

## OWA SU LED

INSTALLATION AND MAINTENANCE MANUAL **EN****MOUNTING TYPE**

Directly to the ceiling. For other mounting types, see MOUNTING KITS in luminaire datasheet

**OPERATING MODE**

**NM** - NON-MAINTAINED - luminaire operates in emergency mode after power supply failure

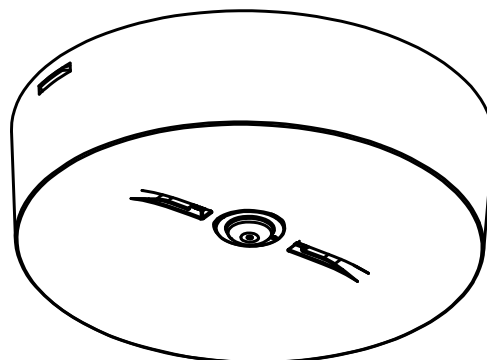
**SM** - SWITCHED MAINTAINED - luminaire operates in emergency mode after power supply failure, mains operation controlled by the switched phase L'.

**SYSTEM VARIANT**

**ST** - STANDARD - tests commissioned manually

**AT** - AUTOTEST - internal components, battery and light source tests being performed automatically

**CT** - CENTRALTEST - internal components, battery and light source tests being performed on command from the main unit of central management system

**TESTS**

The microcontroller-based control and test unit performs automatically (AT) or on order from the central management system (CT) or by manual execution (ST) two types of tests:

**TEST A** - internal components and light source test lasting 60 seconds - performed every 30 days for the AT system variant

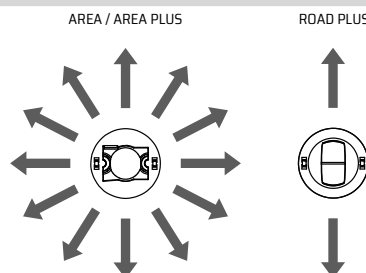
**TEST B** - internal components, light source and operation duration test (till the battery is fully discharged) - performed every 360 days for the AT system variant

**OPTICS**

**AREA** - (AR) symmetrical light distribution in all directions, recommended for use in places of considerable height or to illuminate fire points

**AREA PLUS** - (AP) symmetrical light distribution in all directions, ensuring adequate illumination on a large area

**ROAD PLUS** - (RP) light distribution mainly along the escape route with a much greater range than for the ROAD optics, for small heights

**TECHNICAL DATA**

Supply voltage	230V AC 50/60Hz
Power factor	0,4-0,6
Protection class	I
Impact protection level	for AR, AP optics: IK07 for RP optic: IK09
Ingress protection	IP65
Light source type	LED module <sup>1)</sup>
Light source temperature	5700K
Light source supply power	1W, 2W, 3W
Light source lifespan	> 50 000h
Battery type / voltage	LiFePO4 / 6,4V

Battery capacity	0,6; 1,5; 2,0Ah
Battery recharging time	< 24h
Emergency operation time	1h; 2h; 3h
Ambient temperature range	1W: +5 - +45°C; 2W: +5 - +40°C; 3W: +5 - +35°C
Supply cable cross-section area	0,5 - 2,5mm <sup>2</sup>
Supply cable diameter	≤ 16mm
Communication cable diameter	≤ 7mm
Suitable for through wiring	YES
Suitable for surface wiring	NO

<sup>1)</sup> Non-exchangeable but serviceable light source

**SAFETY**

- During the installation and usage of emergency luminaires, follow the national safety rules as well as generally accepted technical rules.
- Supply voltage should never be removed from the permanent phase by any external switches, relays or contactors (BMS, wall switch, etc).
- During usage of emergency luminaires keep a register of inspection reports. Luminaire installation or maintenance has to be preceded by turning off the power supply and battery.
- Ensure that all foreign bodies are removed before the luminaire power is switched on.
- The luminaire is to be used undamaged and in accordance with specifications.
- The luminaire is designed for use inside the building.

**The above-mentioned luminaire is a fire protection equipment and therefore falls within relevant standards and regulations.**



**NOT OBEYING THE SAFETY INSTRUCTIONS AND RECOMMENDATIONS CAN CAUSE LIFE THREAT OR EVEN DEATH**

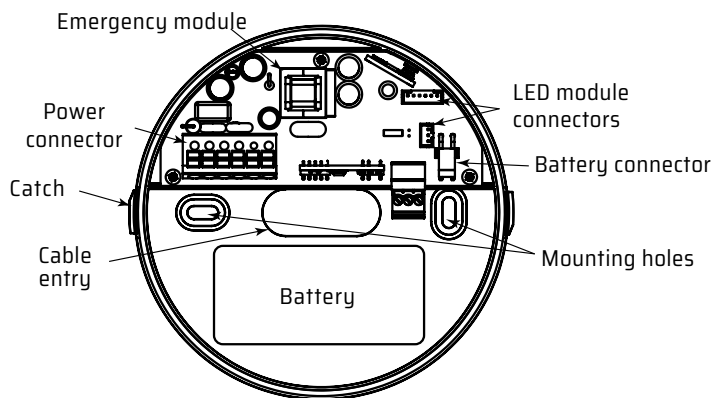
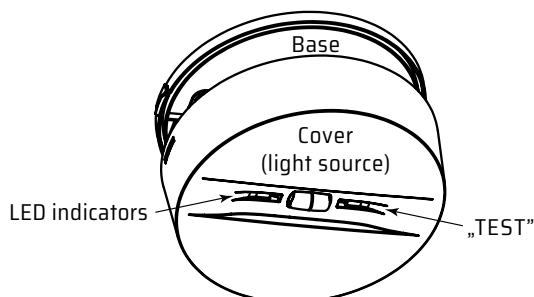
Not obeying this instruction manual can result in luminaire damage and loss of warranty



**DO NOT STARE AT THE OPERATING LIGHT SOURCE**

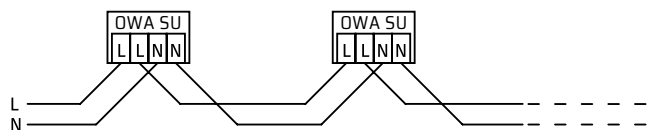
The luminaire should be positioned so that prolonged staring into the luminaire at a distance closed than 0.5m is not expected

**LUMINAIRE CONSTRUCTION**

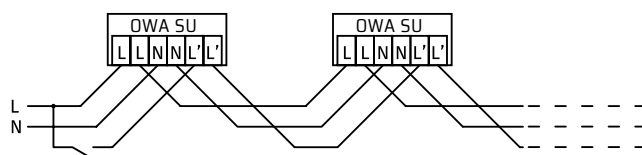


**WIRING DIAGRAM**

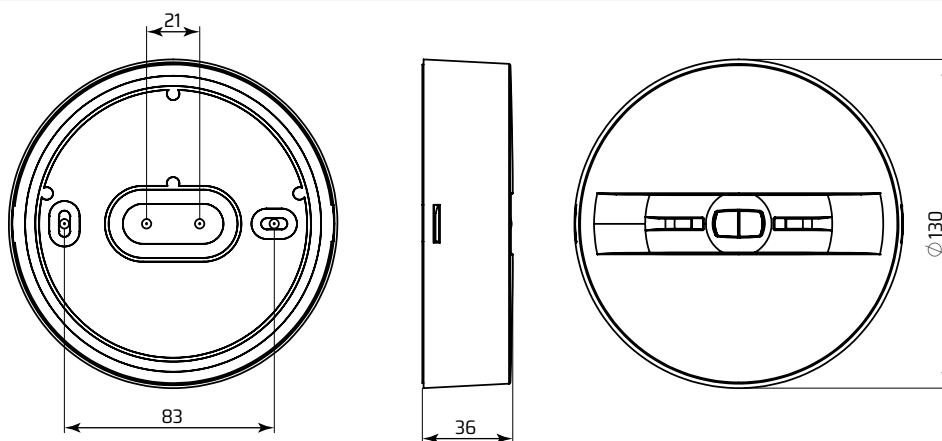
**NM**



**SM**



**DIMENSIONS (MM)**



**LED INDICATORS AND LUMINAIRE CONTROL**

Access to manual luminaire control is available by closing and holding a magnet near the magnetic switch marked „TEST” (see LUMINAIRE CONSTRUCTION). Entering the menu is signaled, this is followed by long flashes indicating individual functions, and then signaling of exiting the menu. Removal of the magnet during individual menu flashes will activate the appropriate function of the luminaire.

Successful activation of the function is signaled by two short flashes of the green LED, and unsuccessful - the red LED.

For the basic mode (power supply on) the individual functions are:

1. Start functional test (test A)
2. Start full test (TEST B)
3. Turn on/off Inhibit mode
4. Disable/enable automatic test execution
5. Present luminaire address (CT only)
6. Switch between maintained and non-maintained mode
7. Reset luminaire state (including faults).

Dla trybu awaryjnego (brak napięcia zasilania) występuje tylko jedna pozycja: wyłączenie blokady jeśli ta była włączona wcześniej lub włączenie uśpienia.

Abort the manual test in progress by closing the magnet to the magnetic switch marked „TEST” for one second.

**RED AND GREEN LED INDICATORS**

**MENU ENTERING:** three short flashes: red, green, red;

**MENU EXITING:** two short flashes: red, green;

**MENU:**

**Long flashes by green LED indicator:**

- basic mode → 1-7 menu positions
- emergency mode → 1 position;

**Address present (short flashes):** red → tens, green → ones.

# LUMINAIRE STATE SIGNALLING

green	red	continuous signaling	green	red	intermittent signaling - every 10 seconds
●	○	luminaire operating properly, battery fully charged	○	(●)	testu A error
●/●	○	luminaire operating properly, battery being charged	○	(●●)	testu B error
○	●/●	test being executed	○	(●●●)	emergency operation interlock enabled
○	●	control module malfunction, light source failure, battery disconnected	○	(●●●●)	automatic test execution suspended
○	○	emergency operation			

○ - off, ● - on, ●/● - blinks, (●●) - blinks twice

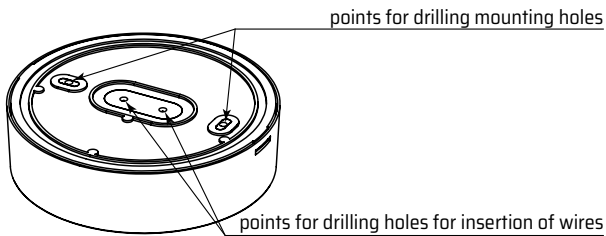


## BEFORE ANY INSTALLATION OR MAINTENANCE OPERATION IS PERFORMED ON THE LUMINAIRE THE POWER SUPPLY SHOULD BE DISCONNECTED.

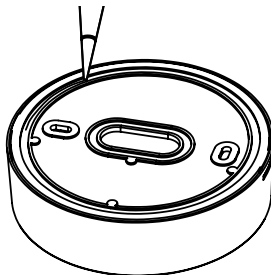
All installation and maintenance procedures can be performed only by qualified, properly trained and if appropriate, certified staff.

# INSTALLATION

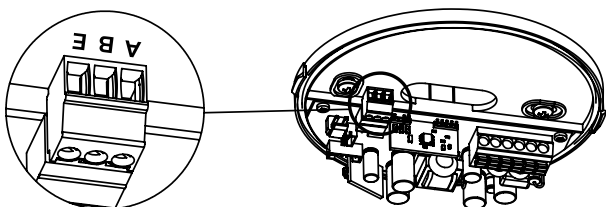
1. Unpack the luminaire after transport and verify its condition.
2. Drill the required holes in the luminaire body - maximum Ø15 for power cables and fixing screws. It is recommended to drill the holes not exceeding 600 rpm.



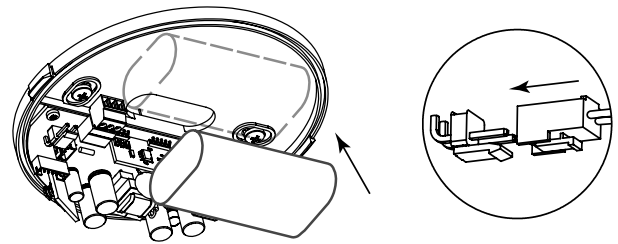
3. Drill holes in a ceiling according to mounting hole spacing (see DIMENSIONS) and in case of ROAD PLUS in the light direction (see OPTICS), so that the cables coming from the ceiling go freely through the hole provided for this purpose. Use Ø6-Ø8mm dowels and Ø4mm screws, suitable for surface material to which the luminaire is mounted.
4. Put neutral silicone along the dedicated groove on the back of luminaire base. Enough to seal luminaire to the ceiling. (not required when the protection IP20 is sufficient).



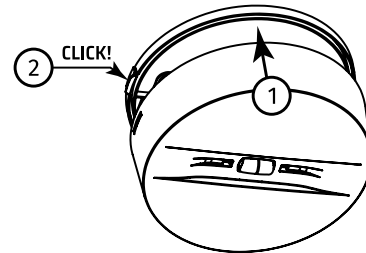
5. Insert the power cable and the communication cable (for CT) through the hole in the luminaire base and screw it to the ceiling.  
NOTE! The ceiling must be even, it must not have any irregularities or curves on the contact surface of the luminaire with the ceiling.
6. Connect the power supply cables according to the appropriate wiring diagrams, strip 10-11mm of wire copper insulation. Place the wires so that the cover may be mounted without any obstacles.
7. For the CT luminaire version, connect communication wires to the modules communication connector according to document "Communication line installation manual".



8. Stick the battery to base of luminaire using adhesive tape provided and connect it to the module battery connector.



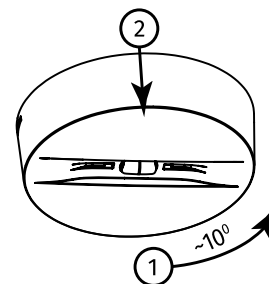
9. Mount luminaire housing on the base. Pay attention to the placement of lock latches. A "click" sound appears when closing the luminaire.



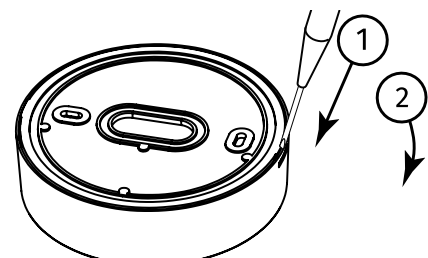
10. Perform the commissioning procedure.

### Opening the luminaire:

The luminaire opens by turning the housing counterclockwise by an angle of 10° and pulling it down.



If there is a need to open a not mounted luminaire, use a small flat screwdriver, insert it from top next to the latch (ceiling facing side from luminaire base) and unbend the housing gently to release the latch from the catch.



## COMMISSIONING

After all installation procedures are finished, the luminaire operation needs to be verified. Follow the instructions below and pay attention to the state of the led indicators:

1. Switch on the luminaire power supply. In that time red indicator LED should not light and the green one should light constantly or blink.
2. Turn off the luminaire power supply. The luminaire will go automatically into emergency operation; the indication LEDs should remain switched off. The light source should light.
3. Switch power supply again - the luminaire should work as in first point.
4. For the luminaire with the SM operation mode, with the fixed phase switched on, switch on the supply voltage of the switching phase and verify that the luminaire lighting source is working.
5. Perform the battery forming procedure.

## BATTERY FORMING

To ensure the battery long lifespan perform a forming procedure. After installation and commissioning follow below instructions:

1. Switch on luminaire power supply. The battery will be charged. During this period no voltage blackouts should occur.
2. After 36 hours turn off luminaire power supply. The luminaire will go automatically into emergency operation and will operate for up to two hours over the rated emergency operation time.
3. Switch the power supply back on.
4. After 36 hours turn off the power supply. The luminaire will switch to emergency operation again and will operate until the battery is fully discharged.
5. Turn the luminaire power supply back on.
6. The luminaire will be ready for operation after 24 hours.

## MAINTENANCE

Luminaire should be cleaned with a damp cloth according to building maintenance plan. Do not use abrasive cleaners, solvents, substances and cleaning agents containing alcohol to clean the light source. The light source used in this luminaire may only be replaced by the manufacturer, his service agent or a similar qualified person.

**Battery replacement procedure** if nominal emergency operating time isn't met (follow the drawings in installation procedure):

1. Switch off the luminaire power supply and remove the cover. Disconnect the battery from the emergency module and peel it off the luminaire base.
2. Replace it with a new one of the same types as on the battery label.
3. Connect the battery plug to the battery socket on the emergency module.
4. Replace the cover.
5. Perform the battery forming.

## STORAGE

The luminaire should be stored no longer than 6 months from the date of purchase, in a dry place with an ambient temperature range of -10 - +30°C.

## WARRANTY

Warranty is valid and enforceable only when manufacturer's recommendations are preserved, and the installation and usage are proper. Warranty is granted for a period of 12 months from the date of sale, unless the luminaire has been sold under different contract conditions. The warranty is excluded in case of misuse, unsuitable use, wrong connection or mechanical defects of the luminaire caused by the client.