

Emergency Lighting

OPERATING INSTRUCTION

Central Power Supply System
Low Power Supply System
Mains Replacement System

Date: 13.08.2018
SLEB: V62 R23 / V80 R50 / V81 R27
ALOG: V70 R18 / V80 R50 / V81 R27



English



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Information of the operating instruction

Important instructions

According to EN 50110-1:2004-11 any work on the installation has to be executed by qualified electricians only.

Other activities described in this operating instruction have to be executed only by persons who:

- have been instructed by qualified persons
- have fully understood their tasks and the functions of the installation
- are under observation and being checked regularly by qualified persons

Please observe the local rules and regulations.

Symbol explanation

The following symbols must be observed.

**Attention:**

Indicates hazards that may be the cause for damage to human, plant or environment as well as very important instructions.

**Note:**

Provides information and advice for navigating within the described plant, components or functions.

**SLEB LOGICA**

Entries with this hint are only related to SLEB software for central and group battery systems as well as for mains replacement systems.

**AUTO LOGICA**

Entries with this hint are only related to ALOG software for central and group battery systems as well as for mains replacement systems.

Manufacturer, further documents

Manufacturer:

Beghelli PRÄZISA GmbH

Internet: www.beghelli.de
E-mail: kontakt@beghelli.de

Further documents:

Catalogues

Low Power Supply Systems NGB, Central Battery Systems NZB, Mains Replacement Systems NEA

The catalogue contents are also available over the internet – www.beghelli.de.

CD-ROM

Catalogue CD

Type codes

German:

NGB	Notlicht Gruppen Batterie Versorgungsgerät
NZB	Notlicht Zentral Batterie Versorgungsgerät
NEA	Netz Ersatz Anlage

English:

GBS	Group Battery System	resp.	LPS-System	Low Power Supply System
CBS	Central Battery System	resp.	CPS-System	Central Power Supply System
MRS	Mains Replacement System			

Designation:	Station type:	Mains monitoring:	Mains supply:	Battery supply:	Mains output voltage:	Battery output voltage:
NZB	main station	3~	400 V AC 50/60 Hz 3~	216 V DC	230 V AC 50/60 Hz 1~	216 V DC
NZB	sub station	1~	230 V AC 50/60 Hz 1~	216 V DC from main station	230 V AC 50/60 Hz 1~	216 V DC
NZB	sub station	3~	400 V AC 50/60 Hz 3~	216 V DC from main station	230 V AC 50/60 Hz 1~	216 V DC
NGB	main station	3~	230 V AC 50/60 Hz 1~	24 V DC	230 V AC 50/60 Hz 1~	230 V DC
NEA	main station	3~	400 V AC 50/60 Hz 3~	no	230 V AC 50/60 Hz 1~	230 V AC 50/60 Hz 1~



Attention:

The specified mains and battery output voltages are only valid if output circuit cards of the types AK 1/2/4x12/32 EÜ/SÜ are used.

The specified mains and battery output voltages are only valid if the operating mode "9=CCSD" in menu item 4-3 "Line Operating Modes" is not used.

Mains output voltage:

- > The mains output voltage designates the voltage with which the output circuits of an emergency light station can be operated if no supply failure is present.
- > The mains output voltage designates the voltage with which the output circuits of an emergency light station are operated if a partial supply failure is present.

Battery output voltage:

- > The battery output voltage designates the voltage with which the output circuits of an emergency light station are operated if a general supply failure is present.
- > The battery output voltage designates the voltage with which the output circuits of an emergency light station are operated if a function test, a battery test, an insulation test or a read-in is executed.

Preface

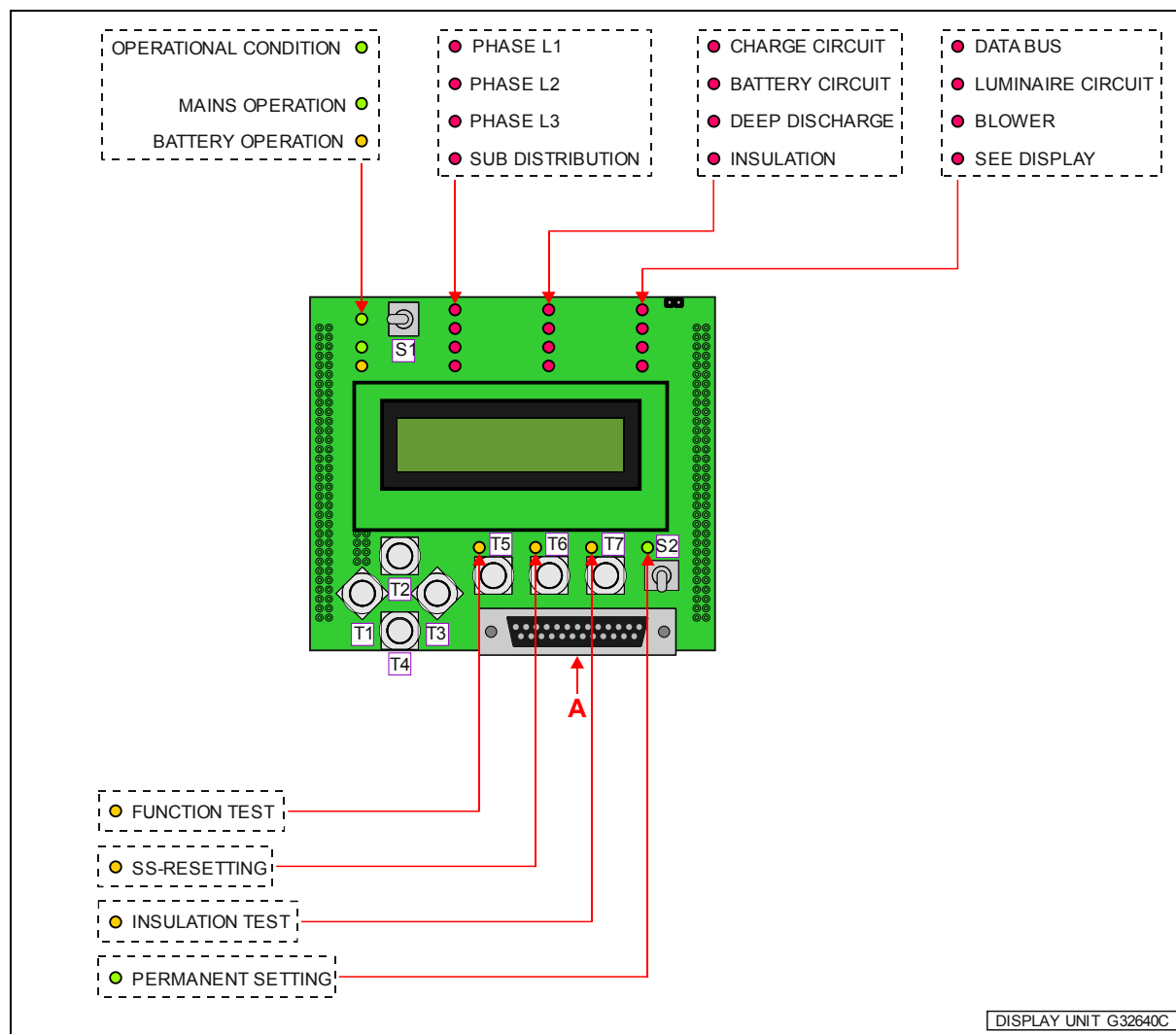
This operating instruction describes the input and output of data using the internal unit KCGZ. Furthermore device functions and device parameters are documented. The information provided conforms to the functional scope of mentioned software versions. Additional information can be requested from the above mentioned address.

The technical content of this operating instruction is correct at time of print.
Subject to change without prior notification.

General operating of the device – Display units and further equipment

Display unit G32640C:

"A": printer port for external printer



DISPLAY UNIT G32640C		
Controls	Button "T1"	A) program selection / manual operation B) program cancellation
	Button "T2"	A) failure indication B) move cursor right hand
	Button "T3"	Data confirmation / data input
	Button "T4"	A) failure details (service) B) move cursor left hand
	Button "T5"	Manual start of function test
	Button "T6"	Manual reset to standby (operating modes)
	Button "T7"	Manual start of insulation test
	Switch "S1"	Operational condition – ON/OFF
	Switch "S2"	General permanent setting – ON/OFF
Operation displays	Operational condition on – green	Operational condition active
	Mains operation on – green	Mains operation active
	Battery operation on – orange	Battery operation active
Mains failure displays	Phase L1 on – red	Supply failure at phase L1
	Phase L2 on – red	Supply failure at phase L2
	Phase L3 on – red	Supply failure at phase L3
	Sub distribution on – red	Sub distribution supply failure / generator operation (NEA)
Fault displays	Charge circuit on – red	Charge circuit fault – charger card defective / no charge current
	Battery circuit on – red	Battery circuit fault – battery supply
	Deep discharge on – red	Deep discharge – battery supply
	Insulation on – red	Insulation fault – only battery supply
	Data bus on – red	Station bus fault – internal or between main and sub station
	Luminaire circuit on – red	Luminaire circuit fault
	Blower on – red	Blower fault (function extension for special applications)
	See display on – red	Collective fault – see display for details
Function displays	Function test on – orange	Function test / battery test active
	SS-resetting on – orange	Reset to standby with button "T6" possible
	Insulation test on – orange	Insulation test active
	Permanent setting on – green	Permanent setting active
Interfaces	Printer port	Interface for printer



Note:

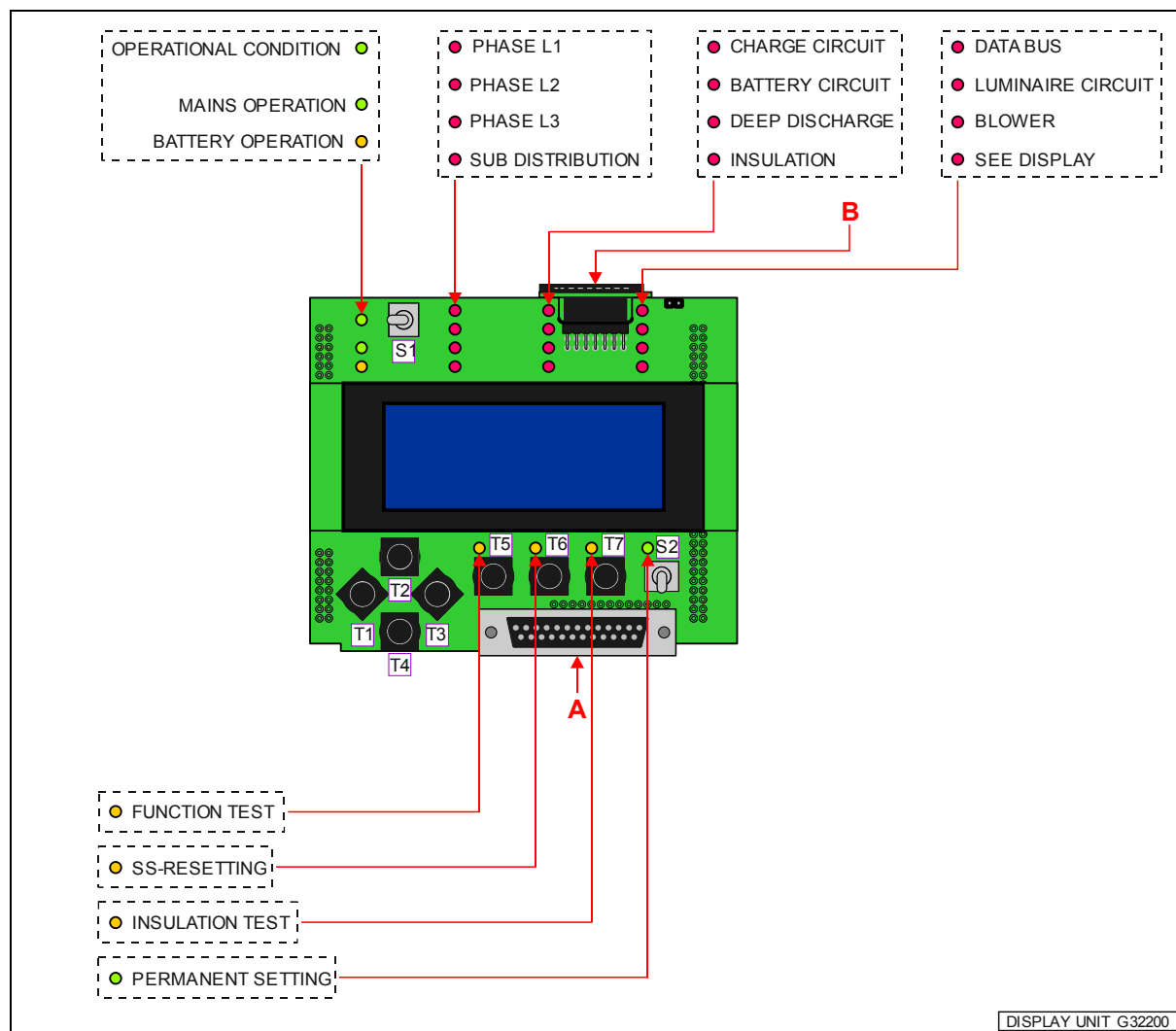
A) = Button function in automatic mode

B) = Button function in the manual operation

Display unit G32200:

"A": printer port for external printer

"B": MMC card slot



DISPLAY UNIT G32200		
Controls	Button "T1"	A) program selection / manual operation B) program cancellation
	Button "T2"	A) failure indication B) move cursor right hand
	Button "T3"	Data confirmation / data input
	Button "T4"	A) failure details (service) B) move cursor left hand
	Button "T5"	Manual start of function test
	Button "T6"	Manual reset to standby (operating modes)
	Button "T7"	Manual start of insulation test
	Switch "S1"	Operational condition – ON/OFF
	Switch "S2"	General permanent setting – ON/OFF
Operation displays	Operational condition on – green	Operational condition active
	Mains operation on – green	Mains operation active
	Battery operation on – orange	Battery operation active
Mains failure displays	Phase L1 on – red	Supply failure at phase L1
	Phase L2 on – red	Supply failure at phase L2
	Phase L3 on – red	Supply failure at phase L3
	Sub distribution on – red	Sub distribution supply failure / generator operation (NEA)
Fault displays	Charge circuit on – red	Charge circuit fault – charger card defective / no charge current
	Battery circuit on – red	Battery circuit fault – battery supply
	Deep discharge on – red	Deep discharge – battery supply
	Insulation on – red	Insulation fault – only battery supply
	Data bus on – red	Station bus fault – internal or between main and sub station
	Luminaire circuit on – red	Luminaire circuit fault
	Blower on – red	Blower fault (function extension for special applications)
	See display on – red	Collective fault – see display for details
Function displays	Function test on – orange	Function test / battery test active
	SS-resetting on – orange	Reset to standby with button "T6" possible
	Insulation test on – orange	Insulation test active
	Permanent setting on – green	Permanent setting active
Interfaces	Printer port	Interface for printer
	MMC slot	Slot for memory cards of the type MMC (multi media cards)



Note:

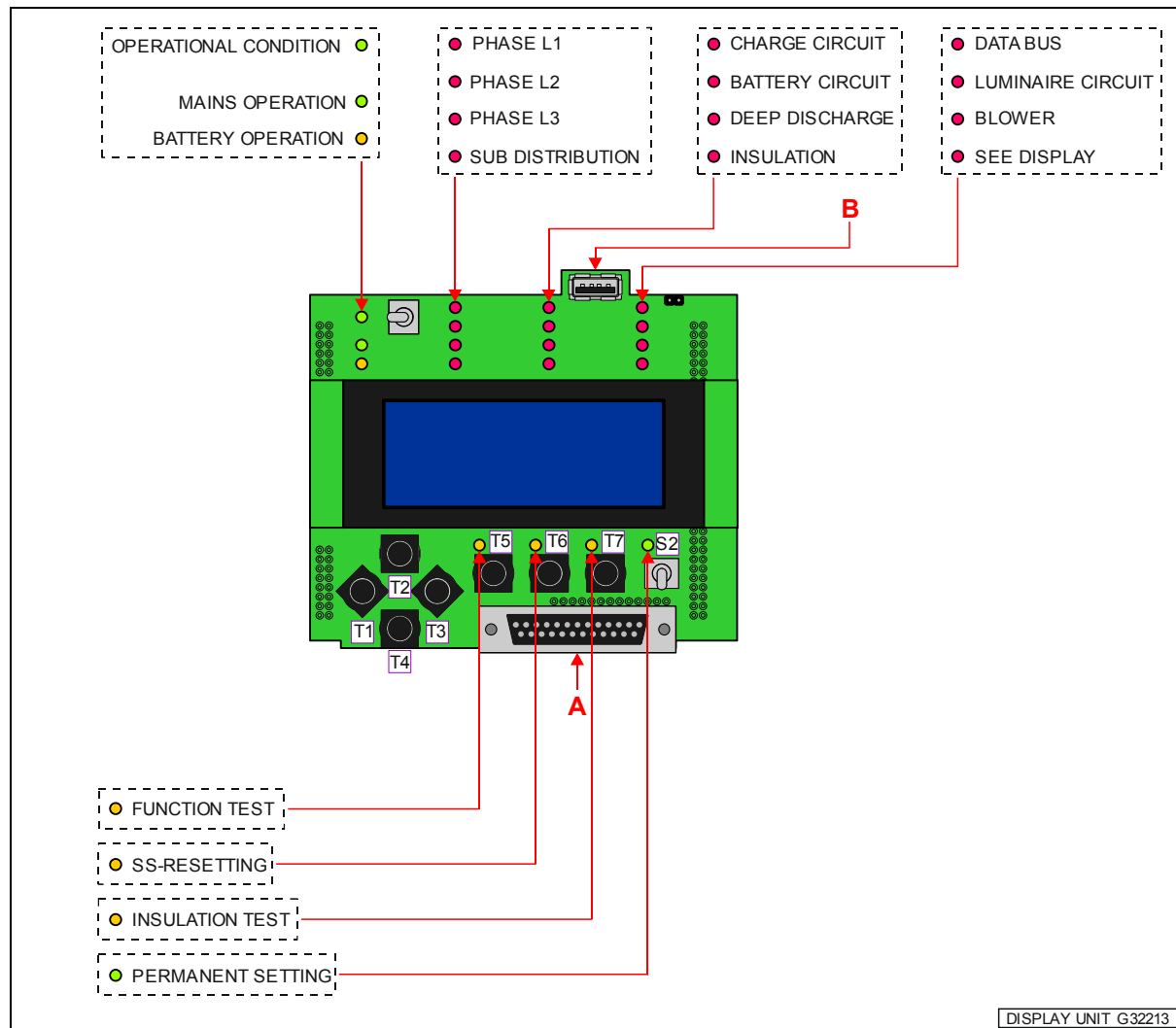
A) = Button function in automatic mode

B) = Button function in the manual operation

Display unit G32213:

"A": printer port for external printer

"B": USB port



DISPLAY UNIT G32213

DISPLAY UNIT G32213		
Controls	Button "T1"	A) program selection / manual operation B) program cancellation
	Button "T2"	A) failure indication B) move cursor right hand
	Button "T3"	Data confirmation / data input
	Button "T4"	A) failure details (service) B) move cursor left hand
	Button "T5"	Manual start of function test
	Button "T6"	Manual reset to standby (operating modes)
	Button "T7"	Manual start of insulation test
	Switch "S1"	Operational condition – ON/OFF
	Switch "S2"	General permanent setting – ON/OFF
Operation displays	Operational condition on – green	Operational condition active
	Mains operation on – green	Mains operation active
	Battery operation on – orange	Battery operation active
Mains failure displays	Phase L1 on – red	Supply failure at phase L1
	Phase L2 on – red	Supply failure at phase L2
	Phase L3 on – red	Supply failure at phase L3
	Sub distribution on – red	Sub distribution supply failure / generator operation (NEA)
Fault displays	Charge circuit on – red	Charge circuit fault – charger card defective / no charge current
	Battery circuit on – red	Battery circuit fault – battery supply
	Deep discharge on – red	Deep discharge – battery supply
	Insulation on – red	Insulation fault – only battery supply
	Data bus on – red	Station bus fault – internal or between main and sub station
	Luminaire circuit on – red	Luminaire circuit fault
	Blower on – red	Blower fault (function extension for special applications)
	See display on – red	Collective fault – see display for details
Function displays	Function test on – orange	Function test / battery test active
	SS-resetting on – orange	Reset to standby with button "T6" possible
	Insulation test on – orange	Insulation test active
	Permanent setting on – green	Permanent setting active
Interfaces	Printer port	Interface for printer
	USB port	Interface for USB devices

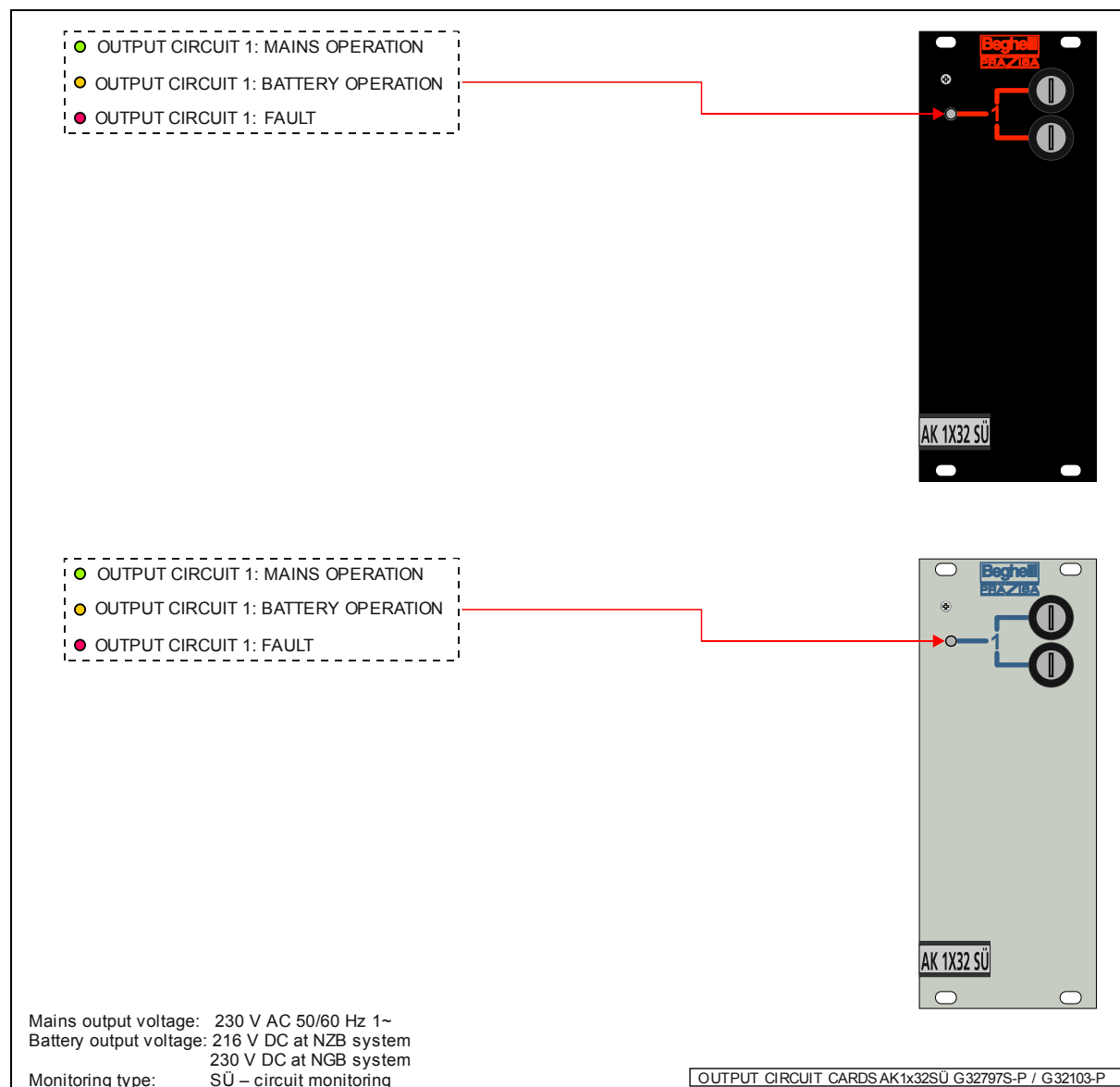


Note:

A) = Button function in automatic mode

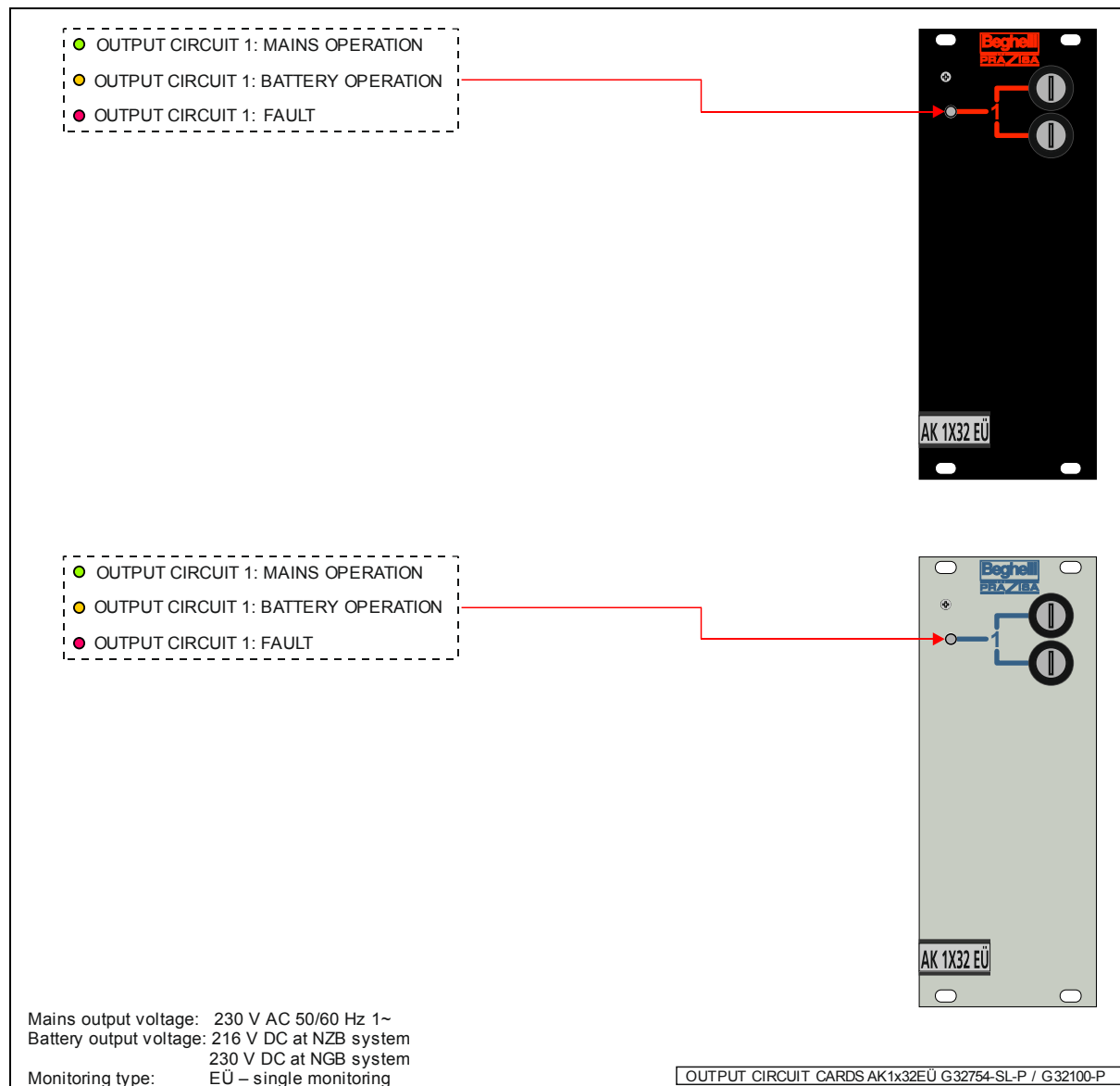
B) = Button function in the manual operation

Output circuit cards AK1x32SÜ G32797S-P / G32103-P:



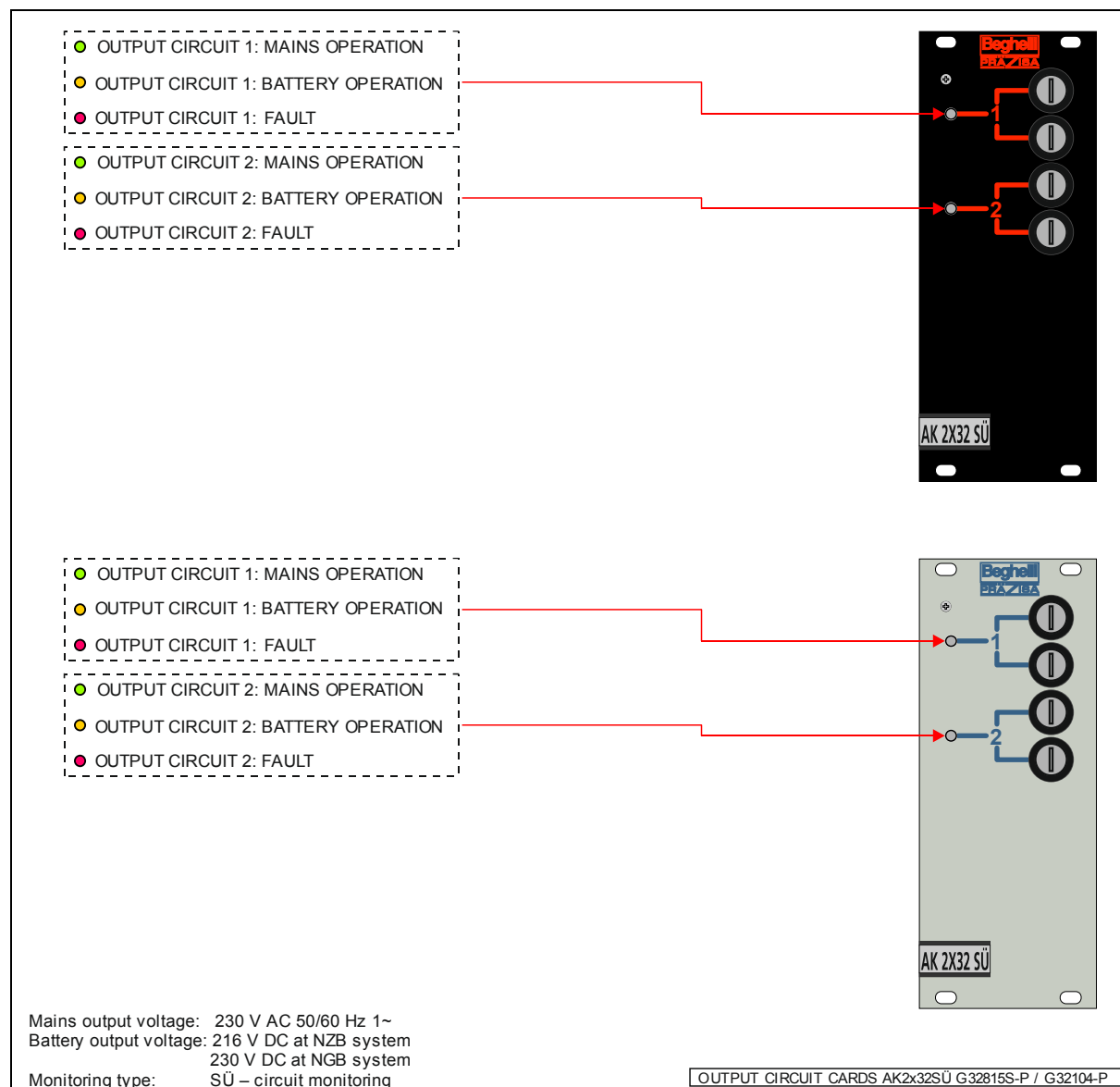
OUTPUT CIRCUIT CARDS AK1x32SÜ G32797S-P / G32103-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK1x32EÜ G32754-SL-P / G32100-P:



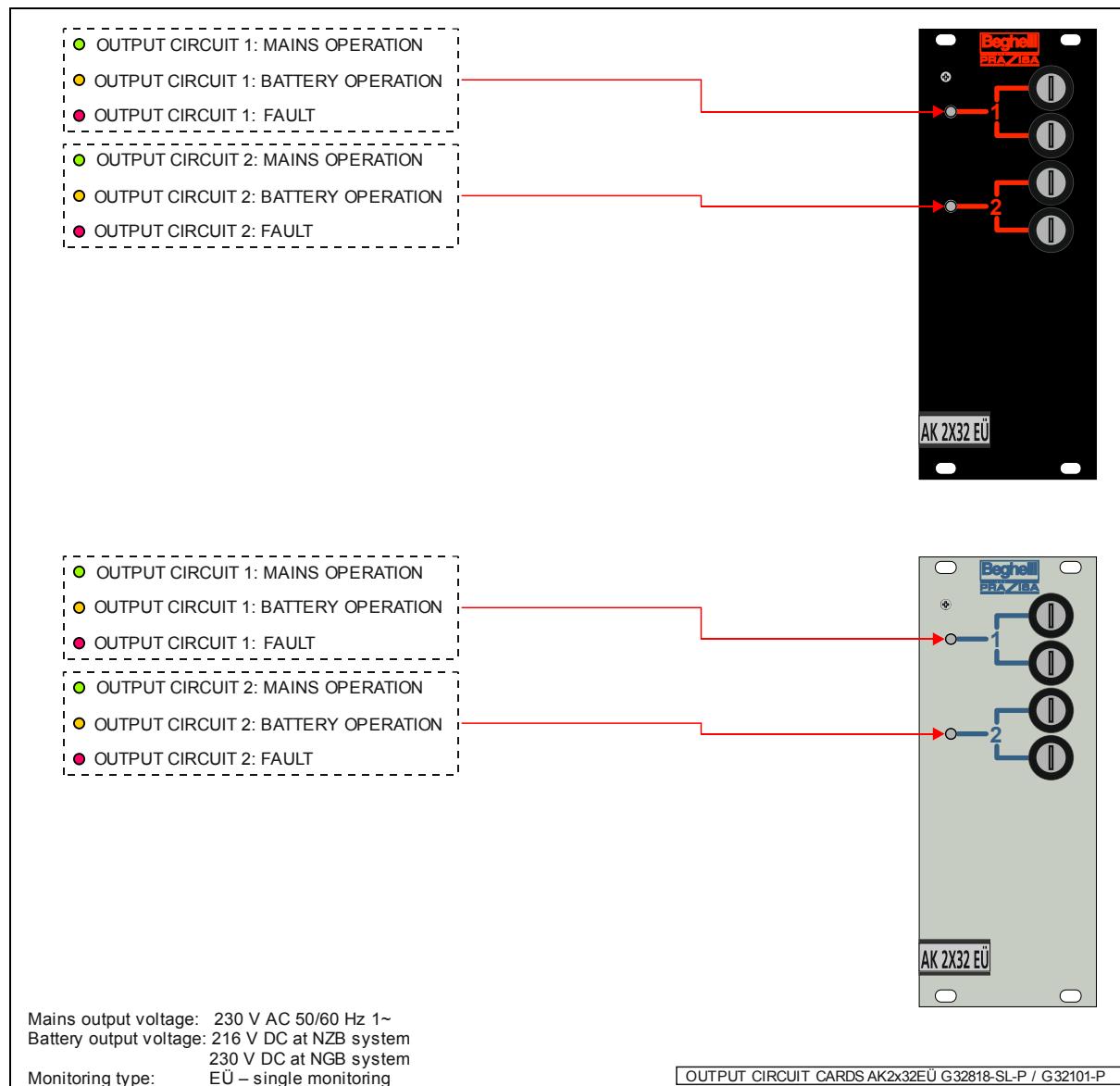
OUTPUT CIRCUIT CARDS AK1x32EÜ G32754-SL-P / G32100-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK2x32SÜ G32815S-P / G32104-P:



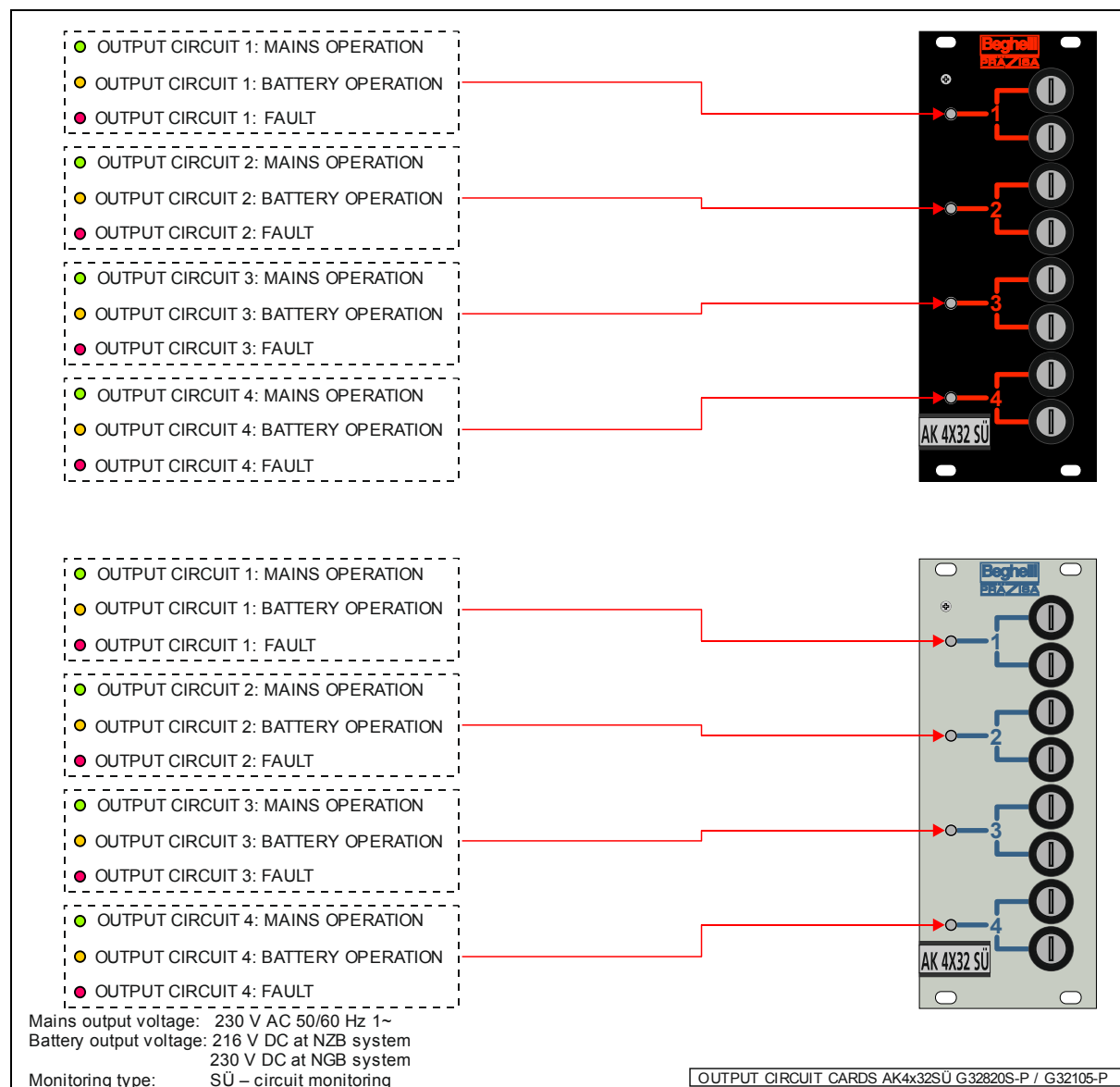
OUTPUT CIRCUIT CARDS AK2x32SÜ G32815S-P / G32104-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK2x32EÜ G32818-SL-P / G32101-P:



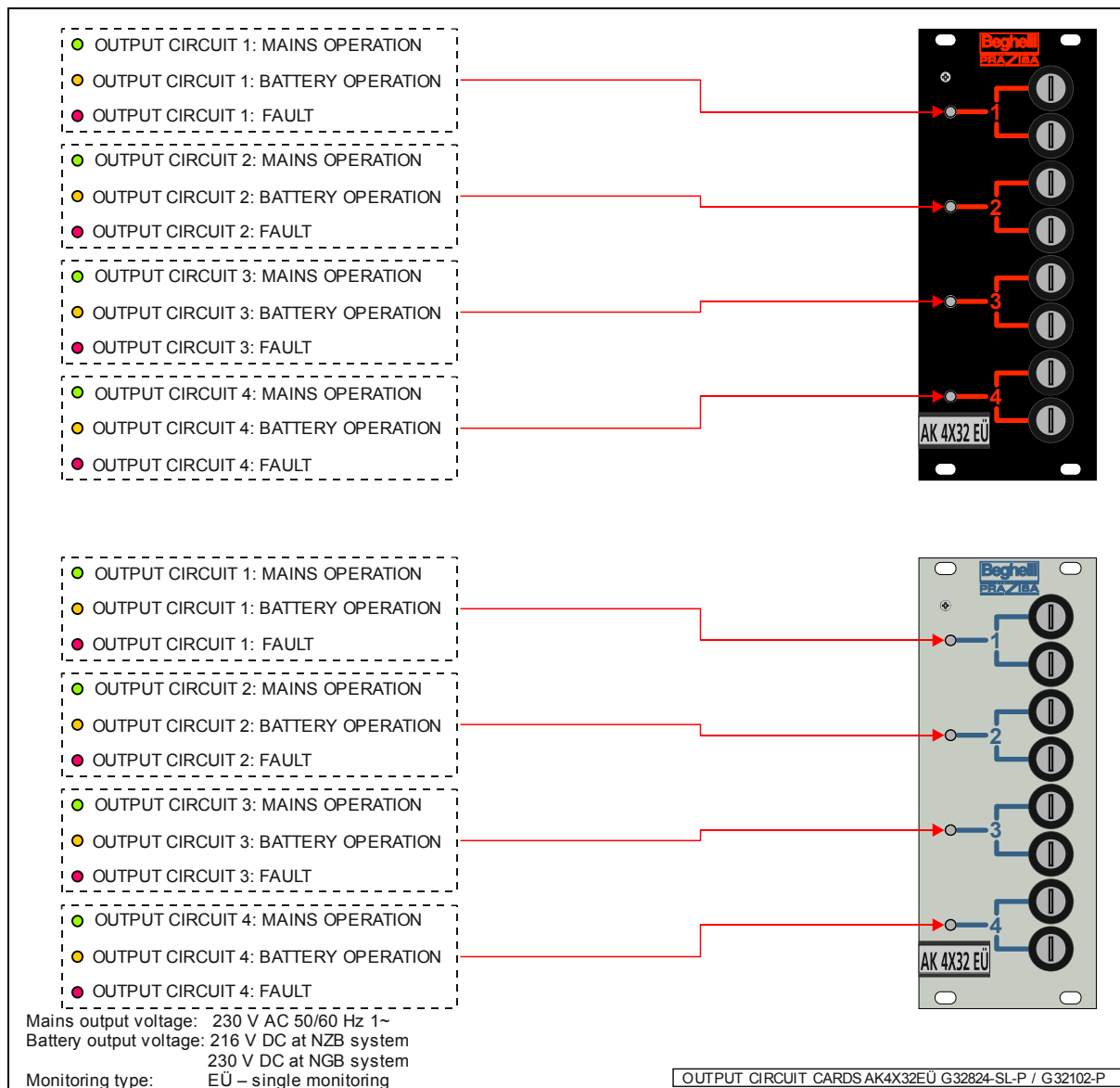
OUTPUT CIRCUIT CARDS AK2x32EÜ G32818-SL-P / G32101-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK4x32SÜ G32820S-P / G32105-P:



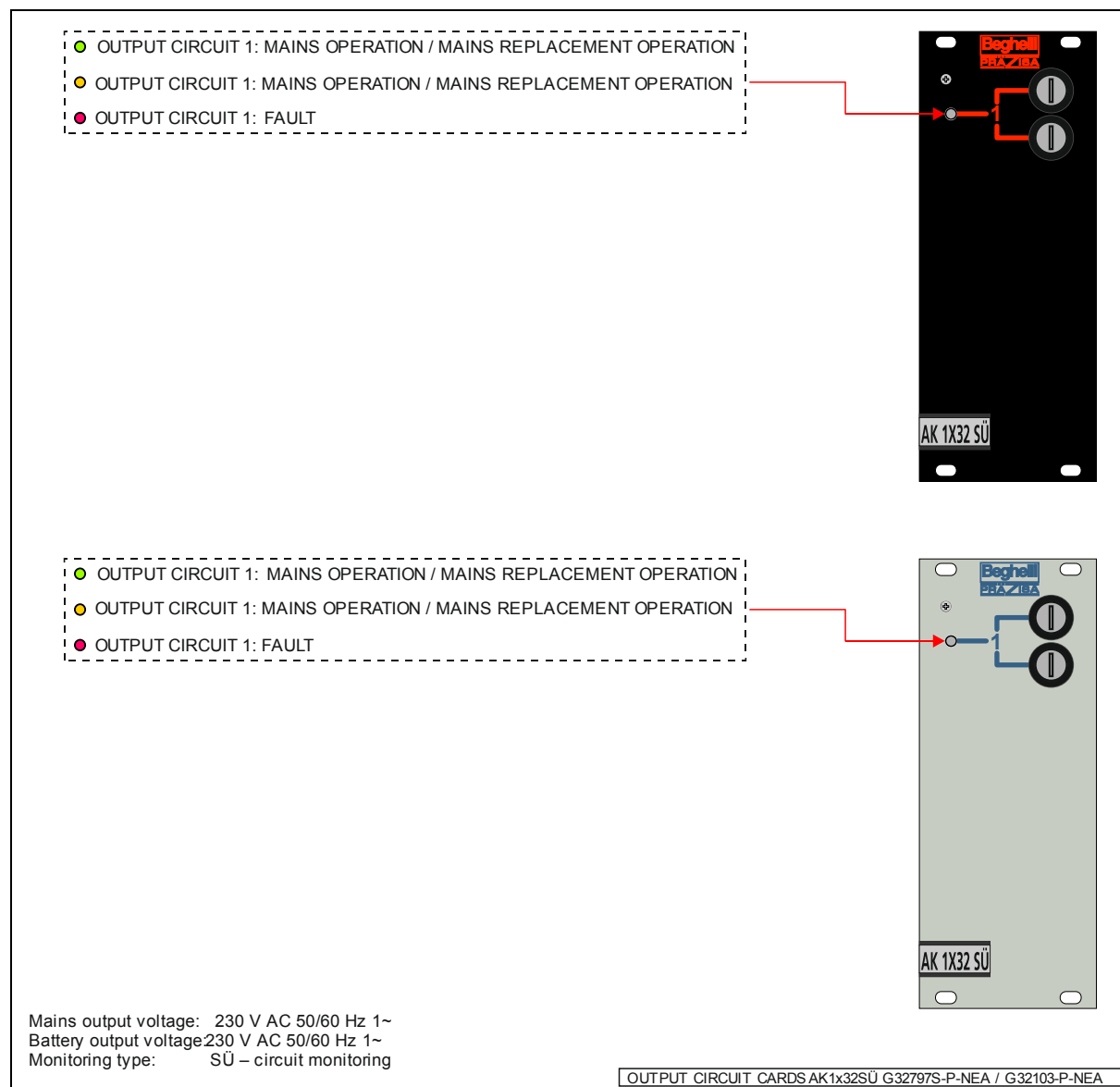
OUTPUT CIRCUIT CARDS AK4x32SÜ G32820S-P / G32105-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK4x32EÜ G32824-SL-P / G32102-P:



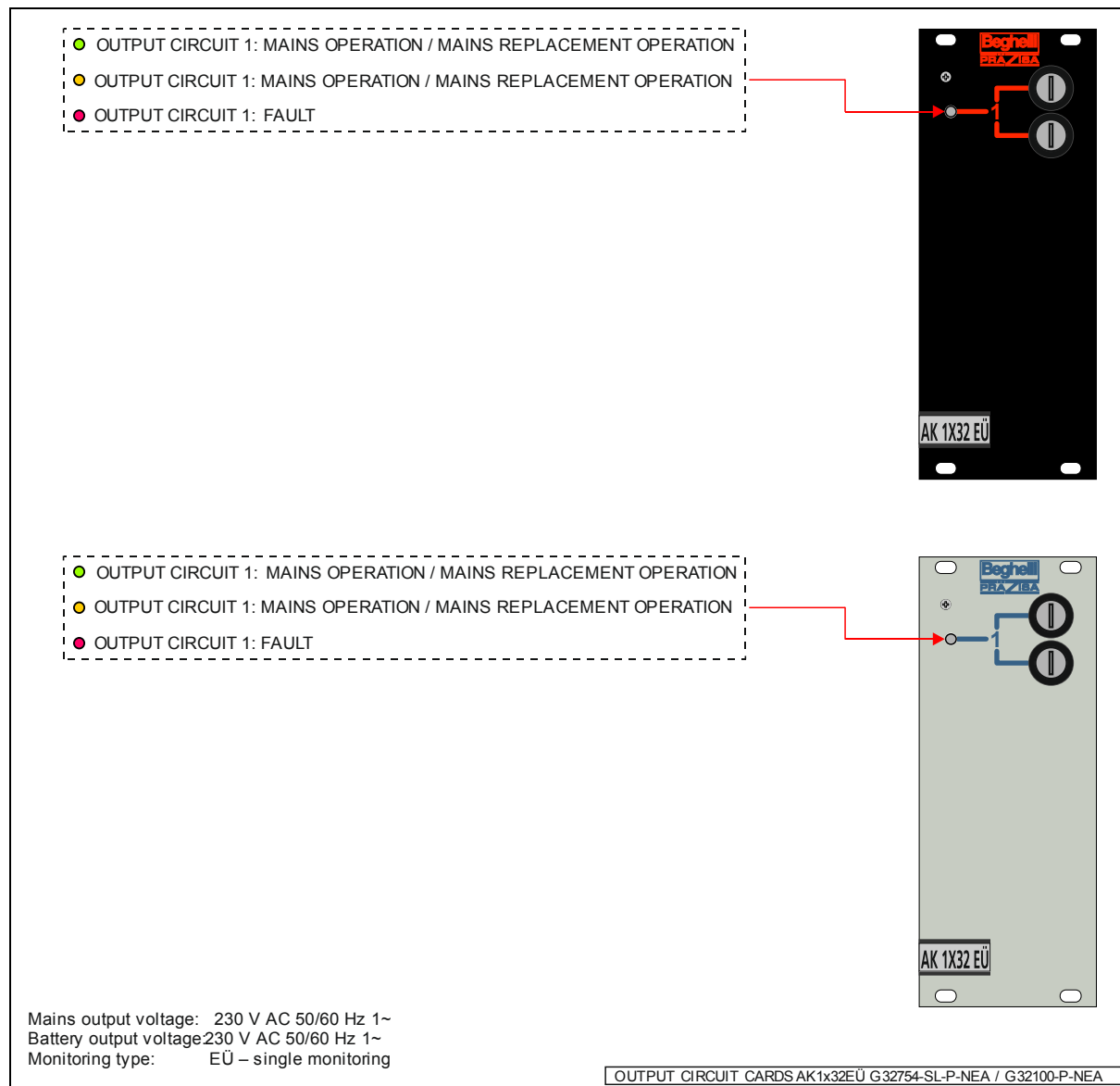
OUTPUT CIRCUIT CARDS AK4x32EÜ G32824-SL-P / G32102-P		
Operation displays	Mains operation on – green	mains operation active
	Battery operation on – orange	battery operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK1x32SÜ G32797S-P-NEA / G32103-P-NEA:



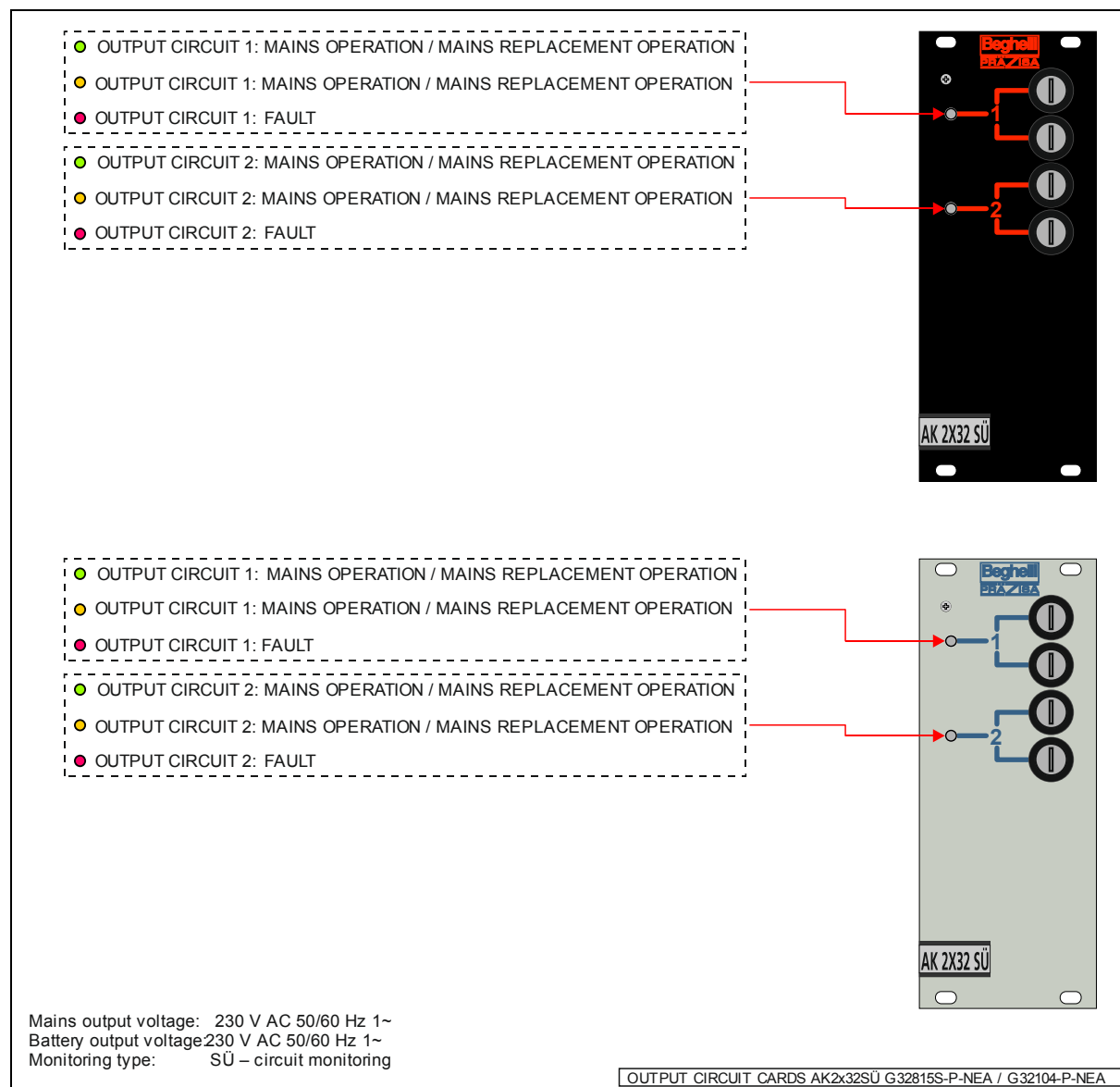
OUTPUT CIRCUIT CARDS AK1x32SÜ G32797S-P-NEA / G32103-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK1x32EÜ G32754-SL-P-NEA / G32100-P-NEA:



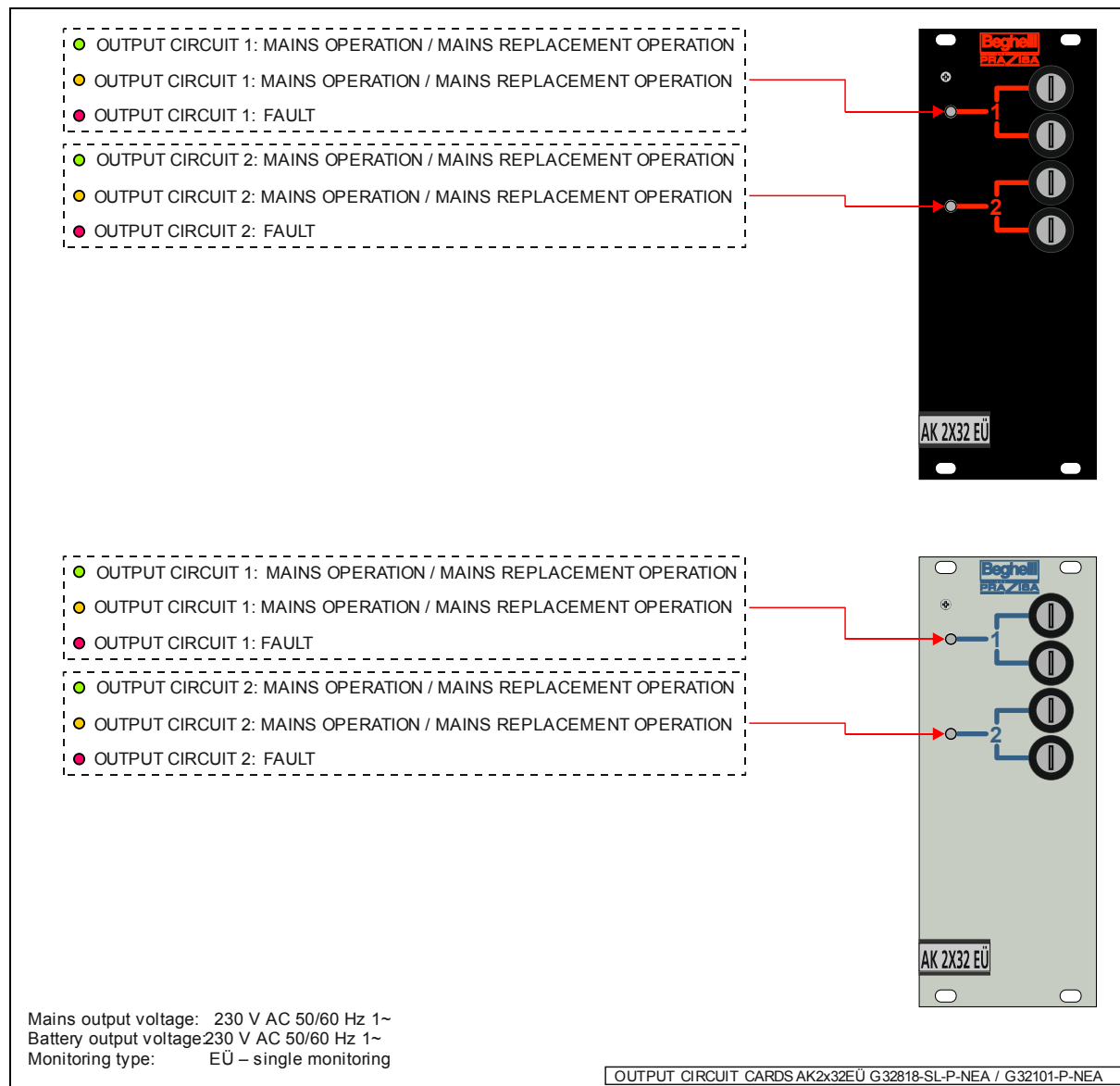
OUTPUT CIRCUIT CARDS AK1x32EÜ G32754-SL-P-NEA / G32100-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK2x32SÜ G32815S-P-NEA / G32104-P-NEA:



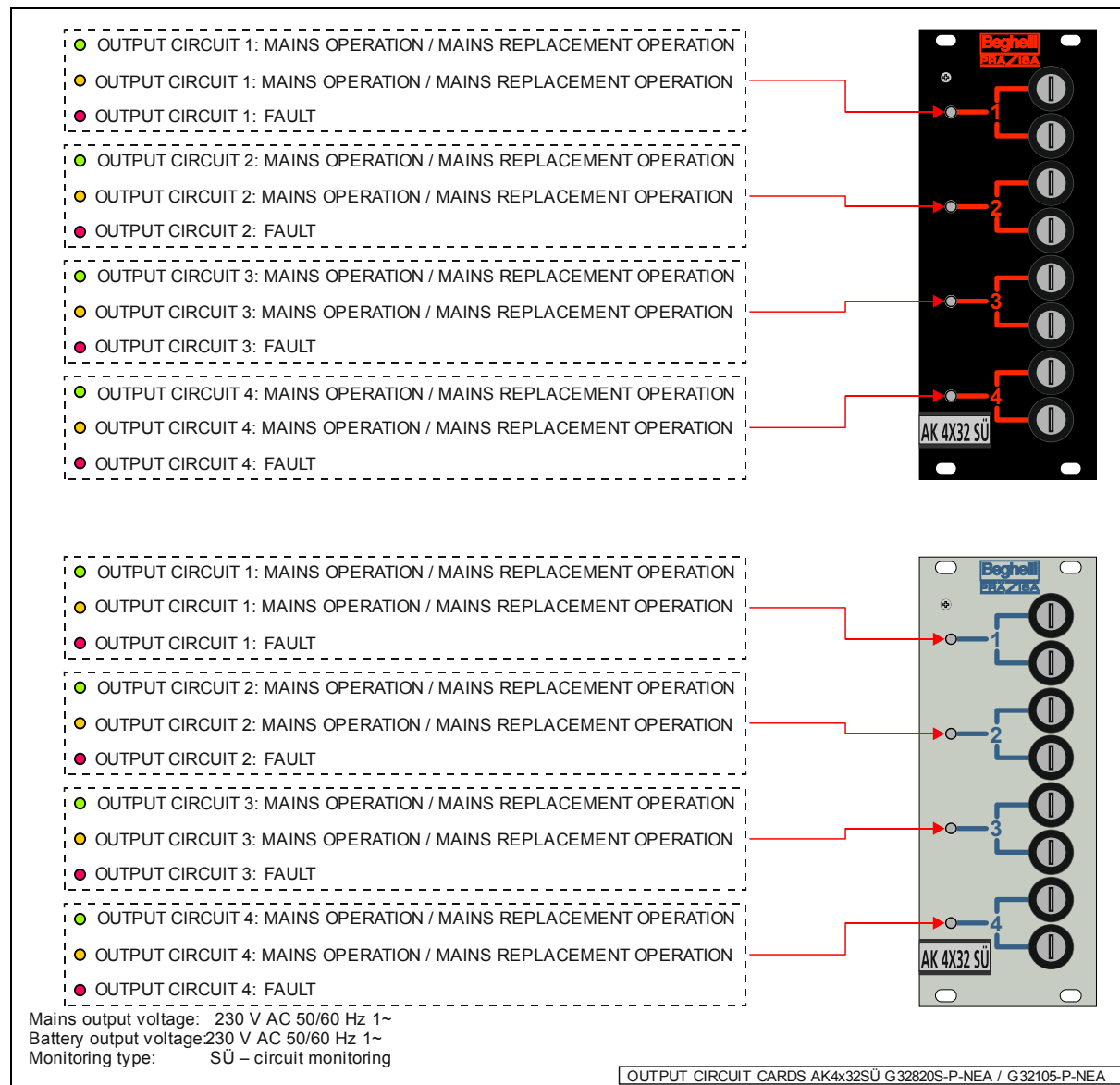
OUTPUT CIRCUIT CARDS AK2x32SÜ G32815S-P-NEA / G32104-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK2x32EÜ G32818-SL-P-NEA / G32101-P-NEA:



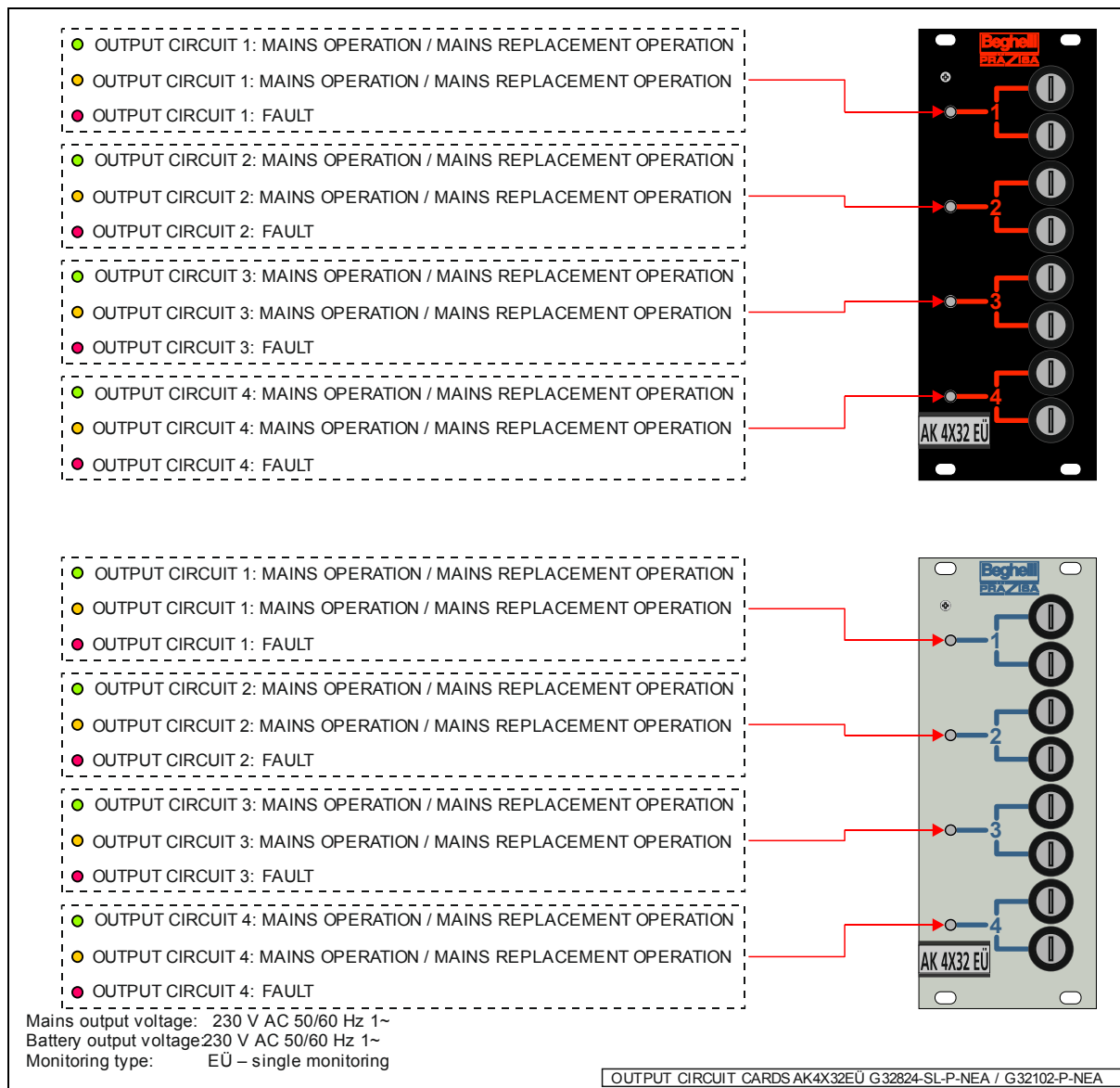
OUTPUT CIRCUIT CARDS AK2x32EÜ G32818-SL-P-NEA / G32101-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK4x32SÜ G32820S-P-NEA / G32105-P-NEA:



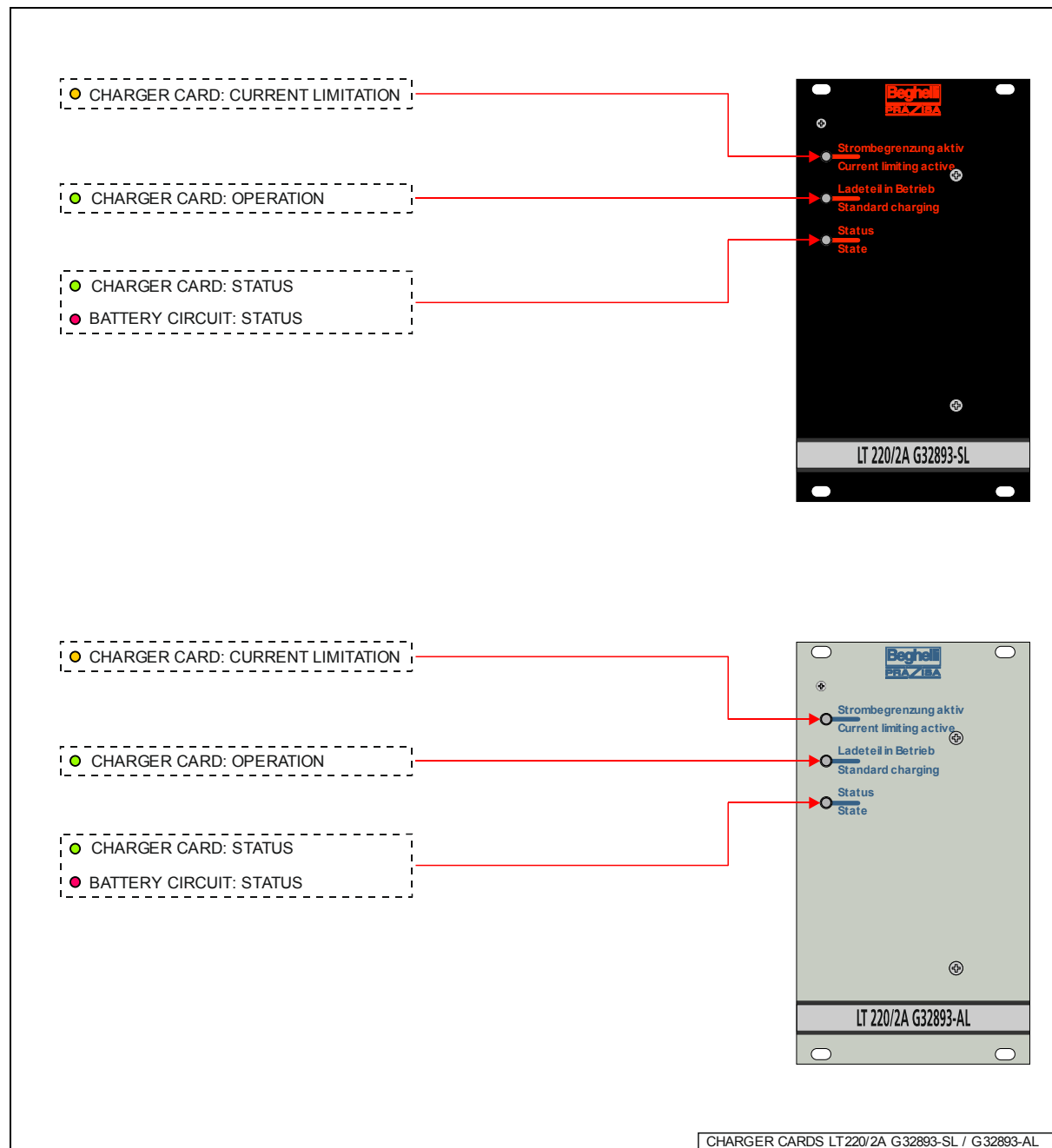
OUTPUT CIRCUIT CARDS AK4x32SÜ G32820S-P-NEA / G32105-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Output circuit cards AK4x32EÜ G32824-SL-P-NEA / G32102-P-NEA:



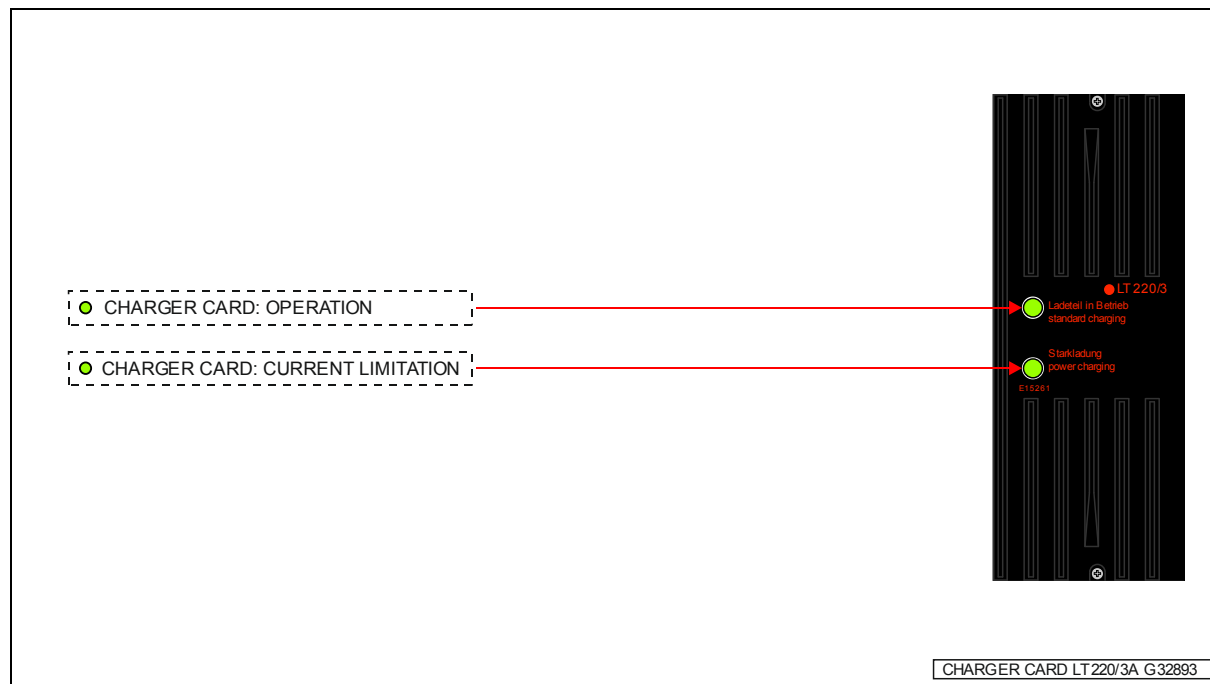
OUTPUT CIRCUIT CARDS AK4x32EÜ G32824-SL-P-NEA / G32102-P-NEA		
Operation displays	Mains operation on – green	mains operation active / mains replacement operation active
	Battery operation on – orange	mains operation active / mains replacement operation active
Fault displays	Fault blinks – red	luminaire circuit fault / insulation fault on luminaire circuit

Charger cards LT220/2A G32893-SL / G32893-AL:



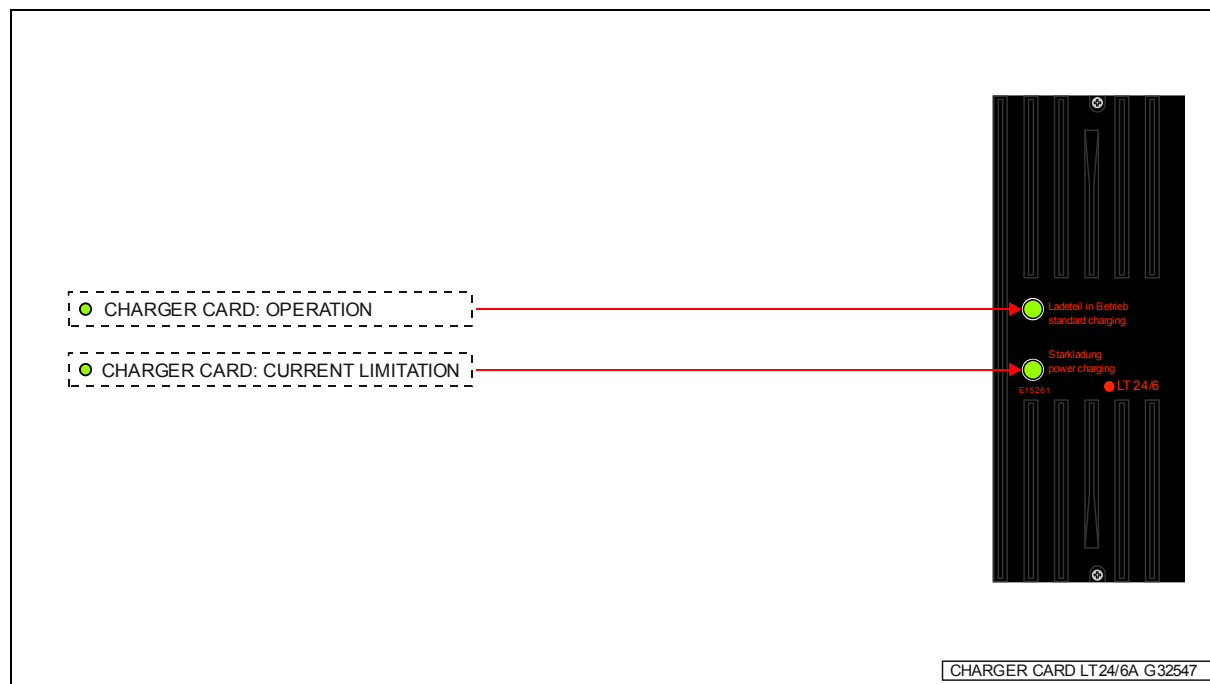
CHARGER CARDS LT220/2A G32893-SL / G32893-AL		
Operation displays	Current limitation on – orange	Maximum charge current used / boost charge
	Operation on – green	Charger card in operation
	Status on – green	Load with maximum charge current
	Status blinks – green, variable periods	Load below the maximum charge current, charge current proportional to switch-on duration of the operation display
Fault displays	Status blinks – red	Battery circuit fault – battery supply

Charger card LT220/3A G32893:



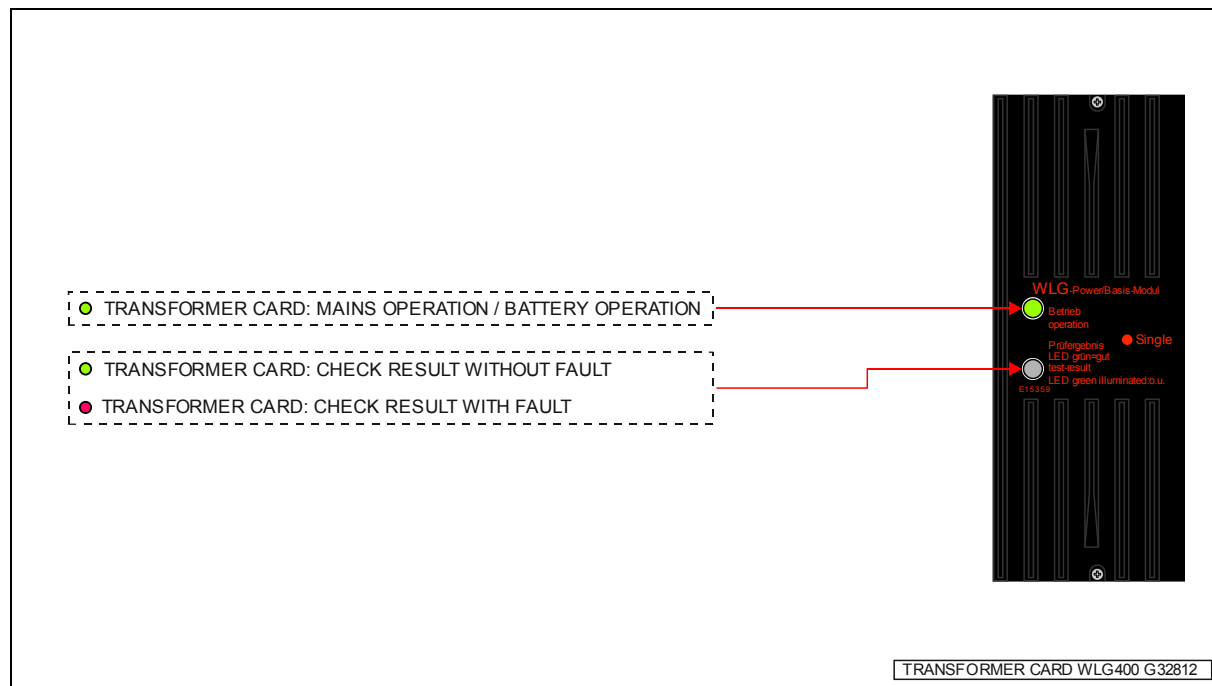
CHARGER CARD LT220/3A G32893		
Operation displays	Operation on – green	Charger card in operation
	Current limitation on – green	Maximum charge current used / boost charge

Charger card LT24/6A G32547:



CHARGER CARD LT24/6A G32547		
Operation displays	Operation on – green	Charger card in operation
	Current limitation on – green	Maximum charge current used / boost charge

Transformer card WLG400 G32812:



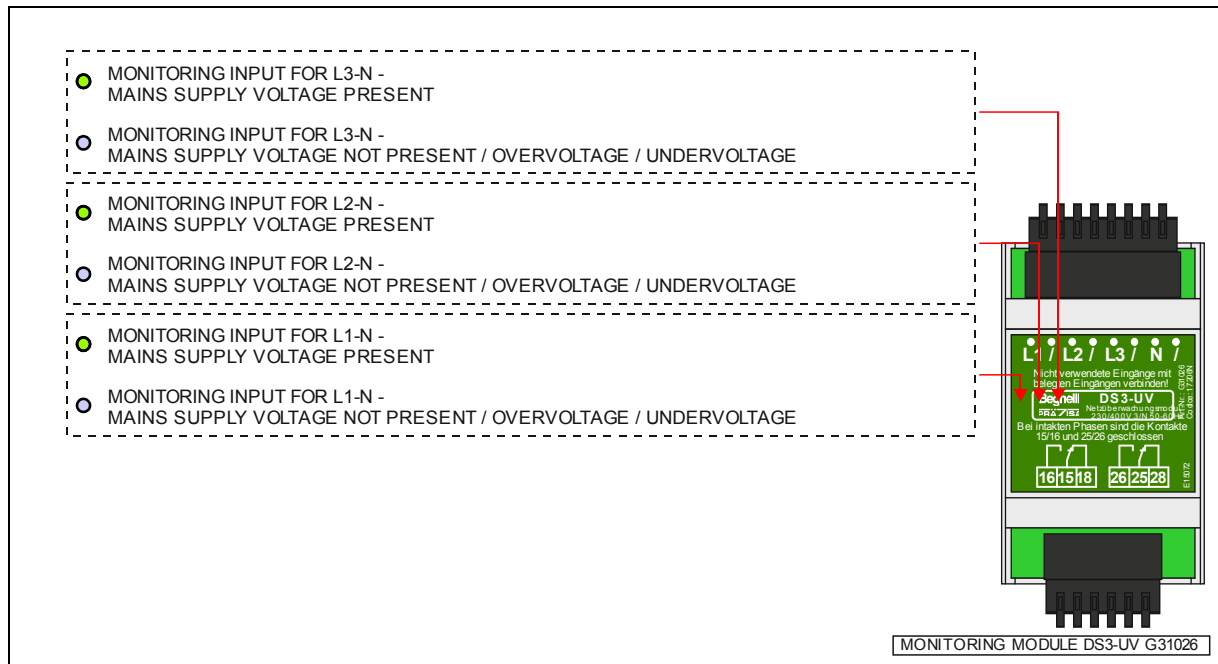
TRANSFORMER CARD WLG400 G32812		
Operation displays	Mains operation / battery operation on – green	Mains operation active, battery operation with transformation active
Fault displays	Check result on – green	Autonomous check result without fault
	Check result an – red	Autonomous check result with fault

Transformer card combination WLG750 G32811:



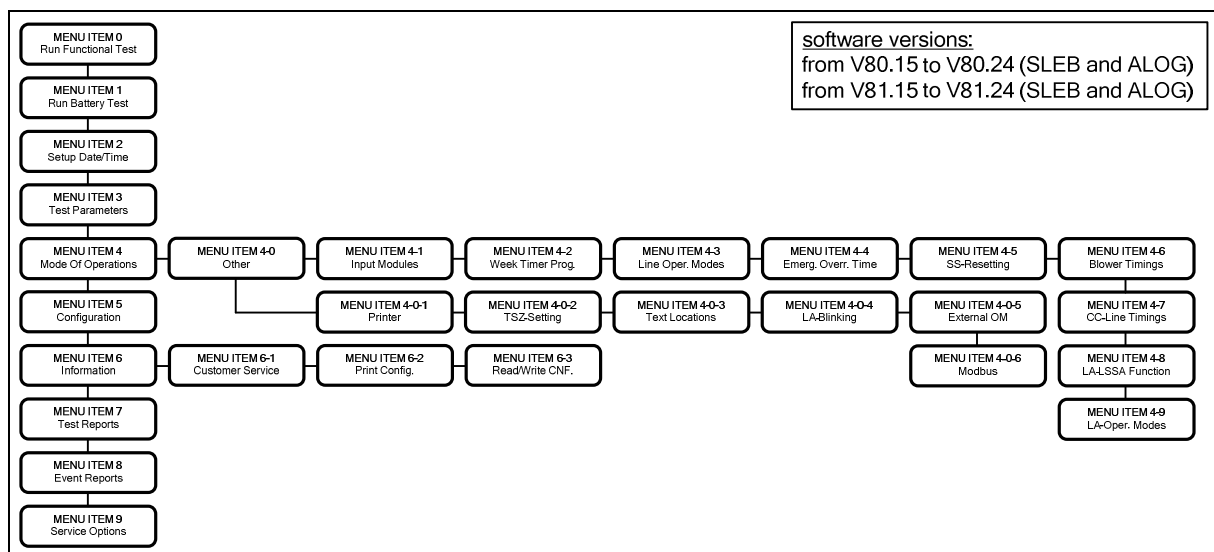
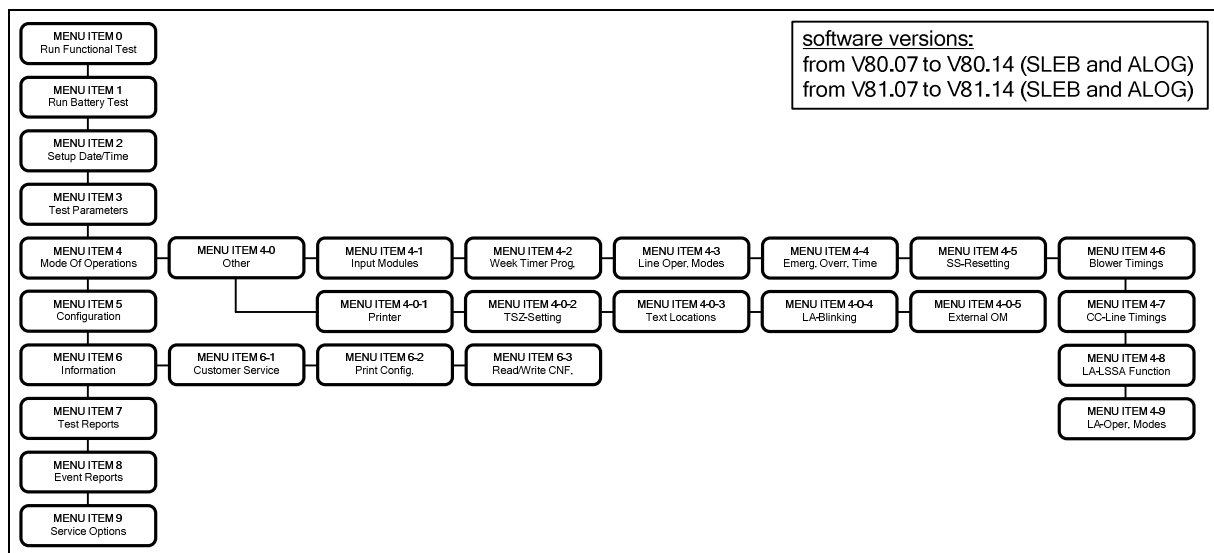
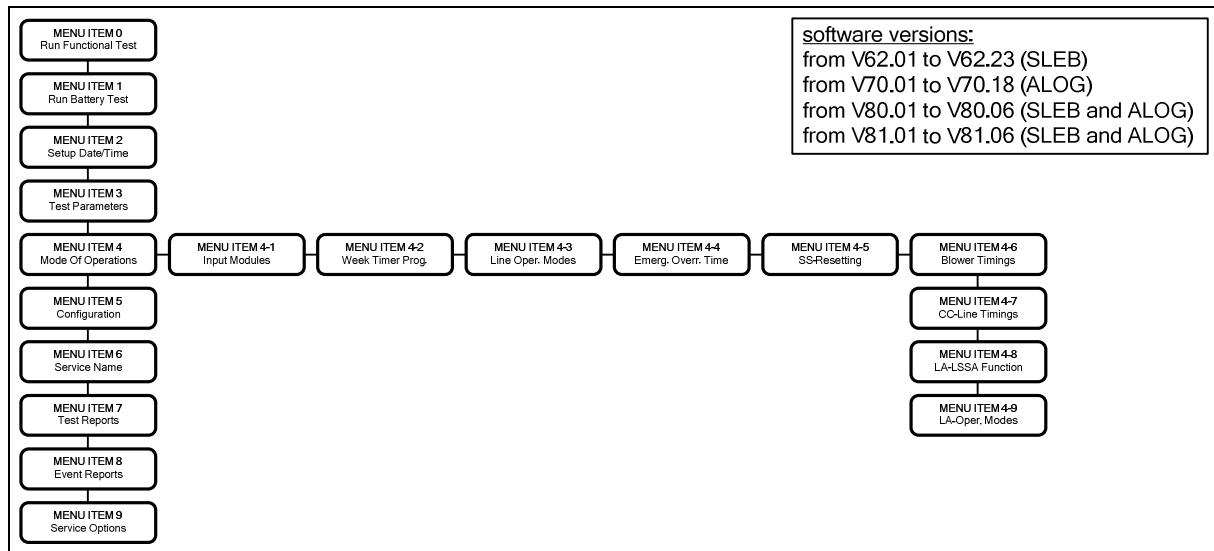
TRANSFORMER CARD COMBINATION WLG750 G32811		
Operation displays	Mains operation / battery operation on – green	Mains operation active (Master), battery operation with transformation active (Master)
	Battery operation on – green	Battery operation with transformation active (Slave)
Fault displays	Check result on – green	Autonomous check result without fault
	Check result an – red	Autonomous check result with fault

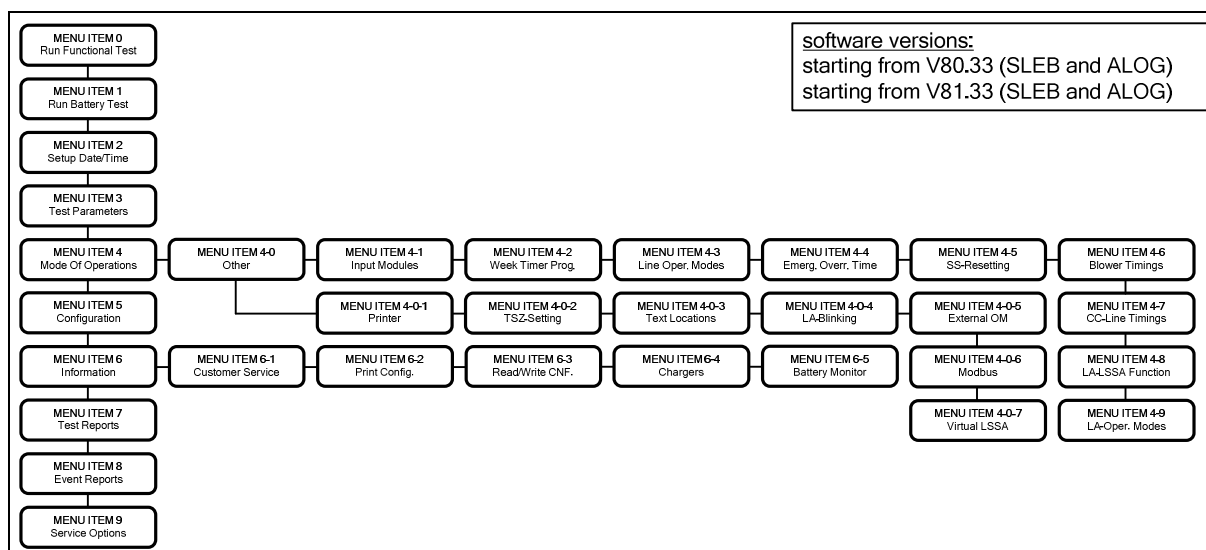
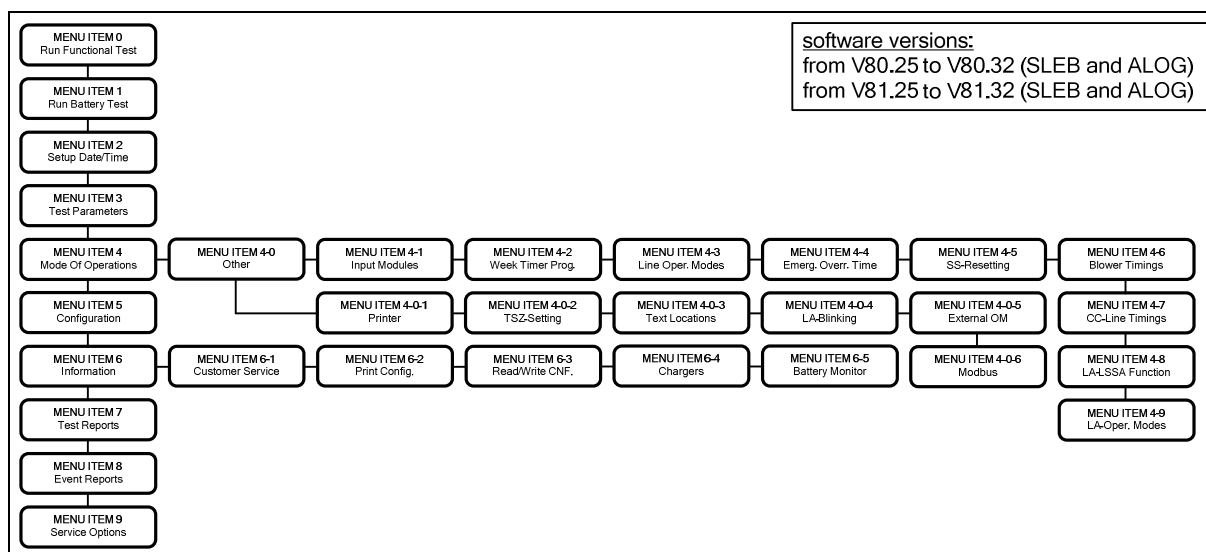
Monitoring module DS3-UV G31026:



MONITORING MODULE G31026		
Mains failure displays	L1-N on – green	No supply failure at phase L1-N
	L2-N on – green	No supply failure at phase L2-N
	L3-N on – green	No supply failure at phase L3-N

Menu structures





Initial start, warm start

Initial start:

```
* FIRST-START *
*   nnn: Vnn   *
```

The initial start is carried at Beghelli PRÄZISA during final inspection of the device. The display shows the software version. Afterwards an automatic read-in of the output circuit allocation is performed with subsequent display of the output circuit cards and output circuits. At this procedure the device switches on the output circuits sequentially with the respective battery output voltage and saves the read in data in the device configuration. After the read-in the device switches to automatic mode. The factory settings apply for the parameters on an initial start (see factory settings).



Attention:

Starting from the software versions V80.01 (SLEB and ALOG) and V81.01 (SLEB and ALOG) the following is valid:

When the operational condition of the device is switched off manually or over a control installation, no simultaneous interruption of the mains and battery voltage or the operation of a jumper for a software reset may happen within 2 minutes after execution of this procedure, because this leads otherwise to an execution of an initial start where the device is reset to its factory settings.

During the execution of a saving process (display message: "STORING DATA") no simultaneous interruption of the mains and battery voltage or the operation of a jumper for a software reset may happen, because this leads otherwise to an execution of an initial start where the device is reset to its factory settings.



Note:

After a new initial start we recommend a following commissioning by our service technicians to ensure the correct function of the device.

Warm start:

```
* WARM-START *
*   nnn: Vnn   *
```

In case of interruption of the mains and battery voltage the device performs a warm start when the supply returns. Data already configured is retained in data memory. The device remains in automatic mode after a warm start.



Note:

Depending on the used CPU card an initial start as well as a warm start can take up to one minute. During this time it can happen that the display unit shows no display messages.

Operating modes of the emergency light station, deep discharge protection

The device supports three operating modes – automatic mode, manual mode and emergency mode.

Automatic mode:

In automatic mode current information of the emergency light station are indicated. Device functions can be triggered over the respective buttons on the display unit or being automatically started. Furthermore bus connections as well as in- and outputs for control resp. monitoring purposes of the emergency light station are available.

The following information cycle is displayed during automatic mode:

```
AUTOMATIC MODE nnn
DATE: 01.01.00 vnn
X1 M1 > I = 0900mA
MAIN STATION: 01
```

Line 2 continued with:

- time / software version
- mains / battery supply
- battery voltage
- battery current
- load current
- result of the insulation test

Supplemented:

- supply failure duration
- over-run duration
- device failure
- configuration information

Line 3: - visualisation of the currents of the output circuit cards

Line 4: - information about the station



Note:

Press button "T2" to display information about failures in the existing output circuits.

Manual mode:

Pressing the "T1" button switches the device into manual mode. Within the menu structure parameters can be changed and device functions can be executed. One minute after the last button has been pressed or by selecting "E" on the display, the device leaves automatically the respective menu level and returns to the previous menu level until the automatic mode is reached. However, this does not apply for menus which contain in- and output functions for special programming.

```
SEL. PROGRAMS
E 0 1 2 3 4 5 6 7 8 9

AUTOMATIC MODE
```

"E": exit current menu item

In manual mode it is only possible to enter data and to start functions within the menu structure.

The following display actions are supported in addition to the KCGZ button functions and can be used depending on the menu:

"+":	scroll forwards
"-":	scroll backwards
"E":	exit current menu resp. enter following menu
"I":	information resp. change
"T":	test resp. read-in of configuration
"Y":	answer with "yes" regarding input prompt
"N":	answer with "no" regarding input prompt
"ok":	save inputs resp. trigger device functions resp. displace cursor resp. exit current menu item resp. call-up following menu item

Emergency mode:

If a general supply failure is detected on the mains supply of an emergency light station (mains failure on phase conductor or neutral conductor) the device switches into the emergency operation with battery supply (battery operation – DC). Independently of the respective programming of the operating mode all output circuits resp. luminaire modules of the affected emergency light station will be switched on. The access to the menus of the device will be restricted.

If a partial supply failure is detected on the critical circuit or on an accordingly programmed LSSA switch input of an emergency light station (mains failure on sub-distribution monitoring), the device switches into the emergency operation with mains supply (mains operation – AC). Depending on the respective programming of the operating mode the output circuits resp. luminaire modules of the affected emergency light station will be switched on. The access to the menus of the device will be restricted.

All supply failures are displayed and protocolled. If no supply failure is detected during an emergency operation the emergency light station returns into the automatic operation. Depending on the programming a manual reset of the operating modes for output circuits resp. luminaire modules can be necessary after this on the emergency light station.

**Note:**

Detailed information regarding the mains and battery supply as well as the mains and battery output voltage of the NGB/NZB/NEA systems are to be found at the type codes (see type codes).

Deep discharge protection:

All emergency light stations are capable of a deep discharge protection for the battery supply. If the voltage of the battery supply has reached the switch-on value for the deep discharge protection then the deep discharge protection is activated by the device whereby a deactivation of the emergency operation with battery supply (battery operation – DC) takes place. This will be displayed by the active LED for the deep discharge (red) as well as over a display message of the display unit.

AUTOMATIC MODE
DISCH.ACKNO.->T1

Deep discharge protection activated

"T1": manual reset of the deep discharge protection

If the voltage of the battery supply has reached the switch-off value for the deep discharge protection then the deep discharge protection stays activated with respective indications but without deactivation of the emergency operation with battery supply (battery operation – DC).

DEEP DISCHARGE
ACKNOWLEDGED!

Deep discharge protection deactivated

Pressing the button "T1" in automatic mode executes a manual reset where the device deactivates the deep discharge protection.



Attention:

At activated deep discharge protection the emergency light stations can not switch into the emergency operation with battery supply (battery operation – DC) as long as the switch-off value for the deep discharge protection is not reached.

Operational condition



Attention:

During the deactivated operational condition the respective emergency light station switches not into the emergency operation at occurring supply failures. This does apply in case of a general supply failure as well as in case of a partial supply failure. During a present supply failure a deactivation of the operational condition ends the emergency operation of the respective emergency light station prematurely. This does apply in case of a general supply failure as well as in case of a partial supply failure.

Main station:

The switch "S1" activates / deactivates the operational condition and all operating modes of the output circuits on the respective main station. At deactivated operational condition the main station can not switch into the emergency operation with mains supply (mains operation – AC) or the emergency operation with battery supply (battery operation – DC). By the deactivation of all operating modes the output circuits are switched off as well if no general or partial supply failure is present.

Sub station:

The switch "S1" activates / deactivates the operational condition and all operating modes of the output circuits on the respective sub station. At deactivated operational condition the sub station can not switch into the emergency operation with mains supply (mains operation – AC) or the emergency operation with battery supply (battery operation – DC). By the deactivation of all operating modes the output circuits are switched off as well if no general or partial supply failure is present.

General permanent setting



Attention:

During the deactivated general permanent setting the respective emergency light station switches into the emergency operation at occurring supply failures in case of a general supply failure.

During the deactivated general permanent setting the respective emergency light station switches into the emergency operation at occurring supply failures in case of a partial supply failure, if the supply failure was detected by the critical circuit.

During the deactivated general permanent setting the respective emergency light station switches not into the emergency operation at occurring supply failures in case of a partial supply failure, if the supply failure was detected by a LSSA switch input with the query function "Sub-distribution".

Main station:

The switch "S2" activates / deactivates the operating mode "1=CC" of the output circuits on the respective main station together with all connected sub stations where appropriate.

- > At deactivated general permanent setting the output circuits are operated in the operating mode "4=SS", if the operating mode "1=CC" is programmed. The operating modes "2=CCT", "3=CCS", "5=SSCC", "6=SSNE", "7=STC" and "9=CCSD" of the output circuits will not be deactivated.
- > At deactivated general permanent setting the luminaire modules are not operated. The operating modes "1=CC", "2=CCT", "3=CCS", "4=SS", "5=SSCC", "6=SSNE", "7=STC" and "8=CCSNE" of the luminaire modules will be deactivated.

Sub station:

The switch "S2" activates / deactivates the operating mode "1=CC" of the output circuits on the respective sub station.

- > At deactivated general permanent setting the output circuits are operated in the operating mode "4=SS", if the operating mode "1=CC" is programmed. The operating modes "2=CCT", "3=CCS", "5=SSCC", "6=SSNE", "7=STC" and "9=CCSD" of the output circuits will not be deactivated.
- > At deactivated general permanent setting the luminaire modules are not operated. The operating modes "1=CC", "2=CCT", "3=CCS", "4=SS", "5=SSCC", "6=SSNE", "7=STC" and "8=CCSNE" of the luminaire modules will be deactivated.

Insulation test

If the insulation tests are enabled an insulation test of the battery supply takes place in automatic mode within an interval of ca. 12 seconds automatically at NZB systems. The function LED "ISO TEST" is switched on during the test.

By pressing the button "T7" the menu for the insulation tests can be opened.

```
ISO-TEST:  E/MS  NZB
SSnn: T/All /Show  vnn
X1/M1 > I=0900mA
MAIN STATION: 01
```

"E": exit current menu

"MS": manual insulation test (MIT) on the main station

"T": manual insulation test (MIT) on the selected sub station

"All": manual insulation test (MIT) on all sub stations

"Show": optional, designated for function extensions



Note:

The insulation tests can be enabled in menu item 9-3-6 "ISO-TESTS". If the insulation tests are enabled then an insulation test of the battery supply as well as an insulation test of all output circuits simultaneously is executed by the device during each function test and battery test.

In menu item 9-3-6 "ISO-TESTS" the resistance values for output circuits ("ISO OC") and the battery supply of the main station ("ISO MS") can be specified.

The executed insulation tests can be terminated prematurely with the switch "S1" "SYSTEM SET ON/OFF". A subsequent failure message with active fault LED "SEE DISPLAY" can only be reset with a not interrupted and fault-free insulation test, function test or battery test.

The insulation tests are not available at NGB systems.

The following insulation tests can be executed:

"MS" – manual insulation test on the main station:

Pressing "MS" starts a manual insulation test (MIT). At this test the device measures at first the insulation resistances of the battery supply on the respective main station, followed by the insulation resistances of all output circuits sequentially on the respective main station by switch-on of the output circuits with the respective battery output voltage. Thereby the collected data will be compared with the device configuration. Failure messages on the display indicate discrepancies.



Note:

If an insulation fault is detected on the battery supply during an executed insulation test then the insulation test is terminated prematurely by the device. A subsequent failure message with active fault LED "SEE DISPLAY" can only be reset with a not interrupted and fault-free insulation test, function test or battery test.

"SSnn: T" – manual insulation test on the selected sub station:

Pressing "T" starts a manual insulation test (MIT). At this test the device measures the insulation resistances of all output circuits sequentially on the selected sub station by switch-on of the output circuits with the respective battery output voltage. Thereby the collected data will be compared with the device configuration. Failure messages on the display indicate discrepancies.

"All" – manual insulation test on all sub stations:

Pressing "All" starts a manual insulation test (MIT). At this test the device measures the insulation resistances of all output circuits sequentially on all connected sub stations by switch-on of the output circuits with the respective battery output voltage. Thereby the collected data will be compared with the device configuration. Failure messages on the display indicate discrepancies.

"Show" – optional, designated for function extensions

Menu item 0 "Run Functional Test"

FUNCTION-TEST
START ? Y/N

function test

"Y": start manual function test (MFT)

"N": exit current menu item

Pressing "Y" starts a manual function test (MFT). The functions of the following equipment are tested by a function test:

- luminaire modules on output circuits of the monitoring type EÜ
- luminaires on output circuits of the monitoring type SÜ
- output cards
- emergency light stations

At this test the device switches on all output circuits of the respective main station and the associated sub stations with the respective battery output voltage and compares the collected data with the device configuration. Failure messages on the display indicate discrepancies.

The following display messages are shown during the test:

- remaining test time

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"OC TEST": output circuit test

"FU TEST": output circuit fuse test

"LA TEST": illuminant test

- current per output circuit
- insulation resistance (if insulation tests are enabled)

By pressing the buttons T1/T3 the test data for start date, test duration, device faults and the test result are shown.



Note:

If the insulation tests are enabled then an insulation test of the battery supply as well as an insulation test of all output circuits simultaneously is executed by the device during each function test. The function test can be terminated prematurely with the switch S1 "SYSTEM SET ON/OFF". A subsequent failure message "F/B Test FAULT" with active fault LED "SEE DISPLAY" can only be reset with a not interrupted and fault-free function test. The "F TEST DURATION" is configurable in menu item 3 "F- and B-test parameters" in the range of 1 to 15 minutes. The test of the output circuits will also be executed if the "F TEST DURATION" which is entered is shorter than the test time which is necessary. If the value for the "F TEST DURATION" is longer than the test time actually necessary, all output circuits will stay on for the remaining time.

Pressing the T5 button in automatic mode also starts this test. The function LED "FUNCTION TEST" is switched on during the test.

Menu item 1 "Run Battery Test"

BATTERY-TEST
START ? Y/N

battery test

"Y": start manual battery test (MOT)

"N": exit current menu item

Pressing "Y" starts a manual battery test (MOT) which includes a function test in advance. The functions of the following equipment are tested by a battery test:

- luminaire modules on output circuits of the monitoring type EÜ
- luminaires on output circuits of the monitoring type SÜ
- output cards
- emergency light stations
- battery supply regarding the emergency duration



Attention:

Defective luminaires are affecting the test result of the battery test regarding the emergency duration.

At this test the device switches on all output circuits of the respective main station and the associated sub stations with the respective battery output voltage and compares the collected data with the device configuration. Afterwards the device tests the battery supply by a discharge with complete power up to the switch-on value of the deep discharge protection and compares the collected data with the device configuration. Failure messages on the display indicate discrepancies.

The following display messages are shown during the test:

- remaining test time

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"OC TEST": output circuit test

"FU TEST": output circuit fuse test

"LA TEST": illuminant test

- current per output circuit

- insulation resistance (if insulation tests are enabled)

By pressing the buttons T1/T3 the test data for start date, test duration, device faults and the test result are shown.



Note:

Every executed battery test includes a function test in advance. If the insulation tests are enabled then an insulation test of the battery supply as well as an insulation test of all output circuits simultaneously is executed by the device during each function test. The battery test can be terminated prematurely with the switch S1 "SYSTEM SET ON/OFF". A subsequent failure message "F/B Test FAULT" with active fault LED "SEE DISPLAY" can only be reset with a not interrupted and fault-free battery test. The "B TEST DURATION" is configurable in menu item 3 "F- and B- test parameters".

Menu item 2 "Setup Date / Time"

DATE:
01.01.00 ok

system date

"ok": call-up following menu item

TIME:
00:01 ok

system time

"ok": call-up following menu item

NEW DATA
ACCEPT ? Y/N

"Y": save inputs

"N": do not save inputs

Entering the date and time is necessary for the date-dependent start of the automatic function and battery test, as well as for the time programs configurable in menu item 4-2 "Week Timer Program". In addition this input is used to generate the time signature for the fault messages and test reports.

Date format: DAY.MONTH.YEAR

Time format: HOURS:MINUTES

Menu item 3 "Test Parameters"

PARAMETER INPUT
/ E / F-TEST / B-TEST

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

from V80.01 to V80.06 (SLEB and ALOG)

from V81.01 to V81.06 (SLEB and ALOG)

"E": exit current menu item

"F-TEST": call-up menu item "F-test parameters"

"B-TEST": call-up menu item "B-test parameters"

PARAMETER INPUT
/E /FT / BT /D.D.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

END

"E": exit current menu item

"FT": call-up menu item "F-test parameters"

"BT": call-up menu item "B-test parameters"

"D.D.": call-up menu item "Deep discharge test"



Note:

Function and battery tests are defined by country-specific norms. Within Europe the harmonised norm EN 50171 / EN 62034 has to be observed. Test parameters are to be set in accordance with the respective norms.

"F-TEST" / "FT" – F-test parameters:

F-TEST-TIME:	
07:00	ok
F-TEST PARAMETER	

start time

"ok": call-up following menu item

F-TEST-DAY:	
1 (1=MONDAY)	ok
F-TEST PARAMETER	

start day

"ok": call-up following menu item

F-TEST-CYCLE:	
001 DAY(S)	ok
F-TEST PARAMETER	

cycle

"ok": call-up following menu item

setting range: 1-999 days (factory setting: 1 day)

F-TEST-DURATION:	
001 MINUTE(S)	ok
F-TEST PARAMETER	

duration

"ok": call-up following menu item

setting range: 1-15 minutes (factory setting: 1 minute)

AUTO-F-TEST:	
0 (1=YES):	ok
F-TEST PARAMETER	

"1": automatic F-test enabled

"0": automatic F-test not enabled

"ok": call-up following menu item

F-TEST-PARAMETER:	
ACCEPT ?	Y/N
F-TEST PARAMETER	

"Y": save inputs

"N": do not save inputs



Note:

The factory settings of the "F TEST CYCLE" and "F TEST DURATION" parameters (see factory settings) are in accordance with EN 50171 / EN 62034.

"B-TEST" / "BT" – B-test parameters:

B-TEST-DATE:
31.12.00 ok

B-TEST PARAMETER

start date

"ok": call-up following menu item

B-TEST-TIME:
08:00 ok

B-TEST PARAMETER

start time

"ok": call-up following menu item

B-TEST-DURATION:
040 MINUTE(S) ok

B-TEST PARAMETER

duration

"ok": call-up following menu item

setting range: from V62.01 to V62.23 (SLEB): 1-240 minutes (factory setting: 40 minutes)
from V70.01 to V70.18 (ALOG): 1-240 minutes (factory setting: 40 minutes)
from V80.01 to V80.06 (SLEB / ALOG): 1-240 minutes (factory setting: 40 minutes)
starting from V80.07 (SLEB / ALOG): 1-600 minutes (factory setting: 40 minutes)
from V81.01 to V81.06 (SLEB / ALOG): 1-240 minutes (factory setting: 40 minutes)
starting from V81.07 (SLEB / ALOG): 1-600 minutes (factory setting: 40 minutes)

B-TEST-CYCLE:
365 DAY(S) ok

B-TEST PARAMETER

cycle

"ok": call-up following menu item

setting range: 1-999 days (factory setting: 365 days – yearly)

AUTO-B-TEST:
0 (1=YES): ok

B-TEST PARAMETER

"1": automatic B-test enabled

"0": automatic B-test not enabled

"ok": call-up following menu item

B-TEST-PARAMETER
ACCEPT ? Y/N

B-TEST PARAMETER

"Y": save inputs

"N": do not save inputs

SET B-TEST-DUR. AT
ALL MOD.? Y/N

software versions:

from V62.01 to V62.20 (SLEB)

from V70.01 to V70.15 (ALOG)

"Y": the operation time will be equalised with the test time (see following explanations)

"N": the operation time will not be equalised with the test time (see following explanations)



Attention:

To accomplish a correct setting regarding the test time ("B-TEST-DURATION") in relation with the operation time ("O-DURATION") it is strictly necessary to read all explanations of menu item 3 "B-test parameters" as well as menu item 4-7 "OC Duration test times" before performing any programming steps in menu item 3 or 4-7.

Starting from the software versions V62.21 (SLEB) and V70.16 (ALOG) the following is valid:

The menu "SET B-TEST DURATION AT ALL OUTPUT CIRCUITS" has been cancelled. Through this a possible accidental operation will be avoided because in older software versions the test time in this menu took also effect on the operation time of the output circuit cards resp. luminaire modules.

From the software versions V62.01 to V62.20 (SLEB) and from V70.01 to V70.15 (ALOG) the following is valid:

Is the menu "SET B-TEST DURATION AT ALL OUTPUT CIRCUITS" confirmed with YES, this time will be also overtaken for the operation time in emergency mode. This means that without additional settings in case of a mains failure the luminaire modules will be switched off after the entered B-test time.

The settings in menu item 3 "B-test parameters" as well as in menu item 4-7 "OC Duration test times" must be checked and changed if required after any changes regarding the output circuit cards (repair, exchange with identical or other models).



Note:

The factory setting of the "B-TEST DURATION" parameter is in accordance with EN 50171 / EN 62034 regarding a 1-hour installation. According to EN 50171 / EN 62034 the parameter "B-TEST DURATION" can be set to 2/3 of the emergency duration of the installation (40 minutes).

"D.D." – deep discharge test:

DEEP DISCHARGE
CHECK START? N/Y

DEEP DISCHARGE SIM.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

Deep discharge test

"Y": start manual deep discharge test

"N": exit current menu item

Pressing "Y" starts the manual deep discharge test. The function of the deep discharge protection is tested by a deep discharge test.

T=183V U=240V

UNSHARP

DEEP DISCHARGE SIM.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

At this test the device switches on all output circuits of the respective emergency light station with the respective battery output voltage and simulates the increasing battery voltage "T" which begins at the switch-on value for the deep discharge protection and ends at the switch-off value for the deep discharge protection. During the simulated increase of the battery voltage "T" the display message "UNSHARP" is shown. Furthermore the real battery voltage "U" is shown.

T=226V U=240V

SHARP: 01s(15s)

DEEP DISCHARGE SIM.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

When the simulated battery voltage "T" has reached the switch-off value for the deep discharge protection the display message "SHARP" is shown for 15 seconds.

T=226V U=240V

DEEP-SWITCHOFF

DEEP DISCHARGE SIM.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V80.07 (SLEB and ALOG)

After expiration of 15 seconds with the simulated battery voltage "T" which has reached the switch-off value for the deep discharge protection the device switches on the deep discharge protection at properly function (inverted test). Thereby the emergency operation with battery supply (battery operation – DC) will be deactivated. The deep discharge test is finished with this.

AUTOMATIC MODE

DISCH.ACKNO.->T1

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V80.07 (SLEB and ALOG)

Deep discharge protection activated

"T1": manual reset of the deep discharge protection

After a finished deep discharge test the device remains in deep discharge protection during the automatic mode.

DEEP DISCHARGE

ACKNOWLEDGED!

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

Deep discharge protection deactivated

By pressing the button T1 the deep discharge protection can be reset (deactivated).



Note:

In menu item 9-4 "LOAD" the respective values for the deep discharge protection can be specified.

Menu item 4 "Mode Of Operations"

SEL.: E123456789

--- END ---

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

from V80.01 to V80.06 (SLEB and ALOG)

from V81.01 to V81.06 (SLEB and ALOG)

"E": exit current menu item

SEL.: E0123456789

--- END ---

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"E": exit current menu item

Menu item 4-0 "Other"

OTHER: E12345

--- END ---

software versions:

from V80.07 to V80.14 (SLEB and ALOG)

from V81.07 to V81.14 (SLEB and ALOG)

"E": exit current menu item

OTHER: E123456

--- END ---

software versions:

from V80.15 to V80.32 (SLEB and ALOG)

from V81.15 to V81.26 (SLEB and ALOG)

"E": exit current menu item

OTHER: E1234567

--- END ---

software versions:

starting from V80.33 (SLEB and ALOG)

starting from V81.27 (SLEB and ALOG)

"E": exit current menu item

Menu item 4-0-1 "Printer"

Either one external or one internal printer can be connected to the respective Centronics printer interface of the display unit (KCGZ) resp. the printer interface of the CPU card.

To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card G32645D the Centronics printer interface on the display unit (KCGZ) can be used. To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card B23244000 the printer interface on the CPU card can be used. The printer must support the compatibility mode (line-oriented protocol) regarding the Centronics parallel interface.

The following functions can be assigned to the connected printer:

"AUTO-PRINT" – automatic print:

AUTO-PRINT:
PRINTER: 0 ok

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

- "0" automatic print not enabled (factory setting)
- "1" automatic print over printer port for external printer enabled
- "2" automatic print over printer port for internal printer enabled
- "ok": save inputs and call-up following menu item

"MANU-PRINT" – manual print:

MANU-PRINT:
PRINTER: 1 ok

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

- "1" manual print over printer port for external printer enabled (factory setting)
- "2" manual print over printer port for internal printer enabled
- "ok": save inputs and exit current menu item



Note:

From the software versions V62.01 to V62.23 (SLEB), from V70.01 to V70.18 (ALOG), from V80.01 to V80.06 (SLEB and ALOG) and from V81.01 to V81.06 (SLEB and ALOG) the following is valid:
In menu item 9-7 "PRINTER" the respective parameters for the printing procedure can be specified.

Menu item 4-0-2 "TSZ-Setting"

When using TSZ-230 modules 15 seconds before the configured switch-off of the lighting an optical prewarning with single switch-off and switch-on of the output circuits resp. luminaire modules can be enabled. The optical prewarning has a duration of approximately one second. Furthermore a repeating function can be enabled for the inputs of the TSZ-230 modules to reset the switch-on time of the output circuits resp. luminaire modules by a new impulse signal.

The following functions can be assigned to all connected TSZ-230 modules together:

"TSZ-PREWARNING" – optical prewarning signal over lighting:

TSZ-PREWARNING
ENABLE: 1 E

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

- "0" optical prewarning signal not enabled
- "1" optical prewarning signal enabled (factory setting)
- "E": save inputs and call-up following menu item

"REPEAT" – repeating function for inputs:

REPEAT
ENABLE: 1 E

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

- "0" repeating function not enabled (factory setting)
- "1" repeating function enabled
- "E": save inputs and exit current menu item



Note:

From the software versions V62.01 to V62.23 (SLEB), from V70.01 to V70.18 (ALOG), from V80.01 to V80.06 (SLEB and ALOG) and from V81.01 to V81.06 (SLEB and ALOG) the following is valid:

In menu item 9-3-0-3 "TSZ-SETTING" the respective parameters for all connected TSZ-230 modules can be specified together.

Menu item 4-0-3 "Text Locations"

This menu item is used to display and enter the text designations for output circuits, luminaire modules and LSSA modules.

TEXT LOCATION /E
/INIT /LA /OC /LSSA

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"E": exit current menu item
 "INIT": call-up menu item "Automatic read-in"
 "LA": call-up menu item "Text designations for luminaire modules"
 "OC": call-up menu item "Text designations for output circuits"
 "LSSA": call-up menu item "Text designations for LSSA modules"

"INIT" – Automatic read-in:

With this function the text designations of the output circuits, luminaire modules and LSSA modules can be reset (standard text designations). The reset procedure is done automatically.

"LA" – Text designations for luminaire modules:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "Lnn": luminaire module address

+E X1/M1/C1/L02
 [X1 M1 C1 1]
 [X1 M1 C1 2] ok

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards
 "-": scroll backwards
 "E": save inputs and exit current menu item
 "ok": displace cursor

Line 1: installation position and luminaire module address
 Line 2: first free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)
 Line 3: second free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)

"OC" – Text designations for output circuits:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit

+E X1/M1/C2
 [X1 M1 C1]
 [X1 M1 C2] ok

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards
 "-": scroll backwards
 "E": save inputs and exit current menu item
 "ok": displace cursor

- Line 1: installation position
 Line 2: first free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)
 Line 3: second free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)

"LSSA" – Text designations for LSSA modules:

"Mnn": LSSA module

"En": LSSA module input

+E LSSA M01/E2

[LSSA 1/1]

[LSSA 1/2] ok

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"ok": displace cursor

- Line 1: LSSA module and LSSA module input
 Line 2: first free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)
 Line 3: second free programmable designation line which can be edited over menu item 4-0-3
 "Text Locations" or with Logica Visual (max. 10 digits)

Menu item 4-0-4 "LA-Blinking"

When using luminaire modules (EÜ) an optical tagging by switch-on, switch-off or blinking of the luminaire modules can be enabled to find the respective installation locations. By pressing the button T1 the current menu can be left.



Note:

To use the functions of menu item 4-0-4 "LA Blinking" the general permanent setting must be switched on over the switch "S2" "PERMANENT SETTING ON/OFF" and over all other equipment.

LA SELECT BY:
/ID /ROTARY

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"ID": call-up menu item "Selection by ID number"

"ROTARY": call-up menu item "Selection by luminaire module address"

"T1": exit current menu item

ID – Selection by predefined ID number (hexadecimal code at ALOG system):

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"Lnn": luminaire module address (automatic occupation by ALOG system)

+E X1/M1/C1:
- AK1E MEB2 -

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards

"-": scroll backwards

"E": call-up following menu item

Line 1: installation position

Line 2: information of output circuit (properties)

LA TXRX BY ID
000000 /E

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"E": call-up following menu item

"nnnnnn": ID number of ALOG module

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"Lnn": luminaire module address (99 = in this menu not used with ALOG modules)

X1/M1/C1/L99

0=OFF(OFF)

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"0" OFF – luminaire module will be switched off

"1" ON – luminaire module will be switched on

"2" TGL – luminaire module blinks

"(nnn)": switching state of the luminaire module

ROTARY – Selection by adjusted luminaire module address (rotary switch at SLEB system):

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"nn": luminaire module address (manual occupation at SLEB system)

+ET X1/M1/C1/01

LA 041D3C 01 3

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards

"-": scroll backwards

"E": exit current menu item

"T": call-up following menu item

Line 1: installation position and luminaire module address

Line 2: information of SLEB luminaire module

(hexadecimal code, luminaire module address, assignment sign)

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"Lnn": luminaire module address

X1/M1/C1/L01

0=OFF(OFF)

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"0" OFF – luminaire module will be switched off

"1" ON – luminaire module will be switched on

"2" TGL – luminaire module blinks

"(nnn)": switching state of the luminaire module

Menu item 4-0-5 "External OM"

A manual entry for the installed output circuit cards regarding the installation location can be performed here. Thereby the device can distinguish between internal and external output circuit cards. "+" and "-" are used to select the control frames (X) and their output circuit cards (M).

"Xn": frame

"Mn": output circuit card

+E X1/M1
1=EXTERNAL OM

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

List of assignment signs for output circuit cards:

"0": internal output circuit card (factory setting)

"1": external output circuit card



Note:

An automatic read-in for determination of the assignment signs regarding the installation location of the output circuit cards is not available.

Menu item 4-0-6 "Modbus"

The main station bus (RS485) on the main control frame of a main station can either be used as a company-specific interface or as a Modbus interface.

The following interfaces can be assigned to the main station bus on the main control frame of a main station:

MODBUS
MODBUS: 0 ok

software versions:

starting from V80.15 (SLEB and ALOG)

starting from V81.15 (SLEB and ALOG)

"0": company-specific interface (factory setting)

"1": Modbus interface

"ok": save inputs and exit current menu item



Attention:

If the main station bus is used as Modbus interface then the use of Logica Visual is not possible.

Menu item 4-0-7 "Virtual LSSA"

A manual entry to generate virtual LSSA modules regarding the command initiation can be performed here. Thereby LSSA module addresses can be defined as physical or as virtual. A physical LSSA module address can only be used together with a physically present LSSA module whereby the command initiation can only be performed over the switch inputs of the LSSA module. A virtual LSSA module address can be used together with a physically present LSSA module or without a physically present LSSA module whereby the command initiation can only be performed over Logica Visual. "+" and "-" are used to select the address ranges for the LSSA modules.

The LSSA module addresses from 1 to 8 resp. from 9 to 16 are assigned in ascending order from left to right.

+E VLS CONFIG.:

01-08:00000000

software versions:

starting from V80.33 (SLEB and ALOG)

starting from V81.27 (SLEB and ALOG)

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"1-8": address range for the LSSA module addresses from 1 to 8

"9-16": address range for the LSSA module addresses from 9 to 16

"0": respective LSSA module address physical (factory setting)

"1": respective LSSA module address virtual

Menu item 4-1 "Input Modules"

Internal and external LSSA modules can be connected to the device via the LSSA bus connector on the main control frame. These are LSSA-230, LSSA-24 and TSZ-230 modules.

For the software versions from V62.01 to V62.20 (SLEB) and from V70.01 to V70.15 (ALOG) the following is valid:

- > A maximum of 8 LSSA modules can be connected to the device via the LSSA bus connector on the main control frame.

For the software versions starting from V62.21 (SLEB) and V70.16 (ALOG) as well as starting from V80.01 (SLEB and ALOG) and starting from V81.01 (SLEB and ALOG) the following is valid:

- > A maximum of 16 LSSA modules can be connected to the device via the LSSA bus connector on the main control frame.



Note:

The LSSA modules are designated with "M1" to "M8" resp. "M16" in the menu item. The numbering corresponds to the addressing. NGB-K systems with integrated LSSA switch inputs do not support internal and external LSSA modules. The address 1 is used to address the integrated functionality on these devices.

+E M1/E1: OFF
FUNCTION: ????

- "+": scroll forwards
- "-": scroll backwards
- "E": save inputs and exit current menu item

"+" and "-" are used to select the LSSA modules (M) and their switch inputs (E). "ON" and "OFF" represent the current signal state at the respective switch input. The following LSSA functions can be assigned to the switch inputs:

"LSxx":	light switch setting query	"ON":	light ON
"NPxx":	inverted light switch setting query	"ON":	light OFF
"SDxx":	sub distribution monitoring	"ON":	mains supply present
"TSxx":	stairway light switch query	"ON":	impulse for light ON
"RSxx":	switch query for reset	"ON":	impulse for reset
"????":	not assigned		

The numbering "xx" (1-64) of the LSSA functions defines logical inputs that can be entered as control parameters in menu item 4-3 "Line Operating Modes" and 4-9 "LA-Operating Modes". The two LSSA functions for the light switch setting query "LSxx" and the inverted light switch setting query "NPxx" share the same numbering "xx" (1-64). Therefore the same number may not be used for both LSSA functions. Switch inputs of one or more LSSA modules can be defined with the same number and LSSA function.



Attention:

Regarding the LSSA function for the sub distribution monitoring "SDxx" the following is valid:

The number "64" of the logical inputs in menu item 4-1 "Input Modules" is intended as function extension for special applications with twilight switches and may not be used otherwise.



Note:

The signal state of all existing module inputs is displayed hexadecimal at menu item 9-3-1 "LSSA TEST".

Menu item 4-2 "Week Timer Program"

Two week time programs can be configured which become effective in the line operating mode "PST" (permanent setting time-controlled) as well as in the LA operating mode "PST" (permanent setting time-controlled) for the respective output circuit resp. the respective luminaire module. Additionally it is possible to define a maximum of twenty days on which the lighting stays switched off independently on the entered switch-on times.

WEEK PROGRAM
/E /WP1/WP2 /OFF

"E": exit current menu item

"WP1": week time program 1

"WP2": week time program 2

"OFF": switch-off days

"WP1 / WP2" – week time program one / week time program two:

"Mo": Monday

"Tu": Tuesday

"We": Wednesday

"Th": Thursday

"Fr": Friday

"Sa": Saturday

"Su": Sunday

WP1 Ton-Toff +-E
Mo1: 00:00-00:00

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"00:00-00:00": not enabled (factory setting)

Input format: HOURS:MINUTES

A controlled switching of the respective output circuit resp. the respective luminaire module is configurable via the week time menu items. "+" and "-" is used to select the single weekdays. For each day of the week up to five switch times are selectable.

"OFF" – switch-off days:

"No": switch-off day (1 to 20)

OFF-DAYS: +-E
No01: 00.00.0000

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"00.00.0000": not enabled (factory setting)

Input format: DAY.MONTH.YEAR

Menu item 4-3 "Line Operating Modes"

Each single output circuit can be assigned with its own operating mode. The Operating mode "CC" (permanent setting) is the factory setting. Changes can be made by selecting the control frame, the output circuit card and the output circuit.



Attention:

If an operating mode other than "1=CC" is assigned to an output circuit in menu item 4-3 "Line Operating Modes", then the operating mode "1=CC" must be assigned to the respective luminaire modules in menu item 4-9 "LA-Operating Modes".

To use the functions of menu item 4-3 "Line Operating Modes" the general permanent setting must be switched on over the switch "S2" "PERMANENT SETTING ON/OFF" and over all other equipment.

Line 1: control frame / output circuit card / output circuit

Line 4: free programmable designation line which can be edited over menu item 4-0-3 "Text Locations" or with Logica Visual (max. 20 digits)

"0=" – output circuit not occupied

"1=CC" – permanent setting:

+E 1/1/1 1=CC

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

The output circuit is switched on in permanent setting. The output circuit will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"2=CCT" – permanent setting time-controlled:

+E 1/1/1 2=CCT
TIME PROGRAM: 0

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "0" not enabled (factory setting)

"1" week time program 1 is enabled

"2" week time program 2 is enabled

The output circuit will be switched by either week timer program 1 or 2. The output circuit will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"3=CCS" – permanent setting switchable:

+E 1/1/1 3=CCS
LS00 SD00

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "LS" logical input with light switch function

"SD" logical input with sub-distribution monitoring

The output circuit is switched depending on the logical input "LSxx" and the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, "LSxx" has a direct effect on the output circuit. The output circuit is switched on independently of "LSxx" as soon as the "SDxx" signal is off. The output circuit will be also switched on in case of a general supply failure (on the emergency light station).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "LSxx" where the "LSxx" signal is permanently processed as off.

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).

"4=SS" – standby:

+E 1/1/1 4=SS

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

The output circuit is switched off in standby. The output circuit will be switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"5=SSCC" – standby, switchable to permanent setting:

+E 1/1/1 5=SSCC
LS00

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "LS" logical input with switch function

The output circuit is switched depending on the logical input "LSxx".

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "LSxx" where the "LSxx" signal is permanently processed as on.

"LSxx" on (standby):

The output circuit is switched off in standby. The output circuit will be switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"LSxx" off (permanent setting):

The output circuit is switched on in permanent setting. The output circuit will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"6=SSNE" – standby with own mains emergency switch-over:

**+E 1/1/1 6=SSNE
SD00 RS00**

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "SD" logical input with sub-distribution monitoring

"RS" logical input with reset function

The output circuit is switched depending on the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, the output circuit is switched off. The output circuit is switched on as soon as the "SDxx" signal is off. The output circuit will be also switched on in case of a general supply failure (on the emergency light station).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "RSxx" where the "RSxx" signal is permanently processed as on.

Reset with "RSxx" on:

The output circuit will be switched off again after a sub distribution supply failure, which was detected over the logical input "SDxx", if the signal of the logical input "RSxx" is on for a short time or permanently. This reset function takes no effect in case of a general supply failure (on the emergency light station).

"7=STC" – stairway switching, time-controlled:

+E 1/1/1 7=STC
TS00 Durat: 00m

Line 6 3rd floor left

power-on duration

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Setting range: 0-99 minutes (factory setting: 0 minutes, light switch function not activated)

Line 2: "TS" logical input with light switch function

The output circuit is switched depending on the logical input "TSxx".

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "TSxx" where the "TSxx" signal is permanently processed as off.

Adjusted duration 0 minutes:

The output circuit will not be switched on by an impulse signal of the logical input "TSxx". The output circuit will not be switched on during a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

Adjusted duration starting from 1 minute:

The output circuit will be switched on for the adjusted duration by an impulse signal of the logical input "TSxx". The output circuit will be also switched on for the adjusted duration during a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring). "TSxx" has also effect on the output circuit in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).



Attention:

The necessary switch inputs for this function according to DIN VDE 0108-4, par. 6.2 and DIN VDE 0108-5, par. 6.2 are only provided by TSZ modules.

The settings regarding menu item 4-0-2 "TSZ-Setting" must be observed.

"8=" – optional, designated for function extensions

"9=CCSD" – permanent setting with battery output voltage for "SDxx" per output circuit card:

+E 1/1/1 9=CCSD
SD00

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "SD" logical input with sub-distribution monitoring

The selected output circuit is switched depending on the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, the selected output circuit is switched off. The selected output circuit is switched on as soon as the "SDxx" signal is off. The selected output circuit will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).



Attention:

Use this function only if it is absolutely necessary, because the battery supply is being discharged even though the mains supply is still present on the emergency light station. Country-specific norms regarding this function have to be observed.

General supply failure:

In case of a general supply failure (on the emergency light station) the selected output circuit is switched on with the respective battery output voltage. Thereby the battery supply (battery operation – DC) will be discharged.

Partial supply failure:

In case of an interruption of the critical circuit (for sub distribution monitoring) the selected output circuit is switched on with the respective mains output voltage. Thereby the battery supply will not be discharged (mains operation – AC).

If the "SDxx" signal is off, the selected output circuit is switched on with the respective battery output voltage. Thereby the battery supply (battery operation – DC) will be discharged.

Further output circuits of the respective output circuit card – collaboration:

If the respective output circuit card is equipped with more than one output circuit and the "SDxx" signal on the selected output circuit is off, then a switch-on of the other output circuits with the respective battery output voltage takes place on demand. Thereby the battery supply (battery operation – DC) will be discharged. This is valid for the switch-on functions of all operating modes and all supply failures.

Menu item 4-4 "Emergency Overrun Time"

OVERRUN-DURATION
000:05 mmm:ss ok

overrun time

"ok": save inputs and exit current menu item

Setting range: 0-999:59 minutes / seconds (factory setting: 5 seconds)

Input format: MINUTES:SECONDS

After a general supply failure (on the emergency light station) followed by a return of the mains supply the respective emergency light station stays on battery supply for the adjusted time and then switches back to mains supply. This delay function takes only effect at a general supply failure (on the emergency light station). This is not valid in case of an interruption of the critical circuit (for sub distribution monitoring) or if the supply failure was detected over the logical input "SDxx". The emergency overrun time can be interrupted by pressing the button "T6". The change to mains supply is then immediate.

Menu item 4-5 "SS-Resetting"

As well as the emergency overrun time the SS-resetting time is based upon the moment when the mains supply on an emergency light station resp. the mains supply on a monitored sub distribution is re-established. The output circuits and luminaires can be reset to standby either automatically following a configured SS-resetting time or manually by pressing the button "T6". This function applies in case of an interruption of the critical circuit (for sub distribution monitoring) but not if the supply failure was detected over the logical input "SDxx".

The emergency overrun time will be executed whereas a smaller SS-resetting time compared to the emergency overrun time has no effect. A larger SS-resetting time compared to the emergency overrun time will take effect with the time-wise difference where the emergency light station is switching back to the mains supply however the output circuits and luminaires are still switched on for the rest of the SS-resetting time.

SS-RESETTING

1=AUTOMAT.: 1 ok

"ok": save inputs and exit current menu item

resp. call-up following menu item

"1": automatic reset (factory setting)

"0": manual reset

An automatic reset displays the following menu item:

OVERRUN-DURATION

000:10 mmm:ss ok

resetting time

"ok": save inputs and exit current menu item

Setting range: 0-999:59 minutes / seconds (factory setting: 10 seconds)

Input format: MINUTES:SECONDS

The time up to the automatic reset can be configured here.



Note:

The possibility to reset manually is displayed by the active LED for SS-Resetting on the display unit.

Menu item 4-6 "Blower Timings"

The activation of the blower may happen periodically or after an emergency operation. The blower relay is located at the main control frame. Its intended purpose is to drive a blower to dissipate a possible explosive atmosphere and heat from the batteries. Normally an auxiliary voltage is needed to drive external blowers because of the electrical power consumption. It should be noted that a normal auxiliary voltage is not present during a general supply failure. Therefore a connected blower can not work during this condition.

/E /PERIODICALLY
/AFTER EMERG.OP.

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

from V80.01 to V80.06 (SLEB and ALOG)

from V81.01 to V81.06 (SLEB and ALOG)

"E": exit current menu item

"PERIODICALLY": periodically switching of the blower relay

"AFTER EMERG.OP.": switching after emergency operation with battery supply

/E /PERIODICALLY
/AFTER EME. /REL.

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"E": exit current menu item

"PERIODICALLY": periodically switching of the blower relay

"AFTER EME.": switching after emergency operation with battery supply

"REL.": enable blower relay



Note:

From the software versions V62.01 to V62.23 (SLEB), from V70.01 to V70.18 (ALOG), from V80.01 to V80.06 (SLEB and ALOG) and from V81.01 to V81.06 (SLEB and ALOG) the following is valid:

The blower relay can be enabled in menu item 9-3-9 "BLOWER RELAY".

"PERIODICALLY" – periodically:

The blower relay on the main control frame is switched to the condition off by a configurable period and a power-on duration.

PERIOD: 05 Min.
DURAT. 01 Min. /E

period and power-on duration

"E": save inputs and exit current menu item

Setting range: 0-99 minutes for period (factory setting: 5 minutes)

0-99 minutes for power-on duration (factory setting: 1 minute)



Note:

The power-on duration must be less than the period. If both values are equal, the blower relay is permanently switched to the condition off.

"AFTER EMERG.OP." / "AFTER EME." – after emergency operation:

The blower relay on the main control frame is switched to the condition off by a configurable power-on duration after an emergency operation (with battery supply).

EMERG.OP.OVERRUN
DURAT. 05 Min. /E

power-on duration

"E": save inputs and exit current menu item

Setting range: 0-99 minutes (factory setting: 5 minutes)



Note:

At factory setting both functions are taking effect at the same time. To deactivate a single function their power-on duration can be set to "00".

"REL." – relay:

BLOWER RELAY
ENABLE: 0 E

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"E": save inputs and exit current menu item

"0" blower relay not enabled (factory setting)

"1" blower relay enabled

Menu item 4-7 "CC-Line Timings"

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit

+E X1 / M1 / C1
 O-DURAT. 000 Min.

operation time

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Setting range: 0-255 minutes (factory setting: depending on software version)

Every single output circuit can be assigned with an operation time. This time has an effect on the respective output circuit resp. on its luminaire modules (depending on software version) in emergency mode during a supply failure.

For the software versions from V62.01 to V62.23 (SLEB) and from V70.01 to V70.18 (ALOG) as well as from V80.01 to V80.06 (SLEB and ALOG) and from V81.01 to V81.06 (SLEB and ALOG) the following is valid in emergency mode during a supply failure:

- > If the adjusted operation time (menu item 4-7) is equal to or higher than the adjusted test time (menu item 3) with a value starting from 1 minute, the respective output circuits will not be switched off. The luminaire modules on the respective output circuits will be switched off (at single monitoring).
- > If the adjusted operation time (menu item 4-7) is lower than the adjusted test time (menu item 3) with a value starting from 1 minute, the respective output circuits will be switched off.
- > If the adjusted operation time (menu item 4-7) has a value of 0 minutes, the respective output circuits as well as their luminaire modules will not be switched off. The adjusted test time (menu item 3) has no effect on the adjusted operation time (menu item 4-7). This adjustment variation must be selected for an operation without limitation of the operation time of output circuits resp. luminaire modules.

For the software versions starting from V80.07 (SLEB and ALOG) and starting from V81.07 (SLEB and ALOG) the following is valid in emergency mode during a supply failure:

- > The adjusted test time (menu item 3) has generally no effect on the adjusted operation time (menu item 4-7). The adjusted test time (menu item 3) as well as the adjusted operation time (menu item 4-7) are switching generally no luminaire modules off (at single monitoring).
- > If the adjusted operation time (menu item 4-7) has a value of 1 minute to 255 minutes, the respective output circuits will be switched off.
- > If the adjusted operation time (menu item 4-7) has a value of 0 minutes, the respective output circuits will not be switched off. This adjustment variation must be selected for an operation without limitation of the operation time of output circuits.

**Attention:**

To accomplish a correct setting regarding the test time ("B-TEST-DURATION") in relation with the operation time ("O-DURATION") it is strictly necessary to read all explanations of menu item 3 "B-test parameters" as well as menu item 4-7 "OC Duration test times" before performing any programming steps in menu item 3 or 4-7.

The settings in menu item 3 "B-test parameters" as well as in menu item 4-7 "OC Duration test times" must be checked and changed if required after any changes regarding the output circuit cards (repair, exchange with identical or other models).

The operation time has effect on the respective output circuit resp. on its luminaire modules in emergency mode during a supply failure. In most of the technical standards it is not allowed to limit the operation time. This means for example that a 1-hour installation shall not be switched off by the device after one hour, but rather the possible time of the battery supply must be ensured. Consequently this adjustment should be set to 0 minutes (= infinite).

Menu item 4-8 "LA-LSSA Function"

This menu item is used together with the luminaire modules of the SLEB and ALOG series.

Each single luminaire module can be assigned with its own LA-LSSA function, if a local LSSA input is present on the respective luminaire module. Changes can be made by selecting the control frame, the output circuit card, the output circuit and the luminaire module.



Attention:

If a LA-LSSA function is assigned to a luminaire module in menu item 4-8 "LA-LSSA-Function", then the operating mode "1=CC" must be assigned to the respective output circuit in menu item 4-3 "Line Operating Modes".

To use the functions of menu item 4-8 "LA-LSSA-Function" the general permanent setting must be switched on over the switch "S2" "PERMANENT SETTING ON/OFF" and over all other equipment.

A maximum of 12 LA-LSSA functions may be used per output circuit.

The sub distribution monitoring "SDxx" in menu item 4-8 "LA-LSSA-Function" is intended as function extension for special applications and may not be used otherwise.

The following display message is shown while opening menu item 4-8 "LA-LSSA-Function" if no luminaire modules were read in before.

JOKER-EVGs
NOT FOUND!

A read-in can be done in menu item 5 "Configuration".

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"Lnn": luminaire module address

+E X1/M1/C1/L06
LSSA: ???? (OFF)

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"+" and "-" are used to select the luminaire modules (L). "ON" and "OFF" represent the current signal state at the respective switch input. The following LA-LSSA functions can be assigned to the switch inputs:

"LSxx":	light switch setting query	"ON":	light ON
"NPxx":	inverted light switch setting query	"ON":	light OFF
"SDxx":	sub distribution monitoring	"ON":	mains supply present
"TSxx":	stairway light switch query	"ON":	impulse for light ON
"RSxx":	switch query for reset	"ON":	impulse for reset
"????":	not assigned		

The numbering "xx" (1-64) of the LA-LSSA functions defines logical inputs that can be entered as control parameters in menu item 4-3 "Line Operating Modes" and 4-9 "LA-Operating Modes". The two LA-LSSA functions for the light switch setting query "LSxx" and the inverted light switch setting query "NPxx" share the same numbering "xx" (1-64). Therefore the same number may not be used for both LA-LSSA functions. Switch inputs of different luminaire modules can be defined with the same number and LA-LSSA function.



Attention:

Regarding the LA-LSSA function for the sub distribution monitoring "SDxx" the following is valid:

The number "64" of the logical inputs in menu item 4-8 "LA-LSSA-Function" is intended as function extension for special applications with twilight switches and may not be used otherwise.

Menu item 4-9 "LA-Operating Modes"

This menu item is used together with the luminaire modules of the SLEB and ALOG series.

Each single luminaire module can be assigned with its own operating mode. The Operating mode "CC" (permanent setting) is the factory setting. Changes can be made by selecting the control frame, the output circuit card, the output circuit and the luminaire module.



Attention:

If an operating mode other than "1=CC" is assigned to a luminaire module in menu item 4-9 "LA-Operating Modes", then the operating mode "1=CC" must be assigned to the respective output circuit in menu item 4-3 "Line Operating Modes".

To use the functions of menu item 4-9 "LA-Operating Modes" the general permanent setting must be switched on over the switch "S2" "PERMANENT SETTING ON/OFF" and over all other equipment.

The following display message is shown while opening menu item 4-9 "LA-Operating Modes" if no luminaire modules were read in before.

JOKER-EVGs
NOT FOUND!

A read-in can be done in menu item 5 "Configuration".

Line 1: "Xn": frame

"Mn": output circuit card

"Cn": output circuit

"Lnn": luminaire module address

Line 4: free programmable designation line which can be edited over menu item 4-0-3 "Text Locations" or with Logica Visual (max. 20 digits)

"1=CC" – permanent setting:

+E X1/M1/C1/L06
1=CC
Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

The luminaire module is switched on in permanent setting. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"2=CCT" – permanent setting time-controlled:

+E X1/M1/C1/L06
2=CCT /TPROG: 0

Line 6 3rd floor left

"+": scroll forwards
"-": scroll backwards
"E": save inputs and exit current menu item

Line 2: "0" not enabled (factory setting)
"1" week time program 1 is enabled
"2" week time program 2 is enabled

The luminaire module will be switched by either week timer program 1 or 2. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"3=CCS" – permanent setting switchable:

+E X1/M1/C1/L06
3=CCS /LS00/SD00

Line 6 3rd floor left

"+": scroll forwards
"-": scroll backwards
"E": save inputs and exit current menu item

Line 2: "LS" logical input with light switch function
"SD" logical input with sub-distribution monitoring

The luminaire module is switched depending on the logical input "LSxx" and the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, "LSxx" has a direct effect on the luminaire module. The luminaire module is switched on independently of "LSxx" as soon as the "SDxx" signal is off. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "LSxx" where the "LSxx" signal is permanently processed as off.

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).

"4=SS" – standby:

+E X1/M1/C1/L06
4=SS

Line 6 3rd floor left

"+": scroll forwards
"-": scroll backwards
"E": save inputs and exit current menu item

The luminaire module is switched off in standby. The luminaire module will be switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"5=SSCC" – standby, switchable to permanent setting:

+E X1/M1/C1/L06

5=SSCC /LS00

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "LS" logical input

This operating mode is intended as function extension for special applications and may not be used otherwise.

Factory settings:

The luminaire module is switched depending on the logical input "LSxx" (factory setting: switching not enabled).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "LSxx" where the "LSxx" signal is permanently processed as on.

"LSxx" on (standby, factory setting: switching not enabled):

The luminaire module is switched off in standby (factory setting: switching not enabled). The luminaire module will be switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"LSxx" off (permanent setting):

The luminaire module is switched on in permanent setting. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"6=SSNE" – standby with own mains emergency switch-over:

+E X1/M1/C1/L06
6=SSNE/SD00/RS00

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "SD" logical input with sub-distribution monitoring

"RS" logical input with reset function

The luminaire module is switched depending on the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, the luminaire module is switched off. The luminaire module is switched on as soon as the "SDxx" signal is off. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "RSxx" where the "RSxx" signal is permanently processed as on.

Reset with "RSxx" on:

The luminaire module will be switched off again after a sub distribution supply failure, which was detected over the logical input "SDxx", if the signal of the logical input "RSxx" is on for a short time or permanently. This reset function takes no effect in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

"7=STC" – stairway switching, time-controlled:

+E X1/M1/C1/L06
7=TS00 DURAT:00m

Line 6 3rd floor left

power-on duration

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Setting range: 0-99 minutes (factory setting: 0 minutes, light switch function not activated)

Line 2: "TS" logical input with light switch function

The luminaire module is switched depending on the logical input "TSxx".

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "TSxx" where the "TSxx" signal is permanently processed as off.

Adjusted duration 0 minutes:

The luminaire module will not be switched on by an impulse signal of the logical input "TSxx". The luminaire module will be switched on during a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).

Adjusted duration starting from 1 minute:

The luminaire module will be switched on for the adjusted duration by an impulse signal of the logical input "TSxx". The luminaire module will be also switched on during a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring). "TSxx" has no effect on the luminaire module in case of a general supply failure (on the emergency light station) or interruption of the critical circuit (for sub distribution monitoring).



Attention:

The necessary switch inputs for this function are only provided by LSSA modules. An application according to DIN VDE 0108-4, par. 6.2 and DIN VDE 0108-5, par. 6.2 is not possible.

"8=CCSNE" – permanent setting, switchable with own mains emergency switch-over:

**+E X1/M1/C1/L06
8/LS00/SD00/RS00**

Line 6 3rd floor left

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

Line 2: "LS" logical input with light switch function

"SD" logical input with sub-distribution monitoring

"RS" logical input with reset function

Line 3: ID number (only ALOG system)

The luminaire module is switched depending on the logical input "LSxx" and the state of the sub-distribution monitoring "SDxx". If the "SDxx" signal is on, "LSxx" has a direct effect on the luminaire module. The luminaire module is switched on independently of "LSxx" as soon as the "SDxx" signal is off. The luminaire module will be also switched on in case of a general supply failure (on the emergency light station).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "LSxx" where the "LSxx" signal is permanently processed as off.

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "SDxx" where the "SDxx" signal is processed like the current signal of the critical circuit (for sub distribution monitoring).

By selection of the number "00" a fictive switch input (not defined) can be programmed for the logical input "RSxx" where the "RSxx" signal is permanently processed as on.

Reset with "RSxx" on:

The luminaire module will be switched off again after a sub distribution supply failure, which was detected over the logical input "SDxx", if the signal of the logical input "RSxx" is on for a short time or permanently. This reset function takes no effect in case of a general supply failure (on the emergency light station).

Menu item 5 "Configuration"

In this menu item it is possible to configure the output circuit cards as well as the luminaire modules which are installed for the respective emergency light station via different read-in procedures. Furthermore it is possible to setup the address of the main station and the addresses of possibly connected sub stations.

**OCCUPATION: /E
/OM+LA /COM /SS**

"E": exit current menu item
"OM+LA": configuration for output circuit cards and luminaire modules
"COM": configuration for main station
"SS": configuration for sub stations

"OM+LA" – configuration for output circuit cards and luminaire modules:

With this function the installed output circuit cards and the luminaire modules can be read in. The read-in procedure can be done automatically or manually.

**OM-, LA-OCCUPAT.:
/E /AUTO /MANU**

"E": exit current menu item
"AUTO": automatic occupation
"MANU": manual occupation

"AUTO" – automatic occupation:

**AUTO-OCCUPATION:
/E /OM /LA**

"E": exit current menu item
"OM": automatic occupation for output circuit cards
"LA": automatic occupation for EÜ luminaire modules and SÜ luminaire (circuits)

"OM" – automatic occupation for output circuit cards:

"Xn": frame

"Mn": output circuit card

AUTO-OM-OCCUPAT.:
/X1/M1

MODULES: 004
CIRCUITS: 005

An automatic read-in for the installed output circuit cards and the associated output circuits will be executed. The search results are displayed after the procedure is finished. By pressing the button T3 the search results can be confirmed to pass the result menu faster.

"LA" – automatic occupation for EÜ luminaire modules and SÜ luminaire (circuits):

AUTO-LA-OCCUPAT.
STOPMODE: N/Y

"N": start automatic occupation without stop per output circuit

"Y": start automatic occupation with stop per output circuit

An automatic read-in for the installed luminaire modules (EÜ) resp. a load measurement for the installed output circuits (SÜ) will be executed. The search results are displayed after the procedure is finished. By pressing the button T3 the search results can be confirmed to pass the result menu faster.

For all output circuits with circuit monitoring a percentage value ("TOLERANCE") regarding the deviation from a state with no illuminant resp. equipment failures must be defined. This is necessary to receive the respective failure messages of the output circuits in case of failures.

automatic occupation for SÜ luminaire (circuits):

The loads on the output circuits with circuit monitoring will be automatically saved.

Display during the load measurement:

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

X1/M2/C1 ok

CURR=0121 (0000)

I=0544mA P=0119W

"ok": continue (at stop per output circuit)

"nnnn": actual current (digital value) on the output circuit

"(nnnn)": saved current (digital value) of the output circuit

"I": actual current (in mA) on the output circuit

"P": actual power (in W) on the output circuit

automatic occupation for EÜ luminaire modules:



The addresses which were adjusted on the SLEB luminaire modules (rotary switch) by hand will be automatically read in and saved.

Display during the automatic read-in:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "Lnn": luminaire module address
 "Mn": search mode (EÜ)

X1/M1/C1/L32 M2
 3BBBBBBBBBBBBBBBB
 3BBBBBBBBBBBBBBBB

X1/M1/C1/L32 ok
 3BBBBBBBBBBBBBBBB
 3BBBBBBBBBBBBBBBB
 I=0544mA P=0119W

"ok": continue (at stop per output circuit)

"I": actual current (in mA) on the output circuit
 "P": actual power (in W) on the output circuit

The luminaire module addresses from 1 to 32 are displayed in ascending order from left to right. The upper address row is related to the addresses 1 to 16. The lower address row is related to the addresses 17 to 32.

List of assignment signs for luminaire modules of the types KCE, MEB and SLEB:

"B": no luminaire module found or bus failure
 "1": KCE luminaire module found, illuminant resp. connected equipment O.K.
 "L": KCE luminaire module found, illuminant resp. connected equipment defective
 "2": MEB luminaire module found, illuminant resp. connected equipment O.K.
 "J": MEB luminaire module found, illuminant resp. connected equipment defective
 "3": SLEB luminaire module found, illuminant resp. connected equipment O.K.
 "M": SLEB luminaire module found, illuminant resp. connected equipment defective
 "V": SLEB luminaire module found, bus failure on DALI bus related to the connected equipment

The failure related to the assignment sign "V" will only be detected during a function or battery test.

The failures related to the assignment signs "L" and "J" will be displayed during a function or battery test with the assignment sign "M" as a general failure for all module types.

Display of search results:

BUS-MODULES:
 COUNT: 002 ok

"ok": save inputs and exit current menu item



The hexadecimal codes which were programmed on the ALOG luminaire modules during the factory programming will be automatically read in and saved. Furthermore the hexadecimal codes are automatically assigned to a luminaire module address (virtual).

Display during the automatic read-in:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "Lnn": luminaire module address (virtual, automatically assigned)
 "Mn": search mode (EÜ)

X1/M1/C1
 RETRY: 3 FOUND: 02
 NO ANSWER...

X1/M1/C1/L32 M2
 3BBBBBBBBBBBBBBBB
 BBBBBBBBBBBBBBBB3

X1/M1/C1/L32 ok
 3BBBBBBBBBBBBBBBB
 BBBBBBBBBBBBBBBB3
 I=0562mA P=0133W

"ok": continue (at stop per output circuit)

"I": actual current (in mA) on the output circuit

"P": actual power (in W) on the output circuit

List of assignment signs for luminaire modules of the type ALOG:

"B": no luminaire module found or bus failure
 "3": ALOG luminaire module found, illuminant resp. connected equipment O.K.
 "M": ALOG luminaire module found, illuminant resp. connected equipment defective
 "V": ALOG luminaire module found, bus failure on DALI bus
 related to the connected equipment

The failure related to the assignment sign "V" will only be detected during a function or battery test.

Display of search results:

BUS-MODULES:
 COUNT: 002 ok

"ok": save inputs and exit current menu item

"MANU" – manual occupation:

MANU-OCCUPATION:
/E /OM /LA

"E": exit current menu item

"OM": manual occupation for output circuit cards

"LA": manual occupation for EÜ luminaire modules and SÜ luminaire (circuits)

"OM" – manual occupation for output circuit cards:

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

OM-OCCUPATION:
X1/M1/C1: 1 +-E

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

In this menu a manual entry for the installed output circuit cards and the associated output circuits can be performed by assignment signs.

List of assignment signs for output circuits:

"0": output circuit not occupied

"1": single monitoring output circuit EÜ

"2": circuit monitoring output circuit SÜ

"3": circuit monitoring output circuit SÜ-HL

"4": circuit monitoring output circuit SÜ-AC

"LA" – manual occupation for EÜ luminaire modules and SÜ luminaire (circuits):

A manual entry for the installed luminaire modules (EÜ) can be performed here. Furthermore a manual read-in for the installed luminaire modules (EÜ) resp. a load measurement for the installed output circuits (SÜ) can be executed.

For all output circuits with circuit monitoring a percentage value ("TOLERANCE") regarding the deviation from a state with no illuminant resp. equipment failures must be defined. This is necessary to receive the respective failure messages of the output circuits in case of failures.

manual occupation for SÜ luminaire (circuits):

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "n": assignment sign of output circuit

+-TIE X1/M2/C1 2
 TOLERANCE: 50%

"+": scroll forwards
 "-": scroll backwards
 "T": starts manual load measurement for selected output circuit,
 value can be saved
 "I": no function
 "E": save inputs and exit current menu item

A respective percentage value ("TOLERANCE") for all single output circuits with circuit monitoring regarding the deviation from a state with no illuminant resp. equipment failures can be defined within this menu.

Tolerance: 0 - 99 % (factory setting: 50 %)



Note:

In menu item 9-3-5 "SKUE-TOLERANCE" a general percentage value ("TOLERANCE") can be specified for all SÜ output circuits. A saving of this value overwrites all single values, which can be entered in menu item 5 "Configuration".

"T" – manual load measurement for selected output circuit:

A manual load measurement is executed on the selected output circuit with circuit monitoring and can be saved.

Display during the load measurement:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit

X1/M2/C1 ok
 CURR=0121 (0000)
 I=0544mA P=0119W

"ok": continue

"nnnn": actual current (digital value) on the output circuit
 "(nnnn)": saved current (digital value) of the output circuit
 "I": actual current (in mA) on the output circuit
 "P": actual power (in W) on the output circuit

Display message after the load measurement was confirmed with "T3":

NEW DATA ACCEPT ?	Y/N
----------------------	-----

"Y": save inputs

"N": do not save inputs

manual occupation for EÜ luminaire modules:



"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"n": assignment sign of output circuit

+-TE X1/M1/C1 1 0000000000000000 0000000000000000

"+": scroll forwards

"-": scroll backwards

"T": starts manual read-in procedure for luminaire modules
of the selected output circuit, results can be saved

"E": save inputs and exit current menu item

In this menu a manual entry for the installed luminaire modules can be performed by assignment signs.

The luminaire module addresses from 1 to 32 are displayed in ascending order from left to right. The upper address row is related to the addresses 1 to 16. The lower address row is related to the addresses 17 to 32.

List of assignment signs for luminaire modules of the types KCE, MEB and SLEB:

"B": no luminaire module found or bus failure

"1": KCE luminaire module found, illuminant resp. connected equipment O.K.

"L": KCE luminaire module found, illuminant resp. connected equipment defective

"2": MEB luminaire module found, illuminant resp. connected equipment O.K.

"J": MEB luminaire module found, illuminant resp. connected equipment defective

"3": SLEB luminaire module found, illuminant resp. connected equipment O.K.

"M": SLEB luminaire module found, illuminant resp. connected equipment defective

"V": SLEB luminaire module found, bus failure on DALI bus
related to the connected equipment

The failure related to the assignment sign "V" will only be detected during a function or battery test.

The failures related to the assignment signs "L" and "J" will be displayed during a function or battery test with the assignment sign "M" as a general failure for all module types.

"T" – manual read-in procedure for luminaire modules of the selected output circuit:

A manual read-in procedure is executed on the selected output circuit with single monitoring. Thereby the addresses which were adjusted on the SLEB luminaire modules (rotary switch) by hand will be automatically read in and can be saved.

Display during the manual read-in:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "Lnn": luminaire module address
 "Mn": search mode (EÜ)

X1/M1/C1/L32 M2
 3BBBBBBBBBBBBBBBBB
 3BBBBBBBBBBBBBBBBB

X1/M1/C1/L32 ok
 3BBBBBBBBBBBBBBBBB
 3BBBBBBBBBBBBBBBBB
 I=0544mA P=0119W

"ok": continue

"I": actual current (in mA) on the output circuit

"P": actual power (in W) on the output circuit

Display message after the read-in procedure was confirmed with "T3":

NEW DATA
 ACCEPT ? Y/N

"Y": save inputs

"N": do not save inputs

For the software versions from V62.01 to V62.23 (SLEB) the following is valid:

After the read-in procedure was finished a manual check for double addresses which were adjusted on the SLEB luminaire modules (rotary switch) by hand can be executed.

Display message after the manual read-in procedure was finished:

CHK ROTARY ? Y/N
3BBBBBBBBBBBBBBBB
3BBBBBBBBBBBBBBBB

software versions:
from V62.01 to V62.23 (SLEB)

"Y": start manual check for double luminaire module addresses

"N": exit current menu item

Display during the manual check:

"nn", left: quantity of check procedures

"nn", right: quantity of found luminaire modules

CHK ROTARY 03 03
3BBBBBBBBBBBBBBBB
3BBBBBBBBBBBBBBBB

ROTARY ERROR
3 ! BBBBBBBBBBBBBBBB
3BBBBBBBBBBBBBBBB

software versions:
from V62.01 to V62.23 (SLEB)

"!": double luminaire module address found

By pressing the button T3 the check results must be confirmed to pass the result menu, if double luminaire module addresses are present.



"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "n": assignment sign of output circuit

```
+-TIE X1/M1/C1 1
0000000000000000
0000000000000000
```

"+": scroll forwards
 "-": scroll backwards
 "T": starts manual read-in procedure for luminaire modules of the selected output circuit, results can be saved
 "I": shows the ID number (hexadecimal code) for each luminaire module of the selected output circuit, starting from software versions V80.02 (ALOG) and V81.02 (ALOG): possibility to change luminaire module addresses (virtual), inputs can be saved
 "E": save inputs and exit current menu item

In this menu a manual entry for the installed luminaire modules can be performed by assignment signs.

The luminaire module addresses from 1 to 32 are displayed in ascending order from left to right. The upper address row is related to the addresses 1 to 16. The lower address row is related to the addresses 17 to 32.

List of assignment signs for luminaire modules of the type ALOG:

"B": no luminaire module found or bus failure
 "3": ALOG luminaire module found, illuminant resp. connected equipment O.K.
 "M": ALOG luminaire module found, illuminant resp. connected equipment defective
 "V": ALOG luminaire module found, bus failure on DALI bus related to the connected equipment

The failure related to the assignment sign "V" will only be detected during a function or battery test.

"T" – manual read-in procedure for luminaire modules of the selected output circuit:

A manual read-in procedure is executed on the selected output circuit with single monitoring. Thereby the hexadecimal codes which were programmed on the ALOG luminaire modules during the factory programming will be automatically read in. Furthermore the hexadecimal codes are automatically assigned to a luminaire module address (virtual) and can be saved.

Display during the automatic read-in:

"Xn": frame
 "Mn": output circuit card
 "Cn": output circuit
 "Lnn": luminaire module address (virtual, automatically assigned)
 "Mn": search mode (EÜ)

X1/M1/C1
RETRY: 3 FOUND: 02
NO ANSWER...

X1/M1/C1/L32 M2
3BBBBBBBBBBBBBBBB
BBBBBBBBBBBBBBBB3

X1/M1/C1/L32 ok
3BBBBBBBBBBBBBBBB
BBBBBBBBBBBBBBBB3
I=0562mA P=0133W

"ok": continue

"I": actual current (in mA) on the output circuit

"P": actual power (in W) on the output circuit

Display message after the read-in procedure for the luminaire modules was confirmed with T3:

NEW DATA
ACCEPT ? Y/N

"I" – information:

This function is used together with the luminaire modules of the ALOG series.

"Xn": frame

"Mn": output circuit card

"Cn": output circuit

"nn": luminaire module address (virtual)

+EC X1/M1/C1/01
ALOG ID:041D3C

"+": scroll forwards

"-": scroll backwards

"E": exit current menu item

"C": starting from software versions V80.02 (ALOG) und V81.02 (ALOG):
change of luminaire module addresses (virtual)

"C" – change of luminaire module addresses (virtual):

This function is used together with the luminaire modules of the ALOG series.

ALOG ID:041D3C
ADDR:01(01) /E

software versions:
starting from V80.02 (ALOG)
starting from V81.02 (ALOG)

"E": save inputs and exit current menu item

"ALOG ID": hexadecimal code of the selected ALOG module

"nn": desired module address (virtual) of the selected ALOG module

"(nn)": current module address (virtual) of the selected ALOG module

"COM" – configuration for main station:

This function is used to specify the functions and addresses if an emergency light station should be connected to further emergency light stations. The sub station assignment "CS" is intended as function extension for special applications at NGB and NEA systems and may not be used otherwise.

Menu for CBS (NZB):

Menu for GBS (NGB):

Menu for MRS (NEA):

MS=1, SS=0: 0
ADDRESS: 01 ok

CM=1, CS=0: 0
ADDRESS: 01 ok

CM=1, CS=0: 0
ADDRESS: 01 ok

"ok": save inputs and exit current menu item

"1": MS – main station (for NZB) / CM – communication master (for NGB, NEA)

"0": SS – sub station (for NZB) / CS – communication slave (for NGB, NEA)

"ADDRESS": assignment of station bus address (1-30)

A maximum of 30 main station addresses can be used. If the respective emergency light station is set as MS resp. CM an automatic change to the menu for the sub station occupation will be executed.



Note:

Single main stations in a NGB/NZB system are autonomous working units regarding the required basic functionality. It is not mandatory to wire single main stations together on the main station bus or to connect a converter unit.



Attention:

It is not allowed to use the software programming of a NGB or NEA system to configure a main station as a sub station in combination with a cabling of a sub station bus. Within a NGB or NEA system all emergency light stations must be configured as main stations. A main station must be an autonomous working unit regarding the required basic functionality.

"SS" – configuration for sub stations:

SS-OCCUPATION:
/E /AUTO /MANU

"E": exit current menu item

"AUTO": automatic occupation

"MANU": manual occupation

A maximum of 30 sub station addresses can be used.

"AUTO" – automatic occupation for sub stations:

An automatic read-in procedure regarding connected sub stations will be executed followed by a summary of the results.

AUTO-SS-OCCUPAT.:
COUNT: 00

"MANU" – manual occupation for sub stations:

The address rows from 1 to 30 are assigned in ascending order from left to right.

+E SS-OCCUPAT.:
01-10:0000000000

"+": scroll forwards

"-": scroll backwards

"E": save inputs and exit current menu item

"1-10": address range for the station bus addresses from 1 to 10

"11-20": address range for the station bus addresses from 11 to 20

"21-30": address range for the station bus addresses from 21 to 30

"1": respective station bus address occupied as sub station

"0": respective station bus address not occupied



Attention:

Single sub stations in a NZB system are not autonomous working units regarding the required basic functionality. It is mandatory to wire sub stations together on the sub station bus of the associated main station.

Menu item 6 "Service name"

This menu item is used to display and enter the name and telephone number of the responsible service department resp. technician.

**FAULT SERVICE:
/DISPLAY/INPUT**

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

from V80.01 to V80.06 (SLEB and ALOG)

from V81.01 to V81.06 (SLEB and ALOG)

"DISPLAY": display of the data

"INPUT": input of the data

"T1": exit current menu item



Note:

Starting from the software versions V80.07 (SLEB and ALOG) and V81.07 (SLEB and ALOG) menu item 6 "Service name" is replaced by menu item 6-1 "Customer Service".

Menu item 6 "Information"

**INFO.: E123
--- END ---**

software versions:

from V80.07 to V80.24 (SLEB and ALOG)

from V81.07 to V81.24 (SLEB and ALOG)

"E": exit current menu item

**INFO.: E12345
--- END ---**

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"E": exit current menu item

Menu item 6-1 "Customer Service"

This menu item is used to display and enter the name and telephone number of the responsible service department resp. technician.

**CUSTOMER SERV.:
/DISPLAY/INPUT**

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"DISPLAY": display of the data

"INPUT": input of the data

"T1": exit current menu item

Menu item 6-2 "Print Configuration"

This menu item is used to print the configuration (device parameters) of the respective emergency light station. Depending on the display unit commercial practice memory cards of the type MMC (multi media cards), USB sticks or a printer can be used for the printing function.

To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card G32645D the Centronics printer interface on the display unit (KCGZ) can be used. To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card B23244000 the printer interface on the CPU card can be used. The printer must support the compatibility mode (line-oriented protocol) regarding the Centronics parallel interface.

For the printing function related to the option "MMC" a memory card of the type MMC (multi media card) must be inserted in the respective card slot which is located at the display unit (KCGZ). For the printing function related to the option "USB" an USB stick must be inserted in the respective USB port which is located at the display unit (KCGZ). For the printing function related to the option "PRINT" a suitable printer must be connected to the respective Centronics printer interface of the display unit (KCGZ) resp. the printer interface of the CPU card.

PRINT DATA ON:
/MMC /USB /PRINT

software versions:

starting from V80.07 (SLEB and ALOG)

starting from V81.07 (SLEB and ALOG)

"MMC": print on memory card of the type MMC
"USB": print on USB stick
"PRINT": print on printer
"T1": exit current menu item

> The printed file has the file name "configuration.txt".



Attention:

For the function related to the options "MMC" and "USB" the used memory card of the type MMC resp. the USB stick must be formatted in the file format FAT32. After a printing process regarding the options "MMC" and "USB" the printed file "configuration.txt" can be renamed over a computer for archiving. If a file with the file name "configuration.txt" remains after a printing process, this file will be overwritten without a previous prompt at a new printing process.

Menu item 6-3 "Read/Write CNF."

This menu item is used for read-in and read-out the configuration (device parameters) of the respective emergency light station. Depending on the display unit commercial practice USB sticks can be used for this function.

For the function related to the options "IN" and "OUT" an USB stick must be inserted in the respective USB port which is located at the display unit (KCGZ).

CNF <-> USB:
/E /IN /OUT

software versions:
starting from V80.07 (SLEB and ALOG)
starting from V81.07 (SLEB and ALOG)

"E": exit current menu item

"IN": read-in of the configuration from USB stick to emergency light station

"OUT": read-out of the configuration from emergency light station to USB stick

The following display message is shown if no USB stick is plugged in or was identified:

NO USB STICK
FOUND /E

software versions:
starting from V80.07 (SLEB and ALOG)
starting from V81.07 (SLEB and ALOG)

"E": exit current menu item

"IN" – read-in of the configuration from USB stick to emergency light station:

An automatic read-in procedure of the configuration will be executed from the USB stick to the emergency light station followed by an automatic deletion of the previously saved configuration file.

"OUT" – read-out of the configuration from emergency light station to USB stick:

An automatic read-out procedure of the configuration will be executed from the emergency light station to the USB stick where an automatic saving of the configuration file is done. At a new execution of the option "OUT" an already present configuration file would be overwritten.

> The saved configuration file has the file name "start_file".



Attention:

For the function related to the options "IN" and "OUT" the used USB stick must be formatted in the file format FAT32. Furthermore no other files or directories must be present on the USB stick except of the configuration file.

Menu item 6-4 "Chargers"

This menu item is used to display the operating data for charger cards of NZB systems which are installed in the respective main station. Furthermore it is possible to configure the charger cards via an automatic read-in procedure.



Note:

This menu item is not usable at NGB and NEA systems.

001 CHARGERS /E
/DISPLAY /INIT

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"E": exit current menu item

"DISPLAY": call-up menu item "Display of operating data"

"INIT": call-up menu item "Automatic read-in"

"nnn CHARGERS": quantity of found charger cards

"DISPLAY" – Display of operating data:

With this function the operating data of the charger cards can be displayed. "T3" is used to select the desired operating data.

ACTUAL CHARGE
248V 2000mA ->

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"T1": exit current menu item

"T3": display further operating data

"nnnV": total charge voltage [V] for battery supply (actual value)

"nnnnmA": total charge current [mA] for battery supply (actual value)

TEMPERATURE
Tbatt=020C ->

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"T1": exit current menu item

"T3": display further operating data

"Tbatt": ambient temperature [°C] for battery supply (external sensor, actual value)

TARGET CHARGE
Uchar=248V ->

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"T1": exit current menu item

"T3": display further operating data

"Uchar": total charge voltage [V] for battery supply (target value)

C#001 vnnn.n
248V 2000mA ->

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"T1": exit current menu item

"T3": display further operating data

"C#nnn": respective charger card address

"vnnn.n": software version of respective charger card

"nnnV": charge voltage [V] of respective charger card for battery supply (actual value)

"nnnnmA": charge current [mA] of respective charger card for battery supply (actual value)

"INIT" – Automatic read-in:

With this function the operating data of the charger cards can be read in new. The read-in procedure is done automatically.

Menu item 6-5 "Battery Monitor"

This menu item is used to display the operating data for battery modules which are installed in the respective main station.

018 BM /E
/DISPLAY

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"E": exit current menu item

"DISPLAY": call-up menu item "Display of operating data"

"nnn BM": quantity of found battery modules

"DISPLAY" – Display of operating data:

With this function the operating data of the battery modules can be displayed. "T3" is used to select the desired operating data.

BM01 VER.nn
Ubatt = 13,78V

software versions:

starting from V80.25 (SLEB and ALOG)

starting from V81.25 (SLEB and ALOG)

"T1": exit current menu item

"T3": display further operating data

"BMnn": respective battery module address

"VER.nn": software version of respective battery module

"Ubatt": voltage [V] of respective battery block of the battery supply

Menu item 7 "Test Reports"

The results of the manual and automatic function tests as well as the results of the manual and automatic battery tests are recorded here and can be displayed and printed in this menu item. Depending on the display unit commercial practice memory cards of the type MMC (multi media cards), USB sticks or a printer can be used for the printing function.

To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card G32645D the Centronics printer interface on the display unit (KCGZ) can be used. To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card B23244000 the printer interface on the CPU card can be used. The printer must support the compatibility mode (line-oriented protocol) regarding the Centronics parallel interface.

TEST REPORTS:
/E/DISPLAY/PRINT

"E": exit current menu item

"DISPLAY": display of the data

"PRINT": print of the data

If no reports were saved before the following display message appears and the device returns to the previous menu level:

**NO PROTOCOLS
TO FOLLOW!**

"DISPLAY" – display of the reports:

"+" and "-" are used to select the desired test. The test type and the test result are shown together with the respective start date and the start time.

"AFT": automatic function test

"MFT": manual function test

"RFT": remotely triggered function test (Logica Visual/LON)

"XFT": function test triggered by building management system (external switch input)

"AOT": automatic battery test

"MOT": manual battery test

"ROT": remotely triggered battery test (Logica Visual/LON)

"XOT": battery test triggered by building management system (external switch input)

"AIT": automatic insulation test

"MIT": manual insulation test

"RIT": remotely triggered insulation test (Logica Visual/LON)

"XIT": insulation test triggered by building management system (external switch input)

MFT: OK	-+DSPE
01.01.00	05:56

"-": scroll backwards
 "+": scroll forwards
 "D": display of the selected report
 "S": search for a report by entering a report date
 "P": print of the selected report
 "E": exit current menu item

Regarding the display of the reports, failures on output circuits which are supporting circuit monitoring (SÜ) are displayed localized up to the output circuit.

"MSnn": main station with respective address
 "SSnn": sub station with respective address
 "Xn": frame
 "Mn": output circuit card
 "Cn": output circuit

MS01: X1/M1/C1: ILLUMINAT. FAIL.

Regarding the display of the reports, failures on output circuits which are supporting single monitoring (EÜ) are displayed localized up to the luminaire module. The luminaire module addresses from 1 to 32 are displayed in ascending order from left to right. The upper address row is related to the addresses 1 to 16. The lower address row is related to the addresses 17 to 32.



With an SLEB system the failures are displayed with the respective luminaire module addresses.

"MSnn": main station with respective address
 "SSnn": sub station with respective address
 "Xn": frame
 "Mn": output circuit card
 "Cn": output circuit

MS01: X1/M1/C1: ILLUMINAT. FAIL.

MS01: X1/M1/C1

.....
.....I

- "I": no fault resp. luminaire module not present
- "B": no luminaire module found or bus failure
- "I": SLEB luminaire module found, illuminant resp. connected equipment defective
- "V": SLEB luminaire module found, bus failure on DALI bus related to the connected equipment



With an ALOG system the failures are displayed with the respective luminaire module addresses (virtual) and the hexadecimal codes.

- "MSnn": main station with respective address
- "SSnn": sub station with respective address
- "Xn": frame
- "Mn": output circuit card
- "Cn": output circuit

MS01: X1/M1/C1

I.....
.....

MS01: X1/M1/C1

LA01 ID: 041D3C

LIGHT

Line 6 3rd floor left

- "I": no fault resp. luminaire module not present
- "B": no luminaire module found or bus failure
- "I": ALOG luminaire module found, illuminant resp. connected equipment defective
- "V": ALOG luminaire module found, bus failure on DALI bus related to the connected equipment

"PRINT" – print of the reports:

For the printing function related to the option "MMC" a memory card of the type MMC (multi media card) must be inserted in the respective card slot which is located at the display unit (KCGZ). For the printing function related to the option "USB" an USB stick must be inserted in the respective USB port which is located at the display unit (KCGZ). For the printing function related to the option "PRINTER" resp. "PRINT" a suitable printer must be connected to the respective Centronics printer interface of the display unit (KCGZ) resp. the printer interface of the CPU card.

PRINT REPORTS:

ALL /000REPO. /E

- "ALL": print all reports
- "nnnREPO.": print selected report quantity (starting with the oldest protocol)
- "E": exit current menu item resp. call-up following menu item



Attention:

For the function related to the options "MMC" and "USB" the used memory card of the type MMC resp. the USB stick must be formatted in the file format FAT32.

"ALL" – print of all reports:

With this option all reports can be printed.

PRINT REPORTS:
Y/N

"Y": print report(s)

"N": do not print report(s)

PRINT DATA ON:
/MMC /PRINTER

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

"MMC": print on memory card of the type MMC

"PRINTER": print on printer

PRINT DATA ON:
/MMC /USB /PRINT

software versions:

starting from V80.01 (SLEB and ALOG)

starting from V81.01 (SLEB and ALOG)

"MMC": print on memory card of the type MMC

"USB": print on USB stick

"PRINT": print on printer

The following display message is shown after the printing procedure:

nnn REPORTS:
DELETE ? N/Y

"N": do not delete report(s)

"Y": delete report(s)

The following option "ALL REPORTS DELETE ?" is only displayed if "N" was selected within the previous display message "PRINT REPORT Y/N" or if no button was pressed for one minute.

ALL REPORTS:
DELETE ? N/Y

"N": do not delete report(s)

"Y": delete report(s)

"nnnREPO." – print of a selectable quantity of reports:

With this option the quantity of the reports which should be printed starting with the first recorded report can be entered.

After leaving the menu with "E" the following display message is shown if at least one report was selected:

PRINT REPORT:

Y/N

"Y": print report(s)

"N": do not print report(s)

PRINT DATA ON:
/MMC /PRINTER

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

"MMC": print on memory card of the type MMC

"PRINTER": print on printer

PRINT DATA ON:
/MMC /USB /PRINT

software versions:

starting from V80.01 (SLEB and ALOG)

starting from V81.01 (SLEB and ALOG)

"MMC": print on memory card of the type MMC

"USB": print on USB stick

"PRINT": print on printer

The following display message is shown after the printing procedure:

nnn REPORTS:

DELETE ? N/Y

"N": do not delete report(s)

"Y": delete report(s)



Note:

If reports of a single emergency light station were deleted it is necessary to delete also the respective reports on all other emergency light stations to avoid data inconsistency.

Menu item 8 "Event Reports"

Specific device failures and the switching state of the emergency light station as well as the different kinds of mains failures are recorded here (events) and can be displayed and printed in this menu item. Depending on the display unit commercial practice memory cards of the type MMC (multi media cards), USB sticks or a printer can be used for the printing function.

To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card G32645D the Centronics printer interface on the display unit (KCGZ) can be used. To connect a printer to an emergency light station with a display unit (KCGZ) in combination with the CPU card B23244000 the printer interface on the CPU card can be used. The printer must support the compatibility mode (line-oriented protocol) regarding the Centronics parallel interface.

ERRORS:
/E/DISPLAY/PRINT

"E": exit current menu item

"DISPLAY": display of the data

"PRINT": print of the data

If no events were saved before the following display message appears and the device returns to the previous menu level:

**NO PROTOCOLS
TO FOLLOW!**

"DISPLAY" – display of the events:

"+" and "-" are used to select the desired event. The event is shown together with the respective date and the time.

MAINS.F. ->DSPE
01.01.00 05:56

"-": scroll backwards

"+": scroll forwards

"D": display of the selected event

"S": search for an event by entering an event date

"P": print of the selected event

"E": exit current menu item

"PRINT" – print of the events:

For the printing function related to the option "MMC" a memory card of the type MMC (multi media card) must be inserted in the respective card slot which is located at the display unit (KCGZ). For the printing function related to the option "USB" an USB stick must be inserted in the respective USB port which is located at the display unit (KCGZ). For the printing function related to the option "PRINTER" resp. "PRINT" a suitable printer must be connected to the respective Centronics printer interface of the display unit (KCGZ) resp. the printer interface of the CPU card.

PRINT REPORTS:
ALL /000REPO. /E

"ALL": print all events
"nnnREPO.": print selected event quantity (starting with the oldest event)
"E": exit current menu item resp. call-up following menu item



Attention:

For the function related to the options "MMC" and "USB" the used memory card of the type MMC resp. the USB stick must be formatted in the file format FAT32.

"ALL" – print of all events:

With this option all events can be printed.

PRINT REPORTS:
Y/N

"Y": print event(s)
"N": do not print event(s)

PRINT DATA ON:
/MMC /PRINTER

software versions:
from V62.01 to V62.23 (SLEB)
from V70.01 to V70.18 (ALOG)

"MMC": print on memory card of the type MMC
"PRINTER": print on printer

PRINT DATA ON:
/MMC /USB /PRINT

software versions:
starting from V80.01 (SLEB and ALOG)
starting from V81.01 (SLEB and ALOG)

"MMC": print on memory card of the type MMC
"USB": print on USB stick
"PRINT": print on printer

The following display message is shown after the printing procedure:

nnn REPORTS:
DELETE ? N/Y

"N": do not delete event(s)
"Y": delete event(s)

The following option "ALL REPORTS DELETE ?" is only displayed if "N" was selected within the previous display message "PRINT REPORT Y/N" or if no button was pressed for one minute.

ALL REPORTS:
DELETE ? N/Y

"N": do not delete event(s)

"Y": delete event(s)

"nnnREPO." – print of a selectable quantity of events:

With this option the quantity of the events which should be printed starting with the first recorded event can be entered.

After leaving the menu with "E" the following display message is shown if at least one event was selected:

PRINT REPORT:
Y/N

"Y": print event(s)

"N": do not print event(s)

PRINT DATA ON:
/MMC /PRINTER

software versions:

from V62.01 to V62.23 (SLEB)

from V70.01 to V70.18 (ALOG)

"MMC": print on memory card of the type MMC

"PRINTER": print on printer

PRINT DATA ON:
/MMC /USB /PRINT

software versions:

starting from V80.01 (SLEB and ALOG)

starting from V81.01 (SLEB and ALOG)

"MMC": print on memory card of the type MMC

"USB": print on USB stick

"PRINT": print on printer

The following display message is shown after the printing procedure:

nnn REPORTS:
DELETE ? N/Y

"N": do not delete event(s)

"Y": delete event(s)



Note:

If events of a single emergency light station were deleted it is necessary to delete also the respective events on all other emergency light stations to avoid data inconsistency.

Menu item 9 "Service Options"

This menu is password-protected and only used for service purposes by Beghelli PRÄZISA.

Further failure messages of the device"MAINS FAILURE / MAINS FAIL." – general supply failure / partial supply failure:

General supply failure or / and partial supply failure over critical circuit (for sub distribution monitoring) present. Generator operation at NEA system over critical circuit (for sub distribution monitoring) detected.

"SDnn-MAINS-FAIL / SD-MAINS-F." – partial supply failure:

Partial supply failure over accordingly programmed LSSA switch input (for sub distribution monitoring) present.

"FAULT: TWILI.SWI." – special application – failure regarding twilight switch:

Failure over accordingly programmed LSSA switch input (for sub distribution monitoring) present. The number "64" of the logical inputs in the menu items 4-1 "Input Modules" and 4-8 "LA-LSSA-Function" is intended as function extension for special applications with twilight switches and may not be used otherwise.

"PLANT OFF" – operational condition off:

Operational condition of the device is switched off manually or over a control installation. The device can not switch into the emergency operation with battery supply (battery operation – DC).

"DISCHARGE: / DEEP DISCHARGE" – deep discharge:

Deep discharge present regarding the battery supply.

"NO AUTO-F-TEST / NO AUTO-F-TEST" – no automatic function test:

Automatic function test is not enabled. Respective changes can be done over the menu items 2 and 3.

"NO AUTO-O-TEST / NO AUTO-O-TEST" – no automatic battery test:

Automatic battery test is not enabled. Respective changes can be done over the menu items 2 and 3.

"FAULT: F-/O-TEST" – failure at last insulation test / function test / battery test:

At least one failure present in test result of the last insulation test / function test / battery test. This failure message can only be reset with a not interrupted and fault-free insulation test / function test / battery test.

"FAULT: OM/LA / OM/LA-FAULT" – failure regarding output circuit / luminaire module:

At least one failure present regarding an output circuit or / and a luminaire module. Details can be shown over menu item 7.

"OM-BUS-ERROR / FAULT: OM-BUSERR" – bus failure regarding output circuit card:

Bus failure on output circuit card present. The bus failure is related to the data communication between CPU card and output circuit card or the data communication between output circuit card and connected luminaire modules.

"SSnn BUS ERROR" – bus failure regarding shown sub station:

Bus failure on sub station bus present. The bus failure is related to the data communication between the respective main station and the shown sub station.

"TOTAL CURRE.> 6A" – total current of an output circuit card more than 6 A:

At least one output circuit card present with a total current of more than 6 A. This failure must be rectified immediately by a reduction of the connected load. Otherwise the respective output circuit card will be damaged at switchover procedures.

"FAULT: CHARGER 1" – failure regarding charge circuit:

Voltage failure present regarding the charge circuit. The measuring value on the battery supply comes above or below the permissible tolerance range.

"FAULT: ACCU (SYMM)" – voltage symmetry failure regarding battery supply:

Voltage symmetry failure present regarding the battery supply. The measuring value on the battery middle tapping comes above or below the adjusted tolerance value.

"FAULT: ACCU (FuH)" – fuse failure regarding battery supply:

Fuse failure on battery circuit present.

"FAULT: L-FUSE-F1 / F2 / F3 / F4" – fuse failure on control frame – AC:

Fuse failure on control frame present. The fuse failure is related to the alternating voltage supply of the shown control frame.

"Fu-Fail" – fuse failure on output circuit card:

Fuse failure on output circuit card present. The fuse failure is related to the fuses of the output circuits.

"ISO-ERROR (A+)" – insulation failure on plus pole:

Insulation failure with counter potential on plus pole of the battery supply present.

"ISO-ERROR (A-)" – insulation failure on minus pole:

Insulation failure with counter potential on minus pole of the battery supply present.

"MEMORY: FULL" – memory for protocols and events full:

Memory for protocols and events is full. A deletion can be done over the menu items 7 and 8.

"PRINTER ERROR" – printing failure:

Printing failure at printing procedure regarding a connected printer.

software versions:

from V80.07 to V80.14 (SLEB and ALOG)

from V81.07 to V81.14 (SLEB and ALOG)

- Date				self-adjusting
- Time				self-adjusting
- F-test parameters:				
Time				07:00
Start day				Monday
Period				1 day (daily)
Test duration				1 minute
Automatic F-test				not enabled
- B-test parameters:				
Time				08:00
Start date				31.12.1979
Period				365 days (yearly)
Test duration				40 minutes
Automatic B-test				not enabled
- PS-clock timer:				
WP1/WP2				no switch-on times
WP1/WP2				no switch-off times
OFF				no switch-off days
- Line operating modes				permanent setting
- Emergency overrun time				5 seconds
- SS-resetting time				10 seconds
- Blower runtime:				
period				5 minutes
power-on duration				1 minute
power-on duration after emergency operation				5 minutes
- O-duration				0 minutes
- Customer service				+49(0)2064/9701-0
- Password				not enabled
- Special relay box				not enabled
- SKUE-tolerance				50 %
- ISO-tests:				
ISO-test				not enabled
ISO OC				300 kΩ
ISO MS				300 kΩ
- Battery symmetry				not enabled
- Battery symmetry tolerance				1.8 V
- Phase selection				not enabled
- Blower relay				not enabled
- Charge shunt				25 A
- Discharge shunt				25 A
- Nominal capacity				100 Ah
	<u>NZB</u>	<u>NGB</u>		
- Deep discharge protection ON	183.6 V	20.4 V		
- Deep discharge protection OFF	226.8 V	25.2 V		
- Float charge voltage	248.4 V	27.6 V		
- Fault tolerance LA-bus				1
- Fault tolerance LA-LL				1
- LA-warmup time				5 seconds
- Automatic print				0
- Manual print				1
- TSZ-setting:				
TSZ-prewarning				enabled
Repeat				not enabled

software versions:

starting from V80.15 (SLEB and ALOG)

starting from V81.15 (SLEB and ALOG)

- Date			self-adjusting
- Time			self-adjusting
- F-test parameters:			
Time			07:00
Start day			Monday
Period			1 day (daily)
Test duration			1 minute
Automatic F-test			not enabled
- B-test parameters:			
Time			08:00
Start date			31.12.1979
Period			365 days (yearly)
Test duration			40 minutes
Automatic B-test			not enabled
- PS-clock timer:			
WP1/WP2			no switch-on times
WP1/WP2			no switch-off times
OFF			no switch-off days
- Line operating modes			permanent setting
- Emergency overrun time			5 seconds
- SS-resetting time			10 seconds
- Blower runtime:			
period			5 minutes
power-on duration			1 minute
power-on duration after emergency operation			5 minutes
- O-duration			0 minutes
- Customer service			+49(0)2064/9701-0
- Password			not enabled
- Special relay box			not enabled
- SKUE-tolerance			50 %
- ISO-tests:			
ISO-test			not enabled
ISO OC			300 kΩ
ISO MS			300 kΩ
- Battery symmetry			not enabled
- Battery symmetry tolerance			1.8 V
- Phase selection			not enabled
- Blower relay			not enabled
- Charge shunt			25 A
- Discharge shunt			25 A
- Nominal capacity			100 Ah
- Deep discharge protection ON	<u>NZB</u>	<u>NGB</u>	
	183.6 V	20.4 V	
- Deep discharge protection OFF	226.8 V	25.2 V	
- Float charge voltage	248.4 V	27.6 V	
- Fault tolerance LA-bus			1
- Fault tolerance LA-LL			1
- LA-warmup time			5 seconds
- Automatic print			0
- Manual print			1
- TSZ-setting:			
TSZ-prewarning			enabled
Repeat			not enabled
- Modbus			0

NOTES:

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for writing or drawing. There are no margins, text, or other markings on the page.

NOTES:

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