

Fire damper ETCE



Veloduct ETCE fire damper is CE marked based on product standard EN 15650:2010 and tested according to the test standard EN 1366-2. ETCE meets the requirements of fire class EI 60 S / EI 90 S / EI 120 S. The damper casing also fulfils the requirements of leakage class C according to EN 1751.

Fire damper is available both with a built-in electrical actuator and with a fuse mechanism.

ETCE fire damper is designed for installation in a wall or intermediate floor for circular duct connection. The damper casing is manufactured from hot-galvanised sheet steel and the blade from fire-insulating calcium silicate material.

The fire damper is installed inside the fire compartment construction element according to the installation instructions. The damper is equipped with a Veloduct joint, which provides air tight duct installation.

ETCE motorized dampers have passed a durability test of 10 000 cycles (open/close) and can be used also for daily ventilation purposes. The use of a motorized damper enables automatic function testing (e.g. by our control and monitoring system FICO) and the use of a smoke-detector-based release system. The motor is equipped with built-in microswitches for both open and closed position.

When using our control and monitoring system FICO, the actuator is always of type 24 V. See Flakt Woods control and monitoring system FICO-128 or FICO-2. The damper is also available with electrical actuator of 230 V.

The damper version with the fuse mechanism is always equipped with microswitch (close position).

Specifications

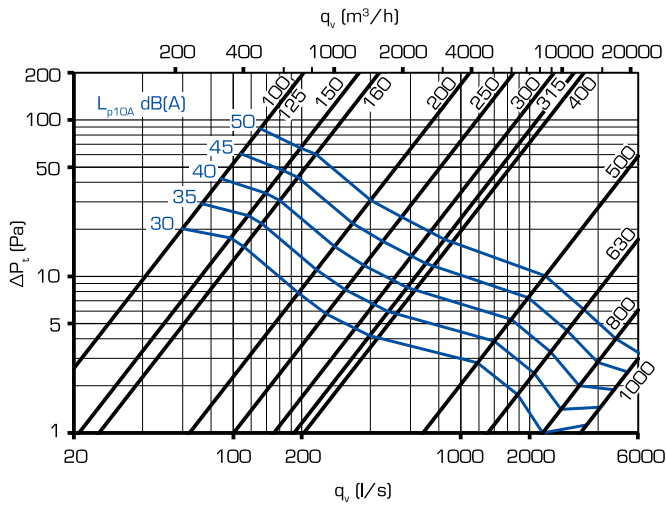
- Sizes Ø100-1000 mm
- CE marked (EN 15650:2010)
- Declaration of Performance 011CPR2013-07-01
- Fire class according to EN 13501-3
EI 60 ($v_e - h_o, i \leftrightarrow o$) S
EI 90 ($v_e - h_o, i \leftrightarrow o$) S
EI 120 ($h_o, i \leftrightarrow o$) S
- Testing according to EN 1366-2
- Fire damper meets the requirements of leakage class 3 according to EN 1751
- Fire damper casing meets the requirements of leakage class C according to EN 1751
- Maximum pressure against a closed damper is allowed to be 2500 Pa, corresponding to pressure class B

Product code example

Fire damper ETCE-0160-03-1

Technical data - pressure drop, sound data

Pressure drop and sound pressure level



Sound power level correction by octave bands

OCTAVE BAND (Hz)	63	125	250	500	1000	2000	4000	8000
CORRECTION K_{oct}	24	17	12	6	2	-2	-7	-14
TOLERANCE \pm	6	6	3	3	3	3	3	3

$$L_{W_{oct}} = L_{p10A} + K_{oct}$$

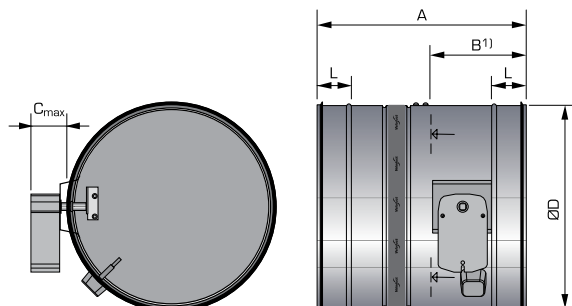
Definitions

q_v	Air flow	l/s, m³/h
$L_{W_{oct}}$	Sound power level in a duct by octave bands	dB
L_{p10A}	Sound pressure level with 4 dB room attenuation (10 m²sab)	dB(A)
K_{oct}	Correction	dB
Δp_t	Pressure drop	Pa

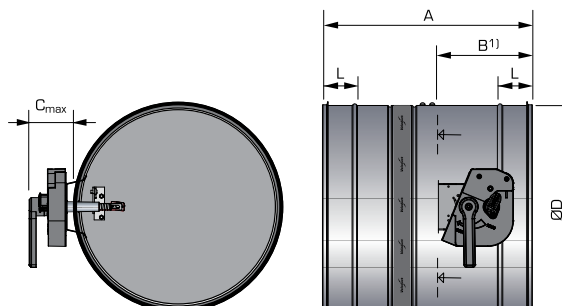
Dimensions and weights, fire classification

Dimensions and weights

Motorized damper
sizes 100 - 1000



Damper with thermal fuse
sizes 100 - 400



1) Distance from the wall

Size ØD	A (mm) ±10	B (mm) ±10	L (mm)	C _{max} (mm)	Weight (kg) Motorized damper	Weight (kg) Damper with thermal fuse
100 (125) *	416 *	195	35	100	3.8	2.7
125	416	195	35	100	3.4	2.3
150	416	195	35	100	3.7	2.6
160	416	195	35	100	3.9	2.8
200	416	195	35	100	4.5	3.4
250	416	195	40	100	5.5	4.4
300	416	195	40	100	6.7	5.6
315	416	195	40	100	6.9	5.8
400	416	195	60	100	9.0	7.9
500	570	310	60	100	17.5	-
630	570	310	60	100	22.0	-
800	570	310	100	100	26.0	-
1000	570	310	100	100	43.0	-

* D125 with 2 x reduction pieces BDED-1-012-010, total length 556 mm.

Fire classification

Size ØD	Installation method			Fire resistance	Pressure in fire test
	Flexible wall	Rigid wall	Ceiling		
100 - 400	x	x	x	EI 60 (ve - ho i<->o) S	500
	-	-	x	EI 90 (ve - ho i<->o) S	
	-	-	x	EI 120 (ve - ho i<->o) S	
500 - 1000	x	x	x	EI 60 (ve - ho i<->o) S	300
	-	x	x	EI 90 (ve - ho i<->o) S	
	-	-	x	EI 120 (ve - ho i<->o) S	

Description and product code

Description

Fläkt Woods CE marked fire damper ETCE is suitable for installation into building elements of fire class EI 60 / EI 90 / EI 120 made of concrete, lightweight concrete or brick or EI 60 made of gypsum board.

Product code

Fire damper **ETCE-aaaa-bb-c**

Size (aaaa)

Connection diameter in mm

0100, 0125, 0150, 0160, 0200, 0250, 0300, 0315, 0400, 0500, 0630, 0800, 1000

Actuator (bb)

02 = fuse mechanism with microswitch, 70°C (sizes 100-400)

03 = 24V AC/DC and thermal trip (sizes 100-1000)

05 = 230V AC and thermal trip (sizes 100-1000)

Actuator model (c)

0 = fuse mechanism

1 = standard

2 = FWB

Accessories and spare parts

Accessories

Inspection piece **FWD-aaaa-1**

Size (aaaa)

0100-1000

Grille

FND-aaaa-1-1

Size (aaaa)

0100-1000

Control system

FICO-128 / FICO-2

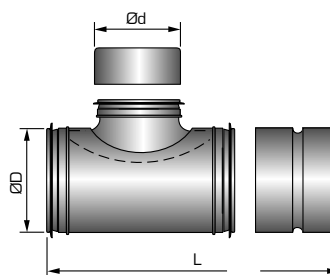
See a separate brochure.

Spare parts

Fuse part, 70°C for fuse mechanism

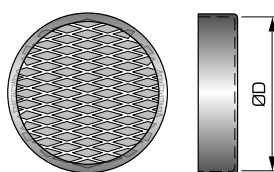
ETFF-99-1

Inspection piece FWD-aaaa-1



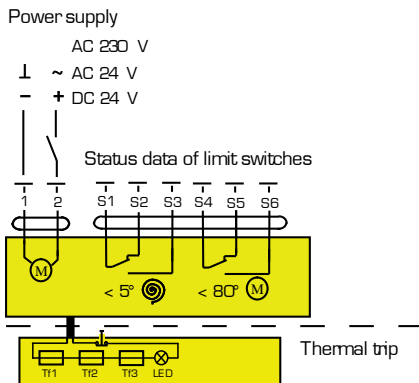
FWD length L consist of pieces BDEG+BDEM+BDET

Grille FND-aaaa-1-1



Wiring

Wiring diagram for damper motor



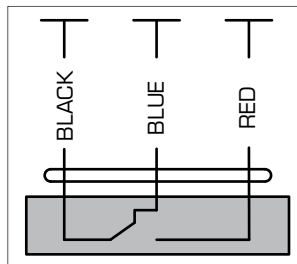
Actuator electrical data

Fire damper size	Voltage	Equipment	Max power hold/drive	Power for wire sizing
100 - 400	24V AC/DC	Thermal trip	2,5W/5,5W	8 VA
100 - 400	230V AC	Thermal trip	3W/5W	8 VA
500 - 1000	24V AC/DC	Thermal trip	3,5W/7W	10 VA
500 - 1000	230V AC	Thermal trip	3,5W/8W	12,5 VA

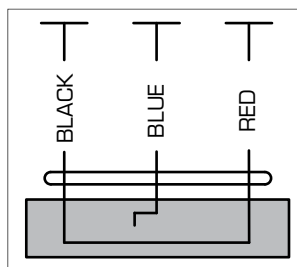
Storage temperature of fire damper actuator should not exceed +50°C

Wiring diagram for microswitch

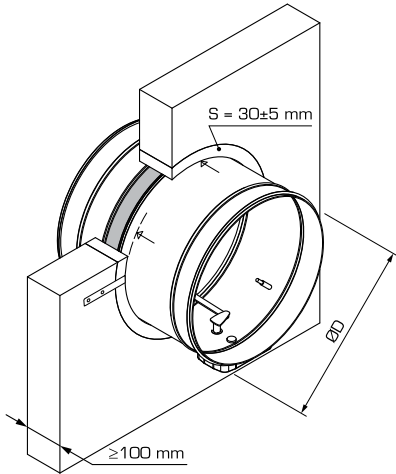
Damper blade position: CLOSE
Microswitch indicating: close position (standard)



Damper blade position: OPEN
Microswitch indicating: close position (standard)



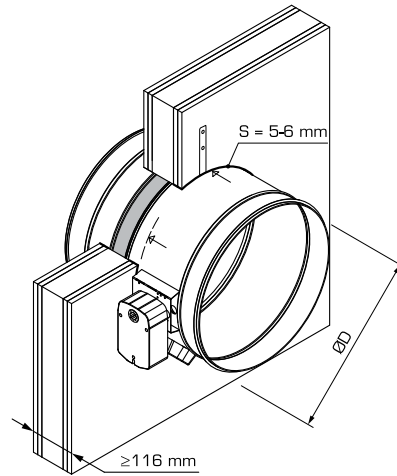
Installation into building elements (walls and intermediate floors) made of concrete, lightweight concrete or brick with fire class EI 60 / EI 90 / EI 120



Size ØD (mm)	Installation opening Ø (mm)
100 (125) *	175 - 195
125	175 - 195
150	200 - 220
160	210 - 230
200	250 - 270
250	300 - 320
300	350 - 370
315	365 - 385
400	450 - 470
500	550 - 570
630	680 - 700
800	850 - 870
1000	1050 - 1070

* D125 with 2 x reducer pieces BDED-1-012-010

Installation into building elements made of gypsum board or similar material with fire class EI 60



Size ØD (mm)	Installation opening Ø (mm)
100 (125) *	135 - 137
125	135 - 137
150	160 - 162
160	170 - 172
200	210 - 212
250	260 - 262
300	310 - 312
315	325 - 327
400	410 - 412
500	510 - 512
630	640 - 642
800	810 - 812
1000	1010 - 1012

* D125 with 2 x reducer pieces BDED-1-012-010

Complete installation, operation and maintenance instructions can be found on the Fläkt Woods home page www.flaktwoods.com. Installation instructions are also delivered with every fire damper.

For additional information, contact the nearest Fläkt Woods sales representative.