

Halton Exe Competent Circular (ECC) – Fire damper (EI 60 S)



Overview

This fire damper needs minimum free space around the body in case of installation. It is suitable for both vertical and horizontal installation in concrete, masonry and lightweight structures. Fire resistance class is provided up to EI 60 S requirements.

Features

- Supplied with electrical spring return actuator (24 V or 230 V)
- Sizes from Ø100 mm up to 400 mm are available
- Maximum air velocity through fire damper in open position is 12 m/s
- Suitable for use in ducts with a maximum pressure difference of 1200 Pa
- Frame construction is galvanised steel as standard. Stainless steel option available on request.
- No spare parts or additional installation frames needed, regardless of installation method

Installation options

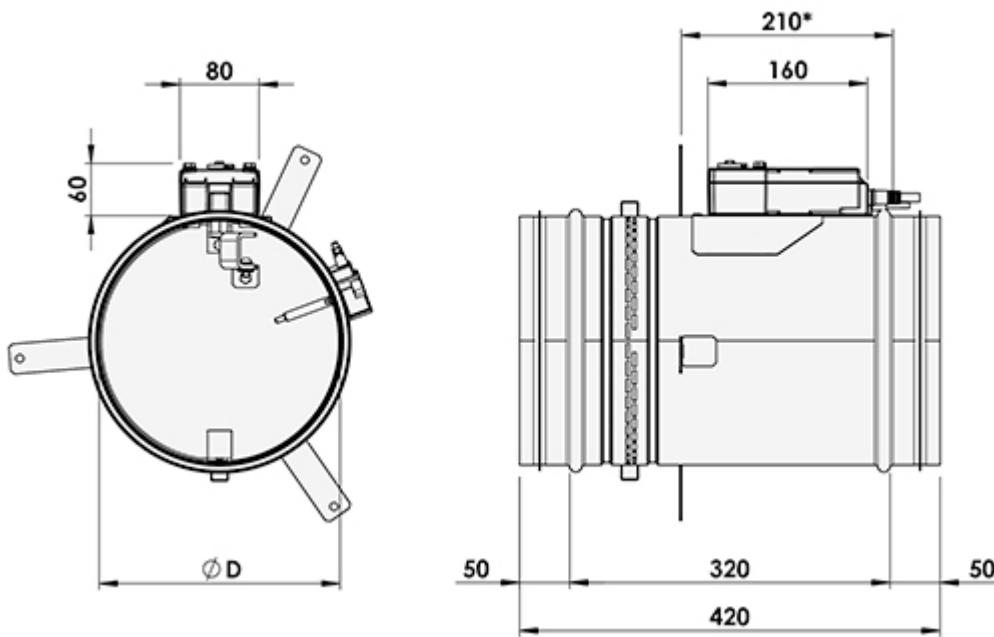
- Suitable for vertical (wall) or horizontal (ceiling/floor) installation
- Spindle of the blade and the operating model (electric actuator) can be installed in any position (360°) in wall installation
- CE marked for installation in concrete, masonry or lightweight structure with fire resistance class of EI 60

Standards

This product complies with the following standards:

- CE certified according to product standard EN 15650
- Fire classification according to EN 13501-3+A1 standard
EI 60 (v_e h_o i↔o) S
- Fire testing according to EN 1366-2
- CE certificate of Constancy of Performance 1391-CPR-2018/0203
- Declaration of Performance No:10026-ECC-2019/01/01
- Leakage through closed damper blade fulfils class 3 (Ø200-400) and class 1 (Ø100-160) according to EN 1751
- Damper casing tightness class C according to EN 1751
- Corrosion resistance: Salt mist test EN 60068-2-52

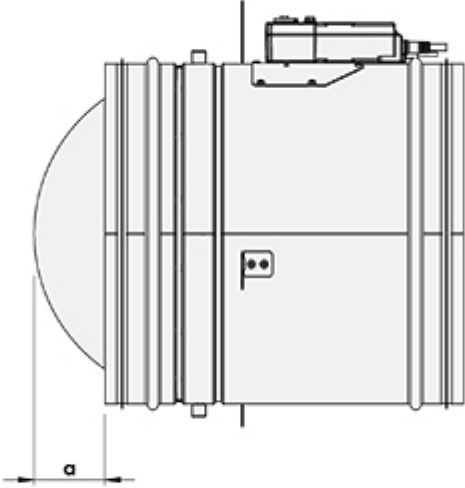
Dimensions and weight



NS	ØD
100	99
125	124
160	159
200	199
250	249
315	314
355	354
400	399

* Space reservation for fire damper

Overlap of blade (mm)

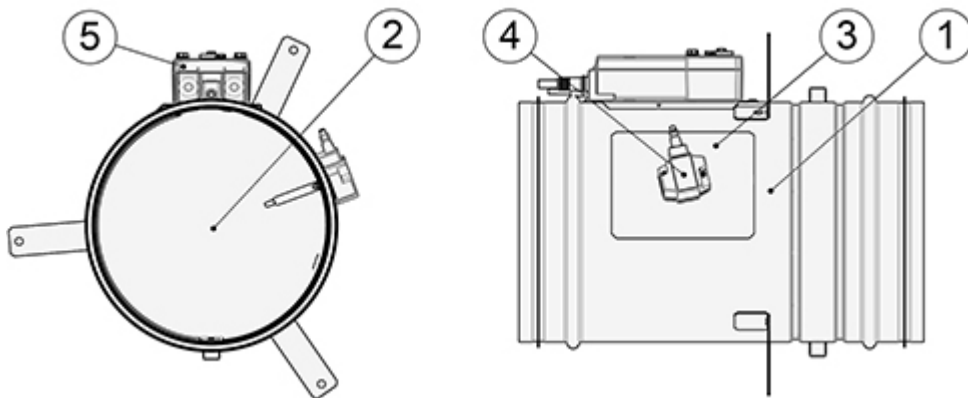


Size ØD	a
100	-
125	-
160	-
200	-
250	9
315	41,5
355	61,5
400	84

Weight (kg)

NS	With electric actuator
100	3.1
125	3.4
160	3.8
200	4.4
250	5.5
315	6.6
355	7.0
400	8.2

Structure and material



Key	Part	Material	Note
1	Casing	Galvanised steel	Stainless steel available, on request
2	Blade	Asbestos free boards made of mineral fibre	–
3	Inspection hatch covering	Galvanised steel	Stainless steel, if casing also stainless
4	Fuse	–	Electrical model
5	Operating model (actuator)	–	Electrical model

Operating models

Electric actuator

In the electric actuator (24 V and 230 V) system when a signal from building automation reaches the actuator or the fuse reacts to a rise in temperature (72 °C) power supply is switched off and the spring closes the damper blade. When the power supply is turned back on (e.g. during routine testing), the actuator opens the damper blade. The actuator is equipped with built-in limit switches for both open and closed position.

These actuators have a visual position indicator and fuses can be replaced from outside the device.

AC/DC 24 V (L1)

The Halton Exe Competent Circular fire damper with the 24 V electric actuator option must be connected to buildings fire damper management control system. We recommend our bus based network solution, Halton Safe Management 2.0 (SM2) management system. This system enables the use of smoke detectors in ductwork or room spaces.

Operationally, when the Halton Safe Management 2.0 receives a signal from the fire alarm or smoke detector the power supply is turned off and the spring return actuator drives the damper blade to closed position. When the power supply is reinstated (e.g. during routine testing) the actuator drives the damper blade to open position.

The fire damper can also be connected to other commonly used building automation systems.

AC 230 V (L2)

The Halton Exe Competent Circular fire damper with the 230 V electric actuator option must be connected to buildings fire damper management control system.

Order code	Operating model	Damper size (ØD, mm)	Operating voltage	Limit switch
L1	BFL 24-T 4 Nm	100 – 400	AC/DC 24 V	✓
L2	BFL 230-T 4 Nm	100 – 400	AC 230 V	✓

Function

The Halton Exe Competent Circular fire damper is CE certified for vertical (v_e) and horizontal (h_o) installation in concrete, masonry and lightweight structures. It fulfils the fire resistance class up **EI 60 ($v_e h_o i \leftrightarrow o$) S** requirements.

General

Fire dampers are shutters in ventilation duct systems and prevent spreading of the fire and smoke from one fire department to the other. They are equipped with either an electric operating model (actuator) or mechanical spring release (failsafe). Under both options, a fuse reacts to a rise in temperature, causing a spring-return damper blade to close position.

A fire damper with electrical actuator must be connected to a common fire alarm or building automation system.

In the electric actuator (24 V or 230 V) system, when a signal from building automation reaches the actuator or the fuse reacts to a rise in temperature (72 °C), the power supply is switched off, the spring closes the damper blade and seals the duct fire and smoke tightly. When the power supply is turned back on (e.g. during routine testing), the actuator opens the damper blade. The actuator is equipped with built-in limit switches for both open and closed position.

Alternatively, the fire damper can be delivered with a mechanical spring release (fail safe) with a fuse that reacts to the rise of temperature (72 °C) and the mechanical spring closes the damper. It needs to be opened manually.

Fire damper management system

It is recommended that the fire damper with an electrical actuator is connected to an automatic fire damper management system, e.g. Halton Safe Management 2.0 (SM2). Testing for fire dampers can be done automatically in Halton Safe.

Only fire damper with 24 V electric actuator can be connected to the Halton Safe Management 2.0 control and testing system. This system enables the use of smoke detectors in ductwork or in the rooms.

Operationally, when the Halton Safe control centre receives a signal from the fire alarm or smoke detector the power supply is turned off and the spring return actuator drives the damper blade to the closed position. When the power supply is reinstated (e.g. during routine testing) the actuator drives the damper blade to the open position.

The Halton Exe Sturdy Circular fire damper can also be connected to common building automation systems.

Installation

Please see/download Installation Guide for this fire damper from section Downloads.

Servicing

No regular maintenance is required for the product.

To ensure proper operation of fire dampers, inspection must be carried out regularly according to local building codes. The minimum recommended inspection period is **every 6 months**. Documentation of testing needs has to be saved for future needs.

A fire damper with electrical actuator must be connected to a common fire alarm or building automation system.

It is recommended that the fire damper with an electrical actuator is connected to an automatic fire damper management system, e.g. Halton Safe Management 2.0 (SM2) with operating voltage AC 24 V. Testing for fire dampers can be done automatically in Halton Safe Management 2.0 (SM2).

The fuse of a fire damper must be replaced if it has been released because of a rise of temperature in the duct. The fuse can be changed from outside the fire damper.

The fire damper is equipped with one inspection hatch, enabling the possibility to check the position of the damper blade. The actuator includes position indicators, open and close

Upon failure during testing of the fire damper, maintenance service shall be ordered from an authorised Halton representative to ensure appropriate operation of the product.

Specification

The fire damper is CE certified and marked according to the standard EN15650 and fire tested according to the EN 1366-2 standard.

A fire damper of maximum fire resistance class **EI 60 (v_e h_o i↔o) S** requirements.

The fire damper casing complies with the tightness requirements for EN 1751 class C. Leakage through closed fire damper blade fulfils class 3 (Ø200-400) and class 1 (Ø100-160) according to EN 1751.

The casing of the fire damper is made of galvanised or stainless steel (AISI 316L). The blade of the fire damper is made of fire resistant asbestos free board (mineral fibre).

The fire damper can be installed both vertical and horizontal position in concrete, masonry and lightweight structures.

The spindle of the blade and the operating model (electric actuator) can be installed in any position (360°) in wall installation.

The fuse shall be activated at 72 °C.

The fire damper actuator includes position indicators, open and close and is equipped with built-in limit switches for both open and closed position.

The fire damper is equipped with one inspection hatch, enabling the possibility to check the position of the damper blade.

Order code

ECC-D, MA-OP-FU-ZT

D = Diameter of duct connection (mm)

100, 125, 160, 200, 250, 315, 355, 400

Other options and accessories

MA = Material

GS Galvanised steel

OP = Operating model

L1 BFL24-T (72°C) 24 V, 4 Nm

L2 BFL230-T (72°C) 230 V, 4 Nm

FU = Fuse release temperature

72 72 °C

ZT = Tailored product

N No

Y Yes (ETO)

Code example

ECC-100, MA=GS, OP=L1, FU=72, ZT=N