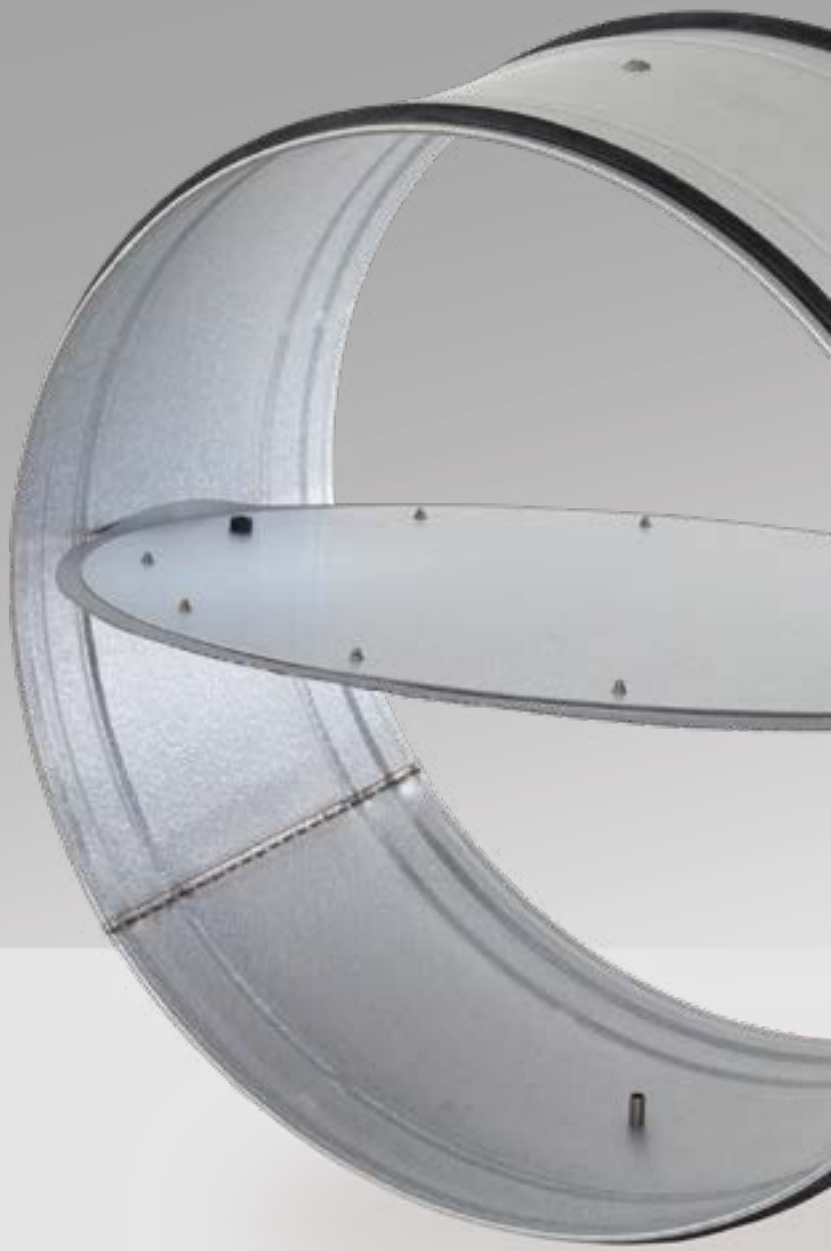
EKOVENT®

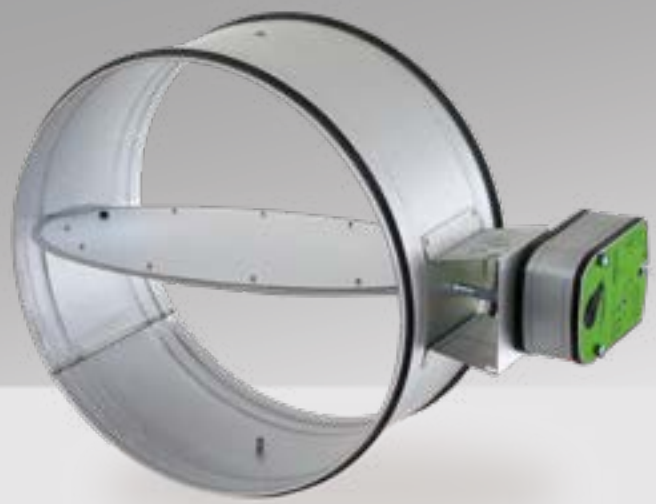


EKO-SRB1

Fire Damper

FIRE DAMPER

EKO-SRB1



Quick

- Fire resistance class E60S
- Sizes from Ø100 to 630 mm
- Installation in ducts
- Prefitted safety actuator 24V or 230V
- CE-marked building product according to SS-EN 15650:2010
- Available in MagiCAD

Design

The EKO-SRB1 is a CE-certified damper classified as E60S, designed to prevent the spread of fire gases in ventilation ducts. It is intended for installation in ducts at fire-separating building components constructed according to fire resistance class up to EI60.

Control and monitoring are done using the EKO-MKE/SKE, EKO-KE, EKO-TME/TSE, EKO-MME/SME, EKO-PRO-M/S systems or equivalent.

Material

The standard EKO-SRB1 is made of Zinc Magnesium ZM120 (C4) with mounting components in C2. Alternative options include Zinc Magnesium ZM310 (C5), Zinc Magnesium ZM120 (C4), or stainless steel EN 1.4404 (C5), all with mounting components in C4.

Sizes

The EKO-SRB1 damper is manufactured in 9 standard sizes from Ø100 mm to Ø630 mm.

Product data

Sizes Ø100 - Ø630 mm.

Nipple connection according to Swedish standards.

Material: Zinc Magnesium ZM120, Zinc Magnesium ZM310, or stainless steel.

Fire resistance class according to SS-EN 15650: 2010 E 60 (ve i↔o, ho i↔o) $SC_{20\ 000}$

Testing and classification EN 1366-2 and EN 13501-3.

CE-mark 0402-CPD-SC0844-13.

The damper conforms to air tightness class 3 and the casing conforms to air tightness class B according to EN 1751:1998.

The damper conforms to air tightness class 3 and pressure class B according to AMA VVS & Kyl 16.

The differential pressure over a closed damper can be 2500 Pa, corresponding to pressure class B.

Conforms to environmental class C2.

CE

Actuator

The EKO-SRB1 is equipped with a 24V or 230V electric safety actuator, supplemented with a thermal sensor and a test button for manual on-site function testing. The sensor cuts power to the actuator if the temperature exceeds 72°C inside or outside the damper, and the same occurs in the event of a power failure.

EKO-SRB1 is supplied with BFL actuators for sizes up to 400 mm. For sizes 500-630 mm, BF-type actuators are provided. 24V actuators are always used in conjunction with the monitoring units EKO-KE 2-16, EKO-MME/SME, and EKO-TME/TSE. 230V actuators are used with the EKO-MKE/SKE monitoring unit.

Maintenance

External and internal inspection

Check the electrical cables to the motor, smoke detectors, and thermal sensor to ensure they are undamaged. Inspect the damper casing, motor attachment, damper blades, and sealing strip for any signs of damage.

Control and monitoring

Ensure that the damper is fully open during operation, closes and opens completely when tested, and closes fully when power is cut off. Otherwise, follow the instructions for the EKO control and monitoring system.

Cleaning

We recommend preventive maintenance of the damper according to the needs of the installation. Damper blades and body (interior) should be cleaned by brushing, vacuum cleaning or wiping down.

NOTE! No water or other liquid may be used. After inspection the fire damper should be left in normal working position.

Installation

Installation must always be done in accordance with the supplied installation instructions.

Accessories

EKO-NRS	Protection mesh
EKO-FNS	Expansion socket with protection mesh.
EKO-GIS	Plasterboard wall sleeve, excl. fire sealant kit.

How to order EKO-SRB1

Fire damper EKO-SRB1-A-B-C-0-0-0

A – Size

Nom. Diameter Ød, mm

B – Material

1 = Zinc Magnesium ZM120 (C4) -Standard
4 = Stainless steel EN 1.4404 (C5)
5 = Zinc Magnesium ZM310 (C5)
9 = Zinc Magnesium ZM120 (C4) *)

C – Actuator

1 = Actuator 24 V
2 = Actuator 230 V

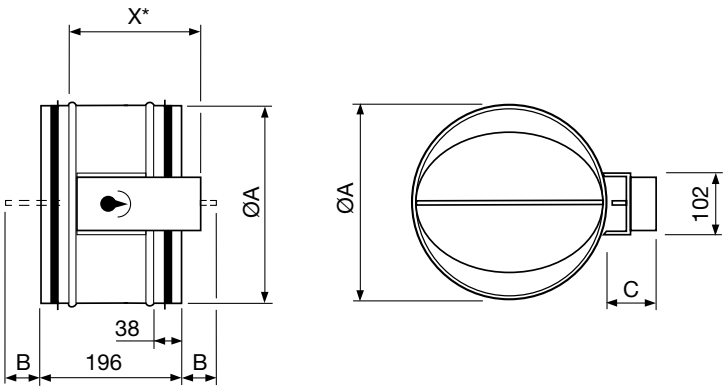
Accessories must be separately specified.

*) See material specification

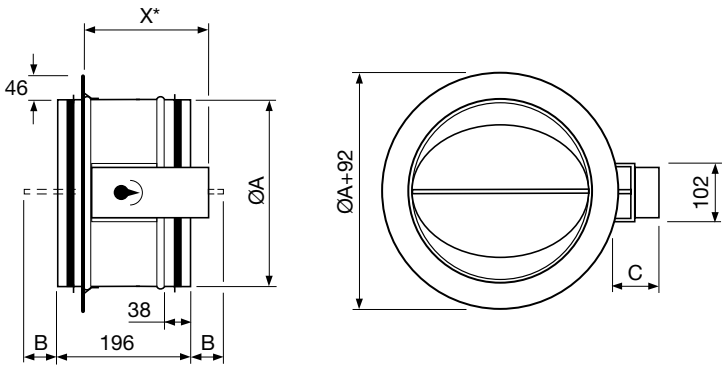
Example: EKO-SRB1-100-1-1-0-0-0

Technical Data

Dimensions



X* SRB1 100–400 = 220



X* SRB1 500–630 = 258

Standard sizes and weight

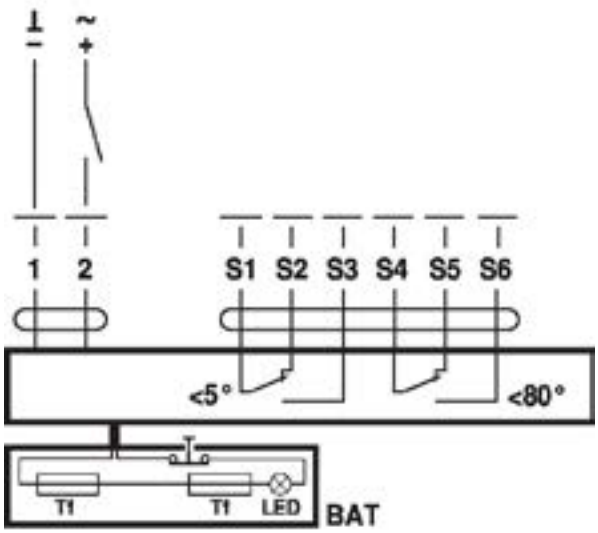
EKO-SRB1	ØA	B	C	Weight*
100	100	–	110	2,9
125	125	–	115	3,2
160	160	–	120	3,5
200	200	5	120	3,9
250	250	30	125	4,4
315	315	65	125	5,4
400	400	105	125	6,8
500	500	155	130	10,0
630	630	220	130	12,8

*) Weight in kg, inclusive actuator

Technical data	BFL24-T	BFL230-T
Nominal voltage	AC 24 V 50/60 Hz, DC 24 V	AC 230 V 50/60 Hz
Power consumption in operation	2,5 W	3,5 W
Power consumption sizing	4 VA	6,5 VA
Degree of protection IEC/EN	IP 54	
Switching points	5°/80°	
Connection	1 m, 4 x 0,75 mm^2	
Angle of rotation	95° Spring-return	
Spindle driver	Form fit 12x12 mm	
Torque	Motor min 4 Nm Spring-return min 3 Nm	
Running time	Motor <60 s Spring-return ca 20 s	
Direction of rotation motor	Can be selected by mounting L/R	
Position indication	Mechanically	
Ambient temperature normal operation	-30... +55 °C	
Ambient temperature safety operation	-30... +75 °C	
Sound power level	Motor max 43 dB (A) Spring-return 62 dB (A)	
Maintenance	Maintenance-free	
Weight	ca 1200 g	

Wiring diagram

BFL24-T

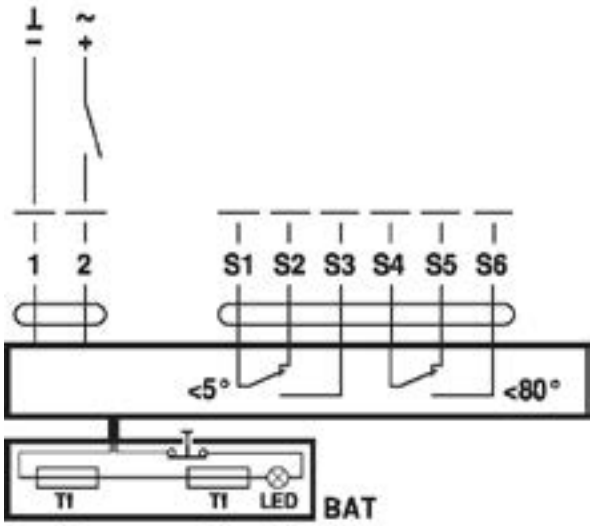


BFL
1 Black
2 Red
S1 Violet
S2 Red
S3 White
S4 Orange
S5 Pink
S6 Gray

Technical data	BF24-T	BF230-T
Nominal voltage	AC 24 V 50/60 Hz, DC 24 V	AC 230 V 50/60 Hz
Power consumption in operation	7 W	8,5 W
Power consumption sizing	10 VA	11 VA
Degree of protection IEC/EN	IP 54 1) class D (DIN 40040)	
Switching points	5°, 80°	
Connection	1 m, 2 x 0,75 mm2 and 6 x 0,75 mm2	
Angle of rotation	95° Spring-return	
Spindle driver	Form fit 12x12 mm	
Torque	Motor min 18 Nm Spring-return min 12 Nm	
Running time	Motor 120 s Spring-return ca 16 s	
Direction of rotation motor	Can be selected by mounting L/R	
Position indication	Mechanically	
Ambient temperature normal operation	-20... +55 °C	
Ambient temperature safety operation	-30... +75 °C (24-hour guaranteed security)	
Sound power level	Motor max 45 dB (A) Spring-return 63 dB (A)	
Maintenance	Maintenance-free	
Weight	2800 g	3100 g

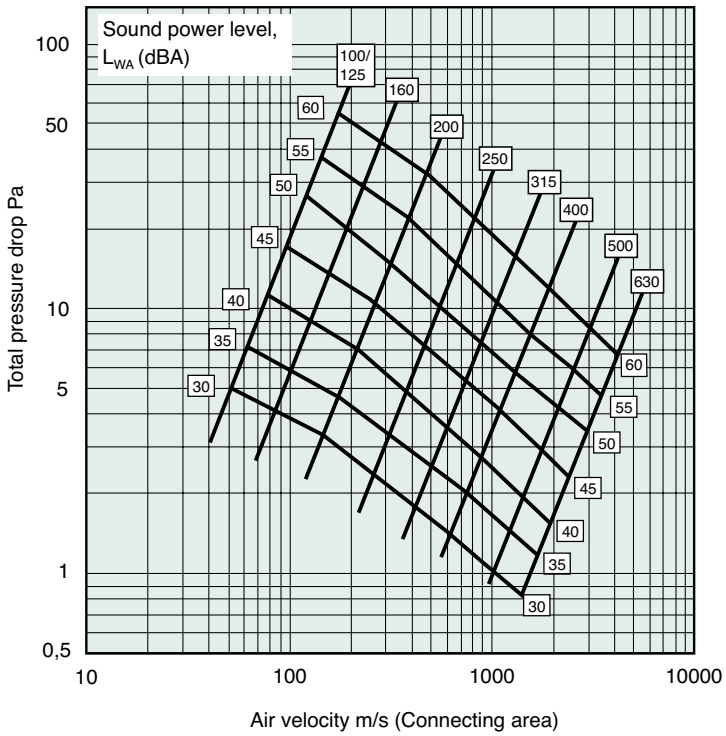
Wiring diagram

BF24-T



BF
1 Black
2 White
S1 White
S2 White
S3 White
S4 White
S5 White
S6 White

Dimensioning diagram



Correction of sound power level in octave bands. $L_{WAOK} = L_{WA} + K_{OK\ 90°}$

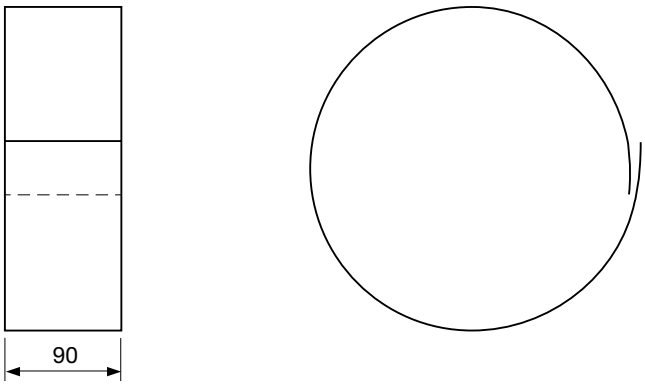
EKO-SRB1	Centre frequency (Hz)							
Octave band	63	125	250	500	1k	2k	4k	8k
Correction, $K_{OK\ 90°}$	8	5	2	-2	-6	-10	-13	-20
Tolerance ± dB	–	5	2	3	3	5	2	3

Determination of sound power levels, pressure drop and air flow from a fire damper according to ISO 5135.
Standard deviation (tolerance) according to EN ISO 3741: 2010.

Accessories

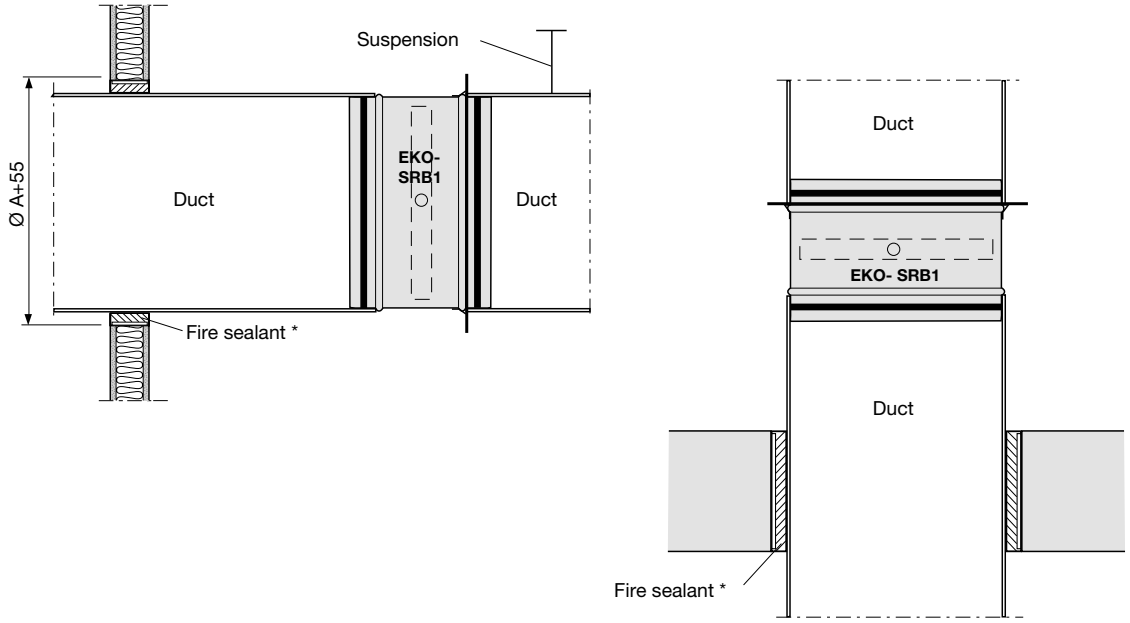
Plasterboard wall sleeve EKO-GIS

Installation



Mounting Instructions

Building part - wall or floor in fire technical class EI 60.
P-approval SC0848-13.



Important! The fire damper should always be installed with the pivot shaft horizontal.

1. The duct system should be suspended and insulated in accordance with the fire resistance of the structural element in which the hole is made (EI 60). Insulation of the ventilation duct must be done in accordance with “Installationsbrandskydd Ventilation – Rör” section 21.3.4 (ISBN: 978-91-633-1723-1) corresponding to the fire resistance of the structural element in which the hole is made (EI 60).
2. Mount the damper in the duct.
   – No gaps between the damper and a fire-containing structural element.
   – The pivot shaft of the damper blade must always be installed horizontally.
3. Mount the thermal sensor with the sensor bulb in the air flow, ensuring that it does not obstruct the movement of the damper blade.
4. The following minimum dimensions must be observed when mounting:
   – Minimum distance between dampers: 200 mm.
   – Minimum distance to wall/floor: 75 mm.

*Fire sealing must be done using an approved method that complies with the relevant fire technical class, e.g. EKO-GIS and fire protection sealant.