

EKI-R-E60S Circular Evacuation Dampers

Fire resistance class E30S & E60S installed out of the wall or ceiling in an insulated or un-insulated duct

CE
1396 - CPD - 0069



Ordering Codes

Dimensions	alternatively EKI-R-E60S- øD
Operation type	DV7 to DV9-T-W

NOTES:

E = Integrity

S = Smoke leakage

These evacuation dampers are designed and certified to comply with ES performance standards. EKI-R-E60S evacuation dampers are intended to be installed out of the wall/ceiling into an insulated/un-insulated duct. Installation of these units is described in the Installation, Operation and Maintenance Manual PP87_EKI-R-E60S_EN. As standard, all dampers are servo-driven and can be delivered with a thermo -electrical release device, with a supply and communication control unit.

Functionality of the evacuation damper

Evacuation dampers are equipped with a servo that opens the damper blade on demand by the Building Management System or based on a current interruption in the thermo-electric release device.

IMPORTANT:

Evacuation dampers must be installed, operated and maintained according to the Installation, Operation and Maintenance Manual (PP87_EKI-R-E60S_EN)!

Operating conditions

Dampers equipped with the servo with a thermo-electrical release device may be operated in a workplace with an ambient operating temperatures of -10 to 65°C. The active fire-proof sealing must not be exposed to direct contact with water. The maximum air flow speed is 12 m/s with pure air without mechanical or chemical contamination with a uniform flow, without condensation, ice coating or ice. The maximum allowable pressure difference is 1200 Pa. This device is not actuated until the ambient temperature reaches 65°C. In case of a need for adjustment to higher temperatures in the working place it is advisable to consult such requirements with the producer and to indicate these requirements in the purchase order accordingly. In terms of their construction, the dampers are designed for use with a horizontal or a vertical blade axis.

Transportation & Storage Conditions

It is necessary to transport the dampers by means of transport that provide a cover and secures the dampers on pallets. When handling the dampers during transport and storage, the dampers must be protected against damage and weather conditions. The damper blades must be in the "CLOSED" position. It is recommended to store these products in a closed, dry, area where the temperature falls within the range of -10°C to +50°C.

Material Used and its Disposal

The product contains steel, zinc, calcium silicate board, graphite fire-proof laminate, ceramic sealing, polyurethane foam and ethylene-propylene dry rubber. These are processed in compliance with local regulations. The product does not contain any dangerous materials.

Warranty

The manufacturer provides a 24-month warranty period starting on the date of expedition.

Appendix

Any requirements deviating from the above-mentioned technical specifications and conditions shall be discussed in advance with the manufacturer.

The manufacturer reserves the right to make modifications to the product without prior notice provided such changes have no effect on the quality and performance of the product.

Damper Codes and Types:

DV7; spring return servo-operated fire dampers (230 V AC) without electro-thermal fuse, with auxiliary switches

DV7-T; spring return servo-operated fire dampers (230 V AC) with electro-thermal fuse and auxiliary switches

DV9; spring return servo-operated fire dampers (24 V) without electro-thermal fuse with auxiliary switches

DV9-T; spring return servo-operated fire dampers (24 V) with electro-thermal fuse and auxiliary switches

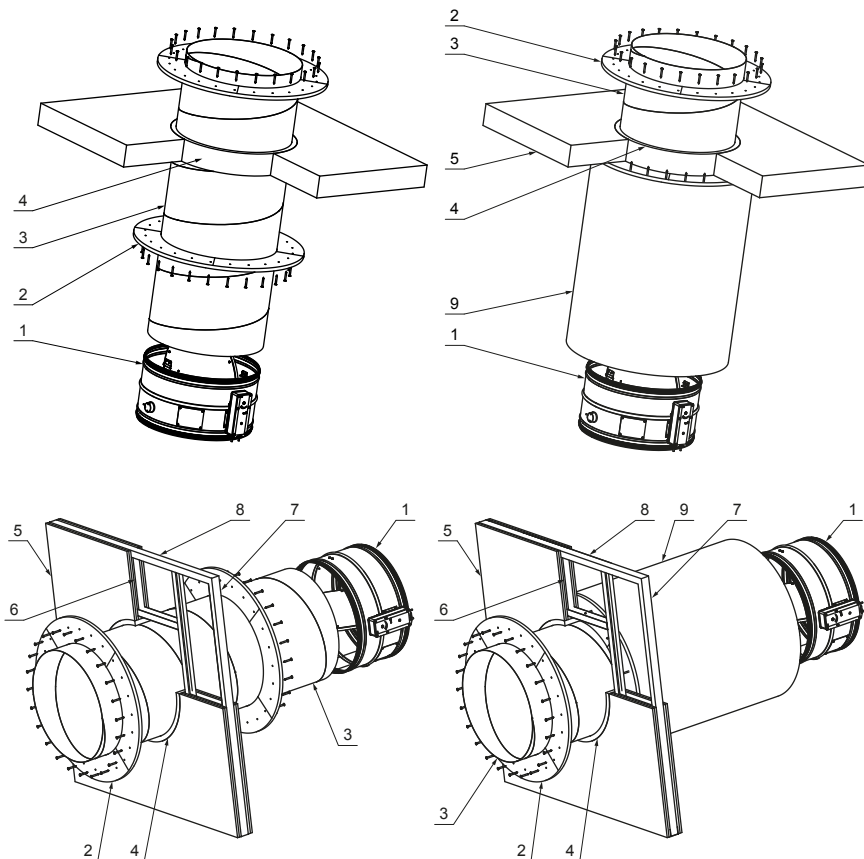
DV9-ST; spring return servo-operated fire dampers (24 V) without electro-thermal fuse, with auxiliary switches and Belimo BKN230-24 supply and communication unit.

DV9-T-ST; spring return servo-operated fire dampers (24 V) with electro-thermal fuse, auxiliary switches and Belimo BKN230-24 supply and communication unit

DV9-W; spring return servo-operated fire dampers (24 V) with auxiliary switches and cables for the Belimo BKN230-24 supply and communication unit

DV9-T-W; spring return servo-operated fire dampers (24 V) complete with electro-thermal fuse, auxiliary switches and with the cables for the Belimo BKN230-24 supply and communication unit

Systemair evacuation dampers are manufactured to comply with the most recent European standards. Our wide product range now includes the evacuation dampers with 30 and 60-minute resistance for round ducting designed and certified for S performance conformity, installed out of the wall in an insulated or un-insulated duct.



Damper Parts Description:

1. PKI-R-E60S
2. Cover plates
3. Metal duct
4. Mineral wool
5. Flexible or rigid wall or rigid ceiling
6. Mineral wool
7. Horizontal profile UW (if flexible wall)
8. Vertical profile (if flexible wall)
9. insulation with the same fire resistance as the fire damper and wall/ceiling

Fig. 1: Vertical and horizontal installation in a horizontal or vertical un-insulated or insulated duct.

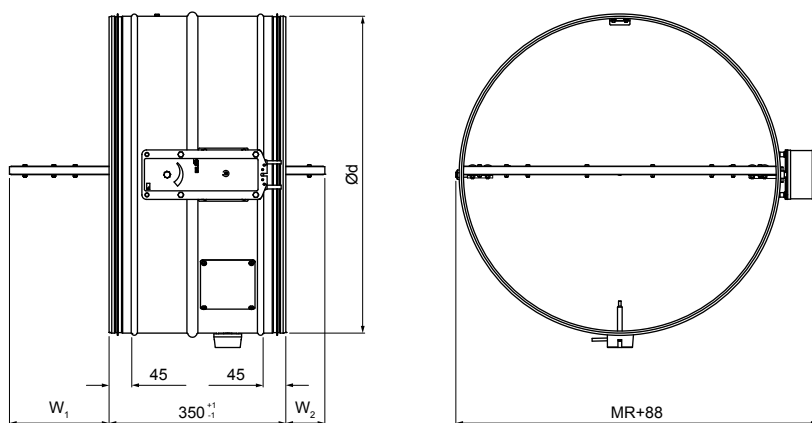


Fig. 2: Circular Evacuation Damper PKI-R-E60S

Circular evacuation dampers EKI-R-E60S are certified according to EN15650, tested in accordance with EN 1366-2 regulation and classified for out of the wall/ceiling in the duct in accordance with EN13501-3+AI:2009 regulation with direct field of application:

EKI-R-E60S, DV7 to DV9-T-ST For dimensions \varnothing 100 mm to \varnothing 630 mm Certification No: 1396-CPD-0069	E30 (ve ho i ↔ o) S E60 (ve ho i ↔ o) S
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Main Dimensions (see fig. 2)

	$\varnothing D$ (mm)														
	100	125	160	180	200	225	250	280	315	355	400	450	500	560	630
W₁ (mm)							7,3	22,3	39,8	59,8	82,3	107,3	132,3	162,3	197,3
W₂ (mm)													12,3	42,3	77,3
Q (kg)	3,20	3,36	3,61	3,77	3,94	4,18	4,45	4,80	5,28	5,91	6,76	9,27	10,67	12,78	16,00

Tab. 1: Main dimensions, blade overhangs and weight

Technical parameters

Durability test	- 10 200 cycles without a change to the required attributes
Testing pressure	- 300 Pa
Safe position	- Open
Possible installations	Out of the wall/ceiling in the insulated/uninsulated duct, vertical/horizontal, rigid/flexible wall, wet/dry (see the Installation Manual PP87)
Airflow direction	- Optional
Side protected from fire	- Optional
Opening	- By the servo 72 °C as standard, other options based on requirements
Ambient temperature	- In case of a 72 °C thermo-electrical release device, the temperature should be a maximum of 65 °C
Repeated opening	- By servo
Closed/open indicator	- Integrated in servo
Suitability for ambience	- Inside only
Inspection possibility	- After opening of the inspection lid
Maintenance	- Not needed