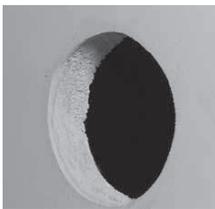


**The FDC fire damper is installed on the ventilation duct inlet on walls or ceilings between fire compartments.**  
**The fire damper can be installed for concrete and masonry walls or ceilings/plates or on lightweight panel walls. When one is installing the damper on a wall, the blade shaft must always be horizontal.**  
**The fire-resistance class of the FDC damper is EI 120 (v<sub>h</sub>,s) S.**

**1.1.** The maximum size of the installation opening in masonry wall or slab is the duct diameter + 50 mm (D+50).



**1.2.** The size of the installation opening in a lightweight or panel walls is indicated in the table in the installation drawing. A steel frame or a wooden joist must be mounted on the edges of the opening, supported against the wall joists.



**2. Panel wall:** Fill the corners with a mineral wool that corresponds to the insulation of the wall. The wool must reach the round installation frame along its entire perimeter.



**3. Panel wall:** Two installation frames are fitted in the installation hole within each other, one from each side.



**4. Panel wall:** Fasten the installation frames together with screws or rivets, ensuring that they are simultaneously fixed to the steel frame or the wooden joist.



**5.** Centre the fire damper in the middle of the installation hole, and fix on a lightweight wall with steel screws (e.g., 6.5 x 50) or on a concrete and masonry wall or plate with an expansion anchor – e.g., M8 x 50 by the flange. Ensure the correct operation of the product before grouting.



**6.** Cover the product and actuator while grouting. Grouting and sealing will be performed through the entire thickness of the wall with fine-grained concrete or fire prevention mastic, such as GBG (from Palokatkomiehiet Oy), CP 637 (Hilti), or Sealfire W1000 (Würth).



**7.** The grouting can be performed also from the flange side, by opening the filling doors (and closing them afterwards).



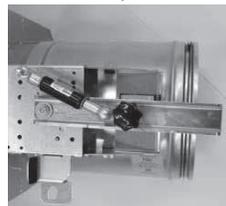
**8.** When the power is off, the electric actuator can be tested manually by means of a hexagonal spanner (included in the delivery).



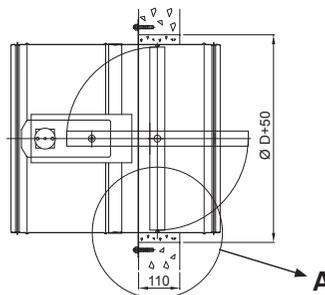
**9.** The electric actuator fuse can be tested when the power is on, by means of the fuse switch.



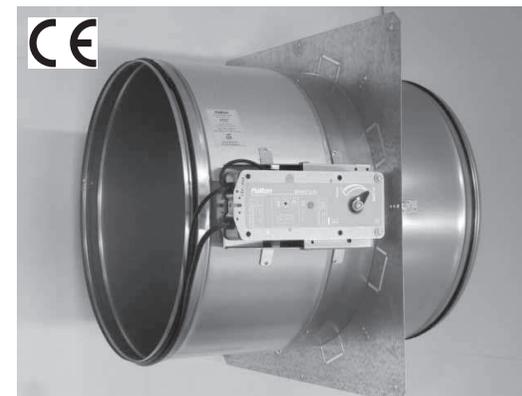
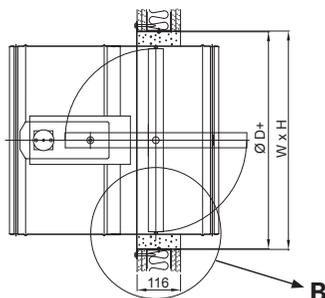
**10. Manual actuator:** Test the operation by freeing the lock of the handle. Lift the locking pin (with black knob) up, and turn 90 degrees by the handle. If the setting fails, the released fuse must be replaced. Simultaneously, the electrical and mechanical operation of the micro switches, which are available as accessories, should be tested.



### Installation on concrete and masonry walls or slabs



### Installation on lightweight or panel walls



## FIRE DAMPER FDC

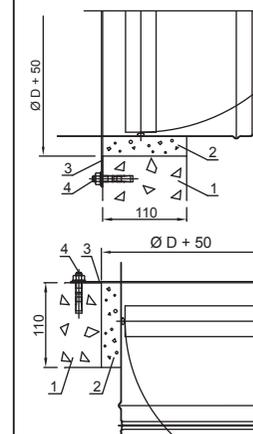
### INSTALLATION INSTRUCTIONS AND CERTIFICATE

1.9.2012

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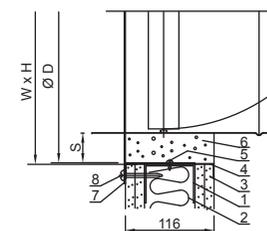
**Halton**

### A Installation on a masonry wall / slab



1. Stone wall, slab or ceiling
2. Grouting concrete or fire prevention mastic
3. Mounting frame
4. Wedge anchor, steel e.g. M8x50

### B Installation on a lightweight panel wall

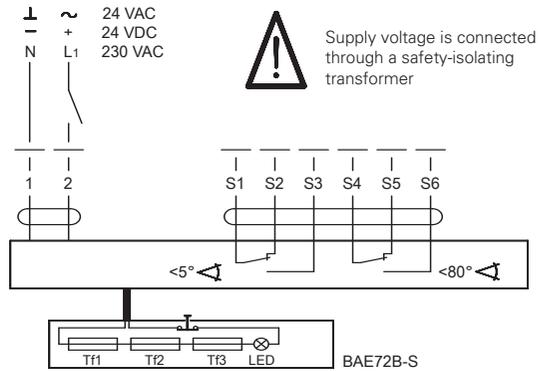


FDC	FRAME		CASTING FRAME	
	W x H	Ø D	W x H	S
160	255x255	250	45	
200	320x320	315	57	
250	320x320	315	32	
315	405x405	400	42	
400	505x505	500	50	
500	585x585	580	40	

1. Frame, steel or wood
2. Mineral wool, e.g. 60/100 (100 kg/m<sup>3</sup>)
3. Plasterboard
4. Casting frame
5. Mounting screw, e.g. 4,8 x 25
6. Fire prevention mastic
7. Mounting frame
8. Mounting screw, e.g. 6,5x50

**Testing of a fire damper equipped with an electric actuator**

The supply and operating voltage of the motor shall be verified prior to connection (24 VAC/VDC, 230 VAC). The electric actuator can be tested by means of the fuse switch when the power is on, or by means of a hexagonal spanner (included in the delivery) when the power is off. The final testing is always performed via the control system.  
 See also the instructions on the motor's data plate.  
 The fire damper opens when the power is on, and it closes when the power is off.  
 Motors: Belimo BLF24-T.1 HL, BLF230-T.1 HL, BF24-T.2.1 HL, BF230-T.2.1 HL.



**FDC INSTALLATION CERTIFICATE** ver. 5.0 1.9.2012



Installation certificate applying for the installation and control of fire dampers:  
 This installation certificate must be filled in for each installed fire damper.  
 This installation certificate applies only to Halton products..

CE marked with EC Certification of Conformity number 0809 – CPD – 0759.

Name of the installation location: \_\_\_\_\_

Address: \_\_\_\_\_

Individual product number from the type plate (production order no.): \_\_\_\_\_

Contractor contact details:

Company name: \_\_\_\_\_

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 and the tightness of the gland have been performed according to the manufacturer's installation instructions:

Place and date: \_\_\_\_\_, \_\_\_\_\_, 20\_\_\_\_

Installer's name and signature: \_\_\_\_\_

Installation supervisor's name and signature: \_\_\_\_\_

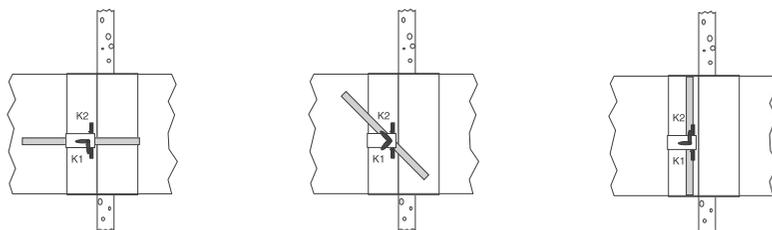
This installation certificate must be enclosed with the deed of transfer of the building in question, and a copy of it must be given to rescue officials upon request.

**Testing of a fire damper equipped with a manual actuator:**

The fire damper is opened and the spring set by turning the setting handle anti-clockwise. To lock the damper in this position, lift the locking pin (with black knob) in the fuse shaft. To close the blade, release the locking pin.  
 If the setting fails, the released fuse must be replaced and the correct operation of the new fuse verified. Simultaneously, the electrical and mechanical operation of the micro switches, which are available as accessories, should be tested.

**Wiring diagram for the micro switches of a manual model**

Limit switches K1 and K2: Pizzato, type FR 538-HO



Damper open

Damper running

Damper closed

K1: 13/14 closed  
 21/22 open  
 K2: 13/14 open  
 21/22 closed

K1: 13/14 open  
 21/22 closed  
 K2: 13/14 open  
 21/22 closed

K1: 13/14 open  
 21/22 closed  
 K2: 13/14 closed  
 21/22 open