

## CPS System ELiT - M

Central battery system (CPS) for the supply of safety and emergency sign lamps 230V AC/DC with integrated monitoring electronics in continuous and standby circuit according to VDE0108-100, DIN EN 50171 and DIN EN 50272.

### The CPS system has the following standard equipment and features:

- ELiT-M1: Maximum expansion: 24 circuits max. 3.000W  
ELiT-M2: Maximum expansion: 72 circuits max. 30.000W
- 7 Inch Touchscreen-Display
- Intuitive operation via Touch-Display
- Up to 72 circuits in 1 cabinet each max 3A (fuse 5AT)  
Total up to 256 circuits
- Each circuit for the connection of up to 20 luminaires in standard- and mixed operation system
- Single luminaire monitoring with the destination specified in plain text
- 8 switching inputs freely programmable (potential free)
- 8 relay outputs freely programmable
- 24VDC for mimic panel
- Bus connection for substations or external modules
- USB interface for keyboard, mouse or USB memory stick
- TCP / IP interface for networking or visualization
- Easy commissioning of the system via menu navigation
- Switching of individual luminaires or groups of luminaires via switching inputs
- Simple but powerful automatic luminaire search
- Menu for recognizing double addresses
- Automatic test equipment and integrated test book
- Central Monitoring for up to 253 systems for visualization and Control
- Charger with IU characteristic with separate charging controller and control of redundant charging modules
- Lad Charging modules with high efficiency
- Temperature-controlled charging characteristic
- Up to 6 circuits for substations
- Housing Dimension (HxWxD): 800 x 600 x 270 mm for Type ELiT-M1  
Housing Dimension (HxWxD): 1200 x 800 x 420 mm for Type ELiT-M2  
Protection class: IP 20 colour RAL 7035  
Option: IP 54
- Substations in PCV and steel-sheet housing  
or E 30





## Substations in E0

Substation for sectional supply of rescue sign and safety lights.  
Optionally available with in-output modules IOe230 or IOe24

### Housing in ABS protection class IP 40

Material : acrylonitrile butadiene styrene (ABS)

Color: Grey RAL 9003

Protection class: II

Optional lock with key

Optionally available as flush-mounted version



Type	Dimensions (HxWxD in mm)	Circuits	Weight
ELiT UV-P 4	236x287x112	4	2 Kg
ELiT UV-P 8	236x396x112	8	3 Kg
ELiT UV-P 12	361x287x112	12	4 Kg
ELiT UV-P 16	482x287x112	16	5 Kg

### Steel-sheet housing

with single door in steel sheet

Color: Grey RAL 9016

Protection class: II

Cable entry from top via membrane flange

Optional lock with key

Optionally available as flush-mounted version



Type	Dimensions (HxWxD in mm)	Circuits	Weight
ELiT UV-20	674 x 324 x 140	20	15 Kg
ELiT UV-24	674 x 324 x 140	24	16 Kg
ELiT UV-28	674 x 574 x 140	28	24 Kg
ELiT UV-32	674 x 574 x 140	32	25 Kg
ELiT UV-36	674 x 574 x 140	36	26 Kg
ELiT UV-40	674 x 574 x 140	40	27 Kg
ELiT UV-44	674 x 574 x 140	44	28 Kg
ELiT UV-48	674 x 574 x 140	48	29 Kg

### Option

IOe 230

IOe 24

Bus mains monitoring BNW



## Substations in E30

Substation for sectional supply of rescue sign and safety lights.  
Optionally available with in-output modules IOe230 or IOe24

Type	Dimensions (HxWxD in mm)	Circuits	Weight
UV8 - 4	414x414x218mm	4	23 Kg
UV8 - 8	414x414x218mm	8	23 Kg
UV16 - 4	628x428x275mm	4	45 Kg
UV16 - 8	628x428x275mm	8	46Kg
UV16 - 12	628x428x275mm	12	47Kg
UV16 - 16	628x428x275mm	16	48Kg
UV24 - 20	778x428x275mm	20	57Kg
UV24 - 24	778x428x275mm	24	59Kg
UV48 - 28	778x678x275mm	28	80Kg
UV48 - 32	778x678x275mm	32	81Kg
UV48 - 36	778x678x275mm	36	82Kg
UV48 - 40	778x678x275mm	40	84Kg
UV48 - 44	778x678x275mm	44	85Kg
UV48 - 48	778x678x275mm	48	87Kg



UV8



UV16



UV24



UV48

### Option

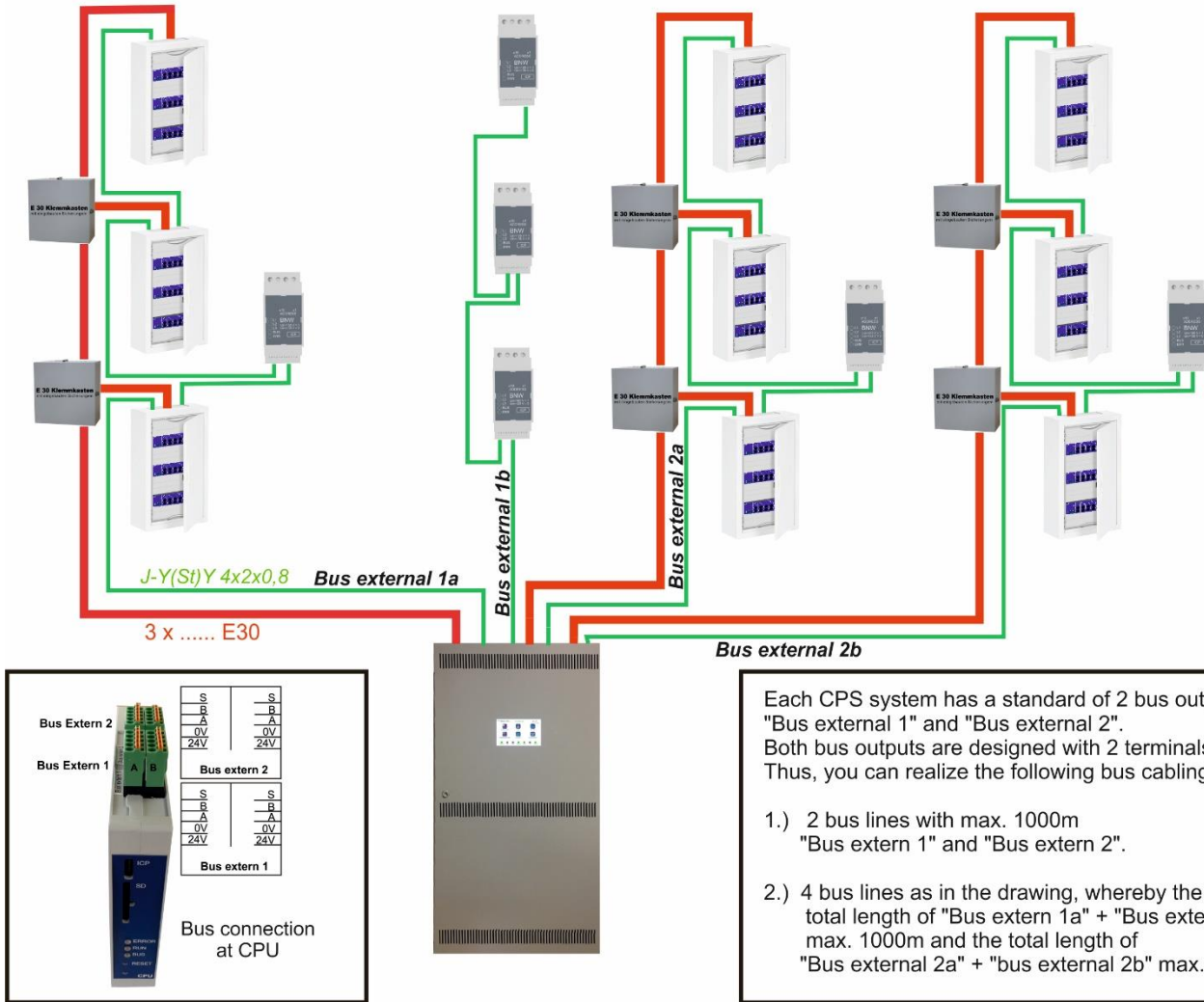
IOe 230

IOe 24

Bus mains monitoring BNW



On the last bus participant there is a final resistance 120 Ohm to be applied via the free terminals A - B





**Signaling and remote Control Panel** according DIN EN 50172 (VDE 0108-100)  
for displaying ready, battery operation and fault as well as a key switch.

**Technical data**

Supply voltage: 24 VDC  
 Connection: 6pol cable  
 Color: pure white (similar to RAL-No.: 9010)  
 Dimension (HxWxD): 60x60x44,5mm  
*(Suitable for Surface mounting and flush mounting)*



**Signaling and remote Control Panel** according DIN EN 50172 (VDE 0108-100)  
for displaying ready, battery operation and fault as well as a key switch.

Supply voltage: 24 VDC  
 Connection: 6pol cable  
 Color: pure white (similar to RAL-No.: 9010)  
*Surface mounting* Dimension  
 Dimension (HxWxD): 83x83x52mm  
*Flush mounting*  
 Dimension (HxWxD): 83x83x35mm



**BMT - Bus-compatible signaling and remote Control Panel**  
according DIN EN 50172 (VDE 0108-100)

Never lose a key again! The panel is operated via buttons that are protected against unauthorized switching by a security code.  
 The signal reading is connected via the 4-wire RS485 bus  
 Up to 5 BMT can be operated in parallel on one system

LED indicator: emergency light blocked, system ready, fault, battery operation, DS On  
 Keys for: emergency light blocked, permanent lights On/Off, Alarm Off, Code Input  
 Acoustic message: In case of fault (can be switched off)

**Typ: BMT - AP Surface mounting**

**Specifications**

Connection: IY(St)Y 2x2x0,8mm<sup>2</sup>  
 Bus interfaces : RS 485  
 Dimension (HxWxD): 83x83x52mm



**Typ: BMT - UP Flush mounting**

**Specifications**

Connection: IY(St)Y 2x2x0,8mm<sup>2</sup>  
 Bus interfaces : RS 485  
 Dimension (HxWxD): 83x83x28mm



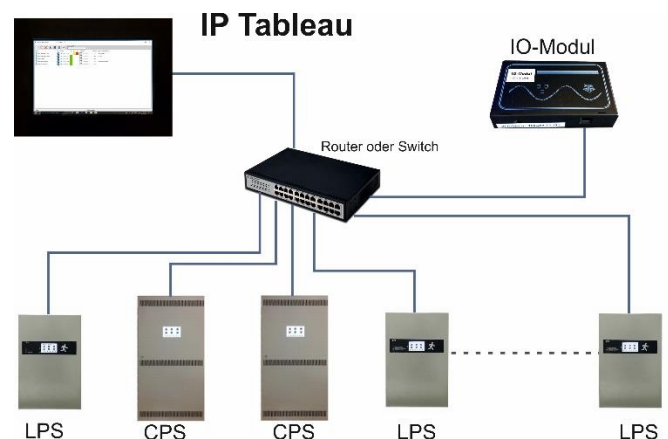


## CPS-LPS Manager software for networking and visualization of up to 253 LPS and CPS devices

- Remote control of the systems
- Display of system status, error messages and all relevant operating data
- Programming of the systems
- Automatic programming and installation
- Optional email dispatch in case of malfunctions
- Optional acoustic message in case of faults
- Notification on background operation (Notify)
- Connection via LAN or WLAN
- Networking via existing LAN network or simple networking via switch
- Easy installation through automatic Scan of all connected devices
- Direct access to any device
- Connection to any device possible via the integrated Visu software
- High security - data exchange only via password protected port (SSH)
- Sorting of the list according to all fields possible
- Option: Connection of IO module

## IP panel for networking and visualization of up to 253 LPS and CPS devices

- 10,1" Touchscreen Display
- Ultra-thin steel-sheet housing
- Networking of up to 253 systems
- Remote control of systems
- Display of the system status, error messages and all important operating datas
- Programming of the LPS systems
- Reading the memory of each system
- Reading the test books of each system
- Automatic programming and installation
- Email in case of errors
- Notification for background operation
- Connection via LAN or WLAN
- Networking via existing LAN network or simple networking via switch
- Simple installation by automatic scanning of all connected devices with designation
- Direct access to every system
- High security – data exchange only via password-protected port (SSH)
- Also available as software for a Windows Computer



### Technical data

Connection: LAN / WLAN  
 Color: black  
 Housing: steel housing  
 Dimension (HxWxD): 330mm x 215mm x 15mm

## IOe 230

Input - output module for external connection to CPS systems via RS485 bus.

Each of the 8 inputs can monitor 230V mains voltage or be configured as light switch. The IOe230 still has 3 outputs with potential-free contacts. The outputs are freely configurable in the CPS system.

### Technical data:

Supply voltage:	24 V DC (7 – 28 V)
Protection:	IP 20
Protection class:	II
Temperature range:	-40°C to +85°C
Inputs:	8 x 230V AC potential separated
Outputs:	3 Relay contacts
Bus:	RS485
Address range:	1 – 59
Dimensions (W x H x D):	52,5 mm(+1,5 mm) x 90 mm x 71 mm
Weight:	0,17 kg
Mounting:	DIN rail



## IOe 24

Input - output module for external connection to CPS systems via RS485 bus.

Each of the 8 inputs can be switched via a potential-free control contact. Each input can be inverted or configured with a current loop function via the configuration. The IOe24 also has 3 digital outputs with potential-free changer contacts. The outputs are freely configurable in the CPS system.

### Technical data:

Supply voltage:	24 V DC (7 – 28 V)
Protection:	IP 20
Protection class:	II
Temperature range:	-40°C to +85°C
Input:	8 x 230V AC potential free
Output:	3 Relay contacts
Bus:	RS485
Address range:	1 – 59
Dimensions (W x H x D):	52,5 mm(+1,5 mm) x 90 mm x 71 mm
Weight:	0,17 kg
Mounting:	DIN rail





## Bus-mains-monitoring BNW

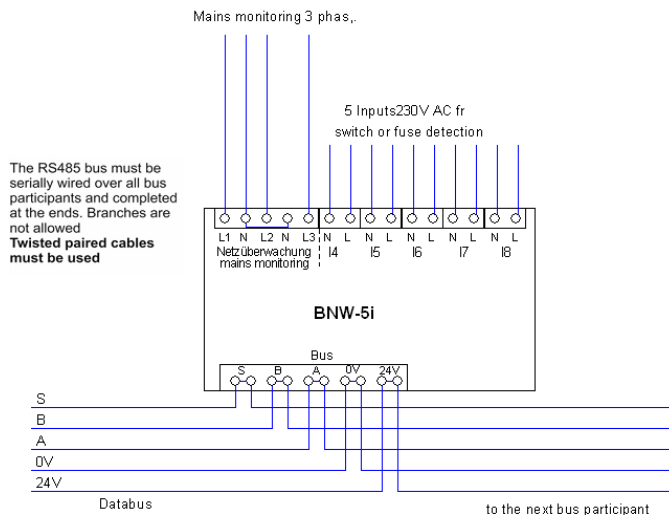
Three-phase bus-mains-monitoring for connection to CPS systems.  
 For monitoring up to 3 phases against N.  
 The corresponding LED on the front lights up when the Phase voltage is greater than 184 V.



## Bus-mains-monitoring BNW-5i

For connection and monitoring of the 3 phases with N. The corresponding LED on the front lights up when the phase voltage is applied is greater than 184 V.

The additional 5 inputs (I4 - I8) can be used for light switch or fuse detection.



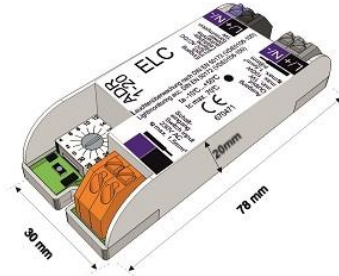
### Specifications:

Supply voltage:	24 V DC (7 – 28 V)
Current consumption:	0.01 A @ 24 V
Power dissipation maximum	1 W
Protection class:	IP 20
Protection class:	II
Temperature range:	-40°C to +85°C
Inputs:	3/N AC 230 V 50Hz for mains monitoring 5 x AC 230V 50Hz for switch query
Switching threshold on:	> 184 V
Switching threshold off:	< 138 V
Bus:	RS485
Address range:	1 – 56
Connectivity	
Inputs:	Screw terminals 2.5 mm <sup>2</sup>
Bus connection:	Connector with Push-in spring connection 0.2 – 1.5 mm <sup>2</sup>
Dimensions (W x H x D):	87 mm x 90 mm x 65 mm
Weight:	0.075 kg
Mounting:	DIN rail

## Monitoring module for mixed operation and single light monitoring Type: ELC

### Technical data:

Input:	230V AC/DC
Output:	1W – 100W
Switch input:	230V AC
Ambient temperature:	-10°C to 50°C
Address range:	1 – 20
Protection class:	2
Protection:	IP 20
Cable cross-section:	max. 1,5mm <sup>2</sup>

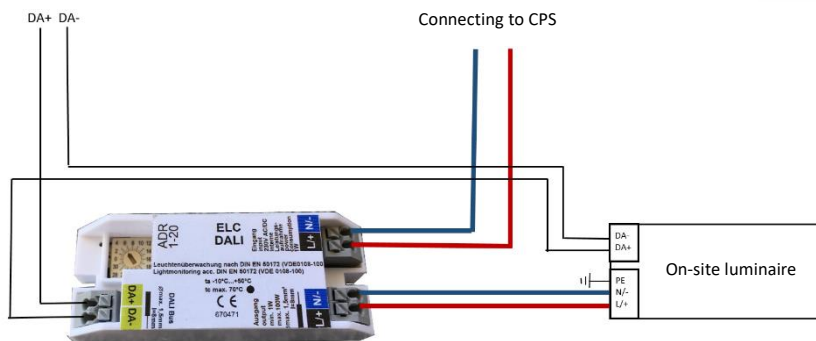
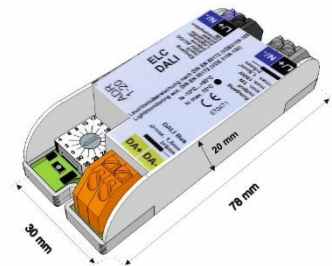


## Monitoring module for mixed operation and single light monitoring Type: ELC - DALI

The ELC-DALI monitoring module is used to implement mixed operation and individual luminaire monitoring. All operating modes are assigned by the control unit without interfering with the luminaire installation. The DALI or DIM control is interrupted in emergency lighting mode and luminaires are switched on to the emergency lighting value set on the DALI ECG

### Technical data:

Housing Material:	Plastic
Input:	230V AC/DC
Output:	1W – 100W
Ambient temperature:	-10°C to +50°C
Address range:	1 – 20
Protection class:	2
Protection class:	IP 20
Cable cross-section:	max. 1.5mm <sup>2</sup>





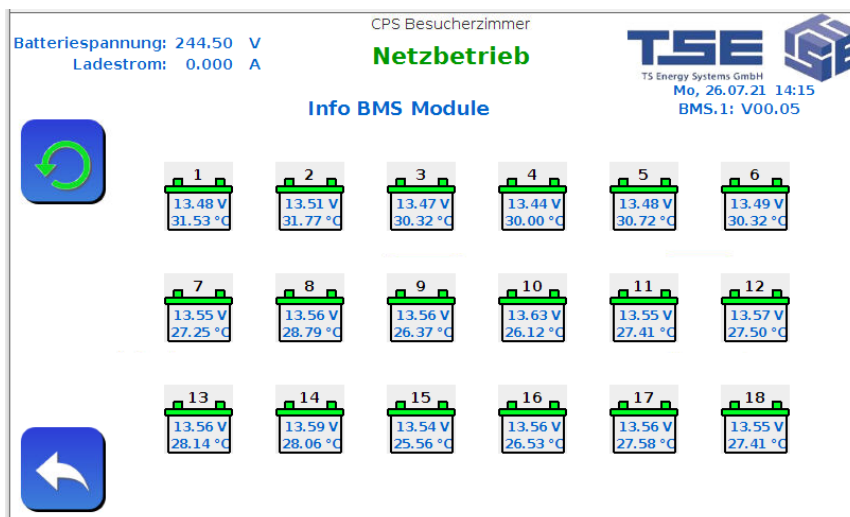
## BMS - Battery Monitoring System

According to DIN EN 50171:2001, the total voltage, charging current and ambient temperature of the battery pack must be monitored. However, since these values are not sufficient to determine the condition of the battery, DIN EN 62034:2013 requires an annual endurance test to check the battery capacity over the entire service life, in which the block voltages of the individual battery blocks are to be measured. However, since this test only takes place once a year, there is a risk that the batteries have been damaged in the meantime.

In the draft of E DIN EN 50171:2013, the requirements for optional automatic single-block monitoring were therefore included and specified. This monitoring system shall meet the following conditions:

- Periodic monitoring of battery block voltages (6.11.3. a)
- Error message in case of battery block voltage deviation (6.11.3. b)
- Manually reset the error message (6.11.3. d)
- Recording of battery block voltages in endurance tests with an interval of 5 minutes (6.11.3. f)
- Battery temperature monitoring (6.11.)
- Our new BMS system meets all these requirements

The data of all 18 or 36 blocks can be clearly displayed at any time.



The data is also permanently recorded and can be read out on a USB stick for further processing.

During a capacity test, the battery data (voltages and temperatures of the individual blocks) are stored every 5 minutes.

The BMS system consists of a BMSC: Battery Monitoring System Controller and up to 36 BMSM: Battery Monitoring System module.



## IO module for CPS/LPS systems together with CPS Manager Software V5.0

The IO module together with the IP Tableau or the CPS/LPS Manager can be used to monitor third-party devices.

In addition, collective messages for networked systems can be sent via the 4 built-in relays.

The IO module and the systems can be networked via an existing network or via a simple switch via LAN.



### 1 to 4 Multiplexer:

By using the multiplexer, additional 4 bus lines with up to 1000 m cable length per line can be connected.

The multiplexer can also be used as an amplifier for cable lengths >1000m.

