

Fire Dampers

for suspended ceilings - Type KU-K30

with test certificate

Z-41.3-320



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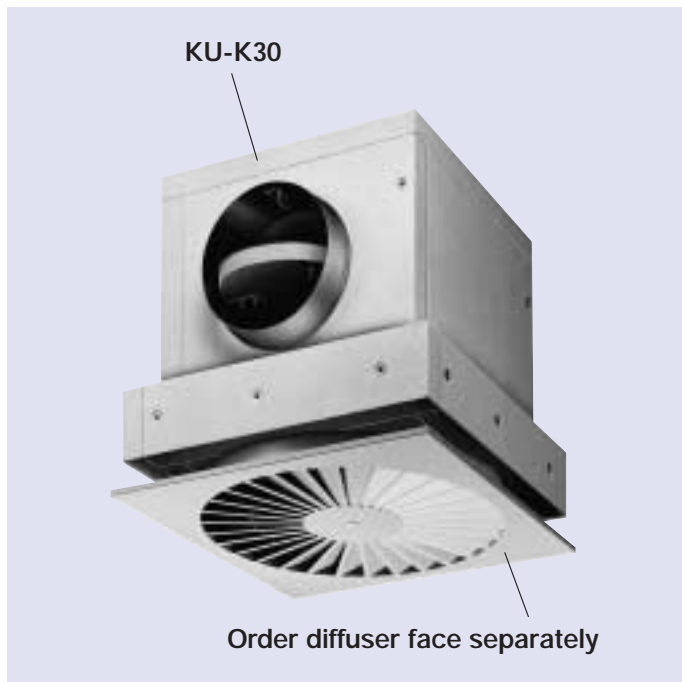
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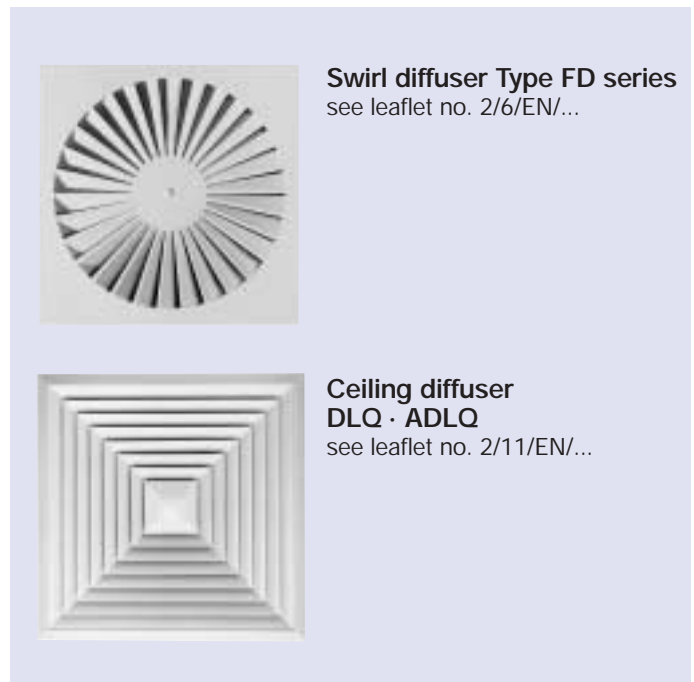


Fire dampers type KU-K30, with a fire resistance category K30-U, are suitable for installation in fire-rated false ceilings with a resistance grade of F30 and when combined with swirl diffusers type FD or ceiling diffusers types DLQ or ADLQ, they also satisfy ventilation and fire safety requirements. They can be used for both supply and extract systems.

The thermal release (automatic fire damper closure) is triggered by a fusible link parting at a temperature > 72°C. There is also an optional release mechanism using an electrical spring return actuator.

Annual maintenance work can easily be carried out following removal of the diffuser face

The external monitoring required by law is carried out by the FMPA, Baden-Württemberg.



Material:

Plenum box and shut-off damper blade are made from Promatect material. The spigot, perforated plate insert, attachments and fixing components are made from galvanised sheet steel. Damper blade seal made from rubber (neoprene).

Options:

- Plenum box internal surfaces and damper blade surfaces coated with powder coating RAL 7001.

Important!

Fire dampers have to be licensed. The „General and Special Provisions“ of the general building licence must therefore be observed in connection with their use.

Construction · Standard sizes

Type KU-K30 series

Z-41.3-320

Application

Fire-resistant false ceilings in resistance category F30 for fire impact from above or below

Resistance category

K30-U, with or without ducting connected

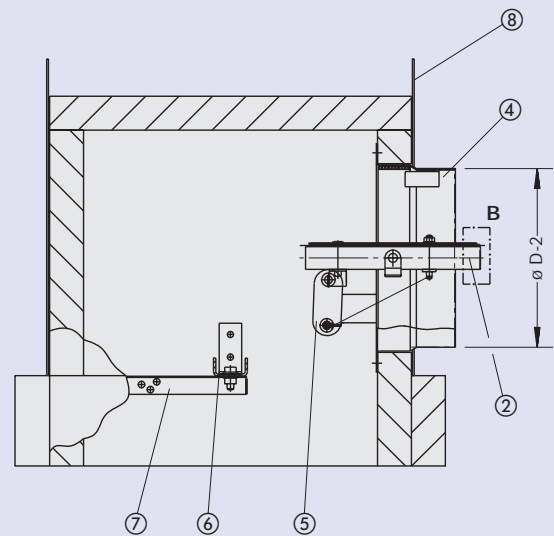
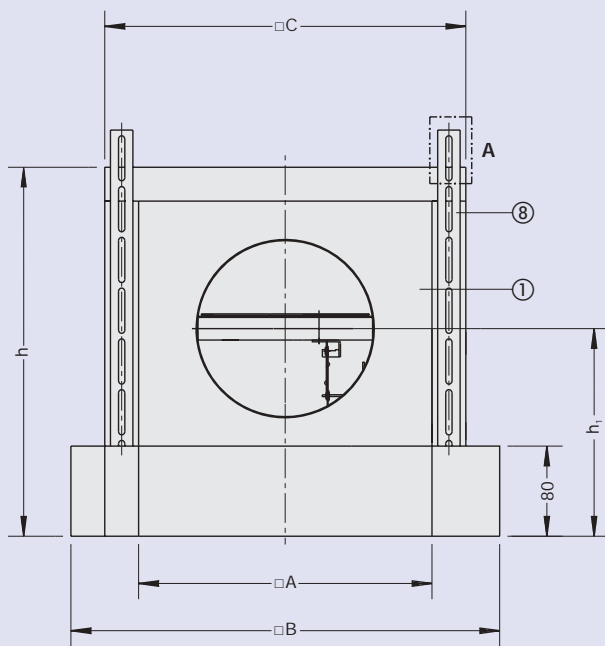
Release temperature 72 °C

Standard sizes

Size 300, Size 400, Size 500, Size 600, Size 625

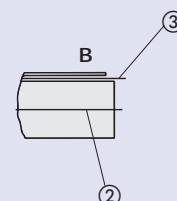
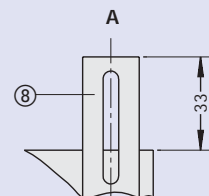
- ① Plenum box
- ② Damper blade
- ③ Blade seal
- ④ Spigot
- ⑤ fusible link 72 °C
- ⑥ Cross-bar
- ⑦ Perforated sheet metal insert (only on construction -K30-LB and -K30-1-LB)
- ⑧ Suspension, 4 pieces

Type KU-K30



Size	A	B	C	D	h	h ₁
300	260	380	320	160	327	184
400	360	480	420	160	327	184
				200	367	204
500	460	580	520	160	327	184
				200	367	204
				250	417	229
600	560	680	620	200	367	204
				250	417	229
				315	482	261
625	585	705	645	200	367	204
				250	417	229
				315	482	261

* cannot be used with DLQ · ADLQ



Installation details

Installation in F30 fire-resistant false ceilings

Installation in fire-resistant false ceilings that are suitable for fire impact from above or below and fall into resistance category F30.

Ceilings approved are given below:

Ceiling type	Construction	Manufacturer
Screw on/ primed	With demonstrated fire resistance duration to F30A	e.g. Promat 420.40 420.41
Lay-in tile ceiling		e.g. Promat 420.42
Metal plank tiles (for Size 300+400)		Promat 420.96 (inserted in the middle frieze)

Fig. 1.1 Installation in a screw-on, primed tile ceiling or in a lay-in tile ceiling

Fig. 1.2 Ceiling fixing detail

Suitably rated ventilation ducts

Connection to ventilation ducts

Under General Building Regulations fire dampers may also be used without ventilation ducts connected – e.g. for use in plenum ceilings.

If fire dampers are connected to ventilation ductwork then the ducting must be installed in such a way that it does not put load on the fire damper or suspend false ceiling especially when temperatures rise in a fire situation.

Important!

Precautions must be taken to compensate for the expansion in length of the ventilation ducts and distortion of the false ceiling. Aluminium or steel flexible connectors and elastic spigots, at least 100 mm long, in materials of normal flammability (Class B2 to DIN 4102) are suitable.

Fig. 1.1

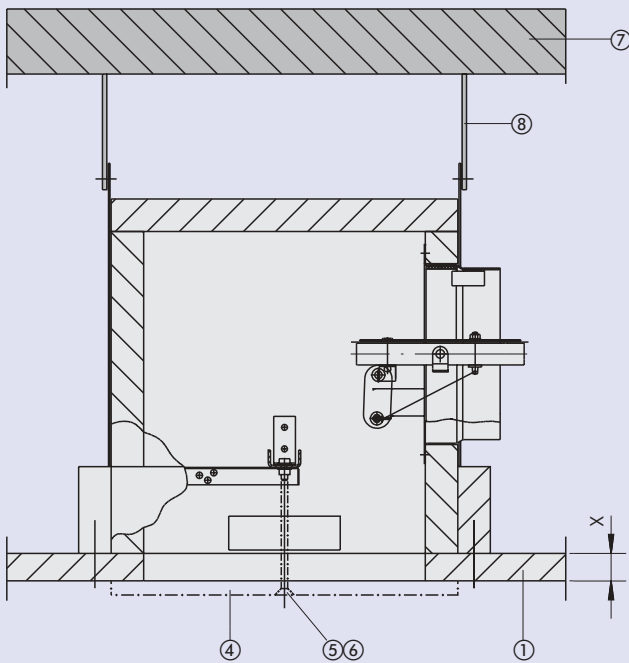
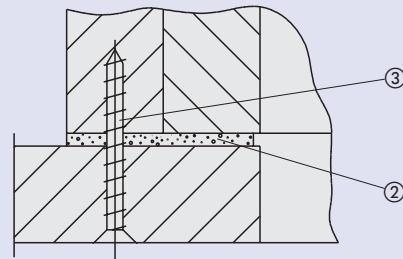


Fig. 1.2



Screw size (3):
approx. 175 to 225 mm

- ① Fire-resistant false ceiling F30
- ② Seal, e.g. silicon rubber paste (by others)
- ③ Quick-fix screw 6 x 70, galvanised steel (by others)
- ④ Type FD or DLQ · ADLQ diffusers
(must be ordered separately)
- ⑤ Countersunk screw M6 x 130, galvanised steel
- ⑥ Ornamental cap for countersunk screw
- ⑦ Ceiling slab
- ⑧ Suspension (by others) from ceiling slab
4 off steel threaded rod \geq M6 or
4 off steel sections $A \geq 15 \text{ mm}^2$

Product range

Type Code	Suitable for diffuser types			Extract air	Description
	FD	DLQ · ADLQ	Supply air		
KU-K30	•	•		•	Standard construction

Construction variant codes	Suitable for diffuser types			Extract air	Description
	FD	DLQ · ADLQ	Supply air		
- K30-1	•	•		•	With powder coating RAL 7001
- K30-LB	•	•	•		With perforated sheet metal insert
- K30-1-LB	•	•	•		With powder coating RAL 7001 and perforated sheet metal insert

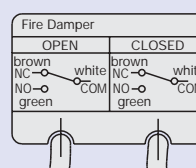
Diffusers types FD and DLQ · ADLQ must be ordered separately (see leaflet no. 2/6/EN/... and 2/11/EN/...),

e.g. FD-Q-Z face/400

DLQ-A/400

Accessories For basic type and variants	Combined with	Code	
with fusible link (standard construction)	-	-	
	Limit switch indicates damper „CLOSED“	1)	Z01
	Limit switch indicates damper „OPEN“	1)	Z02
	Limit switch indicates damper „CLOSED“ and „OPEN“	1)	Z03
	External fusible link		Z04
	External fusible link and limit switch indicates damper „CLOSED“	1)	Z05
	External fusible link and limit switch indicates damper „OPEN“	1)	Z06
	External fusible link and limit switch indicates damper „CLOSED“ and „OPEN“	1)	Z07
with spring return actuator, type BLF and thermo-electric release mechanism BAE72A-S, made by Belimo (power off to close) 2)			
- spring return actuator with integrated limit switches and thermoelectric release mechanism			
Type BLF230-T TR U = AC 230 V, 50/60 Hz / opening P ... 5 W / in open position P ... 3 W / capacity 7 VA / protection system II / IP 54 / 100% rated Opening approx. 40 ... 75 s / closing approx. 20s Auxiliary switch: 2 x EPU 6 (1.5) A, AC 250 V ☐	-	Z08	
Type BLF24-T-ST TR U = AC 24 V, 50/60 Hz or DC 24 V / opening P ... 5 W / in open position P ... 2.5 W / capacity 7 VA / protection system III / IP 54 / 100% rated Opening approx. 40 ... 75 s / closing approx. 20s Auxiliary switch: 2 x EPU 6 (1.5) A, AC 250 V ☐	-	Z09	

- 1) Limit switch with flying lead, 0.5 m long
Protection category: IP 67
Single pole changeover contact
Contacts: gold flashed
Max. switch current inductive, ohmic: 0.5 A
Max. switch voltages: DC 30 V, AC 250 V
Min. breaking capacity: 3 V / 5 mA
Resistance across terminals: < 30 mΩ



Limit switch shown deactivated

- 2) Ambient temperatures during storage and operation must not exceed or fall below -30°C to +50°C.

Product range · Circuit diagram

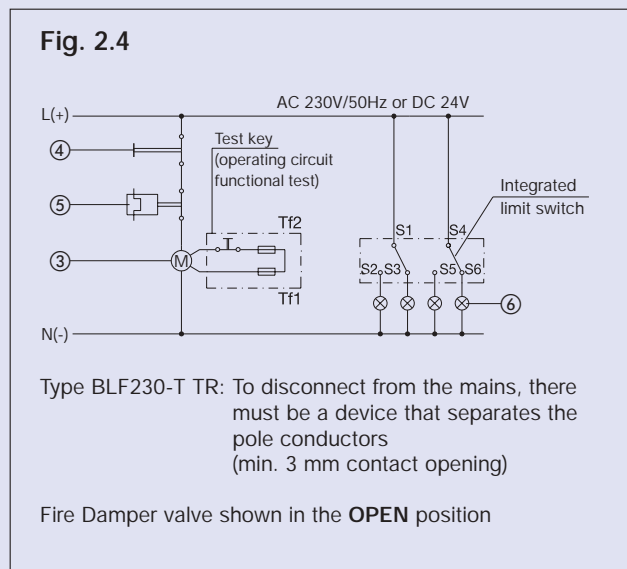
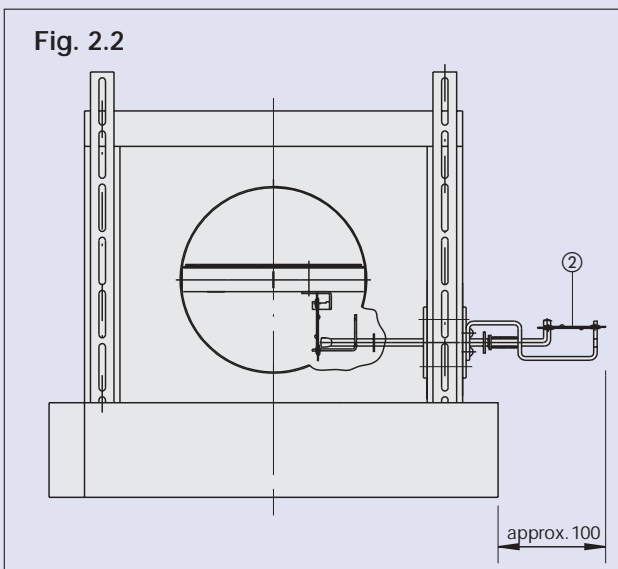
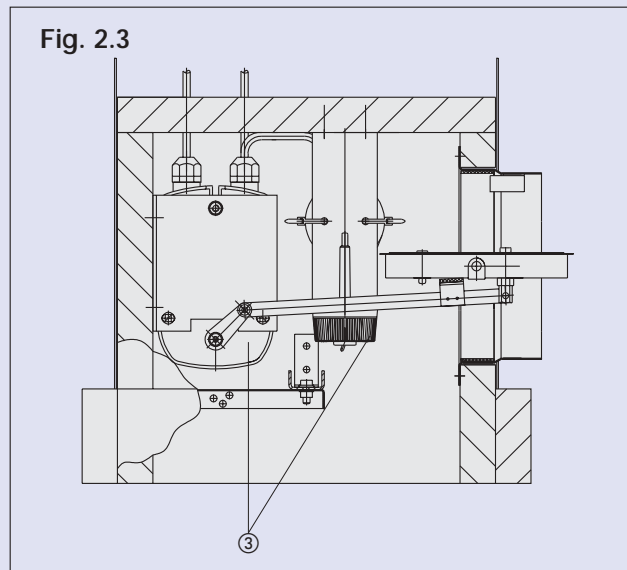
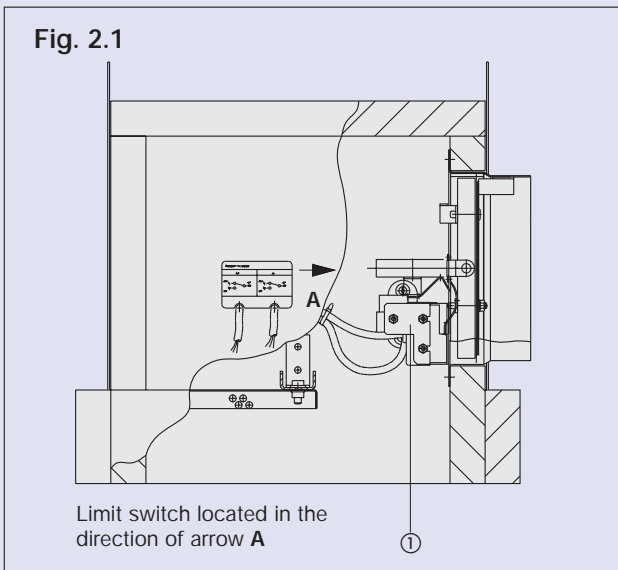
- ① Limit switch
- ② External fusible link
- ③ Electrical spring return actuator with integrated limit switches and thermoelectric release mechanism
- ④ Electrical switch, by others (make and break operating circuit)
- ⑤ Sensor and detector, by others (make operating circuit); for release mechanisms based on the power off to close principle, e.g. Trox smoke sensor, type RM-O/2 or RM-O-VS
- ⑥ Electrical components, by others (e.g. control light for position indication)

Fig. 2.1 Limit switch details

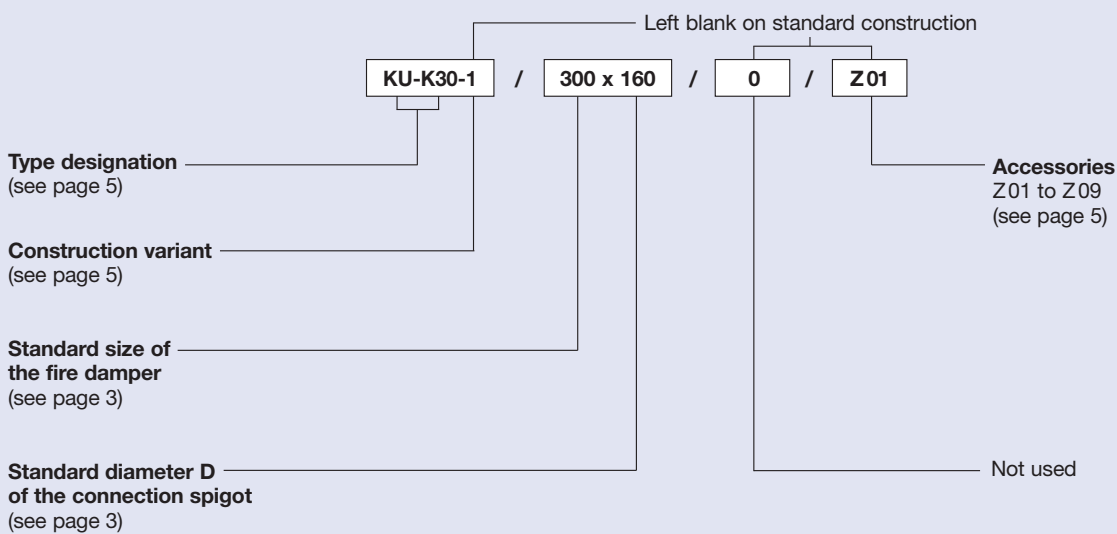
Fig. 2.2 External fusible link details

Fig. 2.3 Spring return actuator details

Fig. 2.4 Circuit diagram



Order code



Important!

Diffusers types FD or DLQ (ADLQ must be ordered separately (see leaflet nos. 2/6/EN/... and 2/11/EN/...), e.g. FD-Q-Z face/400 or DLQ-A/400

Specification text

Fire dampers for isolation fire compartments in ventilation systems that have been granted a general building licence by the German Institute for Building Technology, Berlin. Suitable for installation in fire-resistant false ceilings with resistance grading F30. Thermal release via fusible link at $t > 72^{\circ}\text{C}$.

Details of materials construction variants, design variants, accessories, etc. can be taken from the appropriate part of the leaflet.

Make: TROX

Type: KU-K30

Sample order

Make: TROX

Type: KU-K30-1 / 300 x 160 / 0 / Z01

Number: 4