Controle module

A freely programmable control module with non-volatile program memory and 4-line alpha-numeric graphic display monitors and controls the central battery system. All functions such as charging, mains/ emergency lighting selection and deep discharge protection of the devices and the emergency luminaires are tested automatically. Any faults that occur are signalled immediately. An interface enables a central monitoring facility to be connected. In the event of a short circuit or open circuit in current loops, differential monitors immediately power on the system (maintained light) or put the system in readiness.

- Non-volatile memory
- Automatic luminaire search function
- Individual luminaire monitoring
- Automatic DLS/TLS search function
- Selective manual reset/circuit
- Selective emergency light/circuit
- Password function
- Final circuit fuse monitoring
- Module-selective battery operation
- Control module with multi-master mode M³

Sealed keypad with 3 keys for:

- Test (mains failure- battery operation)
- Function test start / cancel
- Operating duration test start / cancel

3 freely assignable function keys for:

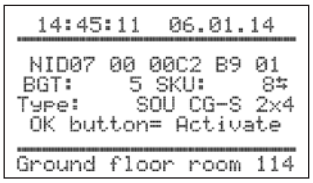
- System disable/enable
- Manual reset
- Cancel function test
- Show fault list
- Maintained light off/on
- Power on complete safety lighting system (continuity lighting)
- Mains failure simulation UV-A (emergency operation)
- Reset deep discharge protection
- Find insulation failure
- Service Pin Message

7 control keys

for user-friendly navigation

LED indicators for:

- Ready
- Electrical Source for Safety Services
- Failure



Graphic display:

128 x 64 pixel, backlit, program adjustable contrast and brightness.

Displays include:

- Date/Time
- Charging malfunction
- Deep discharge protection
- Battery voltage/charge current (+)
- Battery discharge current in test or failure (-)
- Manual reset
- Test mode
- Delay-time on mains return (remaining time in min.)
- Luminaire failure with location label
- Insulation fault with circuit indication
- Failure mains sub DB (with location label)
- Failure/programming information

Connections

- **Connection for disable switch:**
  Control loops for blocking the installation during factory shutdowns with differential loop monitoring for short-circuit and open circuit detection. Differential monitoring: Short-circuit or open circuit result in readiness for operation of the system.

- **Connection for phase monitor:**
  24V current loop for requesting emergency lighting using differential loop monitoring for the detection of short-circuit and open circuits. Differential monitoring: Short-circuit or open circuit result in immediate power on (maintained light) of the system.

- **Connection for floating signalling contacts and buzzer:**
  3 relays with common root, each 1x switch-over contact, 24 V 0,5 A.
  2 relays with common root, each 1 x make contact, 24V 0.5A;
  Buzzer
  One or several of 12 various messages can be freely assigned to the three zero-potential contacts and buzzer. DIN VDE specification can be called up at any time as a pre-setting.

- **Connection for analog inputs:**
  4 of freely assignable 24 V analog inputs, can be programmed negated and non-negated, e.g. for start / cancel function test, start / cancel operating duration test, disable / enable system, manual reset, maintained light on / off, power on safety lighting as continuity lighting.

Central battery system ZB-S with STAR technology

Components and options

Display	128 x 64 pixel graphic display, program adjustable contrast
Ilumination	backlighting, program adjustable brightness
Keypad	sealed, with 6 function and 7 control keys
Readout	Battery voltage Battery charge current (+) Battery discharge current in test or failure (-) Charge fault Luminaire failure with location label Deep discharge protection Manual reset Delay-time on mains return Failure mains sub DB (with location label) Test mode Date/Time Insulation fault with circuit label Failure information Programming information
Status	– Ready – Electrical Source for Safety Services – Failure

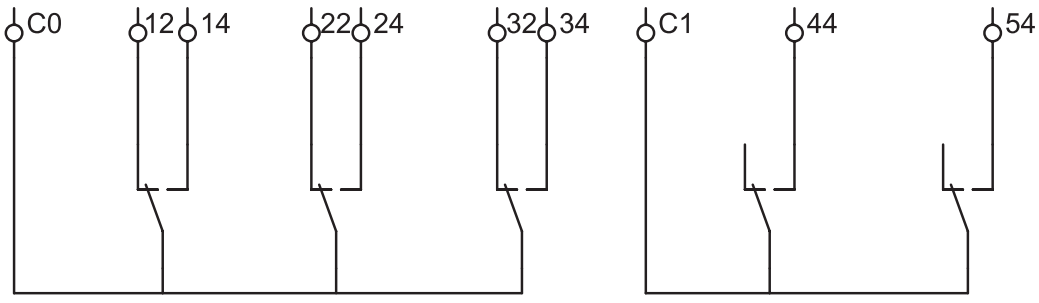
Potential-free signal contacts, buzzer

3 relays with common potential, 1 x switching contact each, Free programmable, VDE requirement can be called at any time as a preset.

2 relays with common potential, 1 x normally open contact each, 24 V 0.5 A; buzzer.

ZB-S default setting

Designation	Relay 1 C0/14/12	Relay 2 C0/24/22	Relay 3 C0/34/32	Relay 4 C1/44	Relay 5 C1/54	Buzzer
Mains operation		X		Permanently configured to external buzzer operation (analogue to internal buzzer)	Permanently configured for control of a technical cabinet ventilation. Default setting > 40°C ON < 35°C OFF.	
Mains failure	X		X			
Mains failure UV	X					
Charging fault	X					
Circuit fault	X					
Luminaire fault	X					
Common system fault	X					
Total discharge protection	X					
ISO fault	X					
Function test		X				
Continuous operation test		X				
Device fault						



Ordering details

Type	Model	Order No.
Control module ZB-S for SD-card	Plug-in module	40071360300