWN. DIFFERING INSTALLATION METHODS TO THIS MUST BE APPROVED BY THE BUILDING CONTROL AUTHORITY (BCA) BEFORE PROCEEDING.	

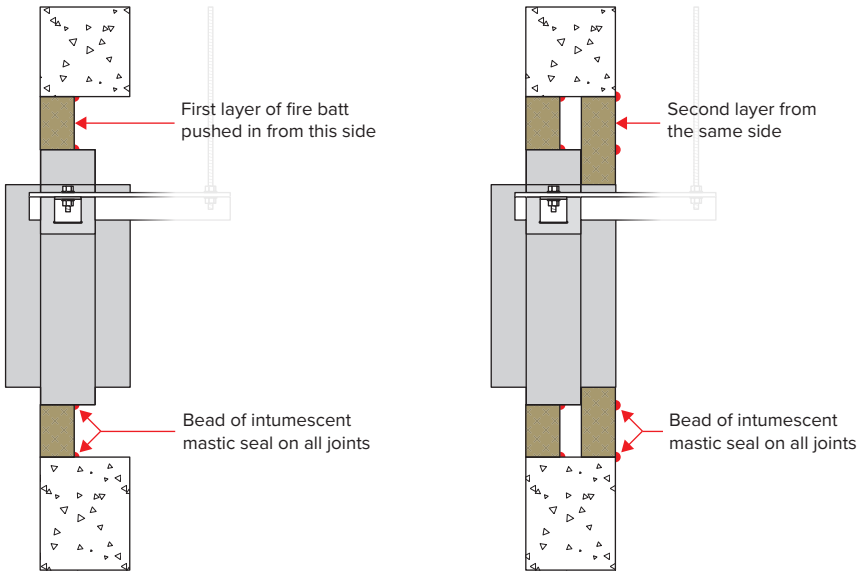
Fire batt

The fire batt used in Advanced Air fire testing is AstroFlame Astro Batt, which we seal with Astroflame INTU Mastic (Trowel grade for sealing cut edges, and Mastic tube for applying to finished joins), which is an Intumescent Ablative Batt sealant. This is a CE certified product tested to EN1366-3, classified to EN 13501-2, and comprises of a 50mm thick 140kg/m^3 density mineral wool sheet with ablative batt coating. The batt should be installed in the number of layers shown on our relevant installation pages.

We recommend the use of these products to ensure compliance with our certified installations, however EN 15882-2:2022 clause 6.3 states that the tested ablative batt may be substituted by an alternative batt, providing it is of at least the same density and thickness, and has the same or better fire resisting characteristics supported by EN 1366-3 fire testing.

Installations from one side of the wall

Installations with drop rods on only one side of the wall can be installed without the need to access the opposite side of the wall, including the fire batt



Drop rods

All Advanced Air AFS fire tests are carried out using non-insulated (bare) mild steel M10 threaded drop rods at a length of 1.5 metres or less. Because the majority of fire dampers are installed close to the slab ceiling, and the AFS fixing points are located at the top of the damper, most drop rods for real life applications are likely to be shorter than this tested length.

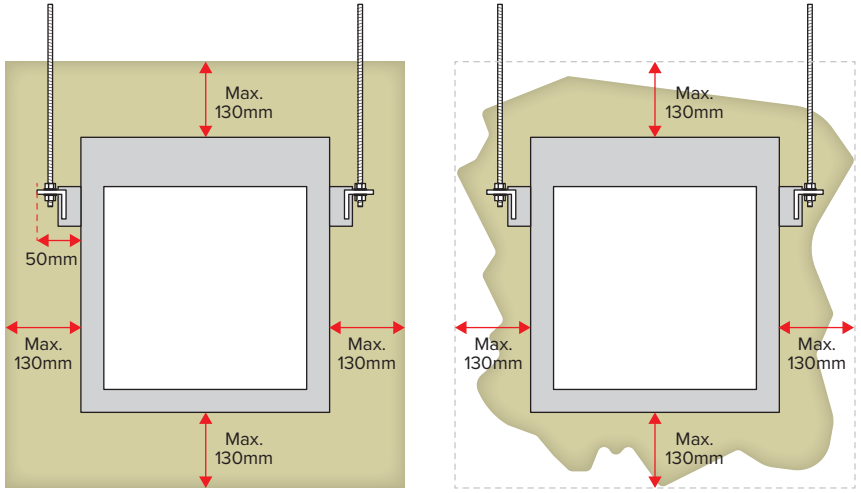
When installations require drop rod lengths exceeding 1.5 metres, we recommend that they are insulated, and/or oversized, and in these cases we recommend the support is assessed by a structural engineer.

Opening size constraints

The AFS (Adjustable Frame System) installations all use a common opening size based on the overall outer frame size of the damper. We provide some easy to use opening size calculation tables based on the nominal duct size of the damper, and these tables can be found on each corresponding page in this manual. However the following is a more detailed description of what the allowances and limitations are when creating an opening for an AFS damper.

A damper does not have to be centralised within an opening. The maximum permissible distance between the damper case and the inside edge of the opening is 130mm, and there is no lower limit to the minimum permissible size, the only requirement being that there must be adequate room for the installation of the fire batt penetration seal (Advanced Air recommend a minimum of 25mm).

Opening sizes are traditionally rectangular, but the shape of the hole does not actually matter, and unconventional shapes are acceptable providing the maximum constraints of the opening fall within the maximum of 130mm, and there is fire batt installed all around the perimeter of the damper.



NOTE – The AFS brackets and rails stick out nearly 50mm from either side of the damper case, so space must be allowed for these when sizing the opening.

Wall thickness

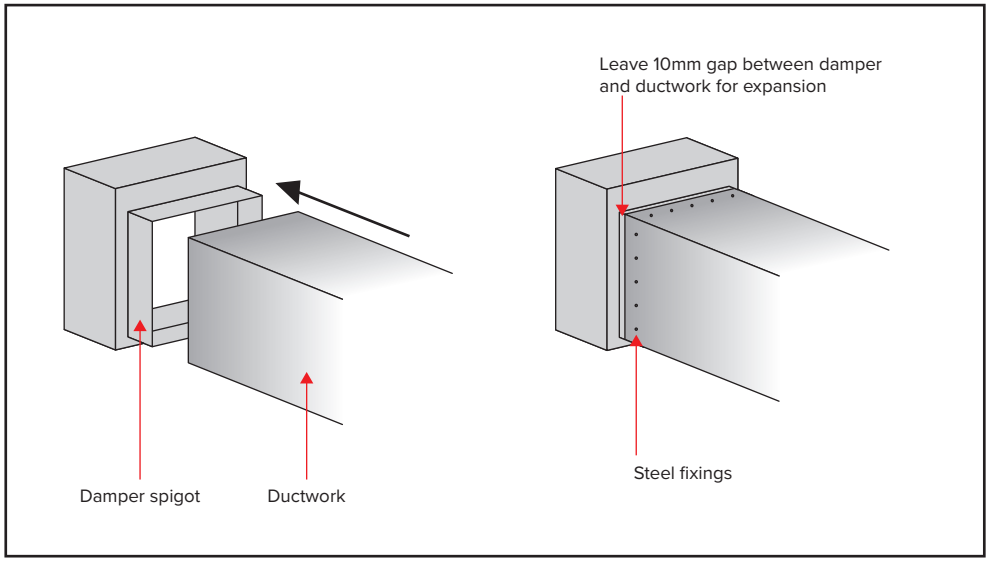
The wall for a given installation must meet the minimum thickness shown, however a thicker wall is also permitted. Where the wall is thicker than stated it is important to ensure that the access side of the damper is flush with one side of the wall to provide access for maintenance. The fire batt should be installed in a manner so that the penetration seal thickness is the same as the minimum “as tested” or greater. Installing the fire batt from the same side of the wall (see notes on Installations from one side of the wall on the previous page) may help in these situations.

Spigots for slip joints

Most Advanced Air products come with a duct connection “spigot” which is designed for a slip joint with the mating ductwork.

The connection is made by sliding the ductwork over the damper spigot, and fixing with steel fixings (those which will not melt in the case of a fire) so that in the event of a fire condition, the ductwork will remain in place for smoke extraction.

A 10mm gap should be left between the damper case and the edge of the ductwork, which prevents the ductwork applying pressure on the damper when it expands in a fire condition.

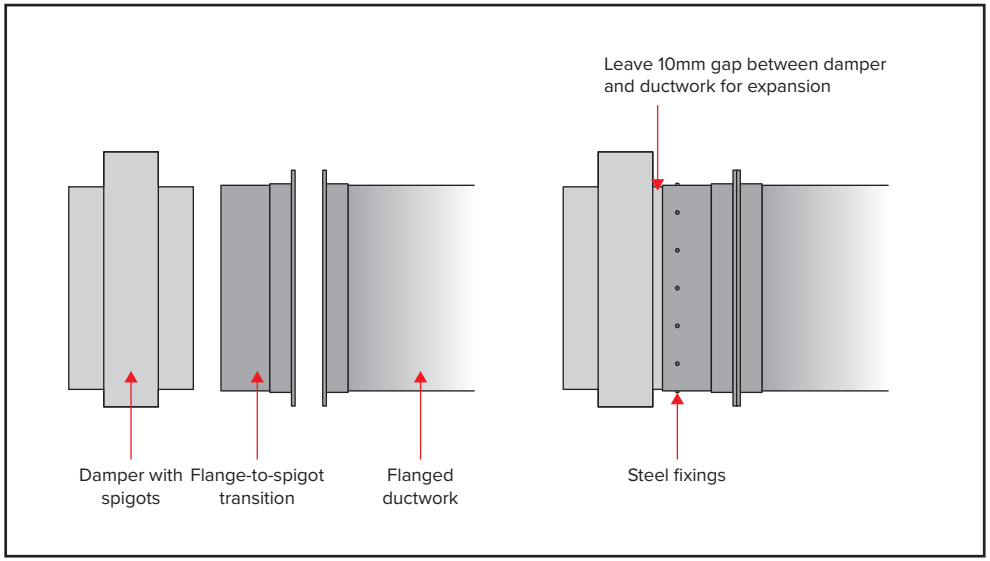


Flange connections

A CE compliant flange connection is possible with Advanced Air products, however Advanced Air products themselves cannot be supplied with a flange connection.

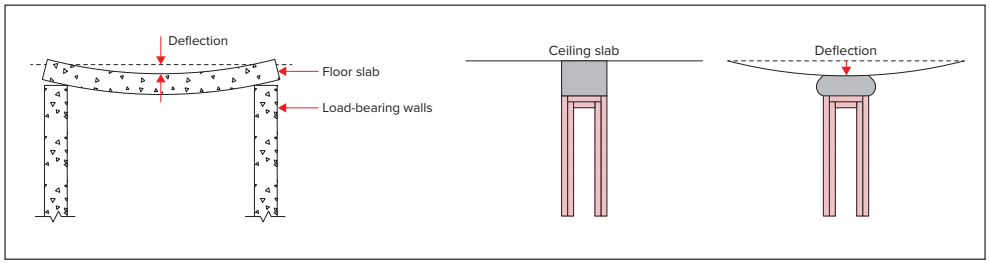
In order to utilise a flange connection with Advanced Air products, a flange to spigot transition piece must be used. The transition goes between the damper spigot and the ductwork, creating a fully CE compliant installation.

The spigot side of the transition should be installed in the same way a duct spigot would be installed (see opposite).



What is slab deflection?

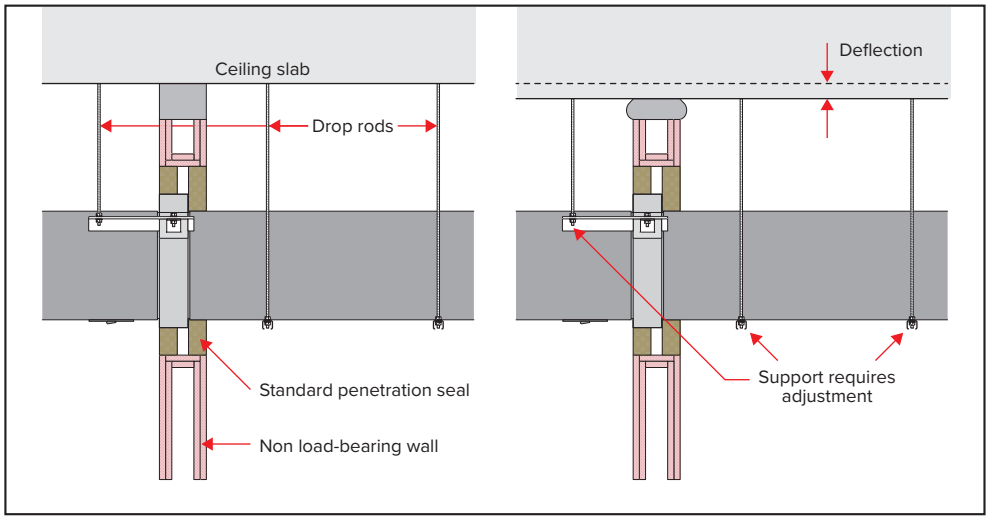
Slab deflection is when the slab layers of a building between each level settle after construction, which can sometimes cause them to deflect, causing the slab to bend and drop. The result is that any services connected to the ceiling slab (such as cable trays, ductwork, or even dampers) will lower too. If these services are also penetrating walls, which are unlikely to suffer any movement, the penetration seal around where these services pass through the wall may become damaged. This is a serious issue if the walls, and therefore the penetrations, are fire rated.



To add further complication to the issue, the join between non load bearing walls and slabs are typically lined with what is referred to as a deflection head, which is a layer of soft material that absorbs the movement of the slab without causing damage to the wall. However it is only recently that contractors and designers have started to think about the effects of deflection for other services, so there are few well known solutions for other services.

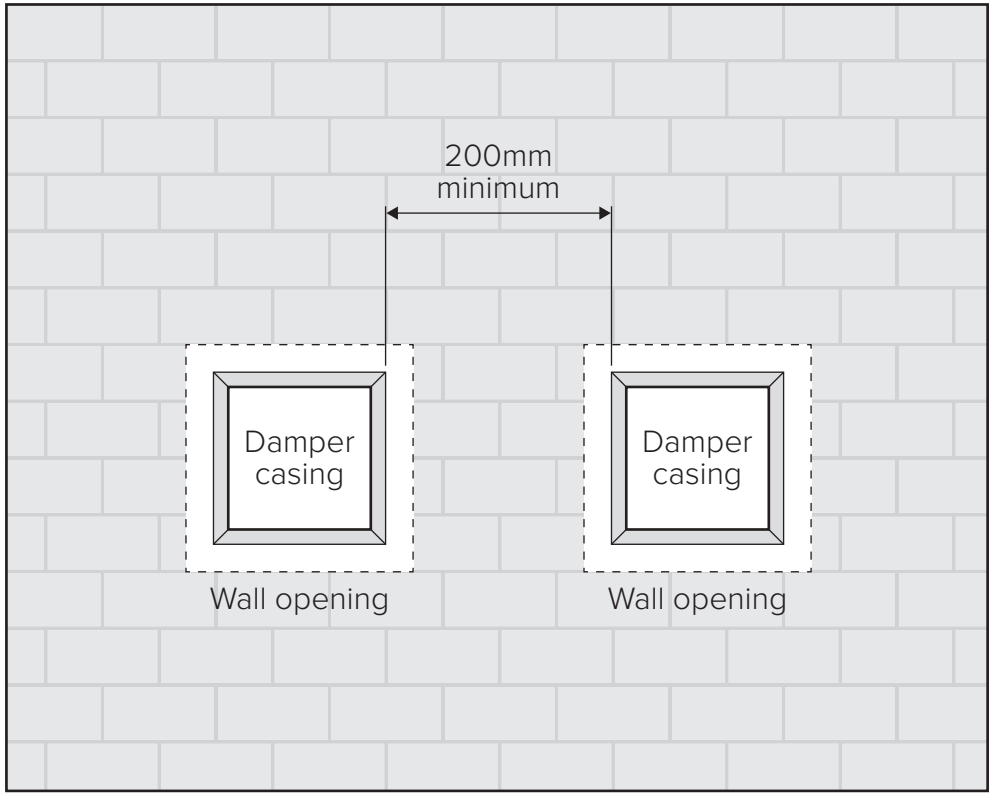
Are there any solutions?

There are various solutions on the market place, and the most common solution customers have used with damper and duct products is to install the drop rods that support the ductwork or dampers in a manner that allows these drop rods to pass through the damper and duct fixing points in the event of deflection. Dampers and ductwork should be inspected at regular intervals, and if the securing nuts underneath the mounting points on a damper or ductwork have dropped, due to slab deflection, they can be re-tightened. This restores the support that the drop rods are giving to the products.



Supporting construction

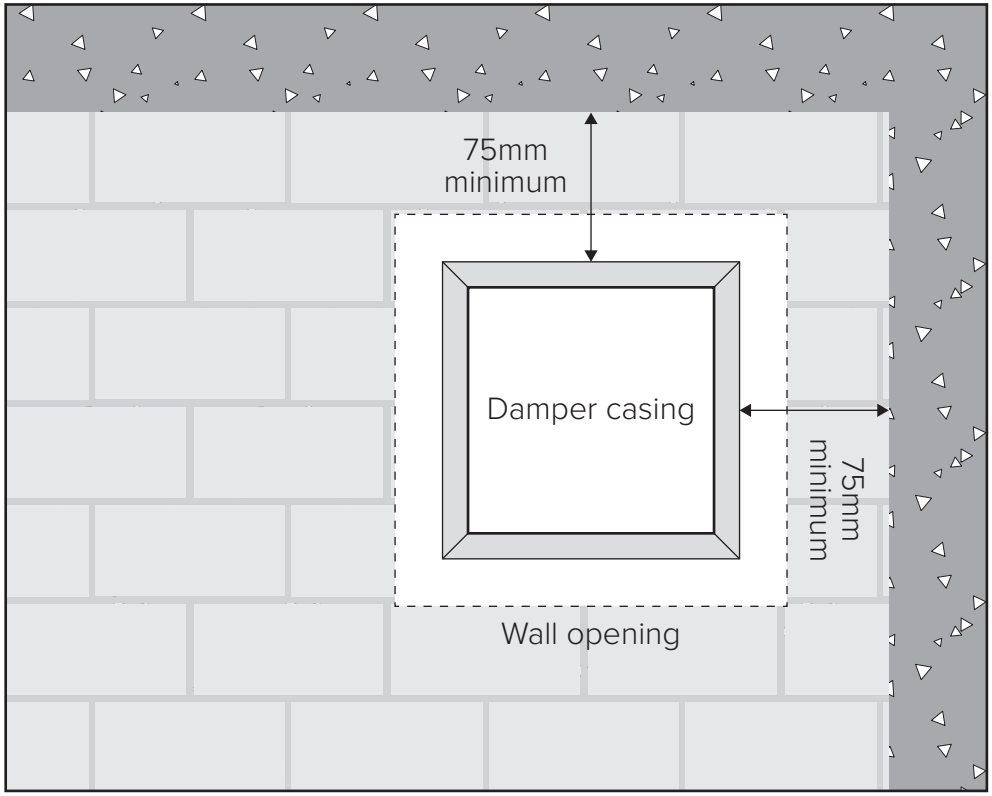
BS EN 1366-2:2015 section 7.3 states “the distance between the fire dampers shall not be less the 200mm.” Specific wall manufacturers may require a larger distance between dampers due to the nature of their wall.



Multiple ducts in one large opening is not currently included in a harmonised standard, but this is being investigated by standards committees.

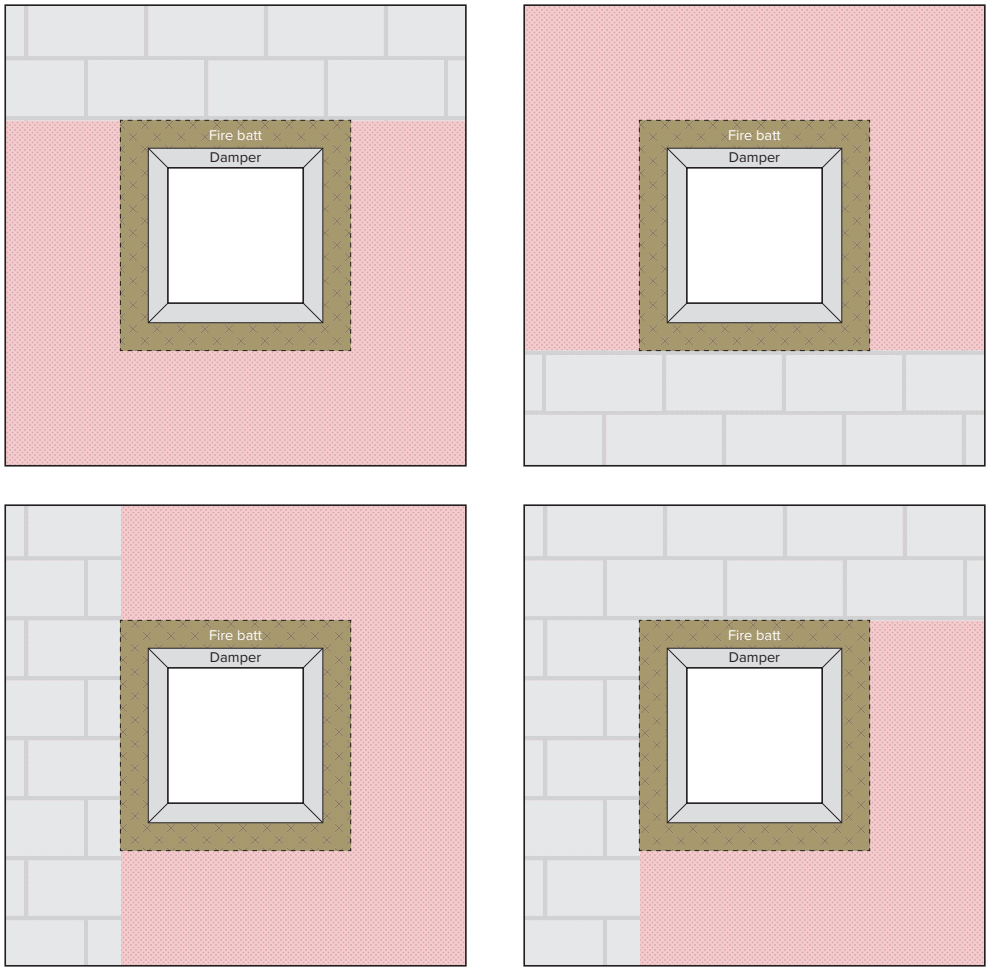
Surrounding construction

BS EN 1366-2:2015 section 13.6 states “minimum separation of 75mm between fire damper and a construction element (wall / floor).”



Acceptability of mixed construction walls

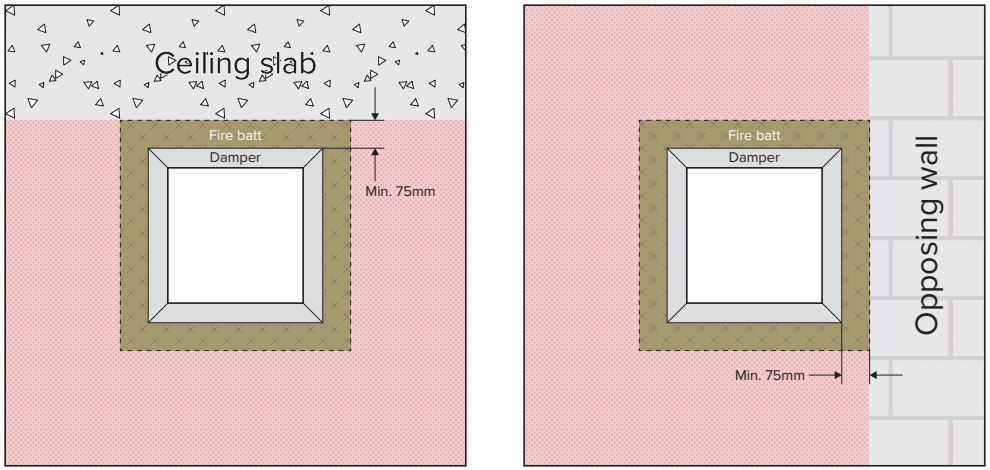
The question of whether “mixed construction” walls are acceptable is regularly discussed on projects – this is where a wall is made from both plasterboard (Flexible) and blockwork/concrete (Rigid) elements which mean that the sides of the damper opening are different. A few examples are shown below and the Rigid element could be another continuation of the wall, or even an opposing wall or slab.



Compliance with BS EN 1366-2

The direct field of application in BS EN 1366-2 states that products tested in Flexible walls are also suitable for installation into Rigid supporting constructions. It is therefore reasonable to assume that a mixed construction would be acceptable on the same basis. For further clarification we contacted our notified body, the BRE, who were able to provide a written statement that mixed constructions are acceptable. A copy of this correspondence is available upon request.

It is important to remember that where a given side of the opening is an opposing wall or floor/ceiling slab, rule BS EN 1366-2 clause 13.6 should be observed, which requires a gap of at least 75mm between the damper case and any opposing wall or floor/ceiling slab as shown below:



Initial operating check

The 26SCD damper should only be commissioned once it is fully installed and connected to electrical power. The damper installation should be inspected thoroughly to ensure that it is clean and free of any internal debris before the damper actuation is tested as per the following instructions:

- Isolate the power.
- Remove the access door.
- Test the damper manually by sliding the clutch (black slide button) and manually moving the actuator head by hand. Move the damper fully open and release the clutch.
- Visually inspect damper in the open position, checking that it has fully opened correctly.
- Using the clutch once more, move the damper to the fully closed position.
- Visually inspect damper in the closed position, checking that it has fully closed correctly.
- Apply power to the actuator, and signal the damper to open (the method by which this is carried out varies depending on actuator model – seek advice from a controls specialist if unsure). It will take 16 seconds for the damper to fully open.
- Visually inspect through the access door that the blades are fully open.
- Apply power to the actuator, and signal the damper to closed (the method by which this is carried out varies depending on actuator model – seek advice from a controls specialist if unsure). It will take 16 seconds for the damper to fully close.
- Visually inspect through the access door that the blades are fully closed.
- Damper not fully opening or closing?
  - Obstruction to the blades – remove the obstruction.
  - Incorrect set up of the actuator – the actuator has been adjusted by others from the factory set position.
  - For other faults contact Advanced Air sales office.
- Ensure that the access door has been refitted when complete.

M9116 actuator

Maintenance

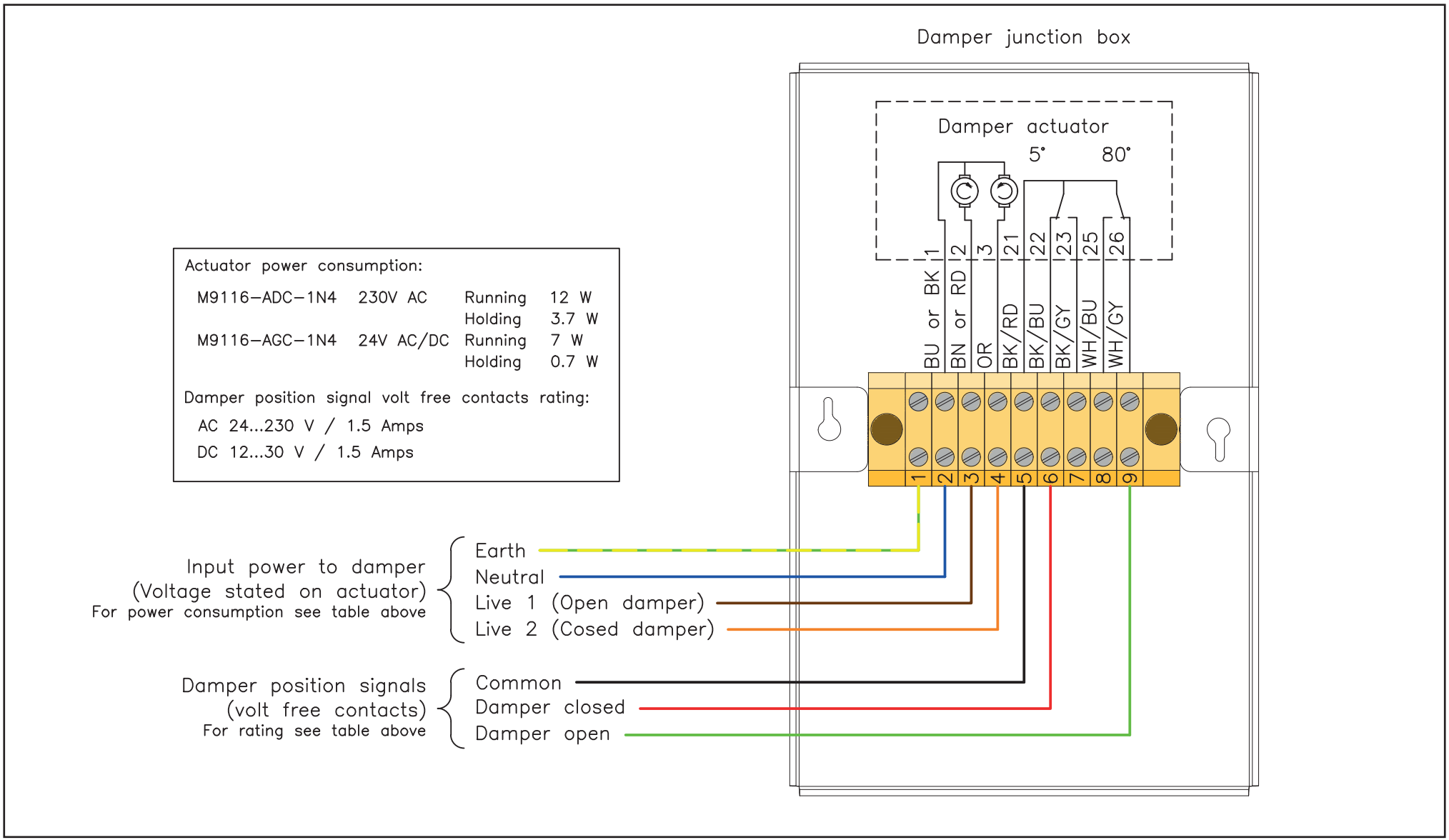
26SCD dampers are installed as a life safety product and it is essential that they are always maintained so they are in a good, clean working condition. In accordance with BS9999 Annex W.1 maintenance and inspection should be undertaken annually.

Maintain the dampers as follows;

- Remove the access door to internally inspect the damper.
- Visually inspect all damper components for signs of corrosion, obstructions and build-up of dirt/dust.
- Remove any obstructions, wipe away all dirt and dust from the damper blades, sides seals and duct surfaces.
- The damper blades are fitted to sintered metal, self-lubricated bearings which do not normally require any attention.
- Use the control system to electrically open and close the damper, in order to check electrical operation is working.
- After internal inspections are complete a functional check of the damper should be made.
- Refit the access door and complete maintenance reports as appropriate.

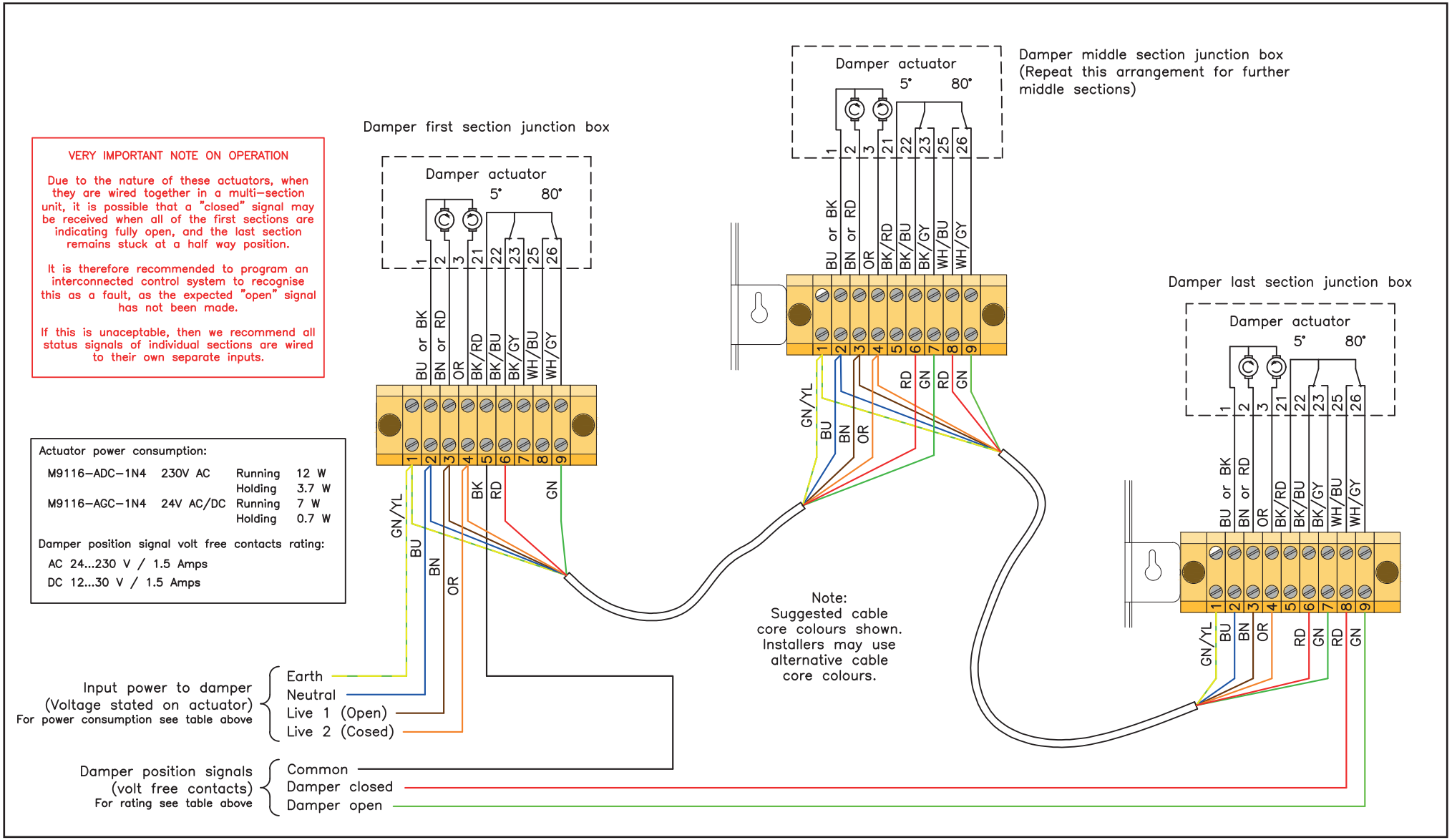
WIRING INSTRUCTIONS – 26SCD WITH POWER OPEN / CLOSE ACTUATOR

Wiring detail for dampers fitted with powered open/close actuators Johnson M9116-ADC-1N4 (230V AC) or M9116-AGC-1N4 (24V AC/DC).



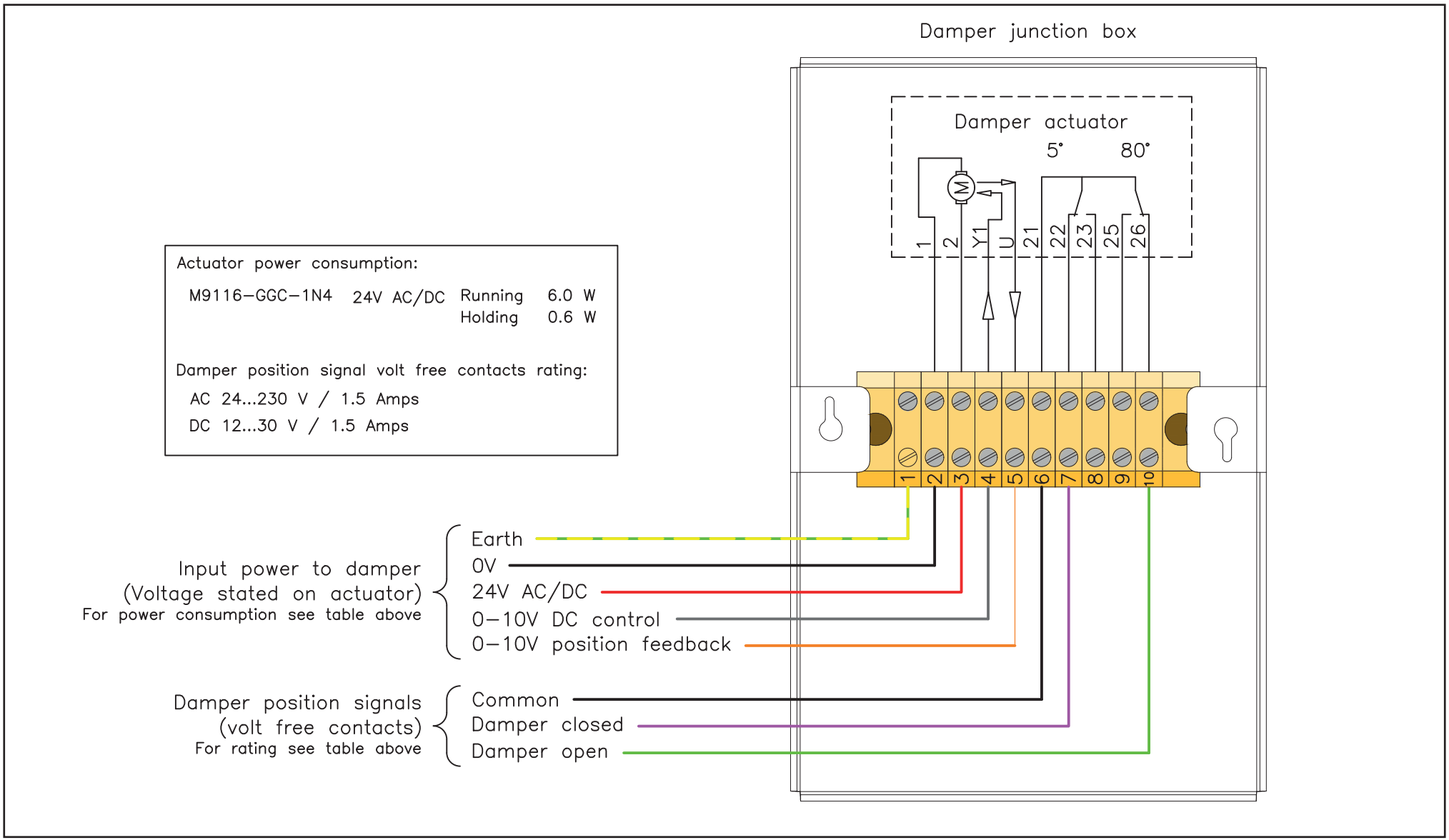
WIRING INSTRUCTIONS – 26SCD MULTI-SECTION WITH POWER OPEN / CLOSE ACTUATOR

Wiring detail for dampers fitted with powered open/close actuators Johnson M9116-ADC-1N4 (230V AC) or M9116-AGC-1N4 (24V AC/DC).



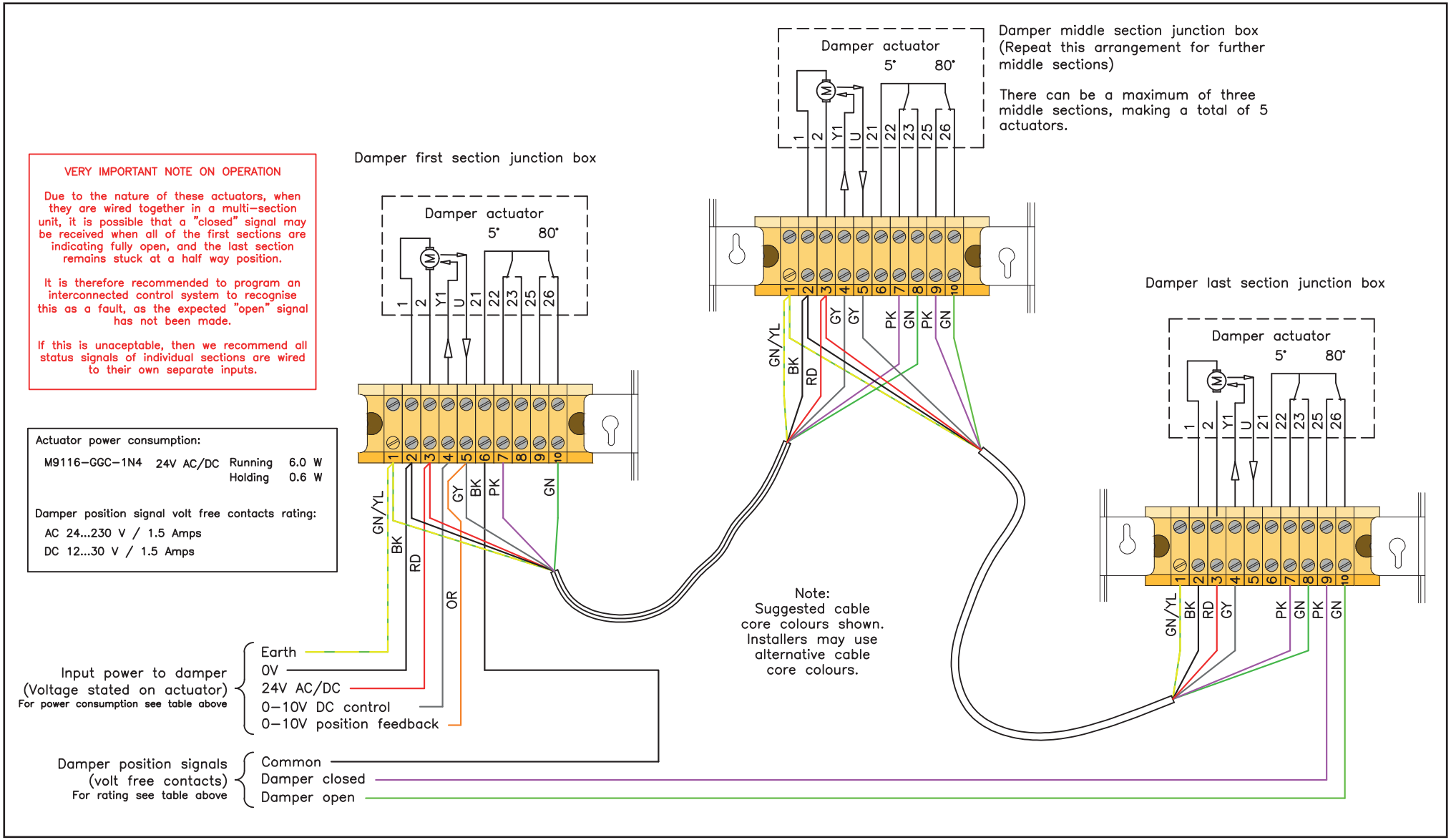
WIRING INSTRUCTIONS – 26SCD WITH MODULATING ACTUATOR

Wiring detail for dampers fitted with modulating actuators Johnson M9116-GGC-1N4 (24V AC/DC with 0-10VDC control).



WIRING INSTRUCTIONS – 26SCD MULTI-SECTION WITH MODULATING ACTUATOR

Wiring detail for dampers fitted with modulating actuators Johnson M9116-GGC-1N4 (24V AC/DC with 0-10VDC control). **A maximum of five actuators** can be connected this way.



Fire Damper Checklist

DW 145 Inspection & Handover Check Sheet to be completed by the installer with a separate certificate for each damper.

No.	Question	Guidelines	Tick
1	Are the dampers the correct type?	Fire Damper Model 0160, 0400MAN Fire Damper Model 2550, 2530, 26SCD and 0400FME	
2	Are the dampers correctly identified?	Identification label clearly shows the damper individual reference number	
3	Are the dampers located correctly?	The damper position matches the position as detailed on the manufactures installation instructions	
4	Have supports for both the damper and the adjacent ductwork been installed in accordance with the approved method?		
5	Are the dampers fitted in the correct orientations?	The dampers are installed the correct way up relative to airflow and access	
6	Is access, through the ductwork to the damper unobstructed?	There is unobstructed space to allow safe access to damper, also through ceiling void and adjacent services	
7	Confirm the space around the damper has not been used for the passage of other services	The presence of other services will invalidate the installation method	
8	Using the access opening provided, confirm that the damper has been left in the open position		
9	Release the damper catch to simulate the thermal release mechanism (damper drop test)	Ensure the blade operation is free from interference	
10	Check damper blades for damage	With the damper in the closed position inspect for damage	
11	Re-set damper and replace access panel	After resetting check that if supplied the visual position indicator is correct	
12	Is the fire barrier and penetration seal complete?	Confirm at handover if installation is complete and if no then other trades will be required to finish	
13	Handover damper installation for commissioning	Obtain relevant acceptance of the damper installation from the nominated person responsible	

Project		Installer Name	
Damper ID No:		Company	
Location		Date	
Type		I hereby confirm the damper detailed has been installed and tested according to the manufactures recommendations	
Model No:		Signature	