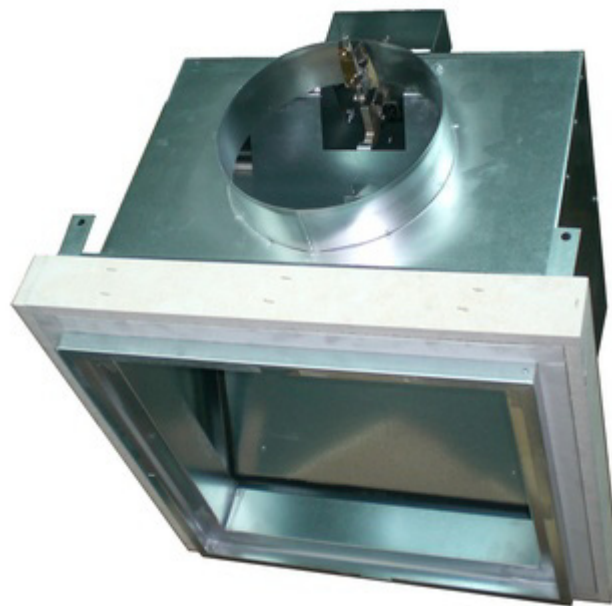




Fire protection unit

Model BAK-240

with general building supervisory approval Z-41.3-574



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Fire protection unit BAK-240

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Fire Protection Unit Model BAK-240

Description

Exposed ceiling constructions can lose their strength prematurely. To avoid this, ceiling constructions are protected with fire-resistant false ceilings. Opening the false ceiling, for example for air diffusers, is only permitted when the openings can be closed during fire with suitable fire protection devices, for example with a fire protection unit type BAK-240.

The fire protection unit BAK-240 of resistance class K 30 U according to Test Certificate Z-41.3-574 is suitable for installation in fire-resistant false ceilings made of wall boards in screwed and spatulated form of resistance class F 30. It can be used for both supply air and return air.

The fire protection unit is fitted with two thermal trigger devices (72°C). One fusible link is integrated in the box, the other fusible link is outside. This double trigger device increases the safety of the fire protection box, as in case of fire the trigger and closing motion of the damper blade happens independently of whether the temperature occurs first inside the ventilation ducts or outside.

The fire protection suitability test was carried out according to the construction and testing guidelines for shut-off devices used to control fire and smoke in ventilation ducts (fire dampers) to be installed in fire-resistant false ceilings.

When the air diffusers are fitted into the BAK-240, a minimum distance of 5 mm must be guaranteed between the fittings and the inner housing faces.

Connection of ventilation ducts

The fire protection unit must be connected to the ventilation ducts with flexible connection pipes made of steel or aluminium or with flexible connection pieces made of at least normally flammable material (construction class B 2 to DIN 4102) of at least 10 cm in length (when installed).

Maintenance

The maintenance of the fire protection unit must be carried out according to the maintenance instructions before commissioning or delivery. After commissioning of the ventilation installation, all shut-off devices must be subjected to maintenance twice a year. If no malfunctions are detected in two subsequent maintenances, the fire protection units only need to be subjected to maintenance once a year. It is advisable to keep a maintenance log.

The fire protection box must be fitted in a way that inner viewing, maintenance and cleaning are possible when installed.

For maintenance purposes, the air diffuser can be disassembled from the room side.

For maintenance, servicing, retrofitting, etc., it may be necessary to provide on-site inspection openings in suspended ceilings, shaft walls, etc. They must be built in in sufficient numbers and size.

Note

The valid test certificates, which we shall forward on request, are legally binding.

Fastening

The fire protection unit type BAK-240 is connected to the ceiling with four suspensions. This is followed by mounting the false ceiling. Then the air diffuser is connected to the false ceiling or to the fire protection unit with a screw connection (SM mounting).

The tension rod dimensions are calculated from the loads of their own weight, of the connected ducts and of the air diffuser.

Weight of the fire protection unit

Size	kg
400	20
500	28
600/625	42

Dimensions of the tension rod

Size	Allowed loads F allowed (N) per piece
M8	220
M10	348

Construction

Fire protection unit

Galvanised sheet steel

Damper leaf

Metal cased gypsum board (fire board plate)

Blades

Plastic, RAL colour 9010 (white) or 9005 (black) (not DQD-L and 4-DF)

Painted sheet steel (only DQD-L and 4-DF)

Air diffuser

Painted sheet steel in RAL 9010 (white) with blades

Accessories

Limit switch (-ES)

electric, protection type IP 66

Fastening

Screw mounting (-SM)

Standard, with 4 countersunk screws (on-site)

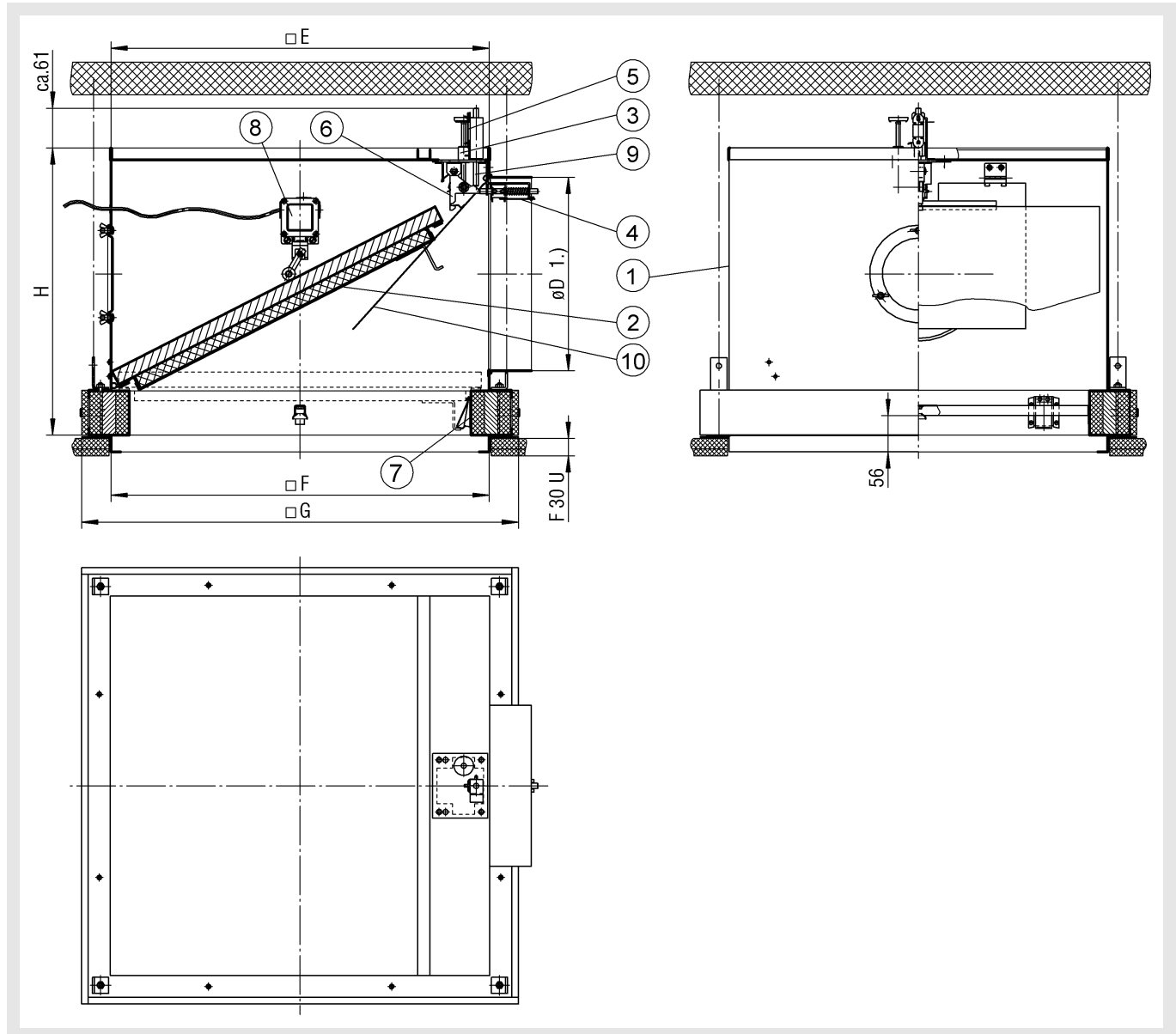
Concealed mounting (-VM)

not possible!

Fire Protection Unit Model BAK-240

Models and dimensions

Dimensions



- | | | | |
|---|----------------------|-----|----------------------|
| 1 | Housing | 7 | Catch spring |
| 2 | Damper leaf | 8 | Limit switch. |
| 3 | Trigger device | 9 | Hand trigger |
| 4 | Fusible link inside | 10 | Shut-off steel sheet |
| 5 | Fusible link outside | | |
| 6 | Trigger clip | 1.) | outside |

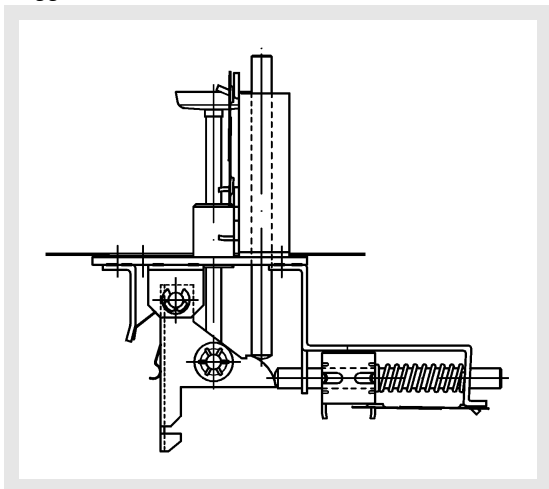
Available sizes

Size	øD	□E	□F	□G	H
400	198	382	390	472	386
500	248	482	490	572	414
600/625	298	582	590	672	443

Size = Nominal value

Fire Protection Unit Model BAK-240

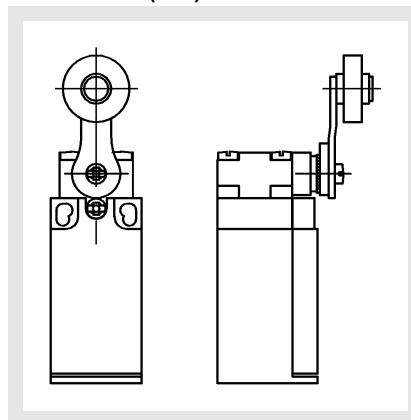
Trigger device



The fire protection unit is supplied as standard with an inside and an outside trigger device (fusible link with 72°C trigger temperature)! Thus during a fire, the trigger and closing motion of the damper leaf occur independently of whether the temperature > 72°C first occurs on the inside or on the outside of the duct system. The breakage of one of the fusible links closes the damper leaf and locks it into place. The damper leaf can no longer be locked in the OPEN position, before the fusible link is replaced.

Dimensions of accessories

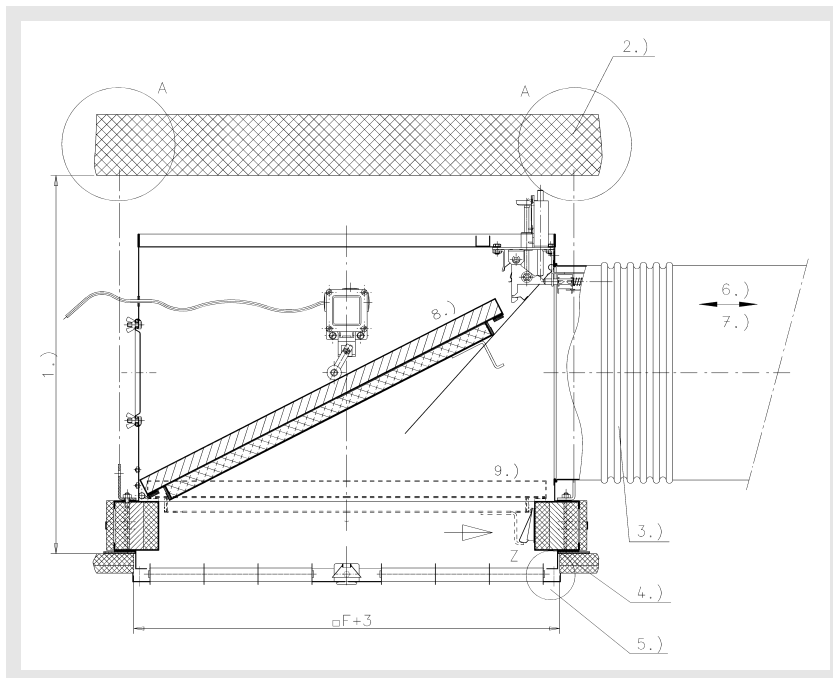
Limit switch (-ES)



Switching elements	- 1 NC contact and include
	- 1 NO contact each
with jump feed	- 4 connections
Screw terminal	M3.5 for max. 2 mm ²
Working temperature	
Protection type	IP 66 when using suitable cable screws. Ie 6 A 230 V~ (wiring on-site)

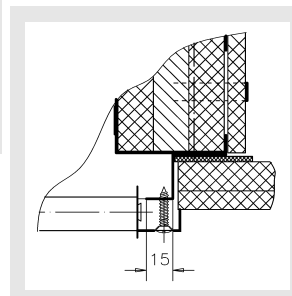
Installation

Installation instructions



- 1.) Inserted ceiling area
- 2.) Fire-resistant ceiling (on site)
- 3.) Flexible connection piece (on site) (class B2 to DIN 4102) or flexible tube
- 4.) Fire-resistant false ceiling
- 5.) Air diffuser, screw mounting (SM). For screw mounting, the swirl diffuser is fixed to the plenum box with 4 on-site countersunk screws.
- 6.) Supply air
- 7.) Return air
- 8.) OPEN position
- 9.) CLOSED position

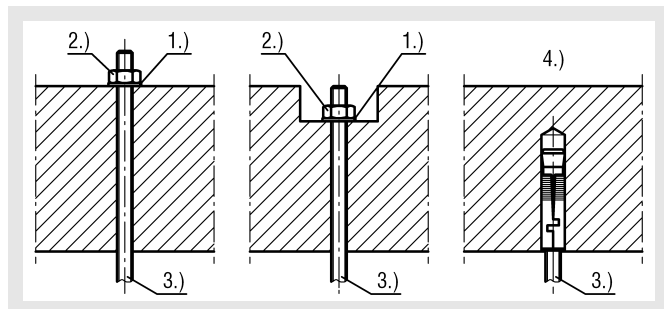
Detail Z



Fire Protection Unit Model BAK-240

Alternative ceiling fitting

Detail A



- 1.) Disc to DIN 125
- 2.) Hexagon nut to DIN 555
- 3.) Tension rod
- 4.) Heavy duty wall plug

Specification texts

Fire protection unit of resistance class K 30 U according to test certificate Z-41.3-574, suitable installation in fire-resistant false ceilings, made of wall boards in screwed and spatulated form, of resistance class F 30, with metal-cased damper leaf and visible screw connection for diffuser assembly. Damper leaf is triggered by an inside and outside thermal trigger device, trigger temperature 72°C.

Product: SCHAKO **type BAK-240**

- with supply air diffuser
 - DQJA-SR-Z
 - DQJA-SQ-Z,
 - 4-DE-Z
 - DQD-L
 - 4-DF

- with return air diffuser
 - DQJA-SR-A
 - DQJA-SQ-A
 - 4-DE-A
 - DQD-L
 - 4-DF

Accessories

- with electric limit switch (-ES), humidity protection IP 66
 - Type ES 1 A, for "OPEN"
 - Type ES 1 Ex in Ex design