

BSKC6-VAP

Circular fire damper and Constant pressure damper



FIRE SAFETY



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www.bevent-rasch.com



BEVENT RASCH

AIR SOLUTIONS – FOR A BETTER TOMORROW



Shown with RCTU / MRB3 fitted.



Quick facts

- Fire resistance class EI60/EI60S
- Sizes from 100 mm to 630 mm
- Prefitted safety actuator 24V
- Easy constant pressure
- Low weight
- Easy installation
- Available in MagiCAD
- CE-marked building product according to 15650:2010

Two dampers in one!

Bevent Rasch has developed a fire damper in fire resistance class EI60 / EI60S which is also used for constant pressure retention in all types of ventilation plants whilst providing full protection against the spread of smoke.

Use

Dampers in combination with walls or joists for fire-sectioning of heating, ventilation and air conditioning installations in buildings. In accordance with the harmonised European Standard EN 15650:2010. Smoke spread is prevented when the damper system design in accordance with the associated documentation, assembly and fitting instructions is used in combination with smoke detectors and the MRB (or equivalent) monitoring system. No further measures against the spread of smoke are required.

As the damper also functions as a constant pressure retention damper, both these functions are combined in the same damper. This saves both time, space and money for installations in, for example, hotels, office and shopping complexes, where both these functions need to be solved.

Performance

EC certificate according to EN 15650:2010

402-CPD-SC0900-13

Classification of fire resistance according to EN 13501-3

EI60 (ve ho i <-> o) S

For complete classification, see the Declaration of Performance.



Mounting

BSKC6-VAP is mounted on the bushing of building parts in accordance with the associated mounting instructions. If mounted as a final device, the damper must be fitted with steel meshing.

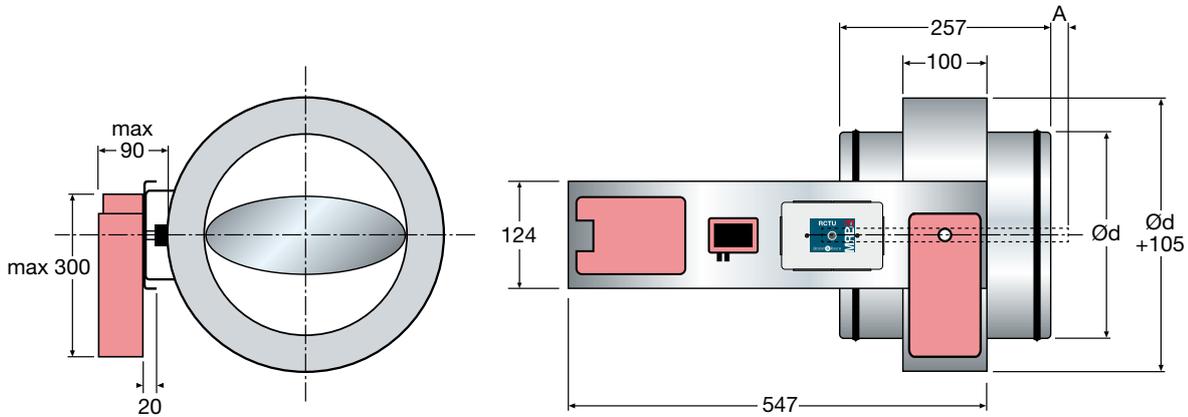
Design

BSKC6-VAP is supplied complete with a factory mounted, maintenance-free, 24 V electric safety actuator with thermal sensor featuring built-in signal contacts to indicate the damper position. BSKC6-VAP is supplied prepared for possible overinsulation of 50 mm. BSKC6-VAP is supplied calibrated from the factory. Nominal pressure is 100 Pa or 300 Pa depending on the pressure sensor's range of measurement. Desired reference values are set using the regulator's potentiometer between 30-100% of nominal pressure. The reference value can be remotely set with a 2-10V signal from the DUC, for example. The device can be force-controlled to different operational requirements. In case of a power failure, the damper closes with actuator spring return.



Dimensions and weight

The illustration shows RCTU / MRB3 fitted.



Size Ød	100	125	160	200	250	315	400	500	630
A	-	-	-	-	-	35	75	125	190
Weight, incl. actuator, kg	3,4	3,7	4,3	5,0	6,0	7,2	10,6	13,0	17,0

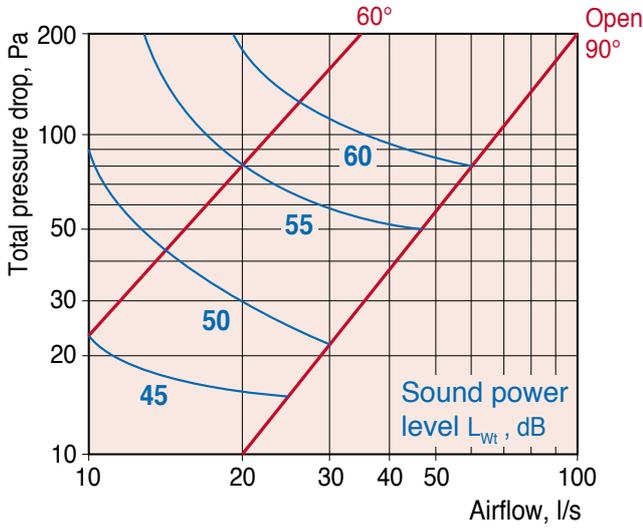
Electrical data

	BSKC6-VAP	VRP-STP
Sizing, max	10 VA - BF24-V	2,6 VA
Running time;		
- motor opening	120-300 s	
- spring return, max	approx. 20 s	
Protection class	IP 54	
Power supply	24V~ ±20%, 50/60 Hz	
- Control signal Y		DC 2-10 V DC 0-10 V (option)
- Measuring signal U		DC 2-10 V DC 0-10 V (option)
0-100% U nom		
Ambient temperature		0° to +50°C
End position contacts:		
- load ≤ 300 mW	min 1 mA/5V~, max 100 mA/250V~	
Applicable after exceeding the above values:		
- load > 300 mW	min 100 mA, max 3 A/250~	
Sound level		
- when opening	approx. 45 dB(A)	
- with spring return	approx. 62 dB(A)	

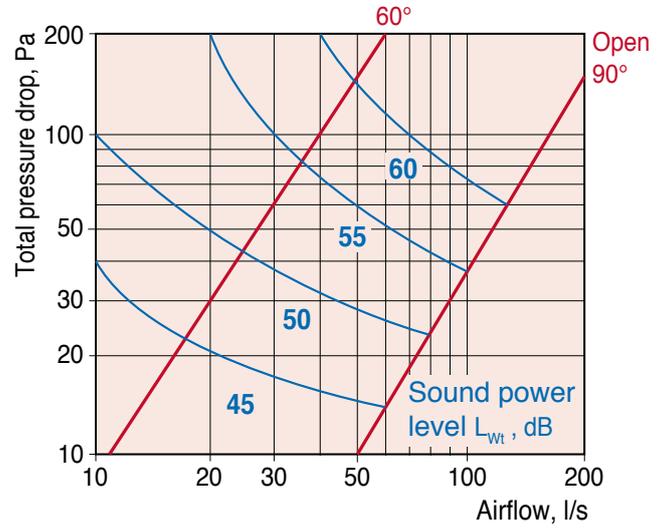


Size chart

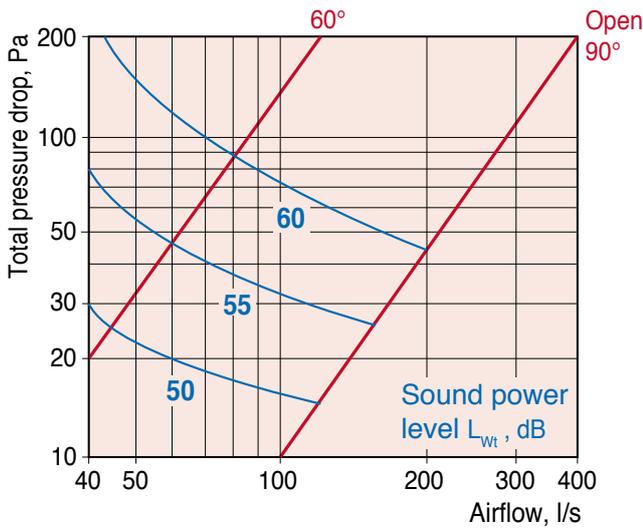
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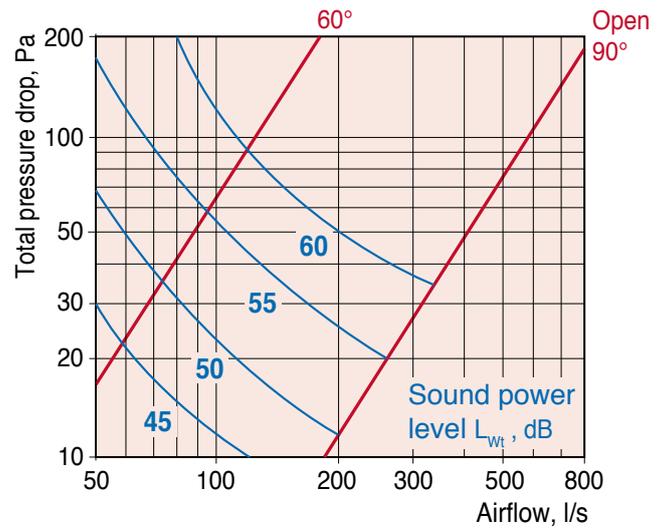
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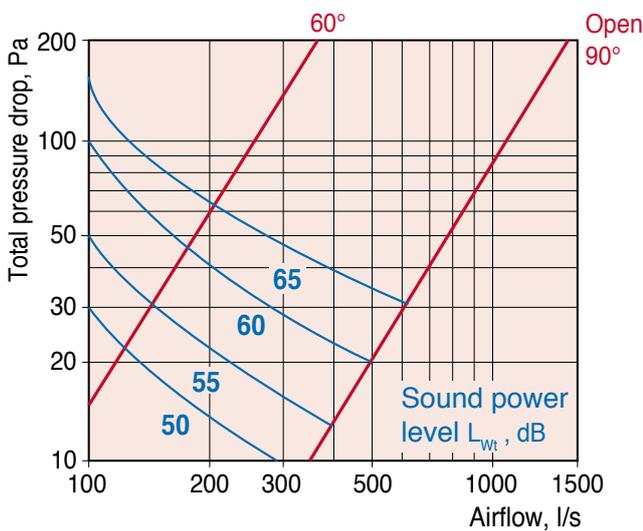
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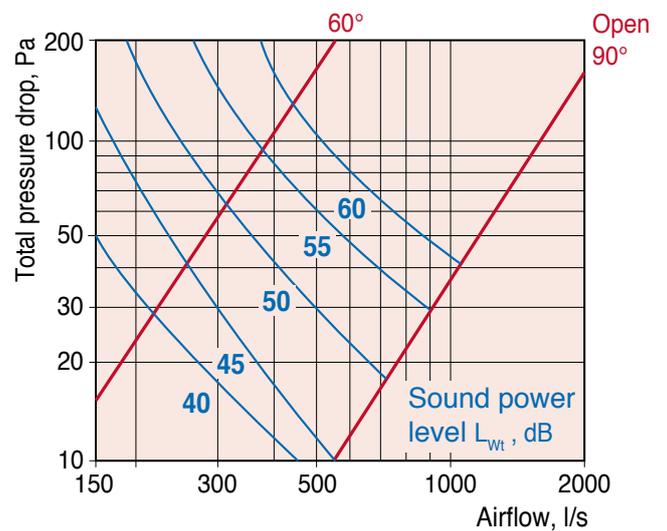
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Size - 250

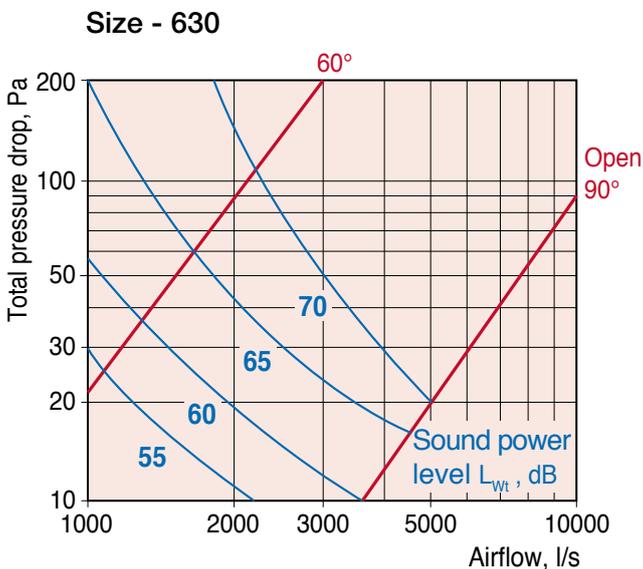
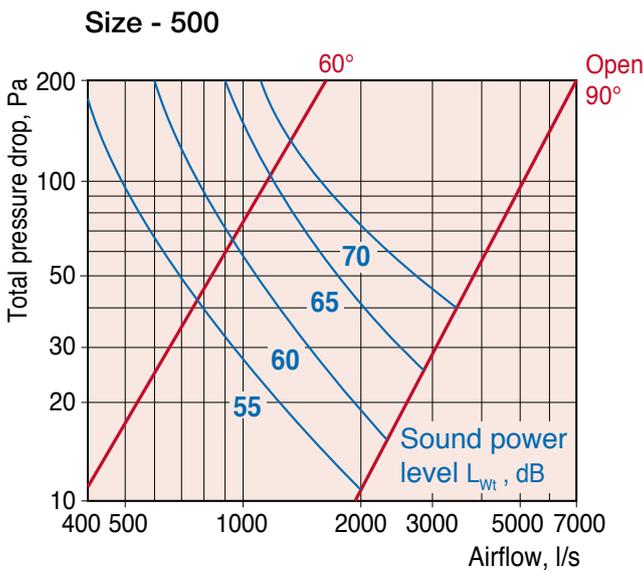
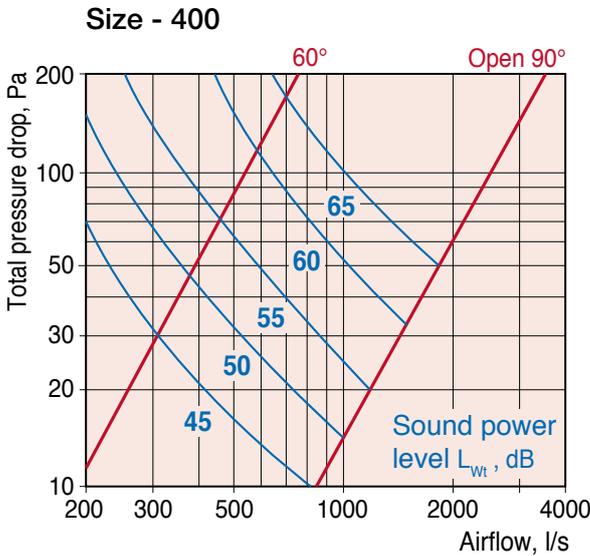


Size - 315





Size chart



Sound data

Correction of sound power level, $L_{w_{ok}}$, in octave band

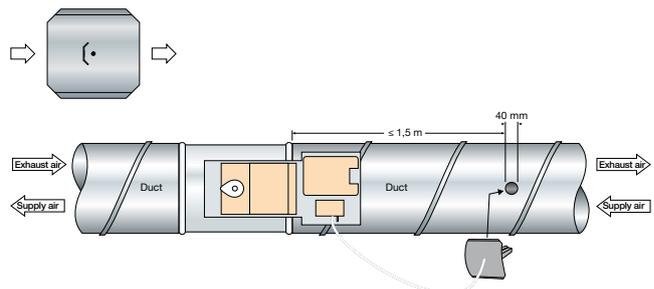
$$L_{w_{ok}} = L_{w_{t}} + K_{ok}$$

Correction, K_{ok}

Size Ø mm	Centre Frequency Hz							
	63	125	250	500	1000	2000	4000	8000
100	-4	-6	-7	-12	-17	-24	-26	-33
125	-5	-5	-8	-14	-22	-25	-27	-35
160	-5	-4	-8	-13	-17	-20	-28	-34
200	-3	-6	-10	-14	-15	-19	-27	-40
250	-1	-11	-15	-20	-22	-23	-29	-37
315	-2	-8	-11	-12	-13	-19	-23	-29
400	-2	-8	-14	-12	-15	-22	-30	-41
500	-2	-8	-13	-13	-15	-21	-28	-36
630	0	-15	-23	-23	-28	-35	-41	-48
Tol. ± dB	2	3	4	4	6	7	9	9

Installation

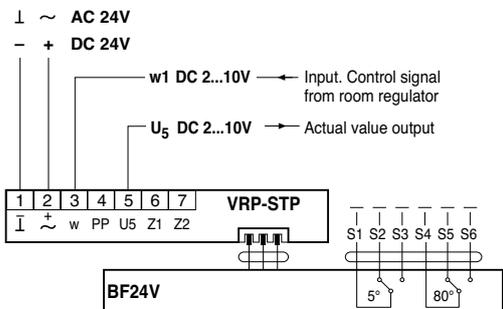
The pressure sensor should be mounted in a representative position in the duct downstream of the damper with the arrow in the direction of the air flow. The measuring hose must be fixed in the duct and in the static pressure sensor on the damper. If the damper is placed in the exhaust air duct the measuring tube shall be moved to the minus spigot on the static pressure sensor. The pressure sensor is calibrated and mounted in a vertical position. When mounting in another position, post-adjustment on-site is possible.



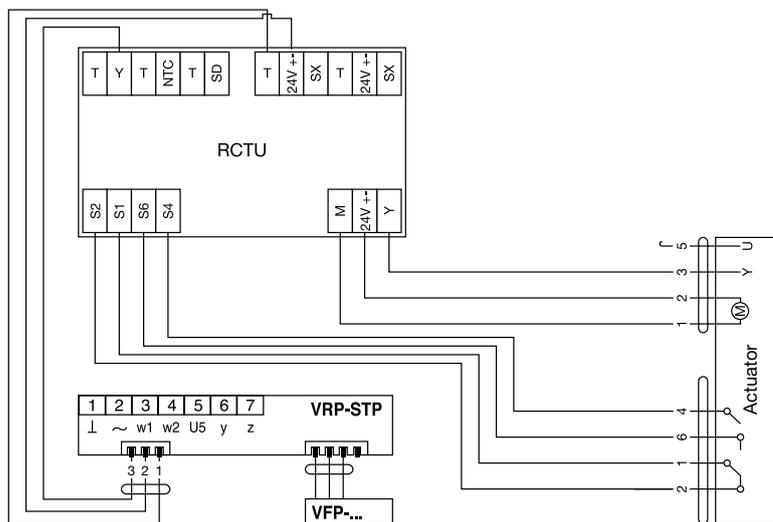


Wiring diagram

Option 1 – Connection to master system



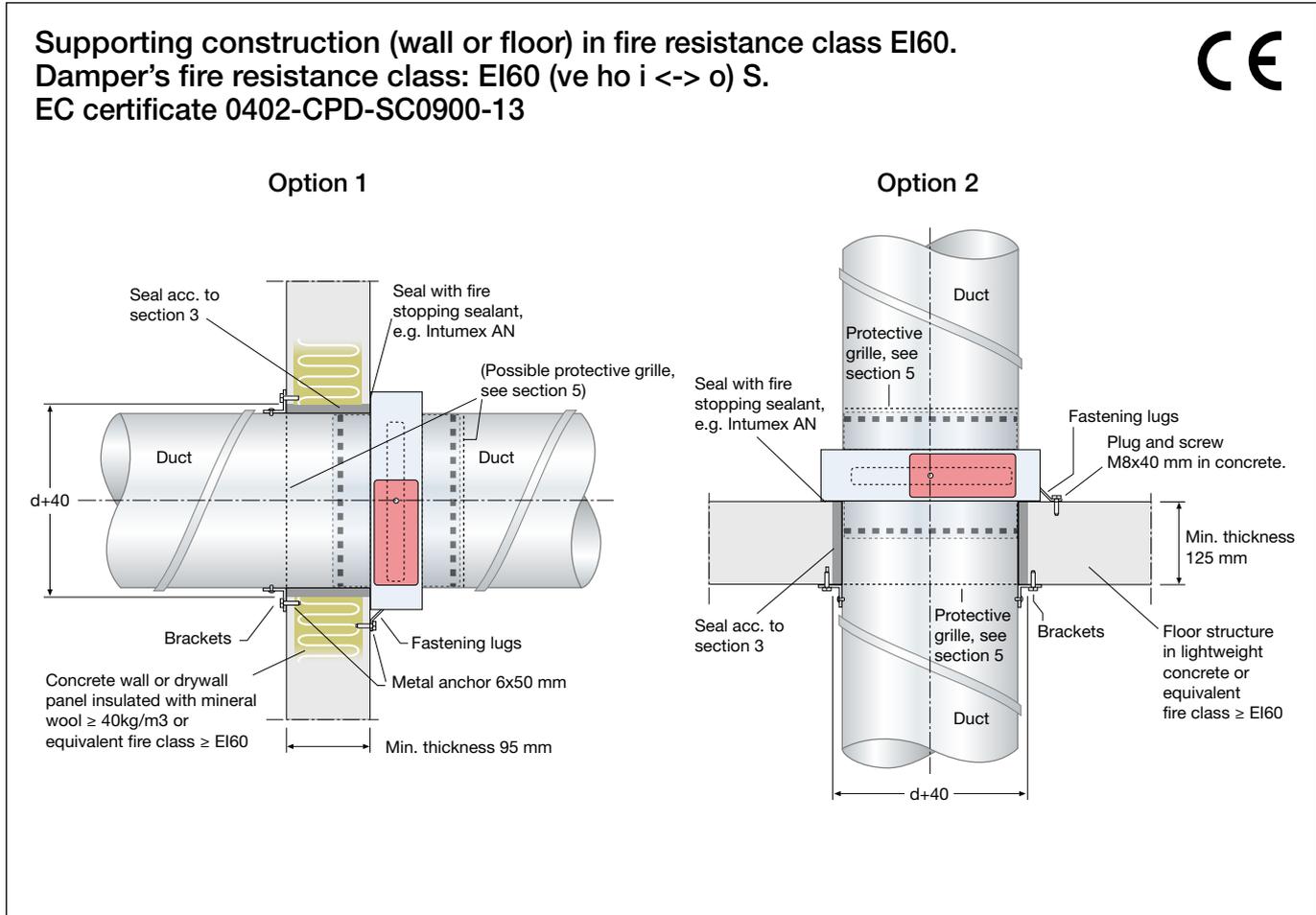
Option 2 – Connection to RCTU



Caution!
 When connecting several VAV-devices to the same transformer, it is important that all system phases are connected to (\sim) and all system neutrals are connected to (\perp).
 In case of alarm and function tests, the 24V supply must be disconnected!



Installation instruction



Options 1 and 2

1. Install and join the damper in the ventilation duct that ends at the wall or floor face (after the lead-through).
2. The damper is secured flat and tight using fire stopping sealant (Intumex AN) against the wall/floor structure with the fastening lugs, which are opened out.
3. Sealing is carried out by caulking with mineral wool, min 40 kg/m^3 .
4. Use brackets to fasten the duct to the wall.
5. If fire damper is not connected to the duct system, fit non-combustible grilles designed for the damper on the unconnected sides. The minimum distance between the damper blade in the open position and the grille is 50 mm.
6. Install the thermal sensor with the sensor body in the air flow without obstructing the movement of the damper blade.
7. Install the duct system according to applicable requirements.
 - Minimum distance between dampers must be 200 mm.
 - Minimum distance to joist structure/wall must be 75 mm.

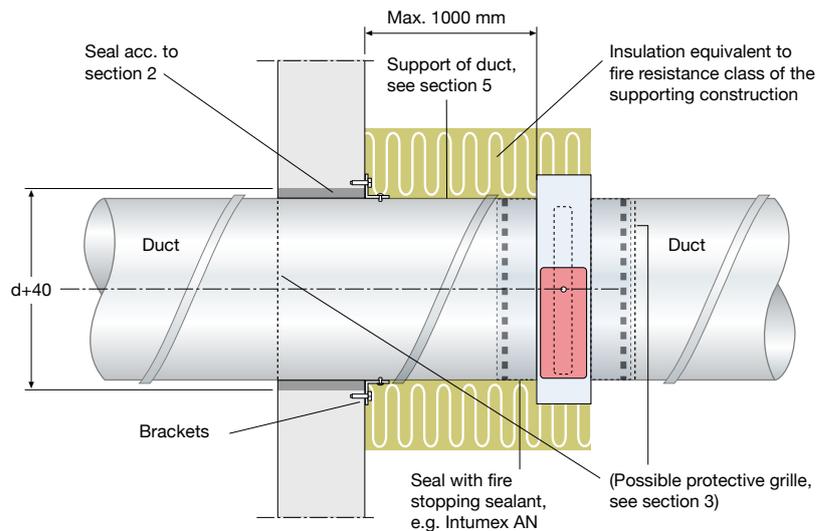


Installation instruction

Installation in horizontal duct.

Damper's fire resistance class: EI60 (ve i ↔ o) S.

EC certificate 0402-CPD-SC0900-13



1. Install the damper in the duct.
2. Duct going through supporting construction, is fastened using brackets. Seal according to applicable requirements, such as caulking with mineral wool, min 40 kg/m³ and fire stopping sealant.
3. If fire damper is not connected to the duct system, fit non-combustible grilles designed for the damper on the unconnected sides. The minimum distance between the damper blade in the open position and the grille is 50 mm.
4. Install the thermal sensor with the sensor body in the air flow without obstructing the movement of the damper blade.
5. Duct is fastened/supported according to applicable requirements.
6. Insulate the duct according to applicable requirements using instructions from the insulation supplier, min. 80 mm and 55 kg/m³. Note that insulation must cover the damper.
 - *Minimum distance between dampers must be 200 mm.*
 - *Minimum distance to joist structure/wall must be 75 mm.*
 - *The damper spindle may be installed in any position.*