OPTIMUS 120®

Circular Fire and Smoke Damper
EI120S

FIRE SAFETY



17/11/26

www.bevent-rasch.com

BEVENT RASCH



Quick Facts

- Fire resistance class EI120S
- Sizes from 100 mm to 630 mm
- Easy installation
- Available in MagiCAD

Application

Dampers used in combination with walls for fire compartmentation of heating, ventilation and air conditioning installations in buildings. In accordance with the European standard EN 15650:2010.
When installed in accordance with the relevant documentation and installation instructions, and when used in combination with a smoke detector and monitoring system (FENIX, MRB, SIOX) or equivalent, the spread of fire and smoke is prevented. No additional measures to prevent the spread of fire and smoke are required.

Performance

CoCP (Certificate of Constancy of Performance) EN 15650:2010
0402-CPR-C500557

Fire resistance classification according to EN 13501-3
EI120 (ve i <–> o) S

For full classification details, see the Declaration of Performance.



Installation

OPTIMUS 120 is installed against a fire compartment wall in accordance with the adjacent installation instructions. Installation outdoors or in exposed environments must be carried out in consultation with Bevent Rasch. Installation outdoors or in damp areas is not recommended.

Actuator

OPTIMUS 120 is always supplied with an electric spring-return safety actuator, complete with a thermal sensor equipped with a push button for local manual functional testing. The sensor interrupts the power supply to the actuator if the temperature exceeds 72°C inside or outside the damper. When used with the FENIX, MRB or SIOX monitoring systems, a 24V actuator is always used.
The damper can also be supplied with a 230V electric actuator.

Activation

According to BBR, a smoke detector verified in accordance with SS-EN 54-7 is required to activate the damper. The mandatory thermal sensor closes the damper at 72°C in accordance with ISO 10294-4.

Control and Monitoring

When the damper is used to prevent the spread of fire and smoke, it must close upon receiving a signal from a smoke detector. The detector must be installed in the ventilation duct near the damper or in another suitable location. Smoke detectors are monitored using Bevent Rasch's FENIX, MRB or SIOX monitoring systems. Bevent Rasch monitoring systems perform automatic functional checks in accordance with applicable requirements.

For further information, visit www.bevent-rasch.com.

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Size Ø100-630 mm.

Design
OPTIMUS 120 is supplied complete with a safety actuator. The actuator is equipped with position indication contacts and a thermal sensor. The damper is supplied with standard spiro connections for spiral-seam ducts.

Materials and Surface Treatment
- Casing and components made of galvanised sheet steel, environmental class C3
- Duct seal made of EPDM
- Blade seal made of PE/PP
- Blade made of calcium silicate

Accessories

RCKD/-RD	Smoke detectors
SX:UNO/SX:ACCESS	SIOX system, max. 200 dampers
FENIX2	Max. 2 dampers
FENIX4 / FENIX+	Max. 16 dampers

Specification Example According to AMA VVS & Kyla

QJC
Dampers for protection against the spread of fire and smoke.

QJC.2
Fire/fire smoke damper in accordance with SS-EN 15650, fire resistance class EI120, with 24V safety actuator and thermal sensor, pressure class B. Smoke detector and monitoring in accordance with U.

BBGS101-dim
Manufacturer Bevent Rasch OPTIMUS120 - 400 - 1 - 1
3 pcs.

Specification

Example:
Fire/Smoke Damper **OPTIMUS120 - 400 - 1 - 1**

Size, nominal diameter ØD mm

Material
Galvanised sheet steel = 1
Stainless steel EN 1.4016 = 3

Actuator
Electric 24V = 1
Electric 230V = 3
Electric 24V incl. SX:UNO = 6

Note: Factory-fitted actuators are always included.

Product Data for OPTIMUS 120

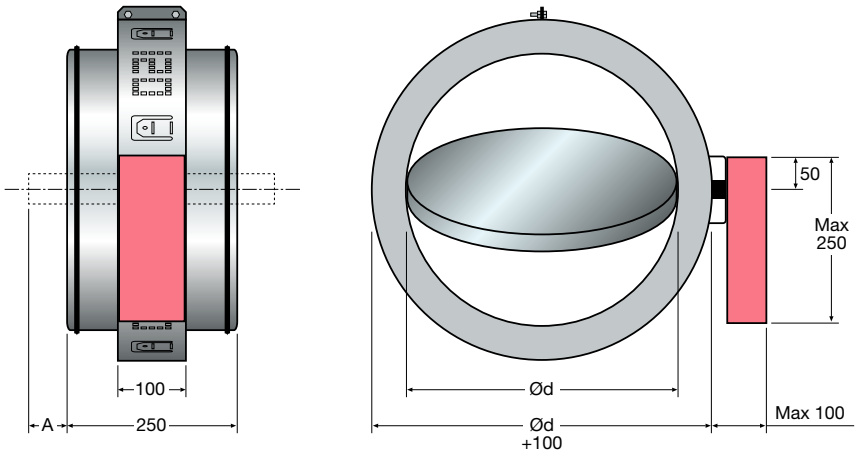
Size	Fire Resistance Class	Plasterboard Wall EI120 Group A, SS-EN 1363-1	Solid Wall
Ø100 - Ø630	EI120S	√	√

Produktdata för OPTIMUS 120

Storlek	Pressure Class AMA VVS & Kyl 22	Casing Leakage SS-EN1751	Damper Blade Leakage SS-EN1751	Actuator Type
Ø100 - Ø400	B	B*	3**	Belimo BFL-T
Ø500 - Ø630	B	C	3	Belimo BF-TN

Pressure Class B: 2500 Pa
*Size Ø315–400: Class C
**Size Ø100–160: Class 2

Dimensions and Weight



Size Ød	100	125	160	200	250	315	400	500	630
A	–	–	–	–	–	25	68	119	185
Weight, incl. actuator, kg	3,9	4,5	5,2	6,2	7,6	9,6	12,6	18,2	24,4

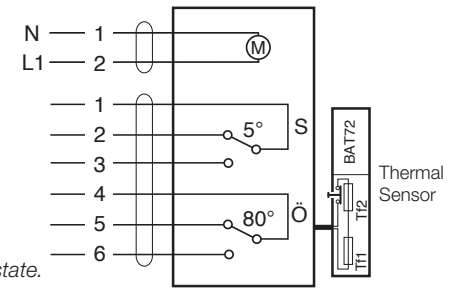
Actuators – Damper Sizes

Actuator BFL-T is supplied for damper sizes Ø100–400 mm.
Actuator BF-TN is supplied for damper sizes Ø500–630 mm.

Electrical Data (Values in brackets refer to 230V.)

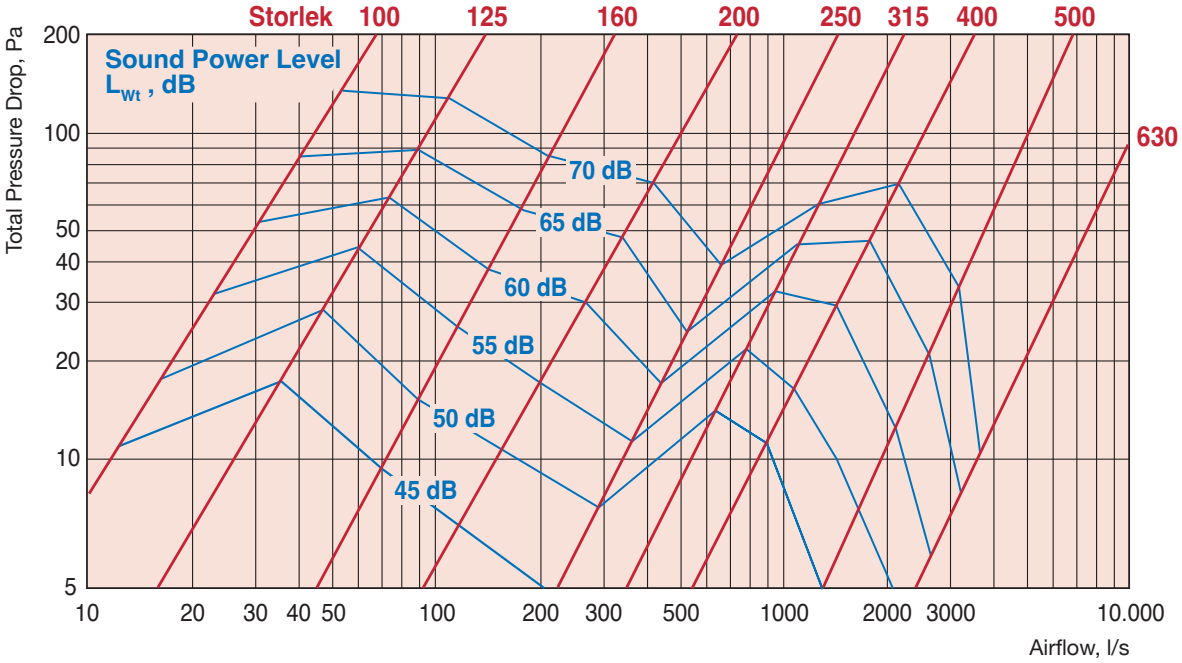
Actuator Type	BFL...	BF...
Maximum Rating	4 VA	10 VA
Operating Time: – Motor opening, max. – Spring return, max.	60 s ca 20 s	60 s 20 s at -10 to +55°C < 60 s at -30 to -10°C
Protection Class	IP54 in all mounting positions	
Supply Voltage	24V~ ±20%, 50/60Hz 24V= ±10% (220-240V~, 50/60Hz)	
Power Rating	Imax 8,3A @ 5ms	
Ambient Temperature	-30° to +50°C	
Release Temperature at Thermal Sensor	72°C	
Position Contacts (Load Rating)	1mA...3 (0,5 inductive) A, AC250V	
Sound Level During Opening	< 43 dB (A)	
Sound Level During Closing	< 62 dB (A)	
Maintenance	Maintenance-free	

Wiring Diagram



The diagram is shown in the de-energised state.

Sizing Diagram



Sound Data

Correction of sound power level, L_{Wok}, in octave bands

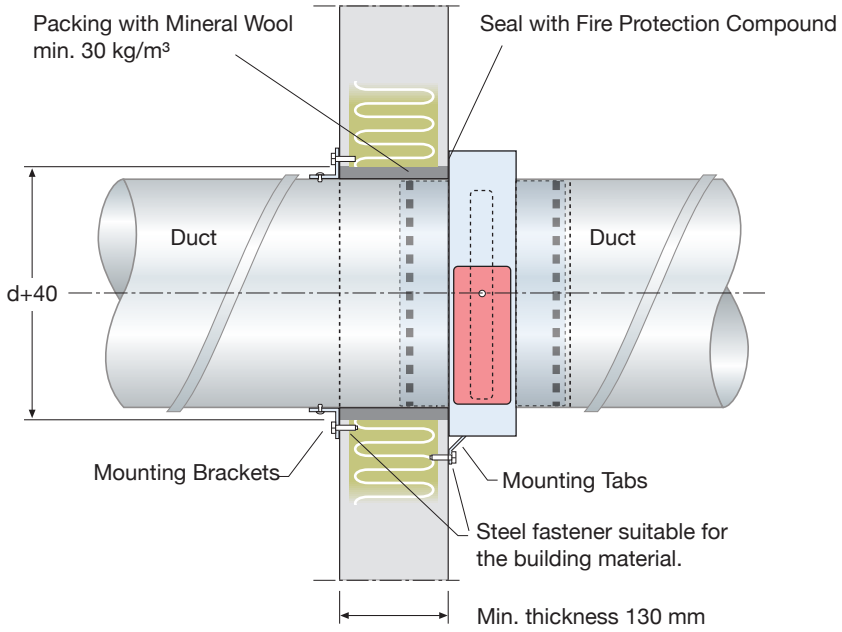
$L_{wok} = L_w + K_{ok}$

Correction, K_{ok}

Dimension Ø mm	Centre Frequency, Hz							
	63	125	250	500	1000	2000	4000	8000
100	-4	-9	-10	-10	-10	-15	-18	-22
125	-4	-8	-8	-9	-10	-15	-21	-22
160	-4	-7	-9	-11	-14	-16	-20	-25
200	-2	-8	-11	-14	-15	-18	-23	-25
250	-2	-11	-11	-14	-14	-21	-27	-28
315	-1	-12	-14	-16	-15	-23	-29	-29
400	-2	-10	-13	-15	-15	-21	-28	-29
500	-1	-11	-14	-17	-18	-24	-31	-32
630	-1	-11	-15	-17	-17	-25	-28	-31
Tol. ± dB	1	2	5	6	6	4	3	4

Installation Instructions

Wall in Fire Resistance Class EI120
Damper fire resistance class: EI120 (ve i <-> o)S
EC Certificate 0402-CPR-C500557



1. Make an opening for the relevant size (max. d + 40 mm).
2. Install and connect the damper to the ventilation duct terminating flush with the wall surface (after passing through the wall).
3. Secure the damper flat and tightly against the wall using fire-resistant sealant and at least four folded-out mounting lugs. Use suitable fixings for the relevant building material.
4. Fill the gap between the damper casing and the wall with mineral wool packing insulation, min. 30 kg/m³.
5. Secure the duct to the wall using at least two mounting brackets.
6. If the fire/fire smoke damper is not connected to a duct system, e.g. when installed as a terminal device or transfer air device, a non-combustible grille designed for the damper must be fitted on the unconnected sides. Note that the damper blade protrudes beyond the casing in the open position from size Ø315 upwards.
7. Install the thermal sensor with the sensing element positioned in the airflow, ensuring that the movement of the damper blade is not obstructed.
8. Suspend the duct system in accordance with applicable requirements. Ensure that the connecting duct does not affect the damper when exposed to fire.

- *Minimum distance between dampers: 200 mm.*
- *Minimum distance to floor slab/wall: 75 mm.*
- *Damper shaft may be positioned in any orientation.*

OPTIMUS 120_SE / Nov. 2026 hydria.se