Controle module
A freely programmable control module with non-volatile program memory and 4-line alphanumeric 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

Illumination
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

<table>
<thead>
<tr>
<th>Designation</th>
<th>Relay 1 C0/14/12</th>
<th>Relay 2 C0/24/22</th>
<th>Relay 3 C0/34/32</th>
<th>Relay 4 C1/44</th>
<th>Relay 5 C1/54</th>
<th>Buzzer</th>
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<tr>
<td>Mains operation</td>
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Ordering details

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<td>Control module ZB-S for SD-card</td>
<td>Plug-in module</td>
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