Библиотека СОК

komfovent



FIRE DAMPERS

PRODUCT CATALOGUE
VERSION 2026-02



Fire Dampers – certified quality, reliable performance

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About us

KOMFOVENT was established in Lithuania in 1997 and specializes in the development, production and distribution of air ventilation systems. Over more than twenty-five years of successful operation, the company has grown into an international group uniting 11 companies in Lithuania and other European countries. Today, it employs more than 1000 people who design and manufacture high-quality ventilation equipment and components.

The company's product portfolio includes a wide range of energy-efficient air handling units as well as various ventilation system components – from air ducts to advanced VAV (Variable Air Volume) dampers. Beyond ensuring comfortable indoor climate, KOMFOVENT products also play an important role in fire safety, offering reliable fire and smoke dampers, fire-resistant ducts and other essential safety accessories. By continuously investing in modern technologies, KOMFOVENT provides solutions for diverse sectors – from industrial facilities, offices, hotels, restaurants and cafés to individual homes and apartments.



In 2018, the company expanded further and opened a modern factory in Riga, Latvia. This facility focuses on the development, testing, production and sales of fire safety equipment and ventilation system accessories, specializing in fire and smoke dampers, fire-resistant ducts, VAV dampers, diffusers and other related products. Today, KOMFOVENT is the largest ventilation system manufacturer in the Baltics and continues to strengthen its position across Europe, offering innovative, reliable and comfort-oriented solutions.



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Introduction

Fire safety

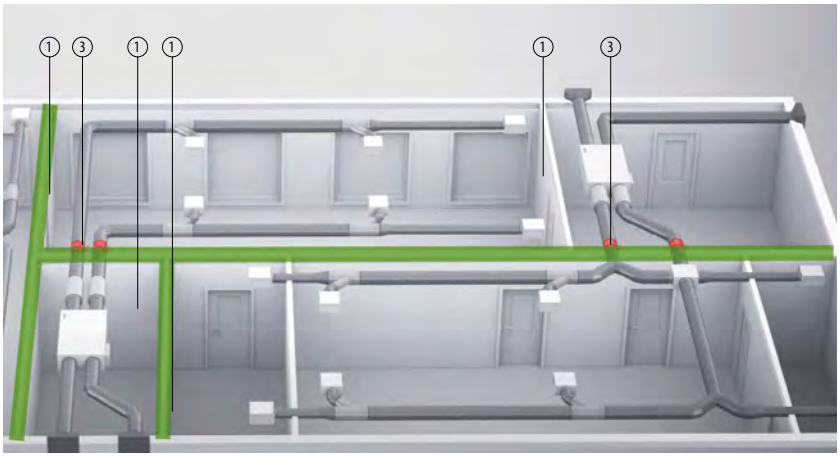
In accordance with fire safety guidelines one of the passive fire protection methods is fire compartmentation. Fire compartment is an enclosed space, comprising one or more separate spaces, bounded by elements of construction – walls and ceiling panels having a specified fire resistance and intended to prevent the spread of fire (in either direction) for a given period of time.

The fire wall or fire ceiling are intended to have specified fire-resistant properties – mechanical stability and thermal insulation. This compartmentation is disturbed by making a technological opening the fire compartment intended for airducts, cabling or other infrastructures of the building. To achieve the designed fire protection level, opening for the airducts are protected by using the fire dampers, ensuring the certified installation methods for:

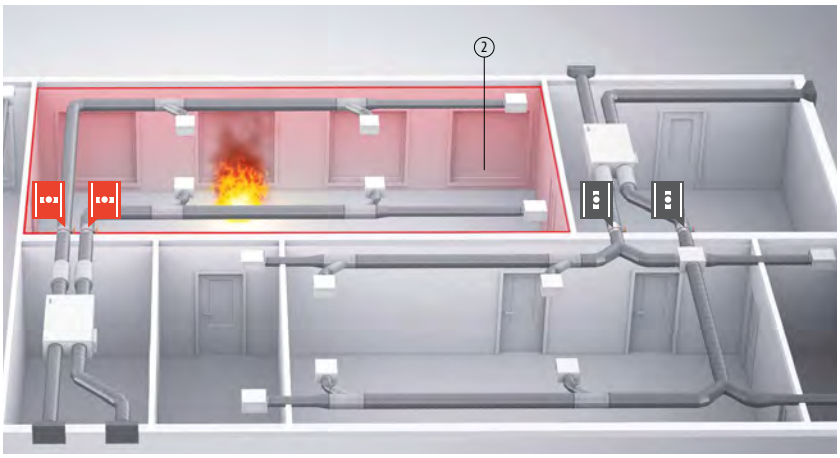
- Different type and size off damper;
- Different constructions;
- Different constructions thickness;
- Different sealing materials.

Fire damper – a device that automatically (or remotely) closes an opening in a building barrier, channel or duct during a fire and prevents the spread of fire and smoke during a specified time.

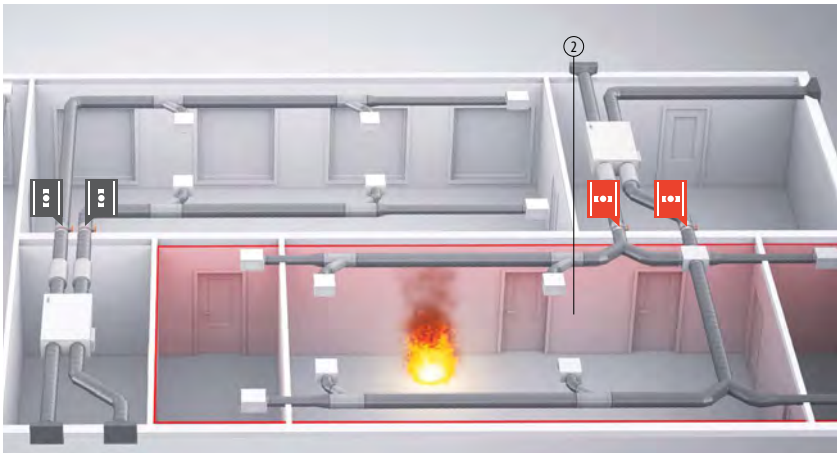
Normal conditions:



Fire case 1:



Fire case 2:



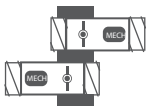
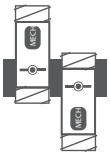
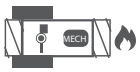
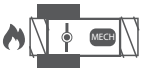
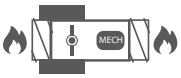
① Fire wall
② Closed fire compartmentation
③ Fire damper

Performances

Fire dampers conform to the harmonized EN 15650 standard and meet all the requirements of its Annex ZA, i.e., have known fire resistance characteristics (E, I, S), tested operational reliability, sensing element load-bearing capacity and response temperature, and are cycle-tested.
All dampers have **CE certificate of conformity**, such that compliance with the above conditions is achieved. **Declaration of Performance**, signed by the manufacturer's representative, indicates the performance of fire dampers in relation to the relevant technical specifications.

The fire damper manufacturer's **Installation Instructions** provide proof of the respective installation conditions. e.g., inside and remote from walls or ceilings, along with the basic characteristics such as size, support structure, design and installation type, and the respective classes of performance in accordance with the classification standard EN 13501-3.

Depending on the application, fire dampers are classified from: EI 60 (v_e i↔o) S to EI 120 (v_e, h_o i↔o) S. Meaning of the symbols stands for:

E		**Mechanical integrity** – indicates the ability to maintain mechanical characteristics with no flames and hot gases passaging to the unexposed side
I		**Heat insulation** – indicates the temperature insulation properties of the fire damper
60		Time period for which E, I and S criteria are performed
v_e		Fire damper suitable for **vertical** (wall) installation
h_o		Fire damper suitable for **horizontal** (ceiling) installation
i→o		Damper tested for fire spreading from the actuating mechanism (exposed) side
i←o		Damper tested for fire spreading to the actuating mechanism (unexposed) side
i↔o		Damper tested for fire spreading from the both sides (exposed and unexposed)
S		Smoke leakage – indicates the ability to function as smoke and hot gases barrier, by the limits of leakage criteria

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Product range summary

Fire dampers

UVA Circular fire dampers



UVA-H
Standard circular fire damper with manual spring mechanism
(d100 ÷ 630 mm)



UVA-M
Standard circular fire damper with electric actuator
(d100 ÷ 630 mm)



UVAF-M
Circular shortened fire damper with flange and electric actuator
(d100 ÷ 315 mm)

UVS Rectangular fire dampers



UVS-H-D
Rectangular fire damper with factory installed two asymmetrical circular connections with manual spring mechanism
(d710 ÷ 1250 mm)



UVS-M-D
Rectangular fire damper with factory installed two asymmetrical circular connections with electric actuator
(d710 ÷ 1250 mm)



UVS-H
Standard rectangular fire damper with manual spring mechanism
(150 × 150 ÷ 1200 × 1000 mm)



UVS-M
Standard rectangular fire damper with electric actuator
(150 × 150 ÷ 1200 × 1000 mm)



UVSL-H
Rectangular large-sized fire damper with two blades and manual spring mechanism
(1250 × 300 ÷ 1600 × 1000 mm)



UVSL-M
Rectangular large-sized fire damper with two blades and electric actuator
(1250 × 300 ÷ 1600 × 1000 mm)

General technical parameters

Pressure under fire test	300 Pa
Maximum operating pressure	1200 Pa
Maximum air velocity	12 m/s
Operating temperature	-20 °C to +50 °C
Response temperature for fuse element	72 °C
Response temperature for electric tripping device	72 °C
Response time	Damper with fuse element – 240 s for 25 °C initial temperature, damper with thermoelectric tripping device <60 s
Actuator types	For UVA-M and UVAF-M d100 ÷ 560 mm dampers: BFL24-T, BFL230-T, BFL24-T-ST; For UVA-M d 630 mm damper: BFN24-T, BFN230-T, BFN24-T-ST; For UVS-M dampers: BFL24-T, BFL230-T, BFL24-T-ST or BFN24-T, BFN230-T, BFN24-T-ST depending on size; For UVSL-M dampers: BFN24-T, BFN230-T, BFN24-T-ST or BF24-T, BF230-T, BF24-T-ST depending on size
Casing leakage measurement and classification	According to EN 1751 casing leakage class ATC3
End position switches	Dampers with electric actuators M24T, M230T, M24TST have integrated microswitches to identify the position of the blade; Dampers with fuse element in HEP version have 2 microswitches; Dampers with fuse element in HEC version have 1 microswitch for CLOSED position; Dampers with fuse element in HEO version have 1 microswitch for OPEN position
Closed damper leakage measurement and classification	According to EN 1751 blade leakage class 3
Fire resistance classes	EIS 60, EIS 90, EIS 120
Operational reliability	Cycling: 300 or 10 200 cycles according to EN 15650
Classification of the resistance to fire performance	EN 13501-3
Durability of operational reliability	Opening closing cycle: 50 cycles prior the fire test according to EN 15650
Standard version	All metal parts are made of DX51D+Z275 galvanized steel, according to EN 10346
Fire resistance tests for service installations – Fire dampers	EN 1366-2
UVA-H, UVA-M, UVS-H, UVS-M dampers Hygienic performance (optional)	VDI 6022, sheet 1 (01/2018), SWKI VA 104-1 (01/2019), ÖNORM H 6021 (01/2023)

The damper has one inspection hole, which is accessible by taking out button mechanism with fuse element (for UVA-H) or thermoelectric tripping device (for UVA-M). The diameter of free inspection hole is 20 mm.
UVS-H and UVS-M fire dampers are equipped with two large inspection hatches located at the top and bottom of the main mechanism.

Dampers are tested for both exposed and unexposed fire conditions (actuating mechanism is located on the exposed or unexposed fire side). Dampers can be used for both airflow directions. Position of the blade of the damper in the case of fire: the blade is closed. Damper with fuse element: spring mechanism is protected against damages and contamination with plastic cover.

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Operating principles

Fire damper with manual spring return mechanism and thermal fuse element:



1. **Normal conditions:** The fire damper is in the open position when the ventilation system is operating.
2. **Emergency case triggered:** In the event of fire, the fusible element melts, and the fire damper closes by spring force.
3. **Closed:** Special material expands, seals gap and prevents fire and smoke passing through damper.

Fire damper with motorized spring return mechanism and thermoelectric tripping device:



1. **Normal conditions:** The fire damper is in the open position when the ventilation system is operating and electric actuator power supply is on.
2. **Emergency case triggered:** The electric actuator releases a spring mechanism, which, through a system of levers, moves the damper blade to the CLOSED position when the power supply is interrupted.
3. **Closed:** Special material expands, seals gap and prevents fire and smoke passing through damper.

The motorized damper is closing if any of following event happens:

- Temperature inside the airduct reaches 72°C and internal thermal fuse blows the power source (this fuse is a replacement part).
- Temperature outside the airduct reaches 72°C and outer thermal fuse blows the power source (this fuse cannot be replaced).
- Test button is pressed on thermoelectric tripping device.
- Building Management System conducts an emergency or test power shutdown.
- Centralized or local system conducts an emergency or test power shutdown via communication units.

IMPORTANT

- *Closing tightness is ensured by sealing rubber, which is located around the blade of the damper. The inside perimeter of the blade is protected by expansion of the fire-stopping sealant.*
- *To prevent heat passage through the casing of the damper, the perforation is used as a thermal bridge. The result is prevented the possibility of spread of fire and smoke to other fire compartments or premises through a duct system.*
- *Electric actuator is equipped with thermoelectric tripping device (T), containing two separate fuse elements placed inside and outside of the airduct for two-sided temperature measuring. If outer thermal fuse blows, this fuse cannot be replaced, and need to replace thermoelectric tripping device (T).*
- *All fire dampers with electric actuator have an integrated end position switches by default. Manual spring return mechanism has optional end position switches.*
- *The fuse element is single use only and should be replaced with a new one after activation.*

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Certified Installation types and standards

		UVA-H/-M Ø100...315	**UVA-H/-M** Ø355...630 (560)	**UVAF-M** Ø100...315	**UVS-H/-M-D** Ø710...1250	**UVS-H/-M** 150×150...1200×1000	**UVSL-H/-M** 1250×300...1600×1000
							
CE STANDARDS: Testing Classification Certification		EN 1366-2 EN 13501-3 EN 15650	EN 1366-2 EN 13501-3 EN 15650	EN 1366-2 EN 13501-3 EN 15650	EN 1366-2 EN 13501-3 EN 15650	EN 1366-2 EN 13501-3 EN 15650	EN 1366-2 EN 13501-3 EN 15650
DECLARATION OF PERFORMANCE		EID-2022FD/15	EID-2022FD/16	EID-2021FD/12	EID-2022FD/13 EID-2022FD/14	EID-2022FD/13 EID-2022FD/14	EID-2022FD/21 EID-2022FD/22
OTHER STANDARDS/ REGISTERS: VDI 6022-1, VDI 3803-1 eBVD VKF		+ + +	+ + +	- + -	+ + +	+ + +	- + -
LEAKAGE CLASS		Casing: ATC 3 Blade: 3 (acc. to EN 1751)	Casing: ATC 3 Blade: 3 (acc. to EN 1751)	Casing: ATC 3 Blade: 3 (acc. to EN 1751)	Casing: ATC 3 Blade: 3 (acc. to EN 1751)	Casing: ATC 3 Blade: 3 (acc. to EN 1751)	Casing: ATC 3 Blade: 3 (acc. to EN 1751)
SOLID WALL b≥100 mm	**Mortar**	EI 120, b≥115 mm EI 90, b≥100 mm	EI 120, Ø355-Ø560, b≥115 mm EI 90, Ø355-Ø630, b≥100 mm	n/a	EI 120	EI 120	EI 120
	Fire Batt	EI 90	EI 90	n/a	EI 90, max size d800	EI 90, max size 1200×800	EI 60
	Min distance between dampers	EI 60 with mortar, ≥40 mm EI 90 with fire batt, ≥40 mm	EI 60 with fire batt, ≥40 mm	-	EI 90, with fire batt, ≥60 mm	EI 90, with fire batt, ≥60 mm	-
	Remote installation	EI 60	-	n/a	-	-	-
	Any angle	Same EI class	Same EI class	-	EI 90	EI 90	-
	Dry Montage	EI 60 with SMR kit	-	EI 60	-	-	-
	AISI 304	Same EI class	Same EI class	-	EI 60	EI 60	-
FLEXIBLE WALL b≥100 mm	**Mortar**	EI 90	EI 90	n/a	EI 120	EI 120	-
	Fire batt	EI 90	EI 90	n/a	EI 90, max size d800	EI 90, max size 1200×800	EI 60
	Min distance between dampers	EI 60 with mortar, ≥40 mm EI 90 with fire batt, ≥40 mm	EI 60 with fire batt, ≥40 mm	-	EI 90, with fire batt, ≥60 mm	EI 90, with fire batt, ≥60 mm	-
	Remote installation	EI 60	-	n/a	-	-	-
	Any angle	Same EI class	Same EI class	-	EI 90	EI 90	-
	Dry montage	-	-	EI 60	-	-	-
	AISI 304	Same EI class	Same EI class	-	EI 60	EI 60	-
FLOOR / CEILING EI 120 *(thickness 150 mm)*	**Mortar**	EI 120	EI 120	-	EI 120	EI 120	EI 120
	Fire batt	EI 90	EI 90	n/a	-	-	-
	Min distance between dampers	EI 120 with mortar, ≥40 mm	EI 120 with mortar, ≥40 mm	-	-	-	-
	Remote installation	EI 60	-	-	-	-	-
	Dry montage	-	-	EI 90	-	-	-
	AISI 304	Same EI class	Same EI class	-	EI 60	EI 60	-
SANDWICH WALL EI 90 b≥100 mm	**Fire batt**	EI 90	EI 90	-	EI 60	EI 60	-
	Any angle	Same EI class	Same EI class	-	Same EI class	Same EI class	-
	AISI 304	Same EI class	Same EI class	-	Same EI class	Same EI class	-

IMPORTANT

- *The installation of the damper must comply with the manufacturer's installation instructions. All other installation solutions are beyond the scope of certification. Only qualified staff is allowed to perform installation works.*
- *The fire resistance classification is applicable for supporting constructions and materials with fire resistance, thickness, and density equal to or greater than the solution shown in the installation instructions.*
- *The damper should be accessible for inspection and maintenance procedures during the whole period of operation at least twice per year (or even more often under local requirements) and shall be conducted in accordance with manufacturer's Inspection and Maintenance procedures.*
- *Modifying the fire damper is not permitted and will void the terms of guarantee.*
- *Fire damper cannot be used as a smoke control damper and in commercial kitchens' air exhaust systems.*

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Circular fire dampers UVA



Circular UVA fire dampers are available in 2 main configurations: dampers with fuse element (UVA-H) and dampers with an electric actuator with spring return mechanism (UVA-M).
When it is necessary UVA-H dampers can additionally be equipped with end position switches, but UVA-M dampers – with electric power supply and communication unit.
UVA dampers can be delivered in hygienic version that meets the VDI 6022 Sheet 1 standard requirements.

Parameters:

Nominal diameter	Ø100–Ø630 mm
Length of the casing	285 mm (d100 ÷ 315 mm) or 505 mm (d355 ÷ 630 mm)
Duct connection	40 mm (d100 ÷ 315 mm) or 60 mm (d355 ÷ 630 mm) connection with rubber gasket
Weight	From 1,7 to 23 kg depending on size and specification
Free area	From 0,0059–0,2852 m^2
Pressure drop of open blade	From 0–135 Pa depending on size and air velocity
Noise level of open blade	<45 dB(A) depending on size and air velocity
Working temperature	From -20 to +50 °C
Release (blade closing) temperature	72 °C
Material	Galvanized, Stainless steel AISI304
Fire resistance classification	EI60 - EI120

Highlights:

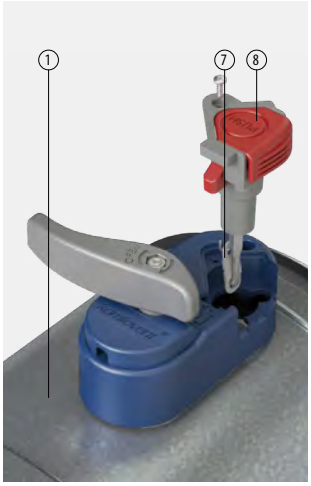
- Advanced laser welding of metal casing.
- Perforation used as a thermal break.
- Inspection available by removing thermoelectric tripping device for motorized models (UVA-M models) and by removing fuse element/test button mechanism for manual models (UVA-H models).
- Casing leakage class: ATC 3(acc. to EN 1751).
- Closed blade leakage class: 3 (acc. to EN 1751).
- Installation: in solid, flexible, sandwich walls and floor/ceiling, any angle, remote installation, close distance.
- 24V or 230 V electric actuator with thermoelectric tripping device for motorized dampers (UVA-M models).
- End position switches are integrated in actuators for motorized dampers (UVA-M models).
- Easy replacement of fuse element.

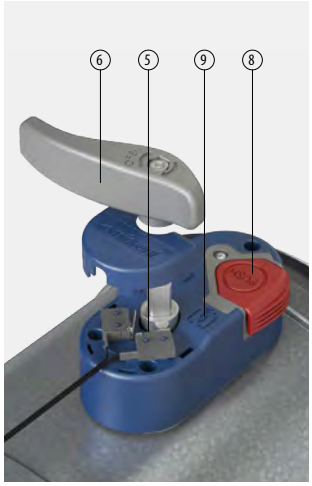
Options:

- Limit position switches available for dampers with manual mechanism (UVA-H dampers).
- Dampers ca be equipped with actuators with ST connection plugs for simple integration in control and monitoring systems or bus networks via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP).
- Dampers can be supplied with platform for BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply units.
- Dampers can be supplied with BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply unit.
- Larger diameters available by using rectangular dampers with integrated circular connections 710, 800, 900 and 1250 mm.
- Installation accessories available.
- FDC series controllers with power supply function (till 4 Fire Dampers) are available.
- Fast installation dry montage kit SMR can be supplied separately or preinstalled of factory.

Circular fire damper with fuse element UVA-H

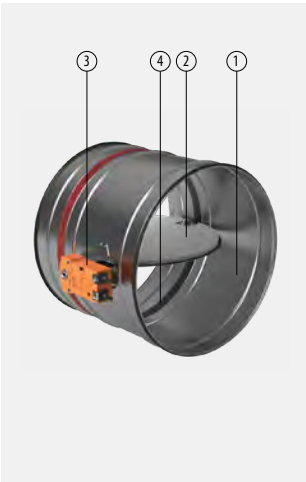




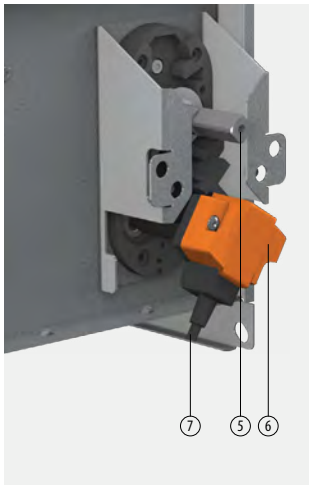


① Casing
② Blade
③ Opening device with spring
④ Intumescent gasket
⑤ End position switches (optional)
⑥ Opening handle
⑦ Fuse element
⑧ Test button
⑨ Marking of blade position

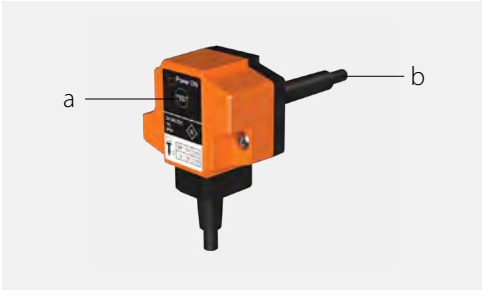
Circular fire damper with electric actuator UVA-M







① Casing
② Blade
③ Actuator BFL24-T/BFL24-T-ST / BFL230-T / BFN24-T/ BFN24-T-ST / BFN230-T
④ Intumescent seal
⑤ Axle of the blade
⑥ Thermoelectric tripping device 72°
⑦ Connection cable
⑧ Actuator's connection cables
⑨ Marking of blade position



Fuse of thermoelectric tripping device
Closing of the blade in UVA-M fire damper with electric actuator occurs as a result of the release of spring mechanism through the system of levers. Electric actuator is equipped with thermoelectric tripping device, containing two separate fuse elements placed inside and outside of the airduct for two-sided temperature measuring.
a – TEST button.
b – Inner fuse – placed inside the damper.

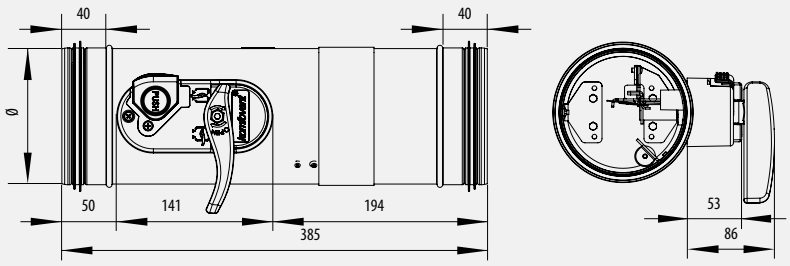
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Dimensions

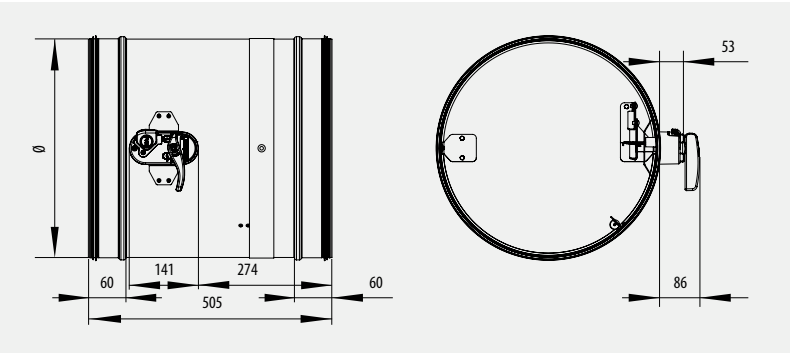
Circular UVA dampers are available in size range Ø100, Ø125, Ø160, Ø200, Ø315, Ø355, Ø400, Ø450, Ø500, Ø560 and Ø630 mm. Transitional sizes are available on request. Dimensions of the damper for size ranges Ø100 ÷ 315 mm and Ø355 ÷ 630 mm differ significantly - see figures below:

UVA-H dimensions for size range Ø100 ÷ 315 mm



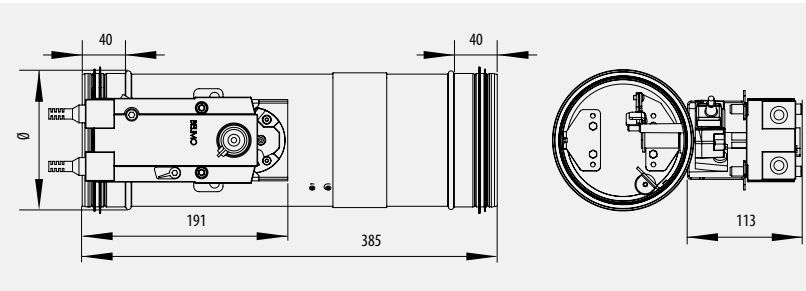


UVA-H dimensions for size range Ø355 ÷ 630 mm



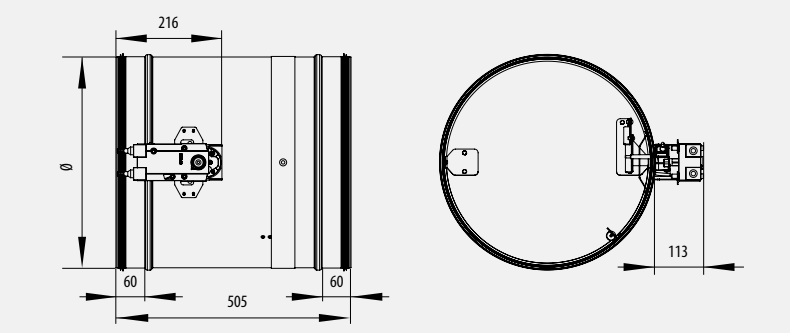


UVA-M dimensions for size range Ø100 ÷ 315 mm





UVA-M dimensions for size range Ø355 ÷ 630 mm

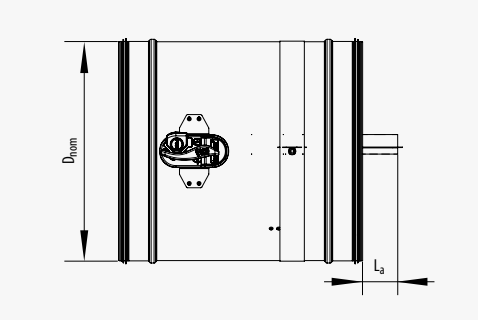




Extend beyond the blade

UVA-H and UVA-M fire dampers starting with Ø315 mm have exposition of the blade into the duct within a certain distance:

Ø, mm	315	355	400	450	500	560	630
L_a, mm	28	34	56	81	106	136	171



Weight of the dampers

Ø, mm	100	125	160	200	250	315	355	400	450	500	560	630
UVA-H, kg	1,4	1,6	2,0	2,4	3,0	3,7	7,9	9,5	10,8	12,0	14,4	17,0
UVA-M .. T, kg	2,5	2,7	3,0	3,4	4,0	4,8	9,0	10,5	12,2	13,2	16,3	19,0

Free area of the damper

Free area for completely open blade of UVA damper, m^2:

Ø, mm	100	125	160	200	250	315	355	400	450	500	560	630
Free area, m^2	0,0059	0,0098	0,0169	0,0274	0,0441	0,0716	0,0847	0,1096	0,1410	0,1763	0,2238	0,2852

Used actuators for UVA-M dampers

Ø, mm	100	125	160	200	250	315	355	400	450	500	560	630
Actuators												

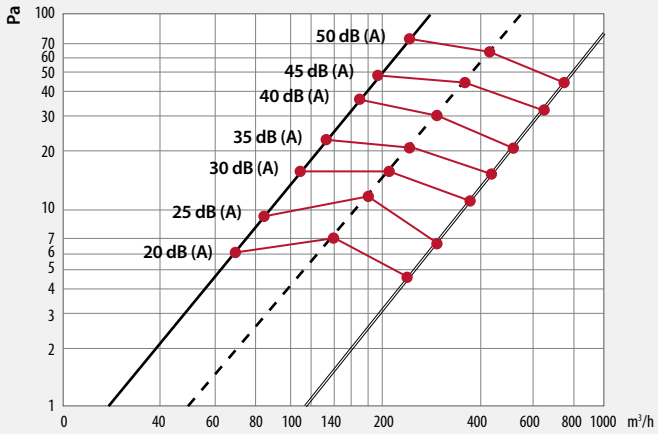
BFL24-T, BFL230-T, BLF24-T-ST

BFN24-T, BFN230-T, BFN24-T-ST

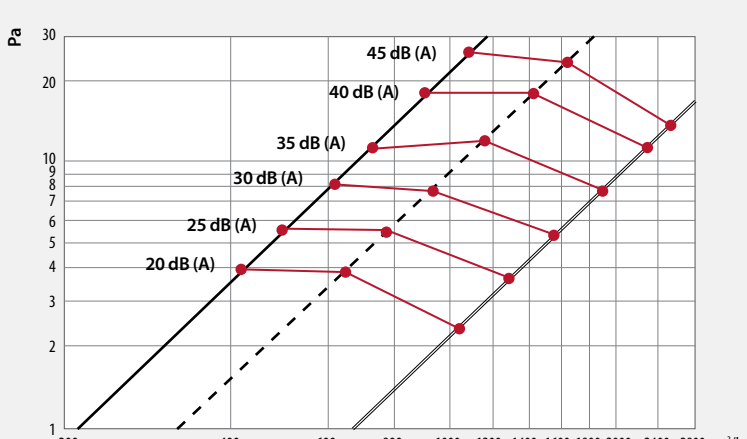
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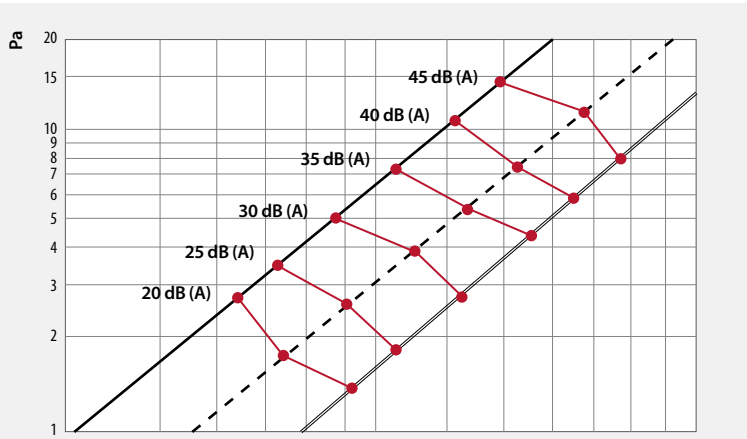
Pressure drop and sound power level for UVA fire dampers



UVA d100 — — — — UVA d125 ═══ UVA d160

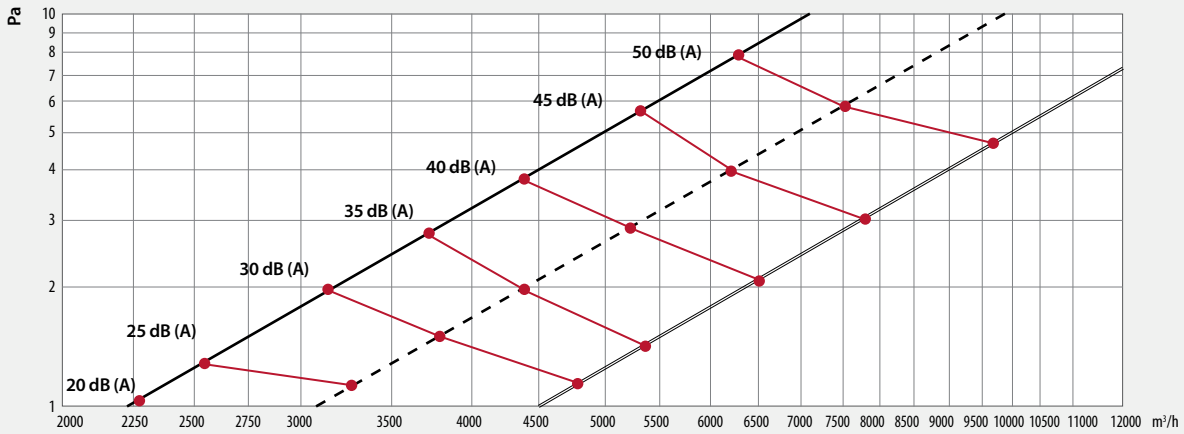


UVA d200 — — — — UVA d250 ═══ UVA d315



UVA d355 — — — — UVA d400 ═══ UVA d450

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UVA d500 UVA d560 UVA d630

Order code for UVA dampers

UVA – M24T – 200 – BKD – HY – A4

① ② ③ ④ ⑤ ⑥

① **Product type:** **UVA** – Circular fire damper

② **Activation type:** **H** – manual spring-return mechanism with fusible link
HEP – manual spring-return mechanism with fusible link and two end position switches
HEC – manual spring-return mechanism with fusible link and one CLOSED end position switch
HEO – manual spring-return mechanism with fusible link and one OPEN end position switch
M24T – 24 V AC/DC spring-return actuator with thermoelectric tripping device
M230T – 230 V AC spring-return actuator with thermoelectric tripping device
M24TST – 24 V AC/DC spring-return actuator with thermoelectric tripping device and connection plugs for Communication and power supply unit BKN230-…

③ **Dimensions:** d – nominal diameter in mm

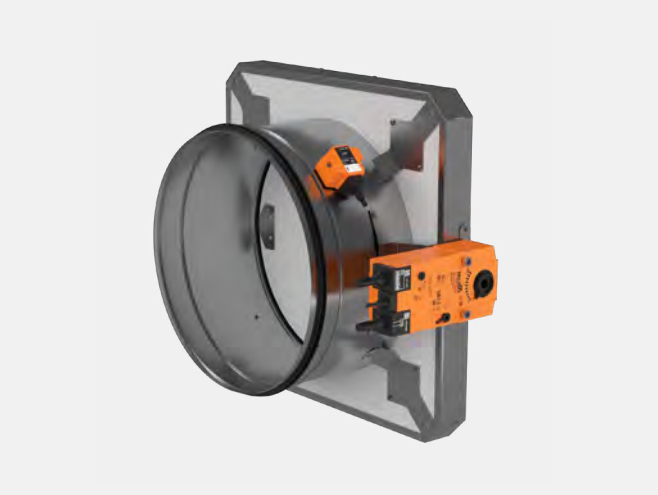
④ **Pre-installed accessories:** **No entry** – no preinstalled accessories
B – bracket for Communication and power supply unit BKN230…
BKD – bracket with Communication and power supply unit BKN230-24-MOD
BKP – bracket with Communication and power supply unit BKN230-24MP

⑤ **Hygiene requirements:** **No entry** – no specific requirements to hygiene standards
HY – fire damper meets the VDI 6022 Sheet 1 requirements

⑥ **Material:** **No entry** – galvanized steel
A4 – stainless steel AISI304

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Circular fire dampers with installation flange UVAF



UVAF-M damper is equipped with an electric actuator. The fire damper is designed for at-the-surface mounting, using a "dry installation" technique. For this purpose, UVAF-M fire equipped with dry installation fire-resistant flange.

Parameters:

Nominal diameter	Ø100–Ø315 mm
Length of the casing	247 mm
Duct connection	40 mm (d100 ÷ 315 mm) connection with rubber gasket
Weight	From 3,3 to 7,4 kg depending on size and specification
Free area	From 0,004–0,068 m^2
Pressure drop of open blade	From 0–135 Pa depending on size and air velocity
Noise level of open blade	<45 dB(A) depending on size and air velocity
Working temperature	From -20 to +50 °C
Release (blade closing) temperature	72 °C
Material	Galvanized, Stainless steel AISI304
Fire resistance classification	EI60

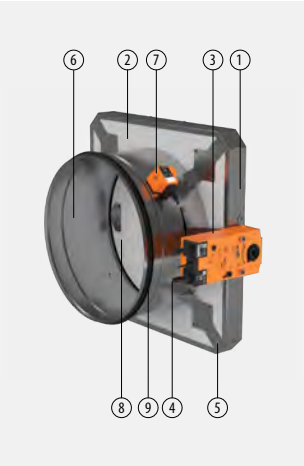
Highlights:

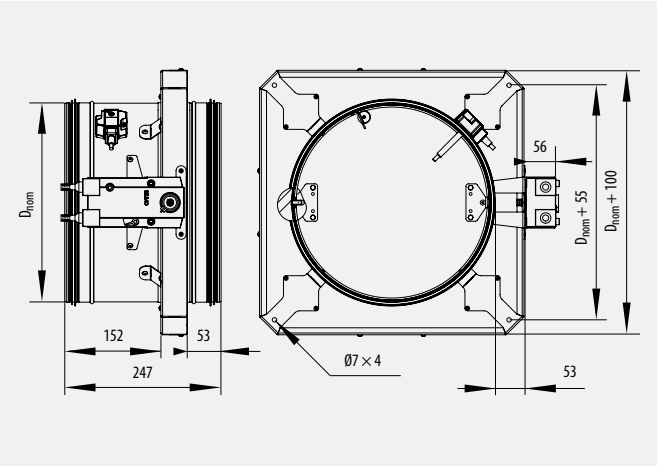
- Advanced laser welding of metal casing.
- Fast end easy installation.
- Extra-short 247 mm casing.
- Inspection available by removing thermoelectric tripping device.
- Casing leakege class: ATC 3(acc. to EN 1751).
- Closed blade leakage class: 3 (acc. to EN 1751).
- Installation: dry installation in solid or flexible walls and solid floor/ceiling.
- 24 V or 230 V electric actuator with theroelectric tripping device.
- End position switches are integrated in actuators.

Options:

- Dampers can be equipped with actuators with ST connection plugs for simple integration in control and monitoring systems or bus networks via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP).
- Dampers can be supplied with platform for BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply units.
- Dampers can be supplied with BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply unit.
- FDC series controllers with power supply function (till 4 Fire Dampers) are available.

Design and dimensions





1. Metal collar
2. Calcium-silicate fire-resistant flange
3. 24 V / 230 V actuator BFL24-T / BFL230-T / BFL24-T-ST
4. Connecting wires
5. Installation holes
6. Metal casing
7. 72 °C thermosensor
8. Calcium-silicate blade
9. Casing insulating rubber

Extend beyond the blade

UVAF fire dampers starting with Ø200 mm have exposition of the blade into the duct within a certain distance:

Ø, mm	100	125	160	200	250	315
L_a, mm	0	0	0	13	38	71

Weight of the dampers

Ø, mm	100	125	160	200	250	315
Weight, kg	2,8	3,2	3,8	4,4	5,0	6,4

Free area of the damper

Ø, mm	100	125	160	200	250	315
Free area, m²	0,004	0,0075	0,015	0,025	0,04	0,068

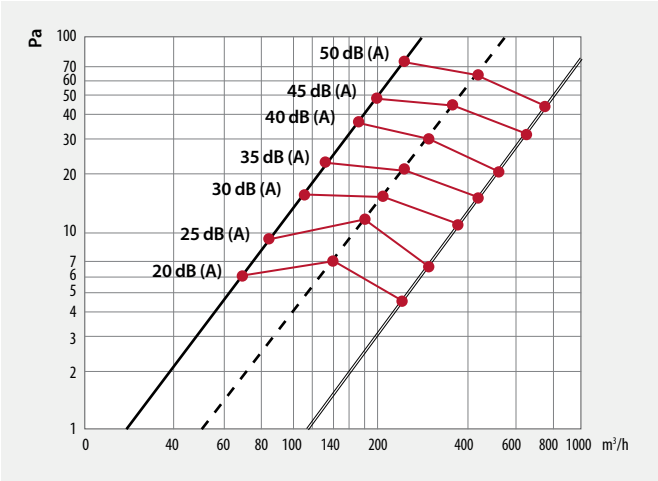
Used actuators for UVAF dampers

Used actuators:
BFL24-T, BFL24-T-ST, BFL230-T.

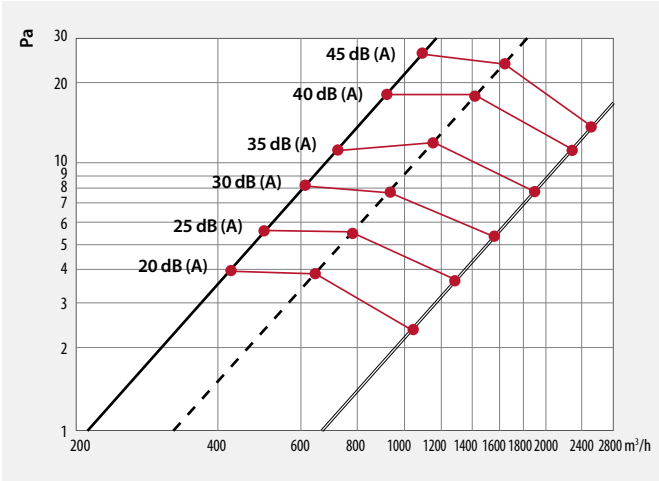
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Pressure drop and sound power level for UVAF fire dampers



UVAF d100 UVAF d125 UVAF d160



UVAF d200 UVAF d250 UVAF d315

Order code for UVAF dampers

UVAF – M24T – 315 – BKD – A4

① ② ③ ④ ⑤

① **Product type:** **UVAF** – Circular fire damper

② **Mechanism type:** **M** – automatic actuation
M24T – 24 V AC/DC spring return actuator with thermoelectric tripping device
M230T – 230 V spring return actuator with thermoelectric tripping device
M24TST – 24 V AC/DC spring return actuator with thermoelectric tripping device and connection plugs for Communication and power supply unit BKN230-…

③ **Dimensions:** d – nominal diameter in mm

④ **Pre-installed accessories:** **No entry** – no preinstalled accessories
B – bracket for Communication and power supply unit BKN230…
BKD – bracket with Communication and power supply unit BKN230-24-MOD
BKP – bracket with Communication and power supply unit BKN230-24MP

⑤ **Material:** **No entry** – galvanized steel
A4 – stainless steel AISI304

Rectangular fire dampers with circular connection



UVS-H-D and UVS-M-D specification available.
For integration in duct systems with diameters 710, 800, 900, 1000 and 1250 mm fire damper models with factory installed two asymmetrical circular connections on standard rectangular dampers UVS-H and UVS-M are available.

Parameters:

Nominal casing sizes (width) × (height)	From 700 × 700 mm to 1200 × 1000 mm, Connection d710 ÷ 1250 mm
Length of the casing	887–1201mm with connection adapters
Duct connection	100 mm (d710 mm) 135 mm (d800 ÷ 1250 mm) connection with rubber gasket
Weight	From 44 to 68 kg depending on size and specification
Free area	From 0,46–0,15 m^2
Pressure drop of open blade	From 0,99–90 Pa depending on size and air velocity
Noise level of open blade	<45 dB(A) depending on size and air velocity
Working temperature	From -20 to +50 °C
Release (blade closing) temperature	72 °C
Material	Galvanized, Stainless steel AISI304
Fire resistance classification	EI60 - EI120

Highlights:

- Circular integrated connections to have an option to install the damper into airduct systems in diameters 710, 800, 900 and 1250 mm.
- Perforation used as a thermal break.
- Inspection hatch is integrated directly into the casing.
- Casing leakage class: ATC 3(acc. to EN 1751).
- Closed blade leakage class: 3 (acc. to EN 1751).
- Installation: in solid, flexible, sandwich walls and floor/ceiling, close distance.
- 24 V or 230 V electric actuator with thermoelectric tripping device for motorized dampers (UVS-M-D models).
- End position switches are integrated in actuators for motorized dampers (UVS-M-D models).
- Easy replacement of fuse element.
- Circular connection with lip seal.

Options:

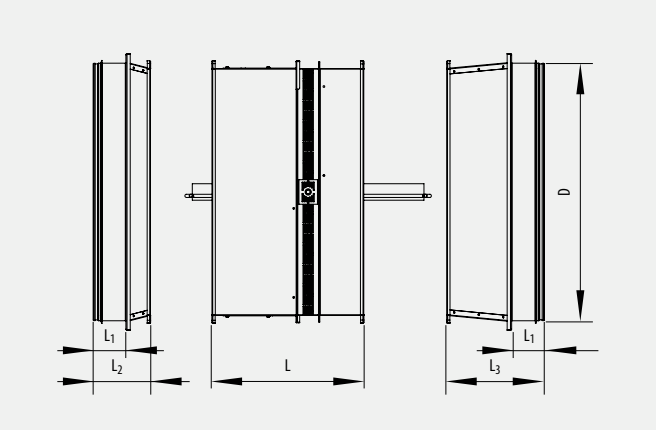
- Limit position switches available for dampers with manual mechanism (UVS-H-D dampers).
- Dampers can be equipped with actuators with ST connection plugs for simple integration in control and monitoring systems or bus networks via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP).
- Dampers can be supplied with platform for BKN (Belimo type BKN230-24-MOD, BKN230-24MP) communication and power supply units.
- Dampers can be supplied with BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply unit.
- FDC series controllers with power supply function (till 4 Fire Dampers) are available.

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Dimensions

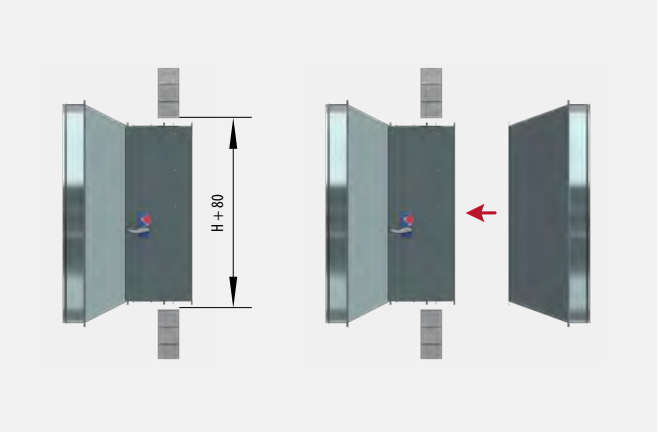
Nominal size B × H, mm	Diameter D, mm	L_1, mm	L_2, mm	L_3, mm	The total length of the damper, mm	Weight, kg
700×700	710	100	207	310	887	44
800×800	800	135	261	360	991	51
900×900	900	135	309	408	1087	59
1000×800	1000	135	280	377	1027	62
1200×1000	1250	135	366	465	1201	68



Design elements

Fire dampers with circular connection UVS-D for connection diameters D = 1000 and D = 1250 mm, one of the circular adapters should be disconnected due to the installation features (installation opening is smaller than the overall dimensions of the adapter and it is impossible to fit through the installation opening with pre-installed adapter):





① The connected adapter
② The adapter that should be disconnected before the installation

For mortar-based installation of the damper (when installation opening is B_{nom}+80 × H_{nom}+80) the damper should be primarily installed into the supporting construction without the separate adapter [1] and then the second adapter can be joined [2].
The connected adapter can be secured using standard ventilation fixings such as G-clamps for rectangular airduct flange or bolts with slide C-type channels. Standard delivery with C-type channels.



G-lamp



C-type channel

Order code for UVS-D dampers

UVS – HEP – 1000×1000 – 1000 – HY – A4

① ② ④ ⑤ ⑥ ⑦ ⑧

① **Product type:** **UVS** – Rectangular fire damper

② **Mechanism type:** **H** – manual spring-return mechanism with fusible link
No entry – without end position switches
HEP – manual spring-return mechanism with fusible link and two end position switches
HEC – manual spring-return mechanism with fusible link and one CLOSED end position switch
HEO – manual spring-return mechanism with fusible link and one OPEN end position switch
M – automatic actuation
M24T – 24 V AC/DC spring-return actuator with thermoelectric tripping device
M230T – 230 V AC spring-return actuator with thermoelectric tripping device
M24TST – 24 V AC/DC spring-return actuator with thermoelectric tripping device and connection plugs for Communication and power supply unit BKN230-…

③ **Pre-installed accessories:** **No entry** – no preinstalled accessories
B – bracket for Communication and power supply unit BKN230…
BKD – bracket with Communication and power supply unit BKN230-24-MOD
BKP – bracket with Communication and power supply unit BKN230-24MP

④ **Width of the damper:** nominal width in mm

⑤ **Height of the damper:** nominal height in mm

⑥ **Circular connection:** **No entry** – without circular connection
Diameter of the circular connection, mm

⑦ **Hygiene requirements:** **No entry** – no specific requirements to hygiene standards
HY – fire damper meets the VDI 6022 Sheet 1 requirements

⑧ **Material:** **No entry** – galvanized steel
A4 – stainless steel AISI304

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Rectangular fire dampers UVS



Rectangular UVS fire dampers are available in 2 main configurations: dampers with fuse element (UVS-H) and dampers with an electric actuator with spring return mechanism (UVS-M).
UVS-H dampers can additionally be equipped with end position switches, but UVS-M dampers – with electric power supply and communication unit.
UVS dampers can be delivered in hygienic version that meets the VDI 6022 Sheet 1 standard requirements.

Parameters:

Nominal casing sizes (width) × (height)	From 150 × 150 mm to 1200 × 1000 mm
Length of the casing	370 mm
Duct connection	20 mm – integrated standard flange / 30 mm – separate flange
Weight	From 3,5 to 74,8 kg depending on size and specification
Free area	From 0,02–1,15 m^2
Pressure drop of open blade	From 0–80 Pa depending on size and air velocity
Noise level of open blade	<45 dB(A) depending on size and air velocity
Working temperature	From -20 to +50 °C
Release (blade closing) temperature	72 °C
Material	Galvanized, Stainless steel AISI304
Fire resistance classification	EI60 - EI120

Highlights:

- Single-sheet metal casing.
- Perforation used as a thermal break.
- Inspection hatch is integrated directly into the casing.
- Casing leakage class: ATC 3(acc. to EN 1751).
- Closed blade leakage class: 3 (acc. to EN 1751).
- Installation: in solid, flexible, sandwich walls and floor/ceiling, close distance.
- 24V or 230 V electric actuator with thermoelectric tripping device for motorized dampers (UVS-M models).
- End position switches are integrated in actuators for motorized dampers (UVS-M models).
- Easy replacement of fuse element.
- 20 mm high integrated air duct connecting flange.

Options:

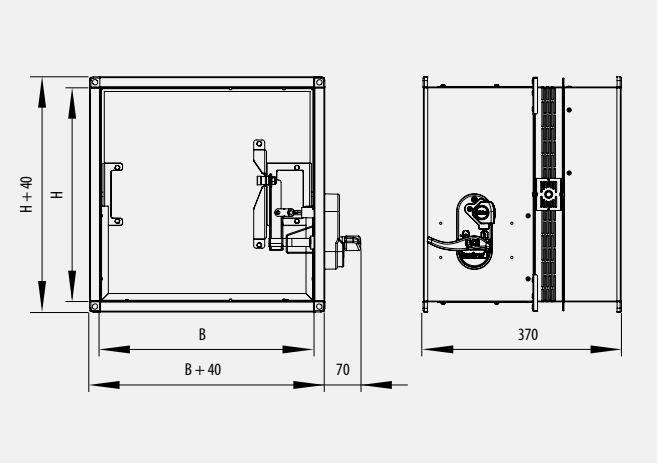
- 30 mm high flange.
- Limit position switches available for dampers with manual mechanism (UVS-H dampers).
- Dampers can be equipped with actuators with ST connection plugs for simple integration in control and monitoring systems or bus networks via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP).
- Dampers can be supplied with platform for BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply units.
- Dampers can be supplied with BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply unit.
- Circular integrated connections to have an option to install the damper into airduct systems in diameters 710, 800, 900 and 1250 mm.• Installation accessories available.
- FDC series controllers with power supply function (till 4 Fire Dampers) are available.

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Design and dimensions

Rectangular fire damper with fuse element UVS-H

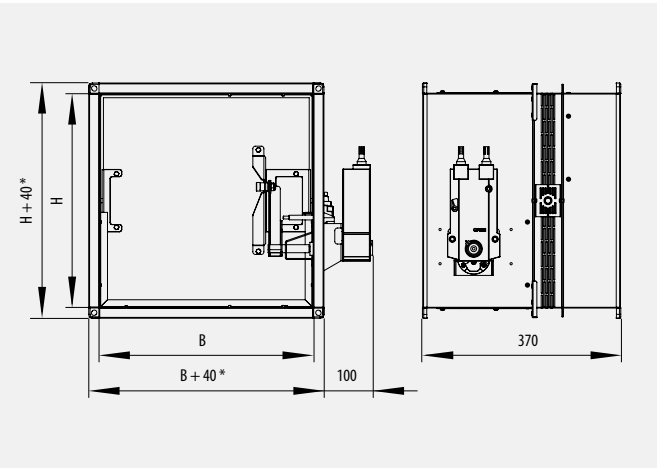




① The casing of the damper
② Calcium silicate blade
③ Mounting brackets
④ Perforated thermal bridge
⑤ Inspection hatch
⑥ Spring return mechanism

Rectangular fire damper with electric actuator UVS-M





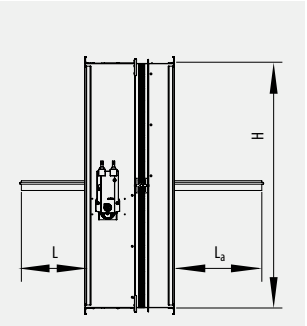
① The casing of the damper
② Calcium silicate blade
③ Mounting brackets
④ Perforated thermal bridge
⑤ Inspection hatch
⑥ Actuator BFL24-T /BFL24-T-ST / BFL230-T / BFN24-T / BFN24-T-ST/BFN230-T

* For damper with 30 mm flange external sizes are B+60 and H+60

Extend beyond the blade

Blade of the UVS fire damper exposes asymmetrically due to its displaced position in the casing:

H, mm	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L, mm	-	-	-	-	9	34	59	87	109	134	159	184	209	234	259
L_a, mm	7	32	57	82	107	132	157	182	207	232	257	282	307	332	357



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Weight of the dampers

Weight of UVS-H (upper number) and UVS-M (bottom number), kg:

	Dimensions, mm																					
B / H	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
150	4,4	5,0	5,5	6,2	6,8	7,4	8,0	8,4	9,2	9,8	10,4	10,9	11,5	12,1	12,7	13,3	13,8	14,2	15,0	15,6	16,1	16,7
	5,5	6,0	6,6	6,0	7,0	7,6	8,3	8,8	10,6	11,2	11,9	12,6	13,2	13,9	14,6	15,2	15,9	14,0	17,2	17,9	18,6	19,3
200	5,2	5,6	6,2	7,0	7,5	8,0	8,7	9,5	9,9	10,7	11,3	11,9	12,7	13,5	14,2	14,9	15,5	17,0	16,8	17,5	18,1	18,0
	5,9	7,7	7,2	7,8	8,5	9,1	9,4	10,0	11,5	11,6	12,5	15,0	14,8	14,5	16,1	16,8	17,5	20,0	19,0	19,7	20,4	22,5
250	5,5	7,5	7,2	7,5	8,5	9,0	9,8	10,5	12,9	11,8	12,7	13,7	13,9	14,5	15,8	16,5	17,3	18,0	18,7	19,4	20,1	20,5
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300	6,9	7,1	7,9	9,0	10,0	12,0	12,0	12,0	13,0	14,0	14,5	15,0	16,0	17,0	17,5	18,5	19,0	19,8	20,5	21,5	22,1	23,0
	7,2	8,7	9,5	10,2	10,9	11,6	12,3	12,8	13,8	15,0	15,7	16,5	17,4	18,0	19,0	20,0	20,8	21,6	22,5	23,3	24,2	25,0
350	6,9	7,8	8,6	9,5	10,3	11,2	12,1	13,2	14,2	15,0	15,5	16,4	17,2	18,1	19,0	20,0	20,7	21,5	22,4	23,3	24,1	25,0
	7,9	8,8	9,7	10,6	11,5	12,4	13,3	13,6	15,1	15,5	17,0	18,0	18,8	19,5	20,6	21,0	22,4	23,3	24,2	24,5	26,0	26,9
400	7,5	8,9	9,4	10,5	11,5	12,5	13,5	14,5	15,5	16,0	17,0	18,0	18,5	19,5	20,5	21,5	22,5	23,0	24,0	25,0	26,0	27,0
	8,6	10,0	10,5	11,5	12,4	13,7	14,1	15,0	16,5	17,5	18,2	19,5	20,1	21,0	22,1	22,5	24,0	24,5	25,8	27,0	28,0	29,0
450	8,1	9,1	10,1	11,1	12,1	13,1	14,1	15,1	16,1	17,1	18,1	19,1	20,1	21,1	22,1	23,0	24,1	25,8	26,1	27,1	28,1	29,1
	9,2	10,3	11,3	12,3	13,3	14,4	15,4	16,4	17,4	18,4	19,5	20,5	21,5	22,5	23,6	24,6	25,6	27,0	27,7	28,7	29,7	30,7
500	8,6	9,7	11,1	11,9	13,5	14,0	15,1	16,2	17,2	18,0	19,4	20,5	21,5	22,5	23,7	24,8	25,8	27,0	28,0	29,0	30,1	30,5
	9,9	11,0	12,1	13,1	14,2	15,3	16,4	18,0	18,6	19,7	20,7	21,8	22,9	24,0	25,1	26,0	27,2	28,3	29,4	30,5	31,6	32,7
550	9,2	10,4	11,5	12,6	13,8	14,9	16,1	17,2	18,4	19,5	20,7	21,8	23,0	24,1	25,0	26,4	27,5	28,7	29,8	31,0	32,1	33,3
	10,6	11,7	12,9	14,0	15,1	16,3	17,4	18,6	19,7	20,9	22,0	23,1	24,3	25,4	26,6	27,7	28,9	30,0	31,1	32,3	33,4	34,6
600	9,8	11,0	12,2	13,4	14,7	15,9	17,1	18,3	19,5	20,5	22,0	23,0	25,5	28,0	28,8	29,5	29,8	30,0	31,7	32,9	34,1	35,0
	11,2	12,4	13,6	14,8	16,0	17,2	18,4	19,7	20,9	22,0	23,3	25,0	25,7	27,0	28,2	29,5	30,5	31,7	32,9	34,1	35,3	36,5
650	10,4	11,7	12,9	14,2	15,5	16,8	18,1	19,4	20,7	22,0	23,2	24,5	25,8	27,1	28,4	29,7	31,0	32,3	33,5	34,8	36,1	37,4
	11,9	13,2	14,4	15,7	17,0	18,2	19,5	20,7	22,0	23,3	24,5	25,8	27,0	28,3	29,6	30,8	32,1	33,4	34,6	35,9	37,1	38,4
700	10,9	12,3	13,7	15,0	16,4	18,0	19,1	20,5	21,8	23,2	24,5	28,0	27,2	28,6	30,0	31,3	32,7	33,5	35,4	36,8	38,1	39,5
	12,6	13,9	15,2	16,5	17,9	19,2	20,5	21,8	23,1	24,5	25,8	27,1	28,4	29,7	31,1	32,4	33,7	35,0	36,4	37,7	39,0	40,3
750	11,5	12,9	14,4	15,8	17,2	18,7	20,1	21,5	23,0	24,4	25,8	27,2	28,7	30,1	31,5	33,0	34,4	35,8	37,3	38,7	40,1	41,5
	13,2	14,6	16,0	17,4	18,8	20,1	21,5	22,9	24,3	25,7	27,0	28,4	29,8	31,2	32,6	33,9	35,3	36,7	38,1	39,5	40,9	42,2
800	12,1	13,6	15,1	16,6	18,1	19,6	21,1	22,6	24,1	24,5	27,1	28,6	30,1	31,0	33,0	34,0	36,1	36,5	39,1	40,6	42,1	43,6
	13,9	15,3	16,8	18,2	19,7	21,1	22,5	24,0	25,4	26,9	28,3	29,7	31,2	32,6	34,1	35,5	36,9	38,4	39,8	41,0	42,7	44,0
850	12,7	14,3	15,8	17,4	18,9	20,5	22,1	23,6	25,2	26,7	28,3	29,8	31,4	32,9	34,5	36,0	37,6	39,1	40,7	42,3	43,8	45,4
	14,5	16,0	17,5	19,0	20,5	22,0	23,5	25,0	26,5	28,0	29,5	31,0	32,5	34,0	35,5	37,0	38,5	40,0	41,5	43,0	44,5	46,0
900	13,3	14,9	16,6	18,2	19,8	21,4	23,0	24,7	26,3	27,9	29,5	31,2	32,8	34,4	36,0	37,7	39,3	40,0	42,5	44,2	45,8	47,4
	15,2	16,8	18,3	19,9	21,4	23,0	24,6	26,1	27,7	29,2	30,8	32,4	33,9	35,5	37,0	38,6	40,2	41,7	43,3	44,8	46,4	48,0
950	13,9	15,6	17,3	19,0	20,7	22,4	24,0	25,7	27,4	29,1	30,8	32,5	34,2	35,9	37,6	39,3	41,0	42,7	44,4	46,1	47,8	49,4
	15,9	17,5	19,1	20,7	22,3	24,0	25,6	27,2	28,8	30,4	32,1	33,7	35,3	36,9	38,5	40,2	41,8	43,4	45,0	46,6	48,2	49,9
1000	14,5	16,2	18,0	19,8	21,5	23,3	25,0	27,0	28,6	30,3	32,1	33,9	35,6	37,4	39,1	40,9	42,7	44,5	46,2	48,0	48,5	51,5
	16,5	18,2	19,9	21,6	23,2	25,0	26,6	28,3	30,0	31,6	33,3	35,0	36,7	38,4	40,0	41,7	43,4	45,1	46,7	48,4	50,1	52,5

Free area of the damper

Free area of the UVS fire dampers calculated for fully opened blade, m^2:

	Dimensions, mm																					
B / H	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
150	0,02	0,02	0,03	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,10	0,10	0,11	0,12	0,12	0,13	0,13
200	0,02	0,03	0,04	0,05	0,06	0,06	0,07	0,08	0,09	0,10	0,10	0,11	0,12	0,13	0,14	0,14	0,15	0,16	0,17	0,18	0,18	0,19
250	0,03	0,04	0,05	0,06	0,07	0,08	0,09	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,2	0,21	0,22	0,23	0,24	0,25
300	0,04	0,05	0,07	0,08	0,09	0,10	0,12	0,13	0,14	0,16	0,17	0,18	0,2	0,21	0,22	0,23	0,25	0,26	0,27	0,29	0,30	0,31
350	0,05	0,06	0,08	0,09	0,11	0,12	0,14	0,16	0,17	0,19	0,20	0,22	0,23	0,25	0,26	0,28	0,29	0,31	0,33	0,34	0,36	0,37
400	0,05	0,07	0,09	0,11	0,13	0,14	0,16	0,18	0,20	0,22	0,23	0,25	0,27	0,29	0,31	0,32	0,34	0,36	0,38	0,40	0,41	0,43
450	0,06	0,08	0,10	0,12	0,14	0,16	0,18	0,21	0,23	0,25	0,27	0,29	0,31	0,33	0,35	0,37	0,39	0,41	0,43	0,45	0,47	0,49
500	0,07	0,09	0,12	0,14	0,16	0,18	0,21	0,23	0,25	0,28	0,30	0,32	0,35	0,37	0,39	0,41	0,44	0,46	0,48	0,51	0,53	0,55
550	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,28	0,31	0,33	0,36	0,38	0,41	0,43	0,46	0,48	0,51	0,54	0,56	0,59	0,61
600	0,08	0,11	0,14	0,17	0,20	0,22	0,25	0,28	0,31	0,34	0,36	0,39	0,42	0,45	0,48	0,50	0,53	0,56	0,59	0,62	0,64	0,67
650	0,09	0,12	0,15	0,18	0,21	0,24	0,27	0,31	0,34	0,37	0,40	0,43	0,46	0,49	0,52	0,55	0,58	0,61	0,64	0,67	0,70	0,73
700	0,10	0,13	0,17	0,20	0,23	0,26	0,30	0,33	0,36	0,40	0,43	0,46	0,5	0,53	0,56	0,59	0,63	0,66	0,69	0,73	0,76	0,79
750	0,11	0,14	0,18	0,21	0,25	0,28	0,32	0,36	0,39	0,43	0,46	0,50	0,53	0,57	0,60	0,64	0,67	0,71	0,75	0,78	0,82	0,85
800	0,11	0,15	0,19	0,23	0,27	0,30	0,34	0,38	0,42	0,46	0,49	0,53	0,57	0,61	0,65	0,68	0,72	0,76	0,80	0,84	0,87	0,91
850	0,12	0,16	0,2	0,24	0,28	0,32	0,36	0,41	0,45	0,49	0,53	0,57	0,61	0,65	0,69	0,73	0,77	0,81	0,85	0,89	0,93	0,97
900	0,13	0,17	0,22	0,26	0,30	0,34	0,39	0,43	0,47	0,52	0,56	0,60	0,65	0,69	0,73	0,77	0,82	0,86	0,90	0,95	0,99	1,03
950	0,14	0,18	0,23	0,27	0,32	0,36	0,41	0,46	0,50	0,55	0,59	0,64	0,68	0,73	0,77	0,82	0,86	0,91	0,96	1,00	1,05	1,09
1000	0,14	0,19	0,24	0,29	0,34	0,38	0,43	0,48	0,53	0,58	0,62	0,67	0,72	0,77	0,82	0,86	0,91	0,96	1,01	1,06	1,10	1,15

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Usage of the electric actuators in UVS-M dampers

	Dimensions, mm																	
H \ B	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
150																		
200																		
250																		
300																		
350																		
400																		
450																		
500																		
550																		
600																		
650																		
700																		
750																		
800																		
850																		
900																		
950																		
1000																		
1050																		
1100																		
1150																		
1200																		

BFL24-T, BFL230-T, BFL24-T-ST

BFN24-T, BFN230-T, BFN24-T-ST

Pressure drop and sound power level for UVS fire dampers

Pressure drop and sound power level calculation for the certain B×H dimensions of the UVS damper is based on resistance degree ζ, which can be identified from the table:

	Dimensions, mm											
H \ B	150	200	250	300	400	500	600	700	800	900	1000	1100	1200
150	0,99	0,99	0,99	0,89	0,96	0,95	0,78	0,76	0,74	0,72	0,69	0,69	0,68
200	0,99	0,99	0,98	0,87	0,85	0,84	0,75	0,73	0,71	0,69	0,66	0,65	0,64
250	0,99	0,95	0,89	0,85	0,74	0,73	0,71	0,66	0,65	0,64	0,61	0,59	0,55
300	0,99	0,93	0,85	0,8	0,73	0,71	0,68	0,65	0,63	0,62	0,59	0,56	0,54
400	0,99	0,92	0,87	0,79	0,72	0,7	0,66	0,64	0,62	0,61	0,58	0,55	0,53
500	0,98	0,91	0,85	0,78	0,71	0,69	0,67	0,63	0,61	0,59	0,57	0,54	0,52
600	0,97	0,9	0,83	0,76	0,7	0,68	0,66	0,62	0,6	0,58	0,56	0,53	0,51
700	0,96	0,89	0,81	0,75	0,69	0,67	0,65	0,61	0,58	0,55	0,53	0,5	0,49
800	0,95	0,88	0,8	0,73	0,68	0,66	0,64	0,6	0,57	0,54	0,52	0,49	0,48
900												0,47	0,46
1000												0,45	0,45

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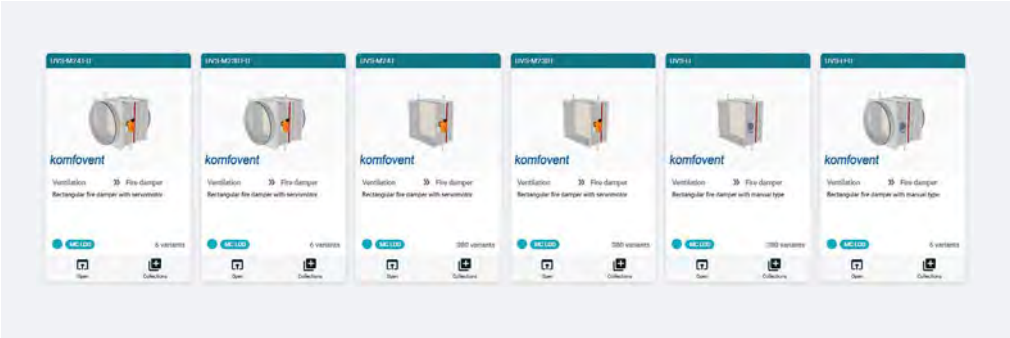
Damper pressure drop (Pa) can be caculated by formula: $\Delta P = 0{,}6 \times (Q / (3600 \times B \times H))^2 \times \zeta$ where:

- Q – air flow, m³/h; B – damper width, m; H – damper height, m; ζ – local pressure drop coefficient (from previous tab).

> Example of pressure drop (Pa) calculation: *Damper: UVS-H-500×400. Airflow: 3000 m³/h. Formula:* $\Delta P = 0{,}6 \times (Q / (3600 \times B \times H))^2 \times \zeta$
> - *Q – 3000 m³/h; B – 0,5 m; H – 0,4 m; ζ – 0,7 (from previous tab)*
>
> $\Delta P = 0{,}6 \times (3000 / (3600 \times 0{,}5 \times 0{,}4))^2 \times 0{,}7 = 7{,}3$ Pa

For pressure drop and sound pressure/power level information use Magicad Cloud models.

MagiCAD CLOUD



Order code for UVS dampers

UVS – M24T – BKD – 1200×1000 – HY – A4
① ② ③ ④ ⑤ ⑦ ⑧

UVS – HEP – 1000×1000 – 1000
① ② ④ ⑤ ⑥

① **Product type: UVS** – Rectangular fire damper

② **Mechanism type:** **H** – manual spring-return mechanism with fusible link
No entry – without end position switches
HEP – manual spring-return mechanism with fusible link and two end position switches
HEC – manual spring-return mechanism with fusible link and one CLOSED end position switch
HEO – manual spring-return mechanism with fusible link and one OPEN end position switch
M – automatic actuation
M24T – 24 V AC/DC spring-return actuator with thermoelectric tripping device
M230T – 230 V AC spring-return actuator with thermoelectric tripping device
M24TST – 24 V AC/DC spring-return actuator with thermoelectric tripping device and connection plugs for Communication and power supply unit BKN230-…

③ **Pre-installed accessories:** **No entry** – no preinstalled accessories
B – bracket for Communication and power supply unit BKN230…
BKD – bracket with Communication and power supply unit BKN230-24-MOD
BKP – bracket with Communication and power supply unit BKN230-24MP

④ **Width of the damper:** nominal width in mm

⑤ **Height of the damper:** nominal height in mm

⑥ **Circular connection:** **No entry** – without circular connection
Diameter of the circular connection, mm

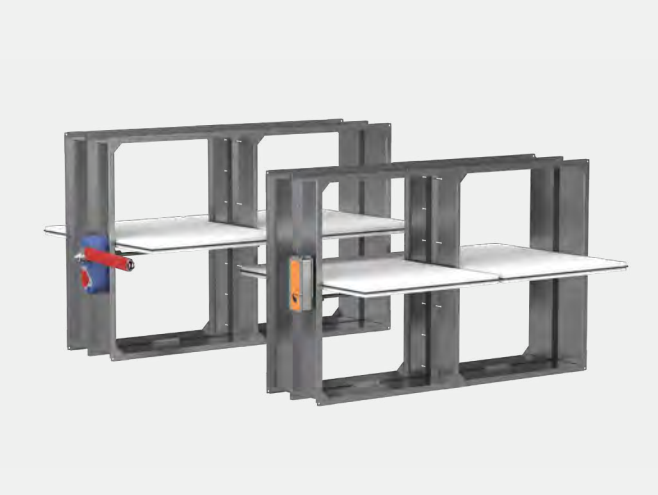
⑦ **Hygiene requirements:** **No entry** – no specific requirements to hygiene standards
HY – fire damper meets the VDI 6022 Sheet 1 requirements

⑧ **Material:** **No entry** – galvanized steel
A4 – stainless steel AISI304

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Rectangular fire dampers with double – blade design UVSL



Rectangular fire dampers with double - blade design for large dimensions.
Rectangular UVSL fire dampers are available in 2 main configurations: dampers with fuse element (UVSL-H) and dampers with an electric actuator with spring return mechanism (UVSL-M).
UVSL-H dampers can additionally be equipped with end position switches, but UVSL-M dampers – with electric power supply and communication unit.

Parameters:

Nominal casing sizes (width) × (height)	From 1250 × 300 mm to 1600 × 1000 mm
Length of the casing	400 mm
Duct connection	20 mm – integrated standard flange
Weight	From 22,6 to 78,1 kg depending on size and specification
Free area	From 0,14–1,47 m^2
Pressure drop of open blade	From 0,99–70 Pa depending on size and air velocity
Noise level of open blade	<45 dB(A) depending on size and air velocity
Working temperature	From -20 to +50 °C
Release (blade closing) temperature	72 °C
Material	Galvanized
Fire resistance classification	EI60 - EI120

Highlights:

- Exceeded damper size allow to use only one double blade damper instead of two standard sizes.
- Perforation used as a thermal break.
- Inspection available by removing thermoelectric tripping device for motorized models (UVSL-M models) and by removing fuse element/test button mechanism for manual models (UVSL-H models).
- Casing leakage class: ATC 3(acc. to EN 1751).
- Closed blade leakage class: 3 (acc. to EN 1751).
- Installation: in solid and floor/ceiling, with mortar.
- 24 V or 230 V electric actuator with thermoelectric tripping device for motorized dampers (UVS-M models).
- End position switches are integrated in actuators for motorized dampers (UVSL-M models).
- Easy replacement of fuse element.
- 20 mm high integrated air duct connecting flange.

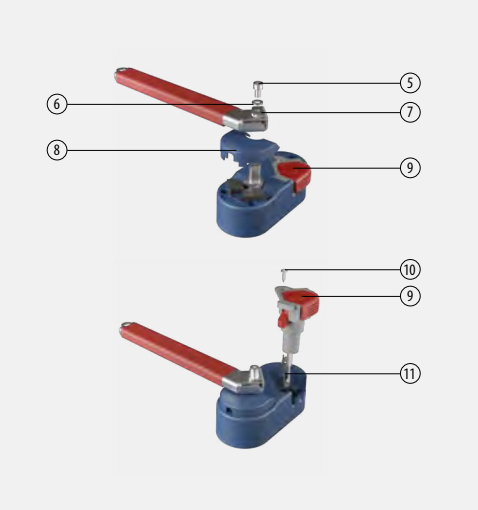
Options:

- Limit position switches available for dampers with manual mechanism (UVSL-H dampers).
- Dampers ca be equipped with actuators with ST connection plugs for simple integration in control and monitoring systems or bus networks via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP).
- Dampers can be supplied with platform for BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power
- supply units.
- Dampers can be supplied with BKN (Belimo type BKN230-24-MOD, BKN230-24MP)communication and power supply unit.
- FDC series controllers with power supply function (till 4 Fire Dampers) are available.

Rectangular fire damper UVSL-H

UVSL-H damper is equipped with two synchronously moving blades and manual spring mechanism:





1. Casing
2. Blade
3. Opening device with spring
4. Intumescent seal
5. Handle attaching screw
6. Spring washer
7. Handle of the opening device
8. Microswitch cap
9. PUSH button mechanism (replacing part)
10. Screw
11. Fuse element 72°

Rectangular fire damper UVSL-M

UVSL-M damper is equipped with two synchronously moving blades and spring return actuator:



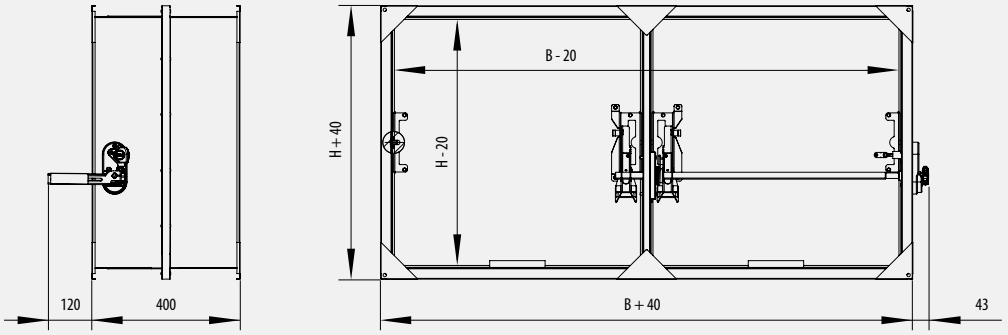
1. Casing
2. Blade
3. Spring return actuator BFN24-T / BFN24-T-ST / BFN230-T / BF24-T / BF24-T-S / BF230-T
4. Intumescent seal
5. Thermal bridge
6. Blade rotation axle
7. Connecting flange

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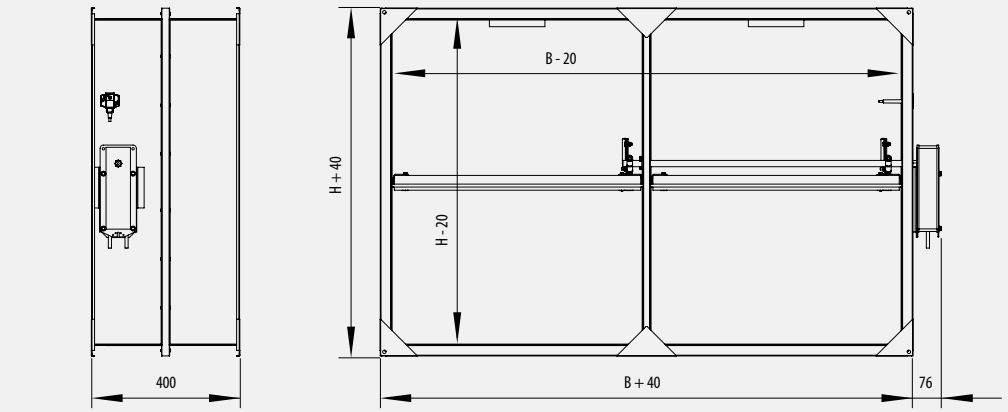
SIA KOMFOVENT reserves the right to make changes without prior notice.

Dimensions

UVSL-H



UVSL-M



Usage of the electric actuators in UVSL-M dampers

	Dimensions, mm														
H / B	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
1250															
1300															
1350															
1400															
1450															
1500															
1550															
1600															

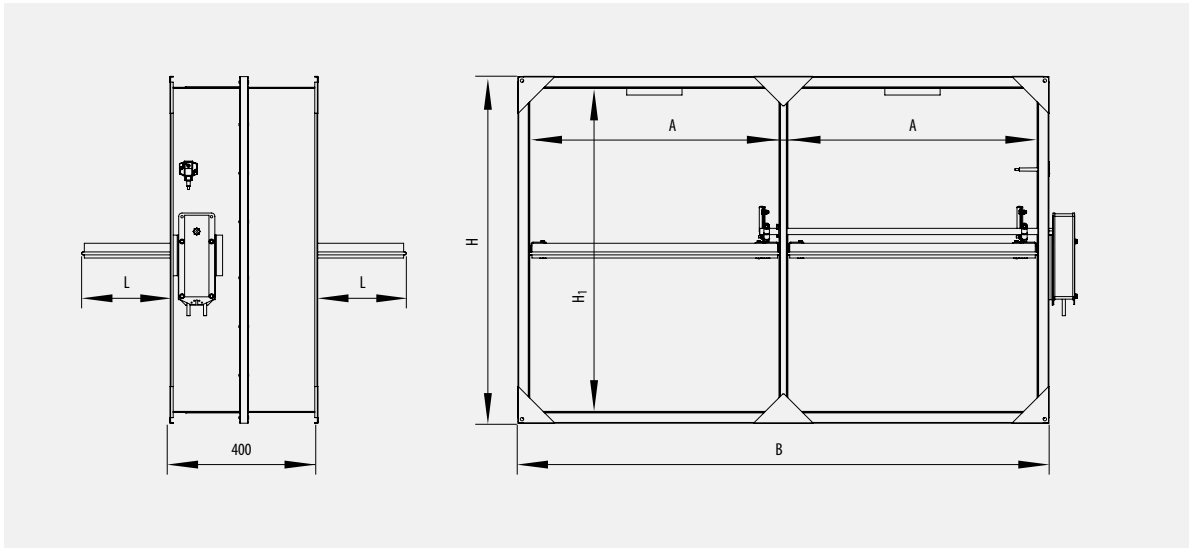
BFN24-T, BFN230-T, BFN24-T-ST

BF24-T, BF230-T, BF24-T-ST

Extend beyond the blade

UVSL fire dampers starting with H=490 mm have exposition of the blade into the duct within a certain distance:

H_{nom}, mm	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
H, mm	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040
H_1, mm	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980
L, mm	0	0	0	15	40	65	90	115	140	165	190	215	240	265	290



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Weight of the dampers

Weights for UVSL-H fire damper:

	Weight, kg							
H \ B	1250	1300	1350	1400	1450	1500	1550	1600
300	29,1	30,3	30,8	33,7	34,6	35,4	36,2	37
350	33,6	34,5	35,4	36,2	37,1	38	38,9	39,8
400	35,7	36,8	37,7	38,7	39,6	40,6	41,5	42,5
450	38	39,1	40,1	41,1	42,1	43,2	44,1	45,2
500	40,2	41,3	42,4	43,5	44,6	45,7	46,7	47,9
550	42,4	43,6	44,7	45,8	47	51,4	52,6	53,7
600	44,5	45,8	50,2	51,5	52,6	52,3	53,5	54,7
650	50,5	51,8	50,9	52,3	53,5	54,8	56,1	57,3
700	50,6	52	53,2	54,7	55,9	57,3	58,6	60
750	52,7	54,1	55,5	57	58,4	59,8	61,2	62,6
800	54,9	56,4	57,8	59,4	60,8	62,3	63,7	65,2
850	57	58,4	60,1	61,8	63,3	64,8	66,3	67,9
900	59	60,4	62,4	64,2	65,7	67,3	68,8	70,5
950	61,1	62,5	64,7	66,5	68,2	69,8	71,4	73,2
1000	63,2	64,6	67	68,9	70,6	72,3	73,9	75,8

Weights for UVSL-M fire damper:

	Weight, kg							
H \ B	1250	1300	1350	1400	1450	1500	1550	1600
300	29,0	29,8	30,7	31,0	32,3	33,2	34,0	34,8
350	31,2	32,1	33,0	33,9	34,8	35,7	36,6	37,5
400	33,4	34,5	35,3	36,2	37,2	38,2	39,1	40,1
450	35,8	36,9	37,9	38,9	39,9	41,0	42,0	43,0
500	38,1	39,5	40,2	41,3	42,4	43,5	44,6	45,7
550	40,2	41,4	42,5	43,7	44,8	46,0	47,1	48,3
600	42,4	43,6	44,8	46,1	47,3	49,5	51,7	52,9
650	44,6	45,9	49,2	50,4	51,7	53,0	54,3	55,6
700	48,8	50,1	51,5	46,5	54,2	55,5	56,9	58,5
750	51,0	52,4	53,8	55,2	56,6	58,0	59,4	60,8
800	53,2	54,6	56,1	57,6	59,1	60,5	62,0	63,5
850	55,4	56,9	58,4	60,0	61,5	63,0	64,6	66,1
900	57,5	59,1	60,7	62,3	63,9	65,5	67,1	68,7
950	59,7	61,4	63,0	64,7	66,4	68,0	69,7	71,4
1000	61,9	63,6	65,4	67,1	68,8	70,5	72,3	74,5

Effective cross-section area of the dampers

Effective cross-section area for fully opened blades of the damper:

	Cross – section area A, m²							
H \ B	1250	1300	1350	1400	1450	1500	1550	1600
300	0,29	0,30	0,31	0,33	0,34	0,35	0,36	0,37
350	0,35	0,36	0,38	0,39	0,41	0,42	0,44	0,45
400	0,41	0,43	0,44	0,46	0,48	0,50	0,51	0,53
450	0,47	0,49	0,51	0,53	0,55	0,57	0,59	0,61
500	0,53	0,55	0,58	0,60	0,62	0,64	0,66	0,69
550	0,59	0,62	0,64	0,67	0,69	0,71	0,74	0,76
600	0,65	0,68	0,71	0,73	0,76	0,79	0,81	0,84
650	0,71	0,74	0,77	0,80	0,83	0,86	0,89	0,92
700	0,77	0,81	0,84	0,87	0,90	0,93	0,97	1,00
750	0,83	0,87	0,90	0,94	0,97	1,01	1,04	1,08
800	0,89	0,93	0,97	1,01	1,04	1,08	1,12	1,15
850	0,96	0,99	1,03	1,07	1,11	1,15	1,19	1,23
900	1,02	1,06	1,10	1,14	1,18	1,23	1,27	1,31
950	1,08	1,12	1,17	1,21	1,25	1,30	1,34	1,39
1000	1,14	1,18	1,23	1,28	1,32	1,37	1,42	1,47

Pressure drop for UVSL fire dampers

Pressure drop for the certain B×H dimensions of the UVSL damper is based on resistance degree ζ, which can be identified from the table:

	Dimensions, mm							
B \ H	300	400	500	600	700	800	900	1000
1300	0,52	0,51	0,5	0,49	0,47	0,46	0,45	0,44
1400	0,48	0,47	0,45	0,44	0,43	0,42	0,41	0,4
1500	0,47	0,46	0,43	0,42	0,4	0,39	0,38	0,37
1600	0,46	0,45	0,42	0,41	0,39	0,38	0,37	0,36

Damper pressure drop (Pa) can be caculated by formula: $\Delta P = 0{,}6 \times (Q / (3600 \times B \times H))^2 \times \zeta$ where:

- Q – air flow, m³/h; B – damper width, m; H – damper height, m; ζ – local pressure drop coefficient (from previous tab).

> Example of pressure drop (Pa) calculation: *Damper:* UVS-H-1500×900. ***Airflow:*** 19000 m³/h. **Formula:** $\Delta P = 0{,}6 \times (Q / (3600 \times B \times H))^2 \times \zeta$
> - Q – 19000 m³/h; B – 1,5 m; H – 0,9 m; ζ – 0,38 (from tab)
>
> $\Delta P = 0{,}6 \times (19000 / (3600 \times 1{,}5 \times 0{,}9))^2 \times 0{,}38 = 3{,}5$ Pa

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Order code for UVSL dampers

UVSL – M24T – BKD – 1600×1000
① ② ③ ④ ⑤

UVSL – HEC – 1600×1000
① ② ④ ⑤

① **Product type:** **UVSL** – Rectangular fire damper

② **Mechanism type:** **H** – manual spring-return mechanism with fusible link
No entry – without end position switches
HEP – manual spring-return mechanism with fusible link and two end position switches
HEC – manual spring-return mechanism with fusible link and one CLOSED end position switch
HEO – manual spring-return mechanism with fusible link and one OPEN end position switch
M – automatic actuation
M24T – 24 V AC/DC spring-return actuator with thermoelectric tripping device
M230T – 230 V AC spring-return actuator with thermoelectric tripping device
M24TST – 24 V AC/DC spring-return actuator with thermoelectric tripping device and connection plugs for Communication and power supply unit BKN230-…

③ **Pre-installed accessories:** **No entry** – no preinstalled accessories
B – bracket for Communication and power supply unit BKN230…
BKD – bracket with Communication and power supply unit BKN230-24-MOD
BKP – bracket with Communication and power supply unit BKN230-24MP

④ **Width of the damper:** nominal width in mm

⑤ **Height of the damper:** nominal height in mm

Actuating mechanism detailed information

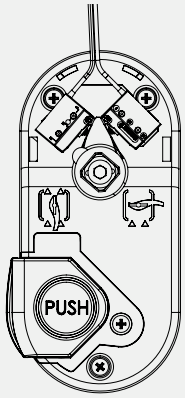
Manual spring-return mechanism



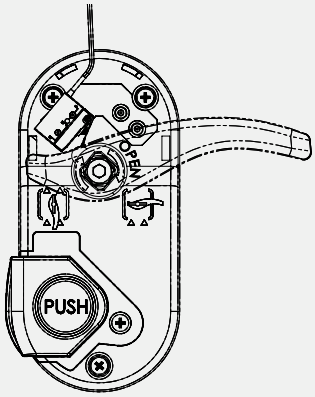
Fire dampers UVA-H, UVS-H and UVSL-H are equipped with manual spring-return mechanism, designed in an ergonomic way not only to fully cover and protect all mechanical parts against dust or debris, but also to provide a space-saving design, at the same time ensuring fast and easy replacement of the fuse element.
Main operational elements of the mechanism are "push" button and end position switches, covered with a protection cap.

One or two end position switches can be used for indicating certain positions of the blade of damper depending on the purpose of use:

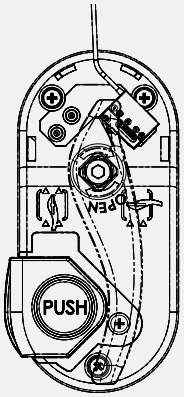
HEP with two end position switches for indicating both positions of the blade



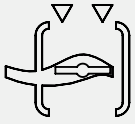
HEC with one end position switch for indicating CLOSED position of the blade



HEO with one end position switch for indicating OPEN position of the blade



Indicating of the blade position for UVA-H damper
After the fuse element is triggered, it is not possible to lock the blade of manual fire damper damper in open state again. If false triggering – maintenance works are required in this case. Position of the blade can be indicated based on symbols on the plastic mechanism casing or based on the signals from the microswitches (for UVA, UVS and UVSL fire dampers in -HEP, -HEC and -HEO versions).



— **Blade closed** – handle placed horizontally, no air transfer



— **Blade opened** – handle placed vertically, free air transfer ensured

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Testing actuating mechanism and replacing of the actuated fuse element

Spring mechanism casing contains red testing button with PUSH label. The button should be pressed to test if the spring mechanism is functional. PUSH button and fuse element construction can be simply pulled out by unscrewing one screw for inspection and repair works. The opening in the mechanism casing can be used for internal inspection of the damper.



Fire damper UVA-H, UVS-H and UVSL-H	Version with fuse element and spring return mechanism with manual winding. Triggering temperature – 72°C.
Fire damper UVA-HEP, UVS-HEP and UVSL-HEP	Version with fuse element and spring return mechanism with manual winding and two end position switches 250 VAC to indicate both OPEN and CLOSED blade positions. Triggering temperature – 72°C.
Fire damper UVA-HEC, UVS-HEC and UVSL-HEC	Version with fuse element and spring return mechanism with manual winding and one end position switch 250 VAC to indicate CLOSED blade position. Triggering temperature – 72°C.
Fire damper UVA-HEO, UVS-HEO and UVSL-HEO	Version with fuse element and spring return mechanism with manual winding and one end position switch 250 VAC to indicate OPEN blade position. Triggering temperature – 72°C.

Electric actuators



Spring-return actuator, combined with thermoelectric tripping device BAT (72 °C), for fire and smoke dampers 90° in ventilation and air-conditioning systems. The actuator moves the damper to the operating position at the same time as tensioning the return spring. The damper is turned back to the safety position by spring energy when the supply voltage is interrupted.
The Safety Position Lock™ reliably holds the fire damper in the safety position in case of fire therefore, ensuring maximum safety.

Thermoelectric tripping device complies with the specific requirements of the standard ISO 10294-4 and has:
- Protected function of supply line.
- LED status indicator.
- Checking the damper function on site using the test button.

The design of the actuator is based on the specific requirements from the European standards:
- EN 15650 Ventilation for buildings – Fire dampers.
- EN 1366-2 Fire resistance tests on service installations (Part 2: Fire dampers).
- EN 13501-3 Fire classification of construction products and building elements (Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers).

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Main parameters

Parameter	BFL24-T	BFL230-T	BFN24-T	BFN230-T	BF24-TN	BF230-T
Powe supply	AC/DC 24 V 50/60 Hz	AC 230 V 50/60 Hz	AC/DC 24 V 50/60 Hz	AC 230 V 50/60 Hz	AC/DC 24 V 50/60 Hz	AC 230 V 50/60 Hz
Control	Open / close	Open / close	Open / close	Open / close	Open / close	Open / close
Weight	1,1 kg	1,1 kg	1,4 kg	1,4 kg	2,8 kg	3,1 kg
Torque (motor)	min. 4 Nm	min. 4 Nm	min. 9 Nm	min. 9 Nm	min. 18 Nm	min. 18 Nm
Torque (return spring)	min. 3 Nm	min. 3 Nm	min. 7 Nm	min. 7 Nm	min. 12 Nm	min. 12 Nm
Rotation angle	max. 95°	max. 95°	max. 95°	max. 95°	max. 95°	max. 95°
Normal operating temperature	-30...55 °C	-30...55 °C	-30...55 °C	-30...55 °C	-30...50 °C	-30...50 °C
Power consumption in operation	2 W	2,6 W	4 W	5 W	7 W	8,5 W
Servicing	Maintenance-free	Maintenance-free	Maintenance-free	Maintenance-free	Maintenance-free	Maintenance-free
Degree of protection IEC/EN	IP54	IP54	IP54	IP54	IP54	IP54
Mechanical interface	Form fit 12×12 mm, continuous hollow shaft	Form fit 12×12 mm, continuous hollow shaft	Form fit 12×12 mm, continuous hollow shaft	Form fit 12×12 mm, continuous hollow shaft	Form fit 12×12 mm, continuous hollow shaft	Form fit 12×12 mm, continuous hollow shaft
Thermoelectric tripping device BAT (72°C)	Yes	Yes	Yes	Yes	Yes	Yes
End position switches	Yes	Yes	Yes	Yes	Yes	Yes

BFL24-T-ST, BFN24-T-ST, BF24-T-ST actuators are equipped with connection plugs. This allows it to be integrated into control and monitoring systems (e.g. SBS-Control) or bus networks (e.g. MP-Bus solutions) via communication and power supply units (Belimo type BKN230-24-MOD, BKN230-24MP). Is in not possible to add connection plugs to BFL24-T, BFN24-T, BF24-T, BFL230-T, BFN230-T, BF230-T after delivery.

Connection and power supply units

Dapmers with BFL24-T-ST, BFN24-T-ST, BF24-T-ST actuators could optionally be equipped with a Communication and power supply unit for fire damper actuators 24 V with a Communication and power supply unit for fire damper actuators 24 V with connector **BKN230-24-MOD** for communication via BACnet MS/TP and Modbus RTU, or **BKN230-24MP** via MP-BUS / SBS communication.



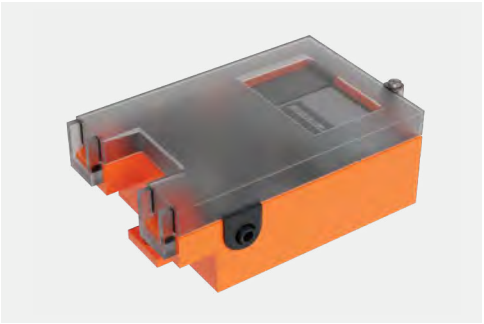
BKN230-24-MOD Unit

The BKN230-24-MOD is a decentralized power supply and communication unit for 24 V fire damper actuators, designed for local operation with an AC 230 V power source. The unit features an integrated LED status indicator and terminal connections for an external smoke detector and/or a thermoelectric release device.
When mounted together with a motorized fire damper, the BKN230-24-MOD provides two key functions:

- It serves as a communication interface with higher-level building automation systems via BACnet MS/TP or Modbus RTU (RS-485).
- Its built-in safety isolating transformer supplies a galvanically isolated 24 V DC power supply for the fire damper actuator.

Key features:

- Communication via BACnet MS/TP and Modbus RTU (RS-485).
- AC 230 V supply via power cable with Euro plug.
- Galvanically isolated 24 V DC actuator supply via plug connection.
- Direct integration of a smoke detector without additional power supply.
- Compatible with thermoelectric release devices (e.g. Belimo BAE series).
- Integrated LED status indication for quick diagnostics.



BKN230-24MP unit

The BKN230-24MP is a communication and power supply unit designed for Top-Line fire & smoke actuators (e.g. BF24TL-T-ST) within the BELIMO MP-Bus network. It supplies the required AC 230 V mains voltage locally and interfaces with the MP-Bus for digital control of fire protection dampers.

Key Features:

- Nominal voltage: AC 230 V, 50/60 Hz; range 198-264 V.
- Power consumption (running, including actuator): approx. 8 W; for wire sizing approx. 10 VA with connected actuator.
- Protection class: Class II (totally insulated); Degree of protection IP40.
- Ambient temperature: -30…+50 °C in operation; non-operating: -40…+80 °C.
- Communication interface: MP-Bus digital; up to 8 MP-Bus nodes can be connected in parallel under one master controller (DDC with MP-Bus interface). Cable length up to 800 m.

Connections & Interfaces:

- AC 230 V supply via Euro plug.
- Plug connector for BELIMO Top-Line fire & smoke actuator.
- MP-Bus terminals for communication.
- Terminal for local smoke detector contact (potential-free) as safety input.
- Plug connection for BELIMO PC-Tool for diagnostics and parameterization.

Operating Behavior / Safety Features:

- Safe design ensures supply and control circuits are electrically isolated.
- If no MP-Bus commands are received, or communication fails, the damper remains in its safety position.
- LED indicator (green) for supply status.

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Controller for fire dampers or smoke exhaust dampers FDC-S

FDC-S controller



Fire dampers and smoke exhaust dampers are key components of a fire safety system. Monitoring their operation ensures:

- Protection of people from harmful combustion products.
- Minimization of damage to buildings and property.
- Compliance with harmonized international safety standards.

The FDC-S not only provides reliable damper control but also automatically monitors their status, detects malfunctions in a timely manner, and maintains the system's readiness for emergency situations.
FDC-S is a modern controller for automating the operation of fire dampers and smoke exhaust dampers, which is essential for ensuring a high level of safety for people, buildings, and valuable property. The controllers guarantee correct functioning of fire safety systems, preventing the spread of fire and smoke.

KEY FEATURES

- **Operating modes**: The controller can operate in **standalone mode** or integrate with a central BMS system via **Modbus RTU** or **BACnet MSTP** protocols.
- **Models and zones**: Available in **2- and 4-zone versions**, each zone capable of controlling one damper and one smoke exhaust device. For 2-zone models, integration with a thermoelectric tripping device is also possible.
- **Power supply**: FDC-S supports **24 V AC/DC** and **230 V AC**, supplying power to damper actuators and smoke detectors at various voltages (**230 V AC, 24 V AC/DC, 24 V DC**).

CONTROL AND MONITORING

- **Damper testing**: Damper operation can be tested manually or according to a pre-programmed schedule, with feedback transmitted via BMS, relay output, or 6 analog signal options.
- **Analog status signals**:

0 V	No power
2 V	Normal damper operation
4 V	Damper alarm position
6 V	Smoke detector alarm
8 V	Thermoelectric device alarm
10 V	More than one alarm condition

- **Digital inputs and relay**: Three digital inputs for damper position inversion, test/reset, and alarm input; one relay output for controlling external devices or notifying the central fire safety system.

CONTROL PANEL

- **TEST/RESET buttons** for manually starting tests or resetting alarm conditions.
- **LED indicators**:

Green	operating mode (analog control, Modbus/BACnet, test mode, smoke detector reset)
Red	normal operation, errors, or signal from an external emergency system
Yellow	(per zone) normal operation, damper position change, zone alarm, or disabled zone

- **Smoke detector support**: Connection for 2-wire or 4-**wire smoke detectors with manual reset capability.**

ADDITIONAL FEATURES

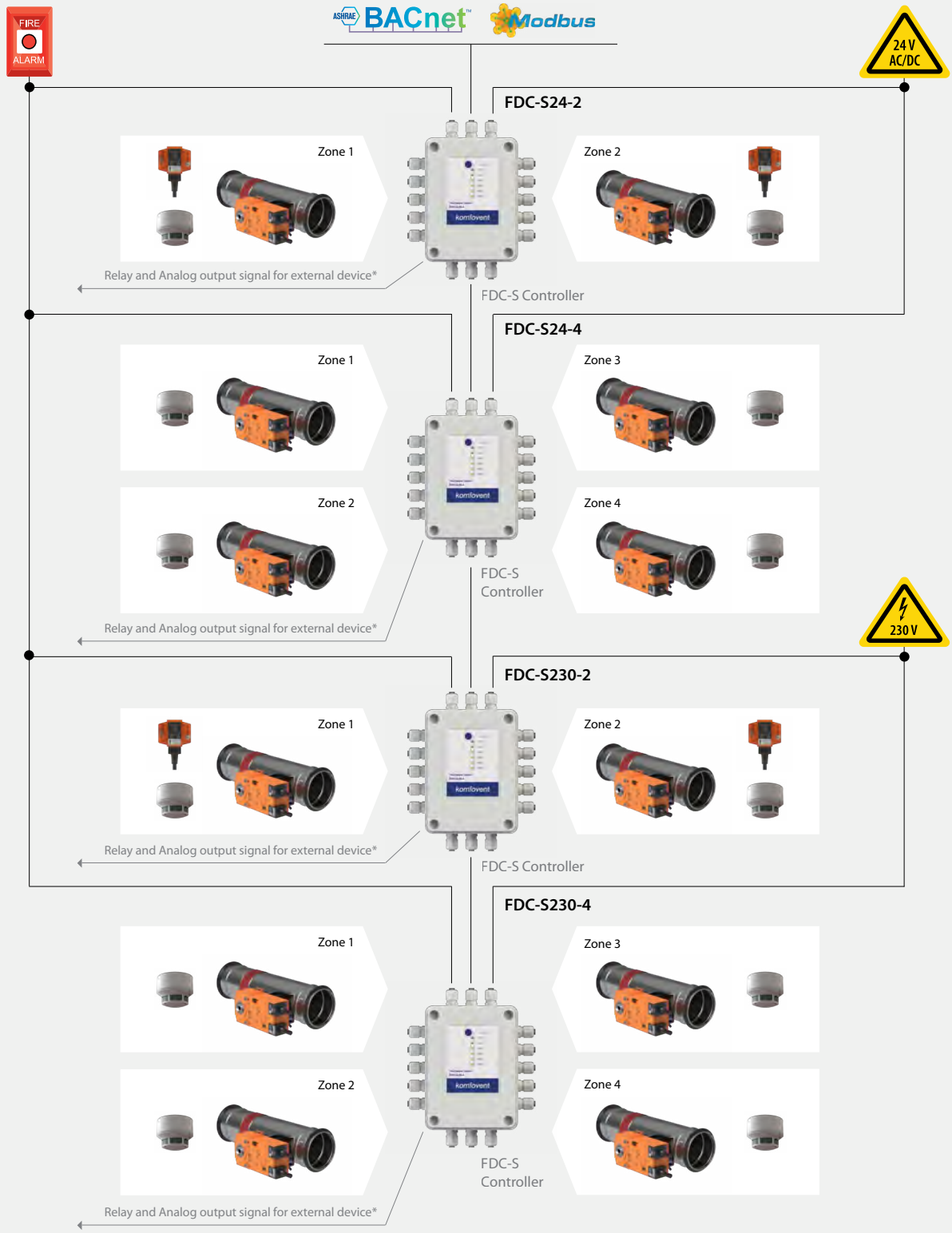
- **Integrated clock** and configurable testing intervals via external devices through Modbus.
- **Error time setting** for damper open/close testing, adjustable from **60–360 seconds.**
- **Ability to set damper alarm position** and configure BMS ID numbers from **1–127.**
- Connection via standard **RS485 port**.

	FDC-S24-2	FDC-S230-2	FDC-S230/24-2	FDC-S24-4	FDC-S230-4	FDC-S230/24-4
Selection between fire or smoke dampers	Yes	Yes	Yes	Yes	Yes	Yes
Connected dampers number	2	2	2	4	4	4
External smoke detectors number per each damper	1	1	1	1	1	1
External thermoelectric tripping device number per each damper	1	1	1	0	0	0
Power input	24 V AC/DC	230 V AC	230 V AC	24 V AC/DC	230 V AC	230 V AC
Power supply for dampers motors	24 V AC/DC	230 V AC	24 V DC	24 V AC/DC	230 V AC	24 V DC
Power supply for 4 wire smoke detector	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Digital input number (damper position inversion/ Test-Reset/Alarm input)	3	3	3	3	3	3
Relay output number	1	1	1	1	1	1
Status (0...10 V; 6 varies of status) output	1	1	1	1	1	1
BMS control Modbus RTU	Yes	Yes	Yes	Yes	Yes	Yes
BMS control BACnet (MSTP)	Yes	Yes	Yes	Yes	Yes	Yes
BMS ID number range	1–127	1–127	1–127	1–127	1–127	1–127
Actuator error check time setting range	60–360 s	60–360 s	60–360 s	60–360 s	60–360 s	60–360 s
Integrated clock	Yes	Yes	Yes	Yes	Yes	Yes
Clock and test time setting	By PC with Modbus interface	By PC with Modbus interface	By PC with Modbus interface	By PC with Modbus interface	By PC with Modbus interface	By PC with Modbus interface
Damper auto test interval setting range	1–4464 hours	1–4464 hours	1–4464 hours	1–4464 hours	1–4464 hours	1–4464 hours
Damper alarm position selection	Yes	Yes	Yes	Yes	Yes	Yes
TEST/RESET button	Yes	Yes	Yes	Yes	Yes	Yes
Invert damper position mode	Yes	Yes	Yes	Yes	Yes	Yes
2 wire smoke detector connection	No	No	No	Yes	Yes	Yes
4 wire smoke detector connection	Yes	Yes	Yes	Yes	Yes	Yes
Faults LED indication on front panel	Yes	Yes	Yes	Yes	Yes	Yes
Modbus and BACnet communication-bus	RS485	RS485	RS485	RS485	RS485	RS485
Smoke detection reset	Yes	Yes	Yes	Yes	Yes	Yes
Power consumption (excl. external accessories)	<4 W	<4 W	<4 W	<4 W	<4 W	<4 W
Protection class	IP54	IP54	IP54	IP54	IP54	IP54
Connectors (spring terminals)	up to 2,5 mm^2	up to 2,5 mm^2	up to 2,5 mm^2	up to 2,5 mm^2	up to 2,5 mm^2	up to 2,5 mm^2
Ambient operating temp.	-40...+50°C	-40...+50°C	-40...+50°C	-40...+50°C	-40...+50°C	-40...+50°C
Dimensions	167×212×75 mm	167×212×75 mm	167×212×75 mm	171×212×75 mm	171×212×75 mm	171×212×75 mm

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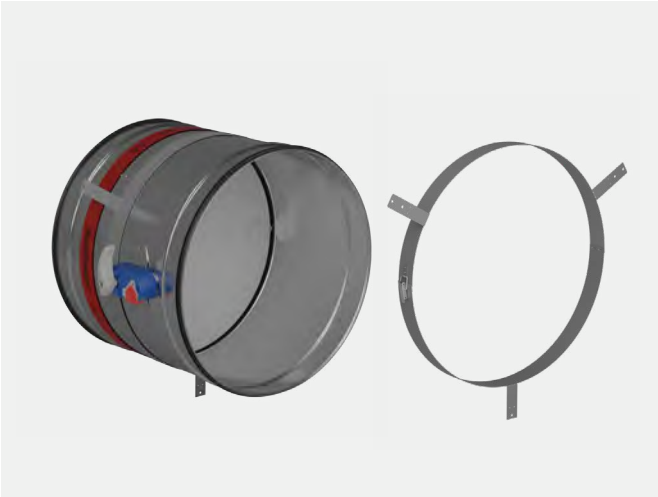
FDC-S series functionality with BMS control



* FDC-S controllers are suitable also for systems without BMS control to indicate system failure or falling the work test.

Accessories for UVA dampers

US wall installation tool



Simple collar-type installation tool with 3 plates (6×Ø6 mm holes) – designed for wall installation, for the best alignment of the fire damper in cut-out opening.
For each fire damper diameter (100, 125, 160, 200, 250, 315, 355, 400, 450, 500, 560, 630 mm) relevant size of installation holder is required. The installation holder is re-usable, it is possible not to order the mounting accessories for each fire damper that should be installed on the site.

D_{nom}, mm	100	125	160	200	250	315	355	400	450	560	630
a, mm	78	78	78	78	78	78	109	109	109	109	109
b, mm	14,5	14,5	14,5	14,5	14,5	14,5	53	53	53	53	53
m, kg	0,09	0,11	0,11	0,12	0,17	0,56	0,62	0,69	0,75	0,83	0,92

UL ceiling installation tool



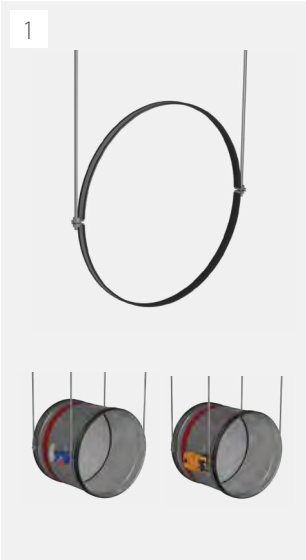
Simple overlay-type installation tool with fixing plate (12×Ø5 mm holes) – designed for ceiling installation, for the best alignment of the fire damper in cut-out opening.
For each fire damper diameter (100, 125, 160, 200, 250, 315, 355, 400, 450, 500, 560, 630 mm) relevant size of installation holder is required. The installation holder is re-usable, it is possible not to order the mounting accessories for each fire damper that should be installed on the site.

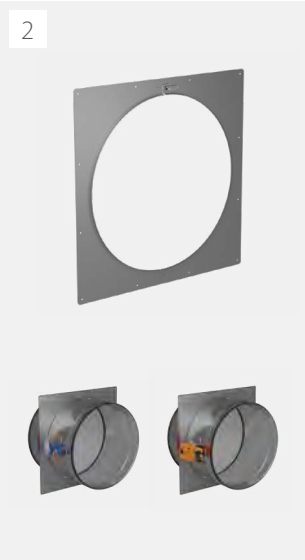
D_{nom}, mm	100	125	160	200	250	315	355	400	450	500	560	630
m, kg	0,28	0,34	0,38	0,42	0,52	0,64	0,82	0,94	1,08	1,24	1,40	1,56
Outer size, mm	200×200	225×225	260×260	300×300	350×350	415×415	455×455	500×500	550×550	600×600	660×660	730×730

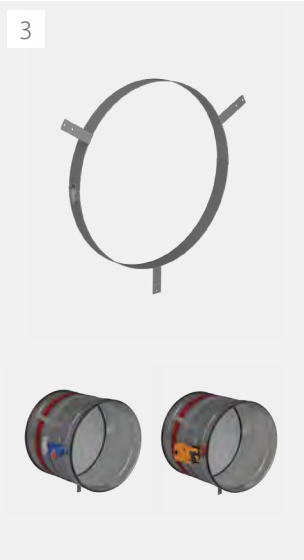
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Usage of mounting accessories



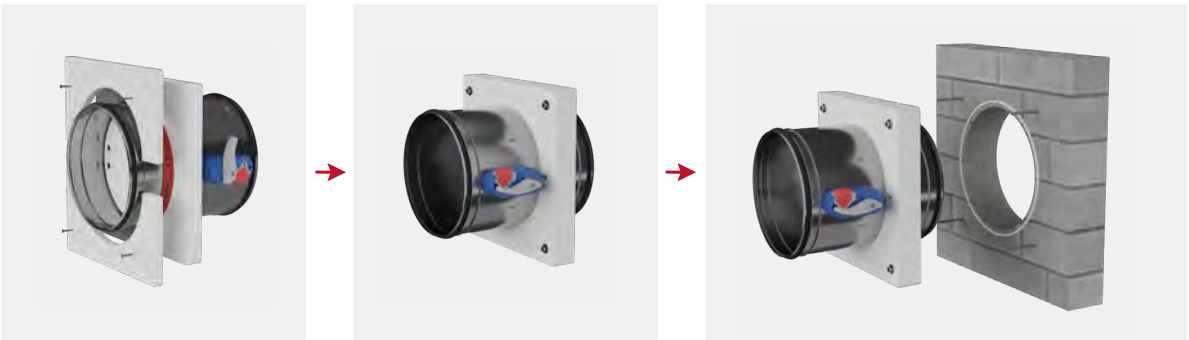




Depending on the installation type suspension clamp [1] are used for tight holding of fire damper when wall mounting brackets cannot be used.
Steel overlay-type installation accessory UL [2] can be used for positioning the fire damper in the cut-out and holding fire resistant insulation on the ceiling.
Steel collar-type installation accessory US [3] can be used to align the fire damper in the cut-out by tightening it on the fire damper's casing and installing metal plates on a wall.

SMR dry installation kit

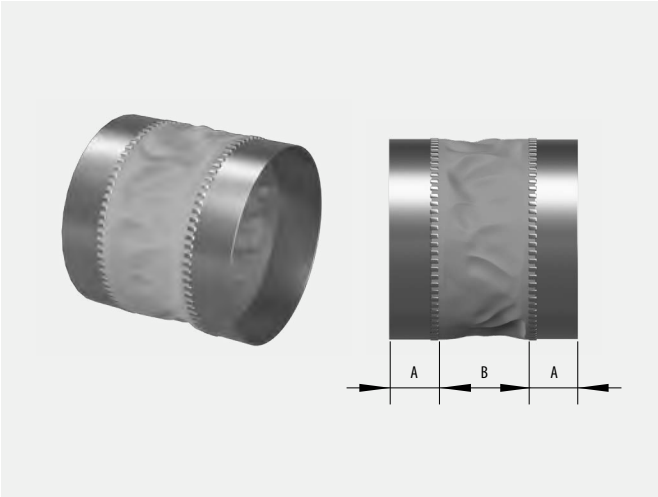
Dry installation kit SMR is available for UVA dampers in dimensions Ø100, 125, 160, 200, 315 mm. The kit can be factory-preinstalled or be mounted separately on-site. Using of the kit significantly facilitates the installation procedure making it mortarless and less labor-intensive.



D_{nom}, mm	100	125	160	200	250	315
SMR weight, kg	2,48	2,92	3,55	4,31	5,32	6,72
Outer dimensions of the SMR, mm	225 × 225	250 × 250	285 × 285	325 × 325	375 × 375	440 × 440
Distance between mounting holes, mm	145 × 145	170 × 170	205 × 205	245 × 245	295 × 295	360 × 360

Dry installation kit consists of four parts, when installed they form integrated shield flange around the UVA damper. Shield flange is made of heat-resistant plates, that simulate section of the wall pre-mounted on the casing of the damper.

Flexible connection JLA



Connecting airducts have to be installed in such a way as to not transfer their own load on the fire damper and ensure the integrity of the airduct system if the supporting construction collapses. Flexible connection should be installed on both sides of the supporting construction to compensate all extensions or compressions. Flexible connections can be fixed with collars or another type of clamps (type of fastening should not damage the casing of a damper).
Flexible connection is made of galvanized steel and PVC coated fabric tape. The tape is welded into required diameter lengthwise. Width of the galvanized steel stripe A is 45 mm, width of the central PVC stripe B is 60 mm, total length of the flexible connection is 150 mm.

Diameter, mm	100	125	160	200	250	315	355	400	450	500	560	630
JLA weight, kg	0,3	0,4	0,5	0,6	0,7	0,9	1,0	1,1	1,3	1,4	1,4	1,5

End position switches



UVA-H, UVS-H, UVS-H-D, UVSL-H fire damper can additionally be equipped with one or two end position switches and plastic switch cam for pressing the first or the second switch.
Microswitches are sealed with IP67 protection and suitable for nominal currents from 10 A at 250 VAC. Mechanical operating life min. 1 000 000 actuations.

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Documentation

Detailed installation information for fire damper certified installation procedures, types of supporting constructions and sealing materials to be used is provided in manufacturer's Installation manuals available at *www.komfovent.com* or by following the links:









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