

## Self-Contained Connection and Setup (From Version V138.1.4 on)

### Features at a glance:

- Self-contained emergency luminaire acc. to EN 60598-2-22
- for maintained or non-maintained operation
- integrated **SelfControl monitoring function (Suffix SC, Type S acc. to EN 62034, Wireless Professional monitoring (Suffix WL, Type PERC acc. to EN 62034) or Wireless Basic monitoring (Suffix WB, Type ER acc. to EN 62034)**
- LiFePO4-battery with micro processor controlled charging
- high performance LED
- and power-saving switching power supply

The luminaires are self-contained emergency luminaires with a integrated battery for a operation in case of mains failure. The battery is charged automatically when the power is supplied.

Version	Surface mounted		
	Recessed mounted		
Operating time	1h	3h	8h
Type	421	423	428

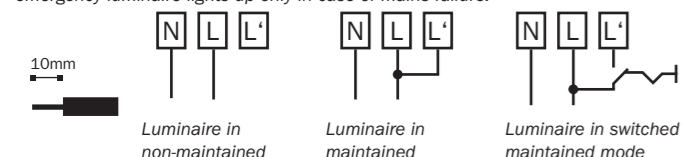
The monitoring module is characterized by the suffix of the type code:

Signaling the test results	on the luminaire	Mobile (Smartphone)	central monitoring
SC - SelfControl	X	-	-
WL - Wireless Professional	-	-	X
WB - Wireless Basic	X	X	-

### Connection

The power supply L and N must be applied permanently to the device, since this voltage is mandatory for the charge of the battery. A green charging control LED shows the correct charging of the battery.

To operate the lamp in maintained mode, connect L' with L. If L' is not connected, the luminaire works in non-maintained mode and lights up only in case of power failure. If L' is connected to L with a switch the luminaire may be switched on and off in normal mains mode. In case of mains failure the luminaire turns on regardless of the actual switch position. Before performing a functional or duration test charge the battery for at least 20 hours. For a non-maintained operation L' must not be connected. The emergency luminaire lights up only in case of mains failure.



Connect L and L' in same phase.

\* - connect Wireless Professional luminaires always in maintained mode.

<b>Technical specifications:</b>	Operating time:	1h/3h/8h
Amb. temperature nMM: -5°C...+40°C	Luminosity in mains operation:	125 Lumen
Amb. temperature MM: -5°C...+40°C	Luminosity in 3h emergency mode:	250 Lumen
Rated voltage: 230 V / 50 Hz	Luminosity in 8h emergency mode:	125 Lumen
Internal battery: LiFePO4		
		3,2V/3,3Ah

Connection: Clamp terminal 1.5 ... 2.5 mm<sup>2</sup>, „Push-In“ solid conductor.

**The illuminant can not be replaced: In case of an error the electronics inlet has to be renewed. In the event of battery failure, the battery must be replaced. When replacing battery don't throw old accu into domestic waste!**

### Wireless Professional (...WL)

The connection of the luminaire to the automatic monitoring system Wireless Professional is done simply by connecting the luminaires to the power supply and setting up the Wireless Professional CPU according to the entire manual. The luminaire is identified with a 4-digit network address within the Wireless Professional network which is also stated on the luminaire case. The luminaire may be switched or programmed individually or in a group with other luminaires by the Wireless Professional CPU. The various possibilities are described in the manual.

Operation in maintained mode can be selected by connecting L' at the luminaire. A test of the emergency function using the battery mode can be triggered directly on the luminaire. By pressing on the central lens the luminaire switches in emergency operation. If the lens is pressed longer than 20 seconds the luminaire switches back to mains operation.

### SelfControl (...SC) – manual / function

Function of the test pushbutton which is triggered by pressing on the central lens. The test pushbutton can be used to change settings of the SelfControl as well as to carry out different functions. When the test pushbutton is pressed, the yellow LED flashes. Release the pushbutton after the LED has flashed as often as listed below in order to carry out one of the following functions:

- 1 time = short battery operation for 3s for a short test of the emergency light function, no test record.
- 2 times = functional test with a duration of 30s, during the test all LED are flashing
- 3 times = Activation/Deactivation of the annual duration test. After selection of the menu all LED flash shortly 5 times. Now you can select by pressing the test button between green LED = „duration test active“ or red LED = „duration test disabled“. After 3s the selected mode is saved. By default the annual duration test is activated. After the selection of the annual duration test the marker is set to the submenu for the functional test. If the green LED shines, the functional test is active. By pressing the test button the functional test can be deactivated and the red LED shines.
- 4 times = Set the emergency operation time. After selecting the menu all LED flash shortly 5 times. After this the emergency operation time can be set by pressing the test button: For 3h operation time select the green LED, for 1h operation time select the yellow LED and for 8h operation time select the red LED. The saving of the settings is indicated when all LED flash 5 times in quick succession. Please note that a change of the emergency operation time can cause a limitation of the luminous flux. You need to rectify the label on the luminaire after changing the emergency operation time.
- 5 times = Start a duration test. State the emergency operation time. After selecting the menu all LED will flash 5 times. After this the green LED shines if 3h operation time is set, the yellow LED shines if 1h operation time is set and the red LED shines if 8h operation time is set. After that all LED will flash 5 times and the test duration will be stated. The green LED shines for a duration test on the full operation time, the yellow LED shines if a duration test on 2/3 of the operation time is set. After this a duration test will be performed.
- 6 times = Set the test duration. After selecting the menu all LED flash shortly 5 times. Then the duration test time can be set. The yellow LED selects 2/3 of the operation time as test time. By pressing the test button the duration test can be set to the full length of the operation time. Please note that the first duration test after a restart / reset is always executed over the full test time.
- 7 times = Reset of all error notifications (illuminant failure, battery failure, charging failure)
- 8 times = Initial operation - Delayed duration test. The duration test will be performed after 20h charging time.
- 9 times = Reset of the internal clock. The functional test will be performed within one week and the duration test within one year.
- 10 times = Complete Reset. All error messages and the internal clock will be reset. **The emergency operation time is set to factory default of 3h (423SC) or 8h (428SC).** The functional test and duration test will be performed in one week and one year. The annual duration test is activated.

Canceling a test: Press the test button during the test until it is aborted (about 3s)

**Setting the test time:** The internal clock starts running after applying the operating voltage or after a deep discharge with subsequent restart. From this time on the functional test will be carried out once a week and the duration test once a year. If the lens is pressed longer than 20 seconds the luminaire switches back to mains operation.

Overview of the SelfControl functions			
Flashing of the white LED	Function	Level	Selection
1x	Short battery test	Start	2 sec. battery operation
2x	Functional test	Start	30 sec. functional test
3x	Annual duration test	Submenu 1	● = Duration test activated ● = Duration test deactivated
		Submenu 2	● = Functional test active ● = Functional test not active
4x	Set emergency operation time	Start	● = 3h ● = 1h ● = 8h (luminous flux reduced)
5x	State emergency operation time - Perform duration test	Submenu 1	● = 2/3 test of operation time ● = test full operation time
		Submenu 2	● = full operation time ● = 2/3 of operation time
6x	Set test duration	Start	
7x	Reset of all errors	Start	
8x	Initial operation - Duration test will be performed after 20h acc. to selected operation time	Start	
9x	Reset of the internal clock	Start	
10x	Reset to factory default values - emergency operation time 3h	Start	

Function of the SelfControl monitoring LED	
LED Combination	Function
green LED shines	normal Mains mode (no errors)
green LED shines, yellow LED flashes	LED error
red LED shines, green LED flashes 2x fast	Battery error during duration test
red LED shines, green LED flashes	Battery error during functional test
green LED shines, red LED flashes	Mains error during functional test
green LED shines, red LED flashes 2x fast	Mains error during duration test
green LED flashes	Charging error
red LED flashes	missed duration test
Test indications	
all LED flashing	Functional test
all LED flashing	Duration test
all LED flashing 2x fast	Initial operation

1): -20°C up to +30°C when mounted in IP65 housing

## For central battery systems Connection and Setup (From Version V57.3.4 on)

### Features at a glance:

- Emergency luminaire acc. to EN 60598-2-22 for safety power supply systems acc. to EN 50172, ÖVE E 8002 and DIN V VDE 0108-100
- maintained or non-maintained operation, single luminaire switching in combination with central battery systems of types multiControl plus, midiControl plus, miniControl plus, microControl plus, myControl plus
- polarity reversal tolerant single luminaire monitoring

The emergency luminaires are suited to be used in central battery emergency lighting systems. Each of these luminaires has an integrated switching power supply for the LEDs with dimming function and (when combined with suitable central battery systems) a single-luminaire monitoring and managing function.

The single-luminaire monitoring for checking the correct functioning of each luminaire in a circuit is carried out via a luminaire address number unambiguous within each circuit. During installation, each luminaire is assigned one out of 20 possible different address numbers: This address number is set inside the luminaire using a rotary coding switch and the DIP-switch S4. For address numbers 1-16, turn the rotary coding switch to the respective position and set the DIP-switch S4 to "OFF". Address numbers 17-20 are set by turning the rotary coding switch to positions 1-4 and setting the DIP-switch S4 to "ON". To turn off the single luminaire monitoring and the luminaire manager function set S1 to S3 to OFF and the rotary coding switch to position 32 (Rotary coding switch to 16 and S4 to ON). The luminaire works according to the switching mode of the mains circuit with 100% luminosity when mains supplied.

Each luminaire can be operated in maintained mode with various optional dimming levels or in non-maintained mode. The DCM of the central battery power supply system must be switched to "DS". For non-maintained mode, set the switches S2 and S3 to position "OFF". In non-maintained mode the LED illuminant is only switched on if the power supply for the general lighting fails. For maintained mode, set S2 to "OFF" and S3 to "ON". Then the LED illuminant has a constant light output of 100%. For dimming, set S2 to "ON" and S3 to „ON“ for 75% light output, or set S2 to „ON“ and S3 to „OFF“ for 25% light output.

In case of failure of the general lighting, the dimming mode is ended and the LED illuminant is switched to 100% light output. An overview of the possible settings can be found in the table below.

By means of the DIP-switch S1 you can dim the luminaire to 75% light output in emergency operation. This reduces the blinding effect of the luminaire.

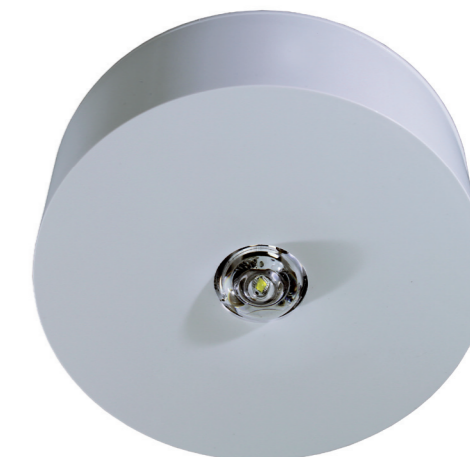
### Address setting: By means of the turn coding switch and DIP-switch S4

S1	S2	S3	function
OFF	OFF	ON	Maintained mode 100%
OFF	ON	ON	Maintained mode dimmed to 75%
OFF	ON	OFF	Maintained mode dimmed to 25%
OFF	OFF	OFF	Non-maintained mode
ON	OFF	OFF	Non-maintained mode, Emergency light dimming active. 75% brightness in emergency operation.

### Technical specifications and connection:

Permissible ambient temperature DS: -20°C ... +30°C  
Permissible ambient temperature BS -20°C ... +40°C<sup>1)</sup>  
Rated voltage: 220-230V 50/60 Hz / DC 216V  
Power consumption (216V DC): 22mA  
Power factor: 0.62  
Luminous flux: 360 Lumen  
Current consumption (230 V AC): 5 W  
Connection: Clamp terminal 1.5 ... 2.5 mm<sup>2</sup>, „Push-In“ solid conductor  
Luminaire monitoring also works with reverse polarized connection.

\*) not suitable for use with central battery systems of the ZDC/ZDCL series



## Einrichtung / Setup

