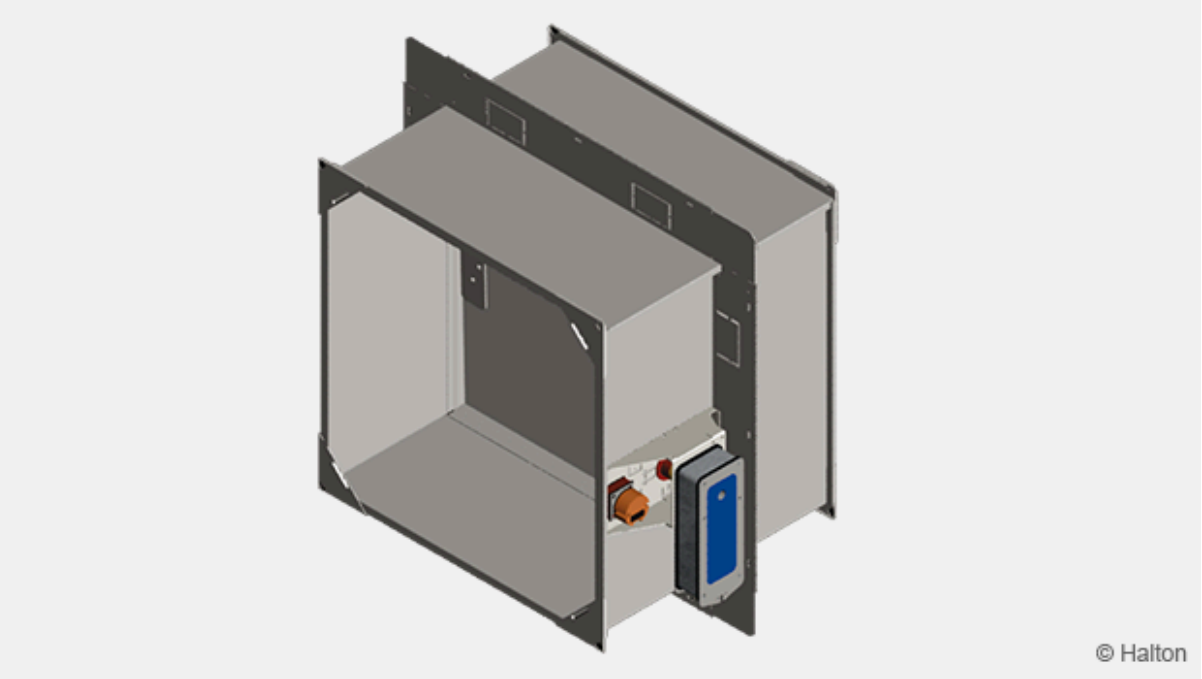
Private: Halton FDR – Fire damper (EI 120 S) – Terminated as of 1st February 2018

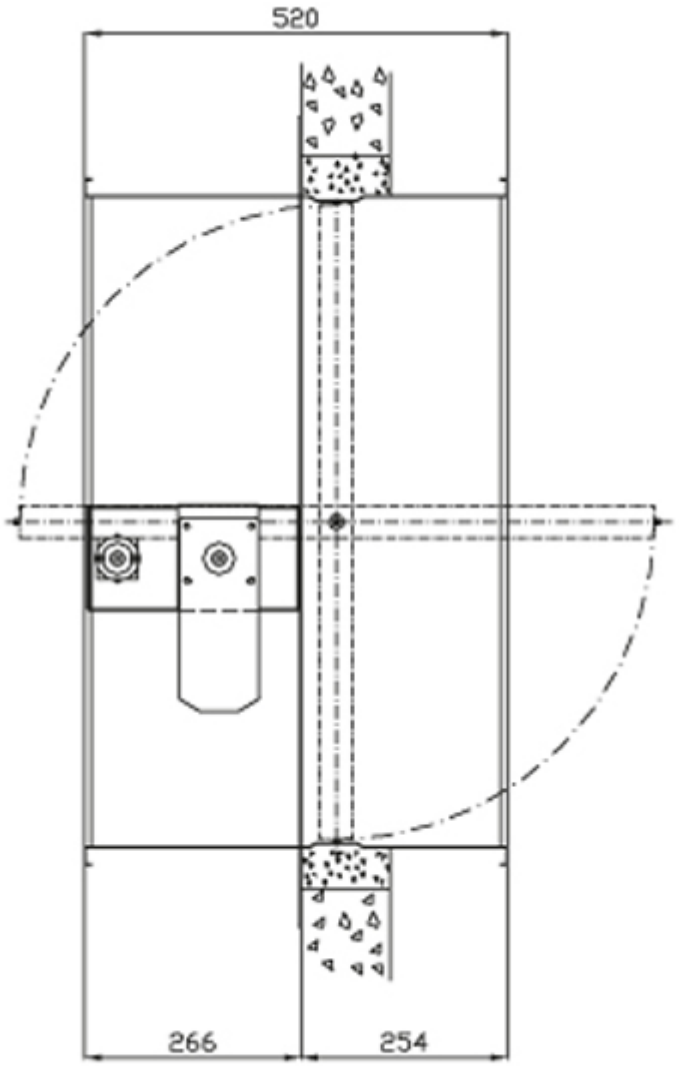


Overview

Available only in New Zealand and Australia from 1st February 2018 to 18th October 2022

- Possible to install in concrete, masonry or lightweight wall with fire resistance of **EI 120** (v_e – h_o) S C 50
- Suitable for horisontal and vertical installation
- No spare parts or additional installation frames needed, regardless from the wall type
- Manufactured in accordance with ISO 9001 quality system
- Double sealing on the blade to ensure full tightness
- Damper casing tightness class C according to EN 1751
- Damper closing test performed at 15 m/s duct velocity
- Possible to equipped with electric, solenoid, pneumatic and electromagnetic

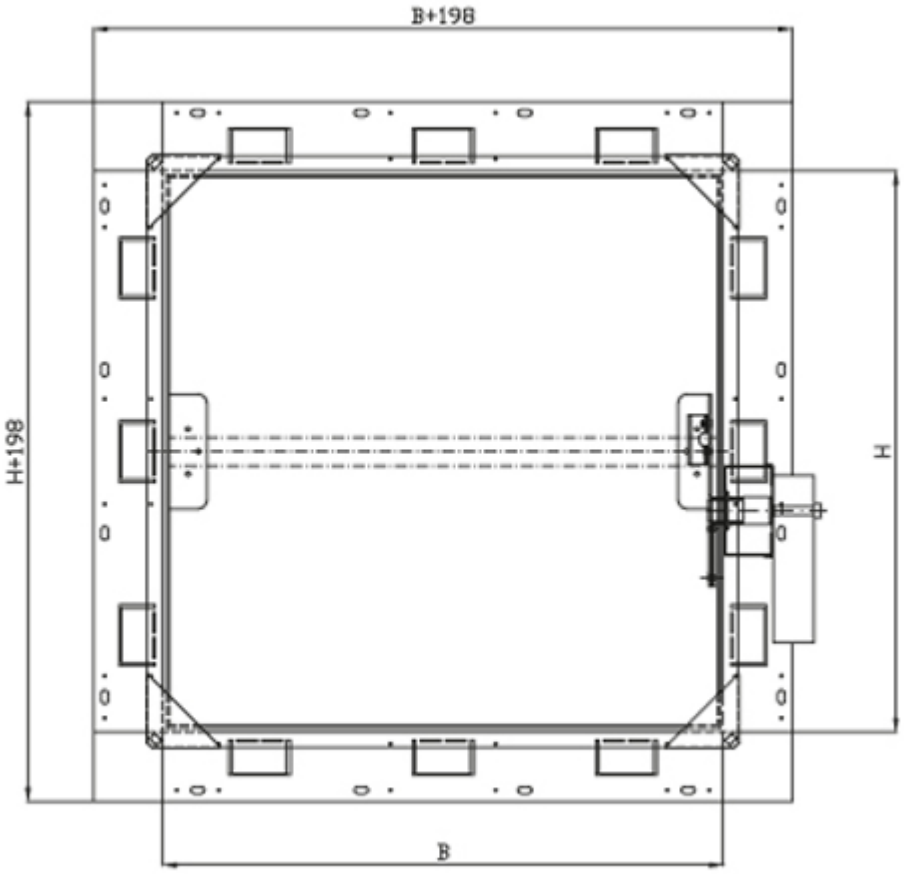
Dimensions



W/H: 200, 250, 300, 400, 500...1000

When the damper is installed on concrete and masonry walls or ceilings, the size of the installation hole is W/H + 100 mm.

When the damper is installed on lightweight walls, the size of the installation hole is W/H + 110 mm.



DØ	WxH	D-1	La	Lb	C	L	L+2xC
630	600×600	629	266	354	52	620	724
800	800×800	799	366	454	58	820	936
1000	1000×1000	999	466	554	58	1020	1136

Material

The Halton FDR fire damper casing, installation flange, and installation frame are made of galvanised steel. The closing blade is made of calcium silicate and equipped with a flexible silicone seal as well as a graphite mass seal that expands at high temperatures.

Accessories

Accessory	Code	Description	Electric actuator	Manual actuator
Safety mesh on actuator side	N1	Galvanised steel (10×10 mm)	X	X
Safefty mesh on both sides	N2	Galvanised steel (10×10 mm)	X	X
Fuse	FU	Thermal release at 72 °C		X
Limit switch	MS	Closed position indication, enclosure class IP65		X

Electric actuator (B1 and B2)

In the electric actuator system when a signal from building automation reaches the actuator or the fuse reacts to a rise in temperature (72 °C) power is switched off and the spring closes the blade automatically. When the supply power is turned back on (e.g. during testing), the blade opens automatically. The actuator is equipped with built-in limit switches for both open and closed position.

The Halton FDR fire damper with 24V power supply is recommended to be connected to the Halton Safe fire damper management system (HSM). This system enables the use of smoke detectors in ductwork or room spaces. The Halton FDR fire damper can also be connected to other commonly used building automation systems

Actuator options

B1 BF24-T-2, power supply AC/DC 24 V (72 °C), 18 Nm
B2 BF230-T-2, power supply AC 230 V (72 °C), 18 Nm

Manual actuator (MA)

The fuse reacts to the rise of temperature (72 °C) and the spring closes the blade automatically. It needs to be opened manually.

Limit switch (MS)

The limit switch indicates damper blade position, sending an impulse to other remote-release fire dampers if the blade is closed, tripping an alarm in the monitoring system and/or stops / starts fans, depending on the designed system. The limit switch has no influence on the thermal fuse or release mechanism.

Function

The Halton FDR is a fire damper of class EI 120 (v_e – h_o) S C 50 for circular or rectangular ducts, which prevents fire and smoke from spreading in ventilation ducts. The fire damper is equipped with either a motorised actuator or manual actuation arrangement. Both actuators have a visual position indicator. If the power in the motorised actuator system is switched off, the blade closes automatically.

In both actuator options, a fuse reacts to a rise in temperature, causing a spring-return blade to close. The motorised fire damper is delivered complete with a spring-return actuator and a fuse that is activated at 72 °C.

The fire damper is made of fireproof materials. Once the fire damper has closed, the double sealing closes the duct tightly, effectively preventing the spreading of flue gases in the ventilation ductwork. The flexible seal of the double sealing system operates at lower temperatures, while the graphite mass seal expands to insulate the system at temperatures above 150 °C.

The Halton FDR fire damper can be connected to the Halton Safe,HSM control and testing system for fire dampers. The HSM unit enables the use of smoke detectors in the ductwork or rooms. The Halton FDR fire damper can also be connected to other common building automation systems.

Installation

Installation on concrete and masonry walls

When the fire damper is installed on concrete and masonry walls and ceilings between fire compartments, the blade shaft is always horisontal.

An opening is always left in the separating element for the fire damper, and the product subsequently is grouted into this.
To make installation easier, all products come with an installation flange, which is used to fasten the fire damper to the concrete surface with screws before grouting.

During installation, the fire damper and actuator must be protected with, e.g., a plastic cover.
The correct operation of the fire damper must be ensured before and after grouting.

When the damper is installed on concrete and masonry walls or ceilings, the size of the installation hole is D + 50 mm.

Installation on lightweight plasterboard walls

When the fire damper is installed on lightweight plasterboard walls between fire compartments, an opening for the fire damper must be left in the plasterboard in which the installation frame (included in the delivery) is first mounted.
The blade shaft must always be horisontal.

To make installation easier, the fire damper is delivered with an installation flange, which is used to fasten the fire damper to, e.g., the steel frame of the panel wall.

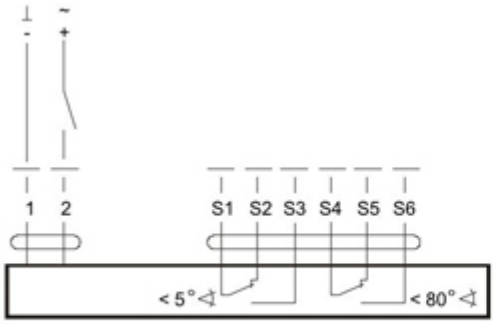
The space between the fire damper and the installation frame is filled with fire prevention mastic. During installation, the fire damper and actuator must be protected with, e.g., a plastic cover.

The correct operation of the fire damper must be ensured after application of the fire prevention mastic.

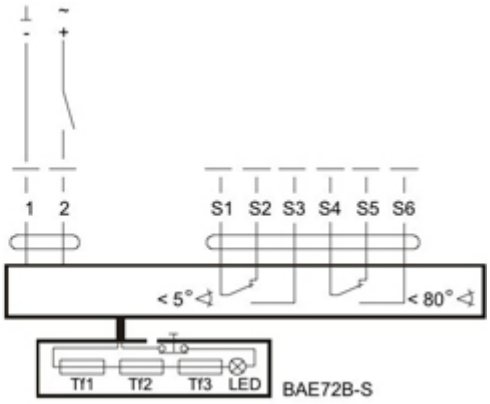
For lightweight walls, the size of the installation hole is W/H + 110 mm; consult the section Documents / Installation Instructions for the size of the installation holes.

Detailed installation instructions, as well as an installer's installation certificate form, are supplied with each product. See also the section Documents / Installation Instructions.

Electric actuator wiring diagram

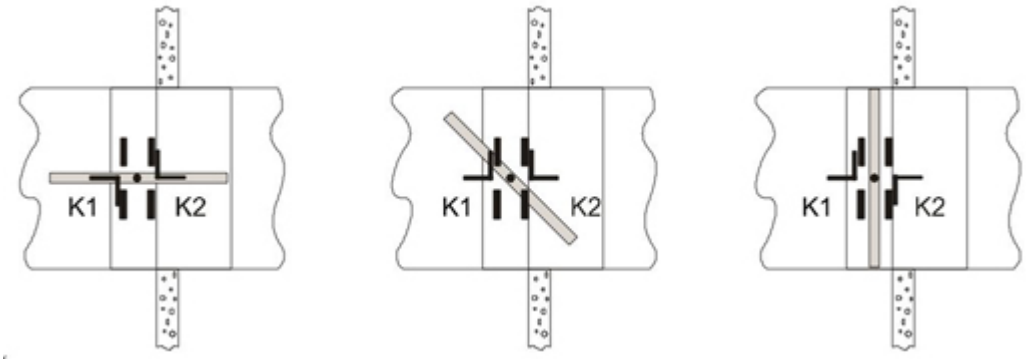


BF24
BF230



BF24-T
BF230-T

Manual actuator wiring diagram (limit switches, MS)



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

Damper drives
K1: 13/14 open
21/22 closed

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

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

Specification

A fire damper of class **EI 120** (v_e – h_o) S C 50 has a double sealing solution that ensures fire-gas resistance at all temperatures when the fire damper is closed.

In motorised models, the fuse is activated at 72 °C.
In the manually operated system, the fuse activation temperature corresponds to the specification, 72 °C.
The fuse is located inside the damper, and it is possible to replace it from the outside.

The fire damper has means for external opening / triggering of the release and closing.
The fire damper includes a position indicator.
The fire damper is suitable for vertical and horizontal installation on concrete and masonry walls and on ceilings and lightweight plasterboard walls between fire compartments EI 120 S.

The fire damper is CE marked according to the standard 15650:2010.
The internal quality control of the fire damper manufacturer is based on the ISO 9001 quality system, and the operations of the manufacturer is subject to external third-party quality control.

Order Code

FDR/S-A-W-H, RE-FU-ZT

S = Model
E Europe

A = Type of connection
R Rectangular
A Circular duct connection 630
B Circular duct connection 800
C Circular duct connection 1000

W = Width
200, 250, 300, 400, 500, 600, 700, 800, 900, 1000

H = Height
200, 250, 300, 400, 500, 600, 700, 800, 900, 1000

Other options and Accessories

RE = Release type
MA Spring release

B1 BF24-T-2 (72°C), 18 Nm
B2 BF230-T-2 (72°C), 18 Nm

FU = Fuse release temperature (°C)
72 72 °C

AC = Accessories
N1 Safety mesh, 1 side (installed on actuator side)
N2 Safety mesh, 2 sides
MS Limit switch (closed position)

ZT = Tailored Product
N No
Y Yes

Code example

FDR/E-160, RE=B1, FU=72, ZT=N