

# ATOM FL LED

IP20  
IP65

## INSTALLATION AND MAINTENANCE MANUAL **EN**

### MOUNTING TYPE

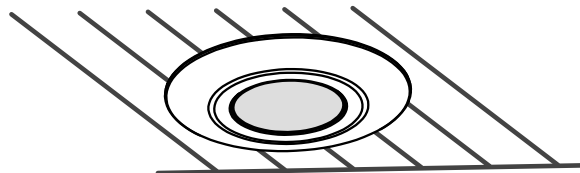
Directly to the modular or suspended ceiling.  
For other mounting types, see MOUNTING KITS in luminaire datasheet

### SYSTEM VARIANT

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

CENTRALTEST - internal components, battery and light source

**CT** - tests being performed on command from the main unit of central management system



### 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'

**N** - NIGHT - luminaire operates in emergency mode after power supply failure, mains operation controlled from the main unit of central management system (only CT luminaire system version)

### TESTS

The microcontroller-based control and test unit performs automatically (AT) or on order from the central management system (CT) 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

### TECHNICAL DATA

Supply voltage	230V AC 50/60Hz
Power consumption	< 5VA
Protection class	I
Ingress protection	IP20 / IP65
Light source type	LED module <sup>1)</sup>
Light source temperature	5700K
Light source supply power	2W
Light source lifespan	> 50 000h

Battery type / voltage	Ni-Cd, Ni-MH / 4,8V
Battery capacity	1,0; 1,6; 2,5Ah
Battery recharging time	< 24h
Emergency operation time	1h; 2h; 3h
Ambient temperature range	+5 - +35°C TE: <sup>2)</sup> -20 - +35°C <sup>3)</sup>
Supply cable cross-section area	0,5 - 1,5mm <sup>2</sup>

<sup>1)</sup> Non-exchangeable but serviceable light source; <sup>2)</sup> TE - extended temperature range;

<sup>3)</sup> Available only for 1h emergency operation time

### 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**

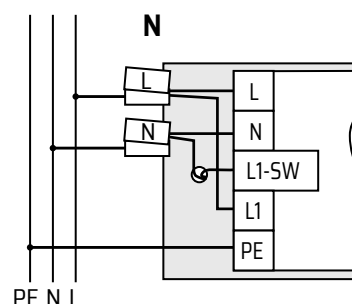
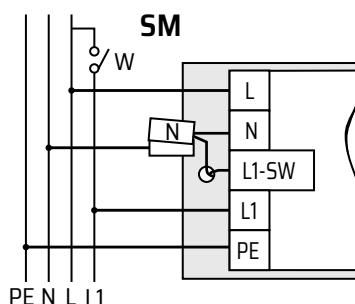
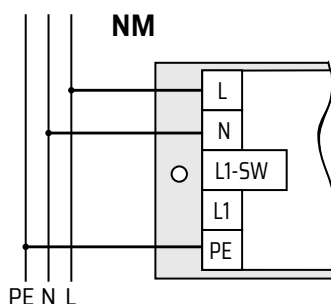
Not obeying this instruction manual can result in luminaire damage and loss of warranty



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

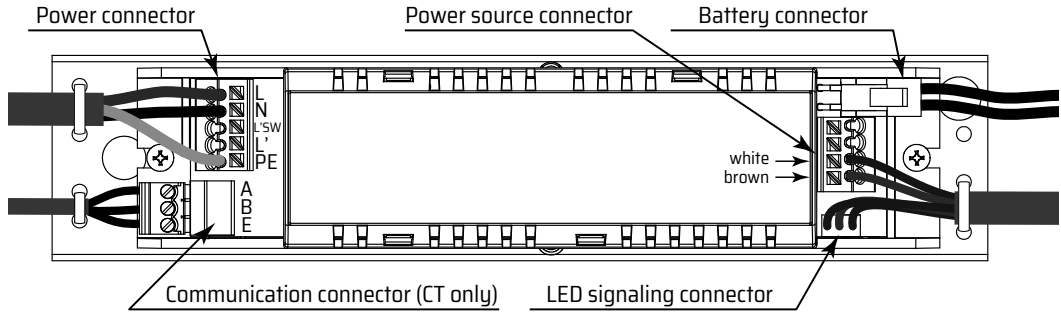
The luminaire should be positioned so that prolonged staring into the luminaire at a distance closed than 0.5m is not expected

### WIRING DIAGRAM

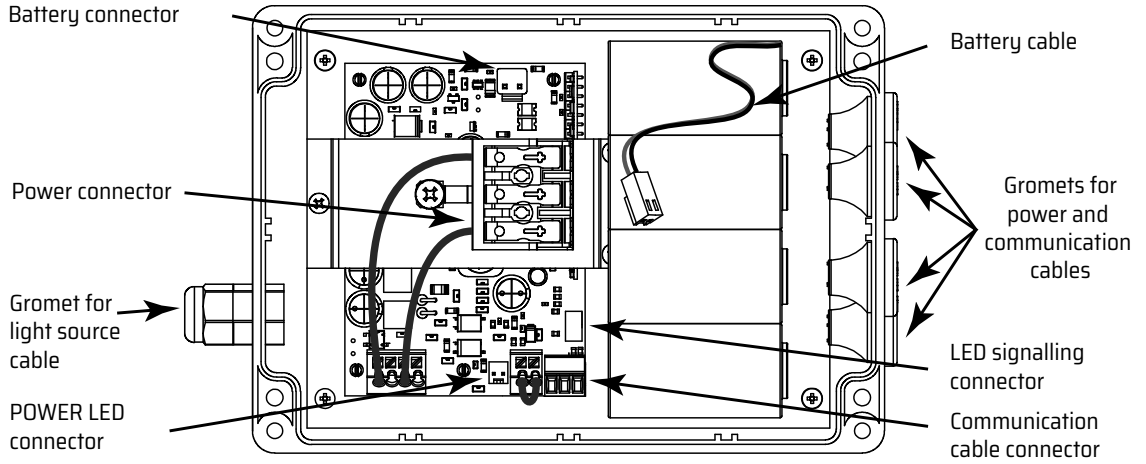


# EMERGENCY MODULE CONSTRUCTION

## IP20 module

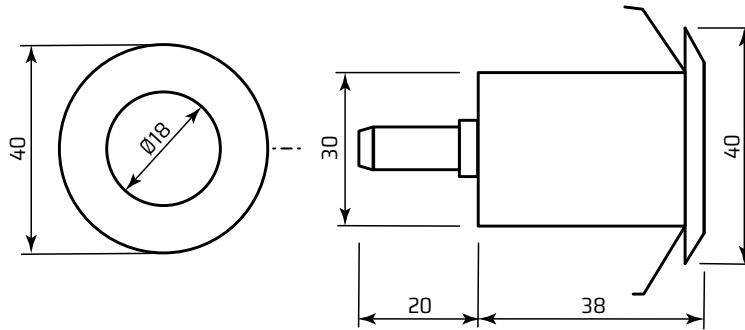


## IP65 module

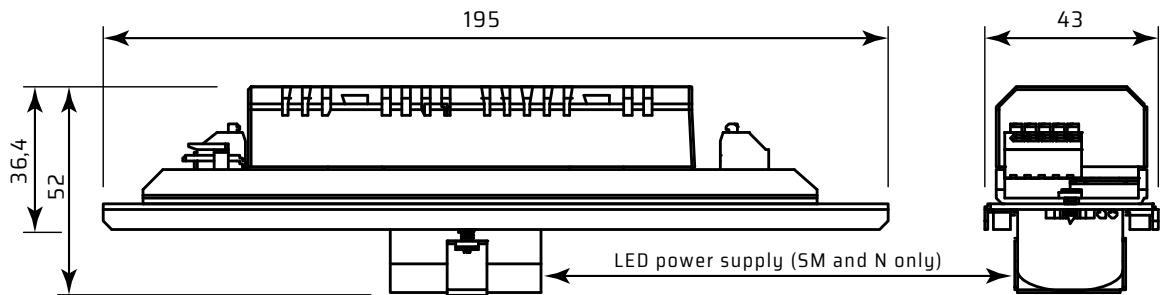


# DIMENSIONS (mm)

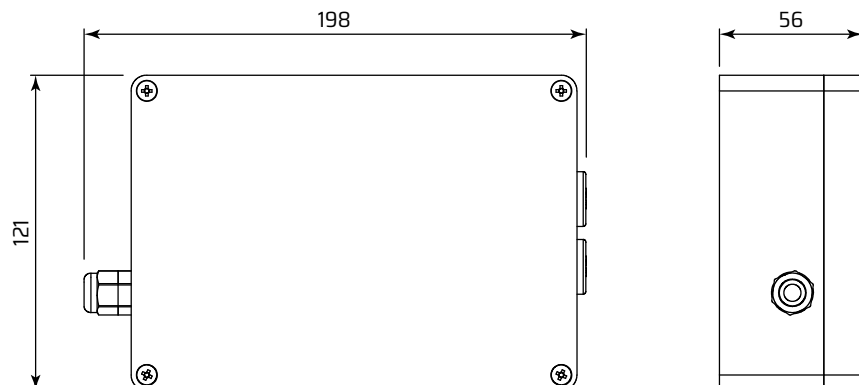
## Light source



## IP20 module



## IP65 module



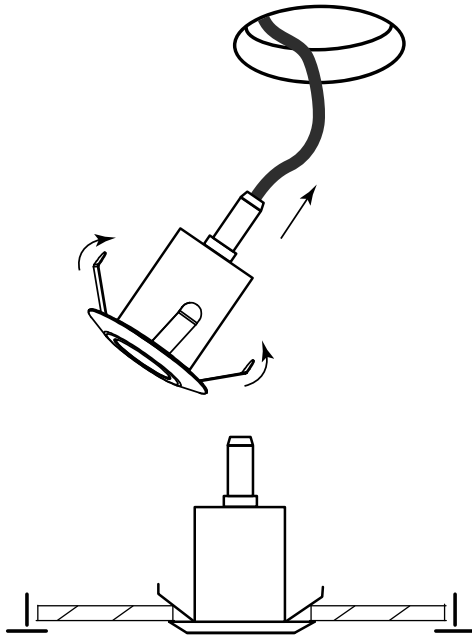


**BEFORE ANY INSTALLATION OR MAINTENANCE OPERATION IS PERFORMED ON THE LUMINAIRE THE POWER SUPPLY SHOULD BE DISCONNECTED.**

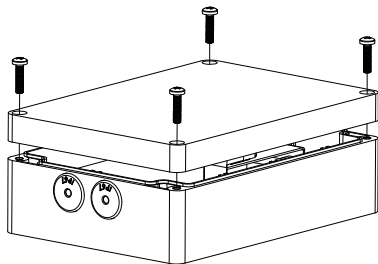
All installation and maintenance procedures can be performed only by qualified, properly trained and if appropriate, certified staff.

## INSTALLATION

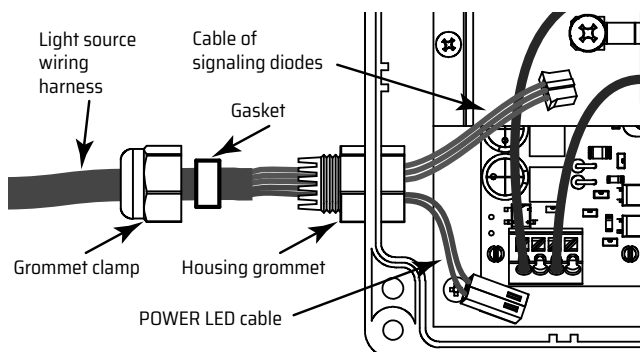
1. Unpack the luminaire after transport and verify its condition.
2. Cut a hole with the Ø35-36mm diameter in the modular ceiling for the light source (see DIMENSIONS).
3. Bend the springs fixing the luminaire upwards and slide the luminaire with cable into previously prepared mounting hole in the ceiling.



4. Provide free access to the ceiling space. Place the emergency module on the modular ceiling.
5. In case of IP65 module:
  - a. Open the housing of the emergency module.

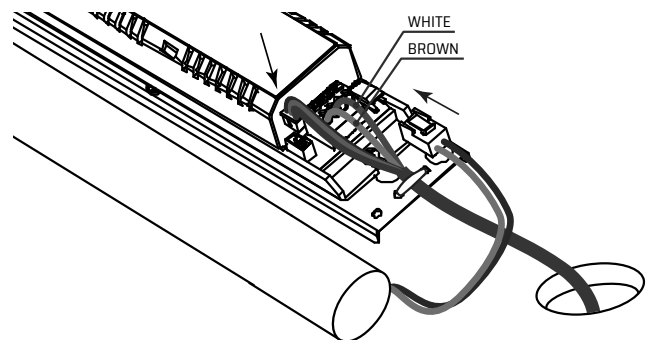
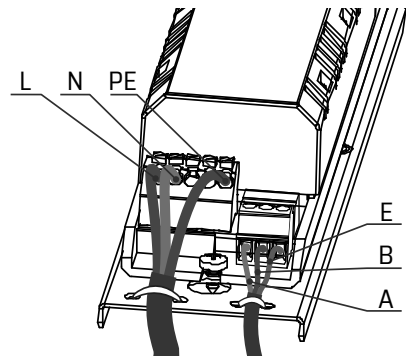
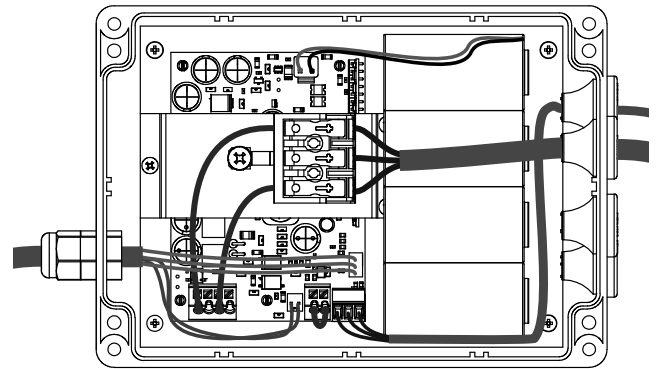


- b. Insert the communication cables (CT only) and power cables through the grommets into the housing (see EMERGENCY MODULE CONSTRUCTION). Insert the light source cable (see scheme):



- c. For the CT luminaire variant, connect communication wires to the communication connector according to document "Communication line installation manual". Pay special attention that the screen does not touch any metal part of the luminaire housing.
6. Connect the appropriate cables to the module connectors (see EMERGENCY MODULE CONSTRUCTION). Strip 8mm of wire copper insulation.
    - a. Connect the power supply cables to the power connector according to the appropriate wiring diagrams. **WARNING!** The L phase has to be the same as the one used for the supply of normal luminaires, where after power loss on it the luminaire goes into emergency operation (permanent phase).
    - b. Connect the battery cable to the battery connector.
    - c. Connect the light source power cables.

In case of IP20 module, after connecting, the wires must be secured with a cable clamp.



7. Close the housing of the emergency module (for IP65 module, opposite to point 5a).
8. Close the inter-ceiling space.
9. Perform the commissioning procedure.

## LUMINAIRE AND BATTERY STATE SIGNALLING

green LED	battery state	red LED	luminaire state
●	connected and fully operated	●	A test or B test error; battery not connected or damage; light source or emergency module damage
●/●	connected and being charged	●/●	A test or B test in progress
○	not connected or damage in the charging circuit	○	luminaire oprated

NOTE! During emergency operation luminaire LEDs remain off

● - on, ●/● - blinks, ○ - off

## 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, leave it for 30 second. 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. 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 after the light source turns off.
4. After 36 hours turn off luminaire power supply. Luminaire again goes into emergency mode and lights until battery discharge.
5. Turn the luminaire power supply back on.
6. The luminaire will be ready for operation after 24 hours.

## POTENTIAL IRREGULARITIES AND TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
After connecting the power supply on the green LED indication doesn't lights	Battery disconnected or wrong connected	Make sure the battery is correctly connected
	Light source disconnected or wrong connected	Make sure that the LED module power cables have not been disconnected or damaged during installation
After connecting the power supply the luminaire operating not properly and the LED indicator is off	Not connected or wrong connected power supply cable	Make sure the power supply cables have been properly connected to the connector power supply inside the luminaire
	No power supply in the cables connected to the luminaire	Using a voltage detector, check that in power supply cables brought to the luminaire there is a suitable supply voltage
After disconnecting from the main supply voltage, the luminaire lights up briefly and then turns off	Low battery charge	Connect the mains voltage and leave the luminaire worked to fully charged battery. (Make sure the green LED indicator is blinking)
The luminaire works in emergency mode though shorter than its nominal time	The battery has lost capacity	Replace the battery
	The luminaire worked outside its own nominal ambient temperature range	Verify the luminaire ambient temperature. Replace the battery

## 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.

## 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.