

The Halton FDT fire damper is installed on concrete and masonry walls and on ceilings penetrated by an air inlet. When the damper is installed through a gland on a concrete and masonry wall or slab and lightweight wall, the fire resistance class is EI 60 ($v_g h_o$) S.

In wall installations, the blade shaft may be horizontal or vertical. The Halton FDT fire damper can comprise one or two modules. Its nominal sizes are 200x200 to 2100x1000 mm. Larger units are installed as modules.

1 When the damper is installed on concrete and masonry structures, the size of the installation hole is the dimension of the side of the product +55 mm.



2 When the damper is installed on lightweight walls, the size of the installation hole is the dimension of the side of the product +55 mm.



A steel or wooden joist is installed at the edge of the installation hole on a lightweight wall as shown in the figure. The wall is insulated and covered with boards so as to meet the fire-resistance time requirement.



3 The mineral wool, min. 40 kg/m³, to be placed between the hole and the fire damper, can be installed in advance, before the product is placed in the hole.



4 The fire damper is then carefully lifted into place.



5 The fire damper is centred in the middle of the installation hole and screw-fixed via the flange on the steel or wooden joist of the lightweight wall. Steel expansion anchors (8 mm) and brackets supplied with the product are used to install the fire damper on concrete and masonry walls. Thus the expansion anchors can be positioned further from the edge of the hole.



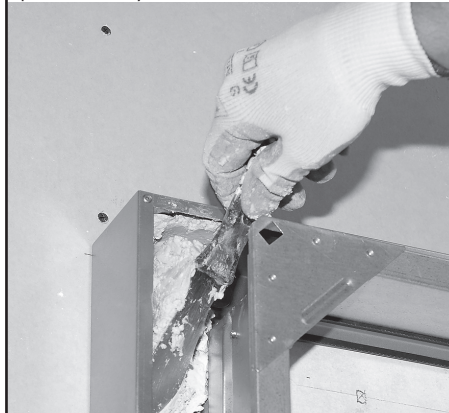
6 The straightness, diagonal dimension, and correct operation of the fire damper are verified before application of the fire prevention mastic.



7 If necessary, mineral wool, min. 40 kg/m³, is added between the fire damper and the installation hole.



8 The fire damper and actuator must be protected when the fire prevention mastic is being applied. Fire prevention is achieved by filling the installation frame or casing with type-approved fire prevention mastic, such as GPG (Palokatkomiehet Oy), CP 637 (Hilti), or Sealfire W1000 (Würth), in accordance with the instructions provided by the manufacturer.



9 The intermediate metal sheet (1) in a fire damper consisting of two modules is removed before the fire prevention mastic (2) is applied, after which it will be screwed back into place. NOTE: Sealing compound (3) is to be applied between the intermediate blade and fire damper before screw fastening.



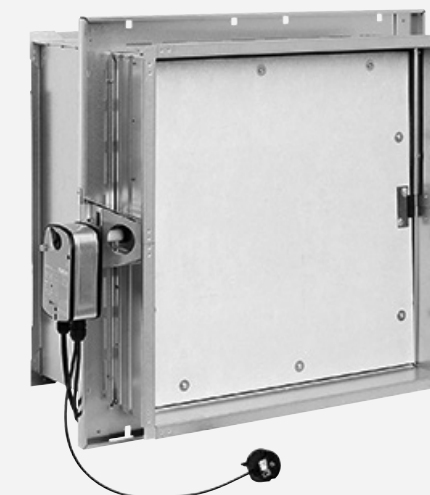
10 The operation of the fire damper shall be checked for correctness after application of the fire prevention mastic. An actuator model can be tested with a hexagon spanner (included in the delivery) when power supply is switched off.



11 The electric actuator model can also be tested when power supply is switched on, by means of the switch on the thermostat. NOTE: The thermostat shall be installed on the duct close to or above the horizontal centre line. Ensure also that the thermostat is outside the range of movement of the blade. The hole for the thermostat is 10 mm. Fix with self-tapping screws.



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FIRE DAMPER HALTON FDT INSTALLATION INSTRUCTIONS AND CERTIFICATE

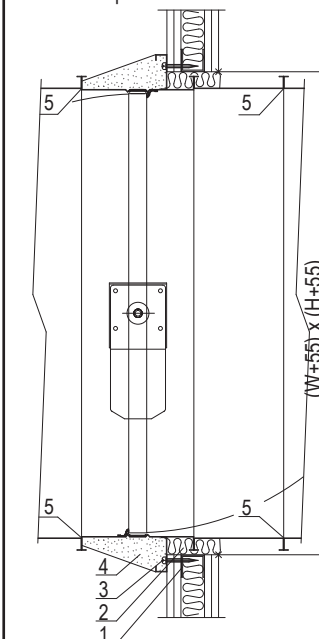
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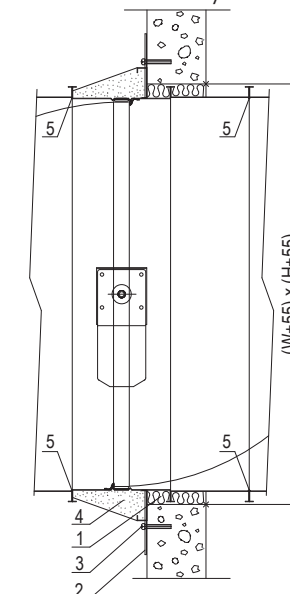
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12 Installation on a lightweight plasterboard wall



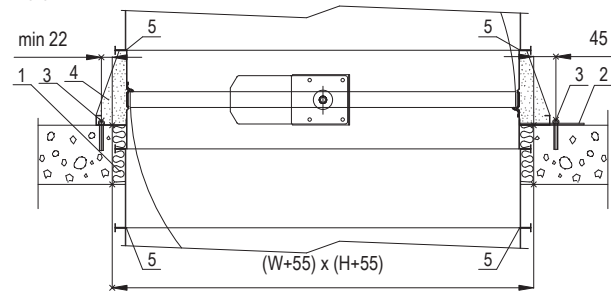
1. Frame 1
2. Mineral wool, min. 40 kg/m³
3. Fixing screw (e.g., 6.5x50)
4. Fire prevention mastic
5. Duct connection, closed-cell gasket (or similar)

Installation on a concrete and masonry wall

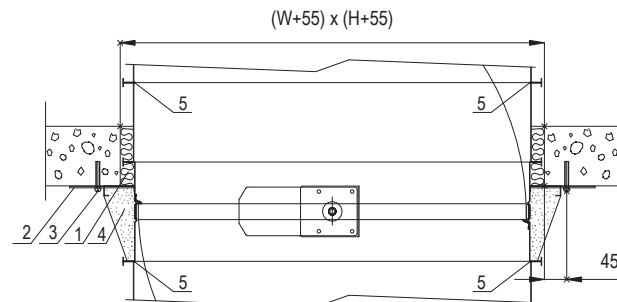


1. Mineral wool, min. 40kg/m³
2. Bracket
3. Expansion anchor, metal (e.g., M8x50)
4. Fire prevention mastic
5. Duct connection, closed-cell gasket (or similar)

13 Installation above a concrete or masonry slab:
Installation with metal expansion anchors (e.g., M8x50) either by the installation frame, in which case the distance from the edge of the hole must be at least 22 mm, or by means of brackets, in which case the distance is approx. 45 mm.

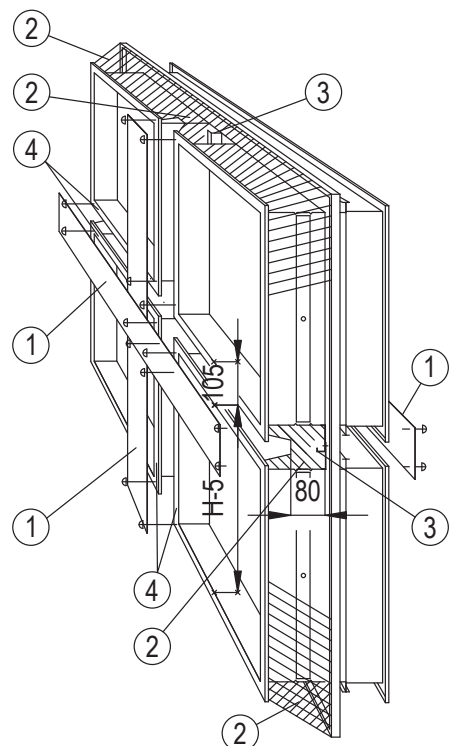


14 Installation below a concrete/masonry slab:
Installation with metal expansion anchors (e.g., M8x50) and using brackets. The distance of screws from the edge of the hole shall be approx. 45 mm.

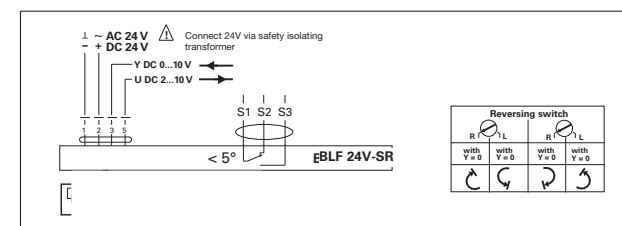
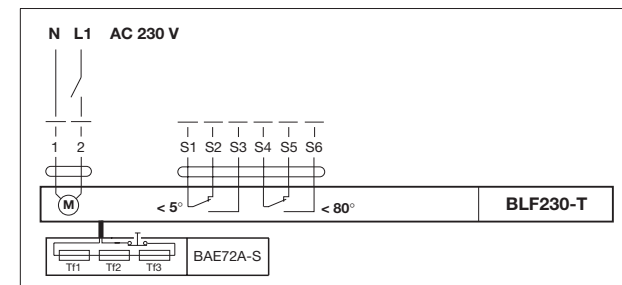
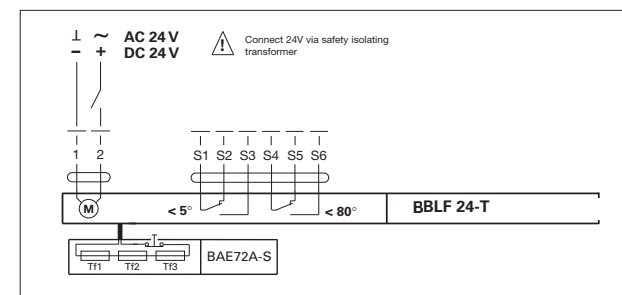


15 Modular installation, performed on-site:
When the fire damper consists of more than two modules because of large connection size, the joint between the modules shall be 105 mm, measured from the insides of the modules. The outer edge (3) of the installation flange shall be removed from one of the fire dampers used for modular installation, to allow overlapping of the flanges. The flanges are then aligned by the fixing holes so as to leave the 105 mm distance. Air-tightness of the products will be ensured after application of the fire prevention mastic (2) through insertion of a 100 mm wide strip of sheet metal (1) and sealing compound (4) on either side of the space between the products (not included in the delivery) – see item 9. When a modular fire damper is connected to the duct, a duct gasket can be used to level the surfaces that are to be connected.

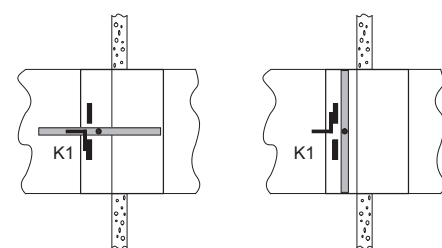
Separate ducts, side-by-side or overlapping installation:
If the fire dampers are installed in separate ducts close to each other, at least a 200-millimetre-wide support shall be installed/left on the wall between the installation holes. Fire dampers are installed as individual products.



Wiring diagram



Wiring diagram of the manual model (limit switch)



Open
K1:13/14 closed,
21/22 open

Closed
K1:13/14 open,
21/22 closed

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INSTALLATION CERTIFICATE

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An installation certificate form must be completed when fire dampers are being installed. This installation certificate must be filled in for each fire damper installed. The installation certificate applies only to Halton products

CE marked by Certificate of Constancy of Performance 0809-CPR-1158

Name of the installation location: _____

Address: _____

Product number from the type plate (production order no.): _____

Release temperature of the fire damper fuse: _____

Contractor contact details:

Company name: _____

Address: _____

Company telephone no.: _____

E-mail or Web address: _____

Installer's telephone no.: _____

Installer name(s): _____

Date of installation: _____

Installation location identification (section/floor/room): _____

Notes and considerations: _____

I hereby verify that the installation of this fire damper, the tightness of the gland, and the product (manual and/or electric) testing have been performed according to the manufacturer's installation instructions:

Place and date: _____, on _____ / _____, 20_____

Installer's name and signature: _____

Installation supervisor's name and signature: _____

This installation certificate must be enclosed with the deed of transfer of the building in question, and a copy of it must be given to rescue officials upon request.