

Emergency Lighting

PRODUCT news

eAK
COMPACT-SUB STATIONS

Compact-sub station eAK - advantages

For emergency lightings with external supply escape routes and areas with panic hazard can be illuminated optionally with separate emergency luminaires or combined emergency luminaires. The latter are luminaires which are used for the general and emergency lighting. Those can be f. i. semicircular luminaires in a staircase, downlights in a corridor, louvre luminaires in office rooms and damp and water-proof luminaires in a production hall.

This combined emergency luminaires have one advantage and one disadvantage. The advantage is an optimal integration of the emergency lighting in the lighting concept and the interior architecture of a building. The disadvantage is the high luminaire power in mains and battery operation.

In most of the larger projects a central supply system is consisting of a main distributor with battery and charging device for the whole building and several sub distributors with luminaire circuits for single building areas for compensation of the disadvantage. Thereby one building area often includes more than one fire area. Therefore the sub distributors must have a functional integrity of 30 minutes. An alternative per fire area would be a compact sub distributor with 2 or 4 luminaire circuits.

An implementation of such compact sub distributors are the compact-sub stations of the series eAK in combination with central stations of the series NZBVA-Z or NZBVE-Z.

The compact-sub stations eAK have either 2 or 4 circuits for operation of each 20 exit sign and emergency luminaires with Alog or Sleb module. A combined operation of the luminaires in one circuit in maintained and non-maintained mode as well as a single monitoring is possible through the Alog or Sleb module. The difference between the Alog and the Sleb module is based on the type of addressing, eit-

her automatic with the Alog module or manual with the Sleb module. The maximal power per luminaire circuit is 400 W.

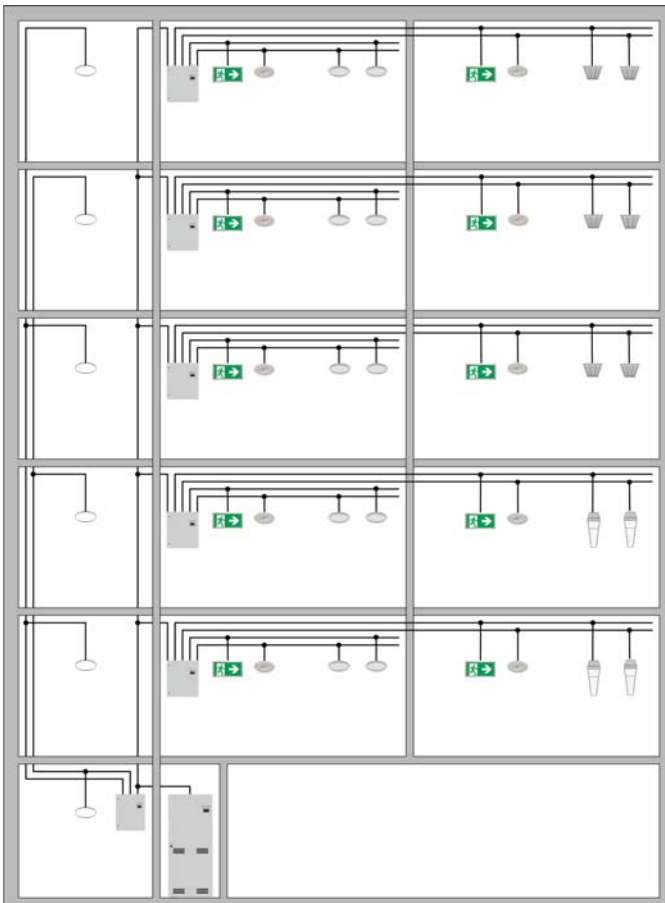
The mains connection of the compact-sub stations eAK is done optionally centralised over the central station of the emergency lighting or decentralised over the sub distributor of the mains supply and the battery connection over the central station of the emergency lighting. Through the alternative mains connection an assignment of the energy costs related to the tenant is also possible at buildings with rented areas.

For buildings with areas of different applications and different durations, f. i. a school with a duration of 1 h and an integrated meeting place with a duration of 3 h, the duration for each compact-sub station eAK can be programmed separate and free.

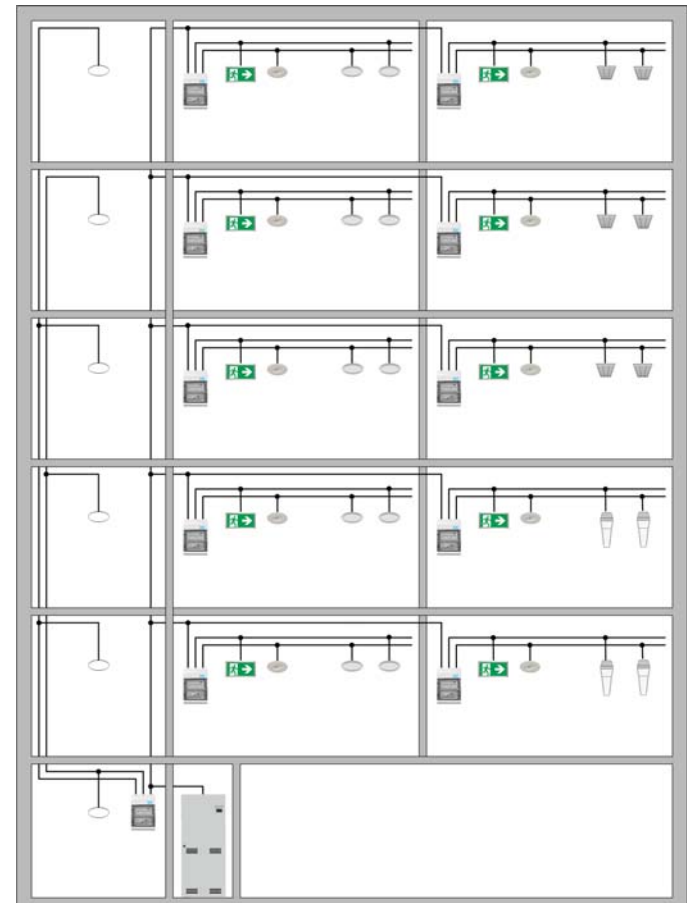
The advantages of eAK are:

- no sub stations with functional integrity
- short cables between sub station as well as exit sign and emergency luminaires
- combined operation of the luminaires in one circuit
- single monitoring of the luminaires
- selective automatic or manual addressing of the luminaires
- programmable duration per compact-sub station
- energy consumption for the maintained mode or switchable non-maintained mode assignable by area

Version with standard sub stations



Version with compact-sub stations





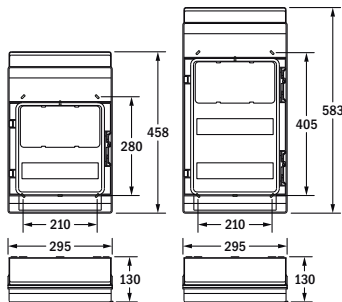
Compact-sub station eAK

Compact-sub station for central supply systems of the series NZBVA and NZBVE for operation of exit sign and emergency luminaires with:

- switchover devices for automatic switchover of the luminaires in maintained mode and switch-on of the luminaires in non-maintained mode during a mains failure
- 2 or 4 luminaire circuits for operation of maximal each 20 luminaires with integrated Alog or Sleb module for:
 - combined operation of maintained and non-maintained mode
 - automatic addressing (Alog module) or manual addressing (Sleb module) of the luminaires
 - selective monitoring of the luminaires
 - selective manual ON/OFF switching of each luminaire or each luminaire circuit in mains operation through external control inputs of an optional light switch query-module LSSA 230 or LSSA 24
control signal: 230 V (1~, N) or contact (potential-free)
 - maximal connected load per luminaire circuit: 400 W
- duration: 1h, 3h or 8h (selectable)
- indications:
 - collective failure
 - luminaire circuit failure
 - bus failure
 - mains operation
 - battery operation
- message output:
 - collective failure
message signal: contact (potential-free)

Technical data

Mounting:	surface wall mounting
Body:	polystyrene
Color:	grey (RAL7035)
Dimensions (HxWxD):	458 x 295 x 130 mm, 583 x 295 x 130 mm
Degree of protection:	IP 65
Protection class:	II
Ambient temperature:	-10 ° to +50 °



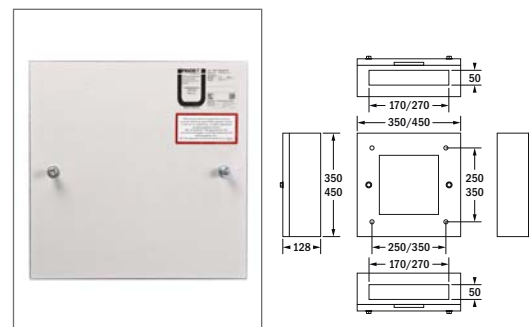
- RS485 interface for communication with the central station
- mains supply: 230 V AC (1~, N, PE)
 - central over the central station of the emergency lighting or decentral over the sub distributor of the mains supply
- battery supply: 216 V DC
 - central over the central station of the emergency lighting

Assembly of the compact-sub station in distributor housing.

Type:	eAK 2 (2 luminaire circuits)	Type:	eAK 4 (4 luminaire circuits)
Order code:	G31577	Order code:	G31578

The quantity of compact-sub stations eAK, which can be operated on a central station NZBVA-Z or NZBVE-Z resp. on a sub station NZBVA-U or NZBVE-U, is listed in the table. Remark: the central stations resp. sub stations can be dimensioned with a maximum of 14 slide-in slots for luminaire circuits.

Type	Quantity of the compact sub stations with combination of both types on one central or sub station								
eAK 2	16	14	12	10	8	6	4	2	0
eAK 4	0	1	2	3	4	5	6	7	8



Marshalling panel

Marshalling panel with a fire resistance of 30 min¹ as well as installed terminals and fuses.

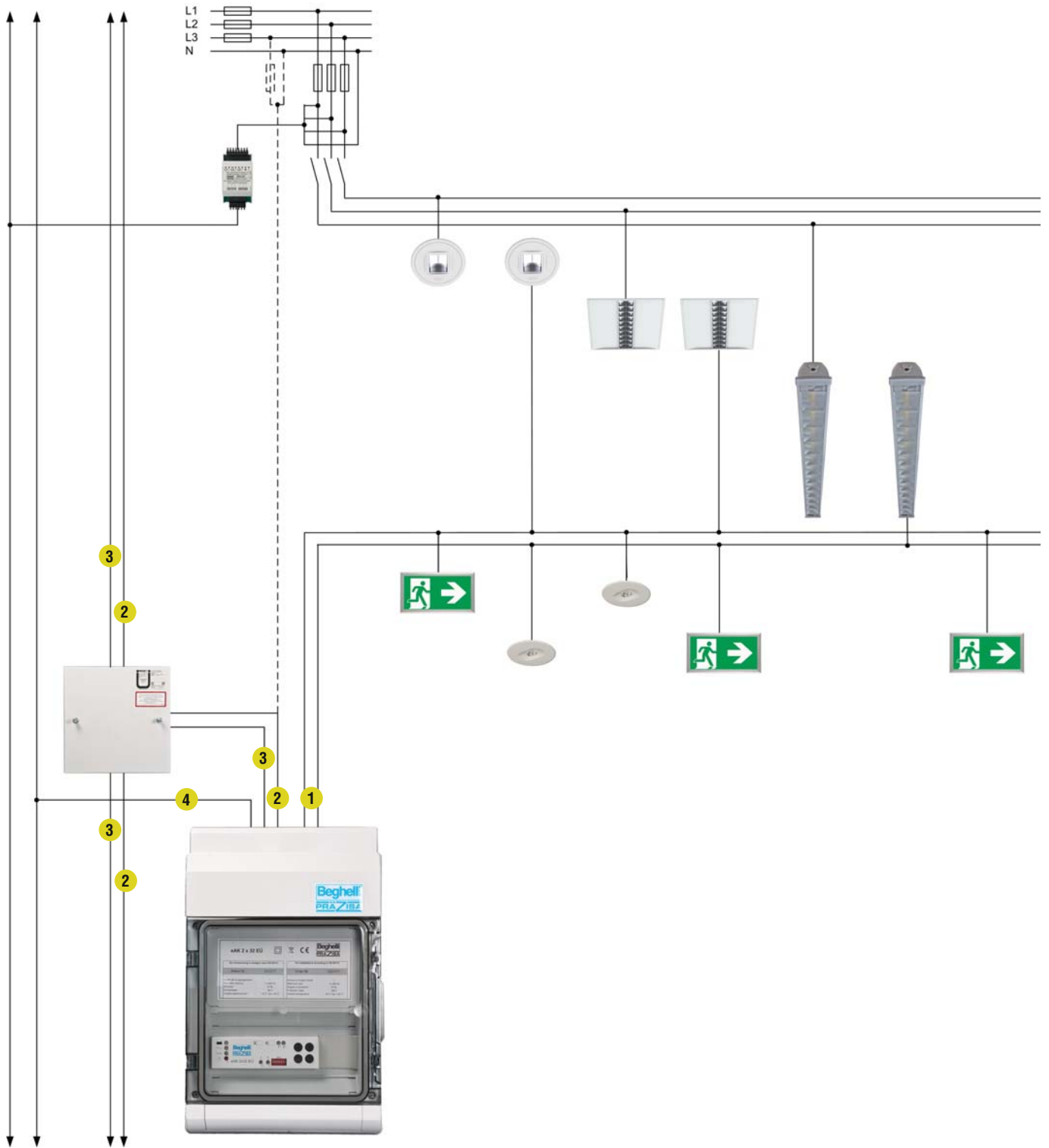
Technical data

Mounting:	surface wall mounting or surface ceiling mounting (additional accessories required for surface ceiling mounting)
Material:	building material with surface coating, non-flammable
Color:	grey (RAL 7035)
Degree of protection:	IP 41
Protection class:	II

Order code	Riser cable	Output cable	Fuse	Dimensions	Weight
G31580	3 x 16 mm	3 x 16 mm ²	2 x 10 A	128x350x350 mm	17,5 kg
G31581	3 x 50 mm	3 x 16 mm ²	2 x 10 A	128x450x450 mm	18,0 kg
G31582	3 x 16 mm	3 x 16 mm ²	2 x 16 A	128x350x350 mm	17,5 kg
G31583	3 x 50 mm	3 x 16 mm ²	2 x 16 A	128x450x450 mm	18,0 kg

¹ Versions with a fire resistance of 90 min. available on demand.

Compact-sub station eAK - system



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|----------|---|---|
| 1 | 2 / 4 luminaire circuits for each 20 exit sign / emergency luminaires with Alog/Sleb module | cable: min. 3 x 1,5 mm ² |
| 2 | Mains supply | cable: min. 3 x 2,5 mm ² |
| 3 | Battery supply | cable: min. 2 x 2,5 mm ² |
| 4 | Communication bus | cable: min. 2 x 2 x 0,28 mm ² , screened |