

SPARK SGN LED



INSTALLATION AND MAINTENANCE MANUAL

MOUNTING TYPE

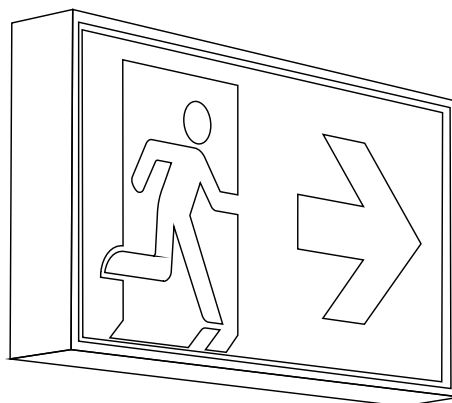
W1 - back to the wall

SYSTEM VARIANT

- ST** - STANDARD - tests commissioned manually (test button)
- 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 H-300

LIGHTING TYPE

- NM** - NON-MAINTAINED - luminaire operates in emergency mode after power supply failure
- M** - MAINTAINED -- lighting provided all the time, in case of power supply failure switches automatically into emergency mode
- SM** - SWITCHED MAINTAINED - luminaire operates in emergency mode after power supply failure, mains operation controlled by the switched phase L'



SIZE OF EXIT SIGN

- 30x15** - ISO 7010 compliant exit sign with the dimensions of 30x15 cm and a viewing distance of 30 meters
- 40x20** - ISO 7010 compliant exit sign with the dimensions of 40x20 cm and a viewing distance of 40 meters

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 AT system variant

TECHNICAL DATA

Supply voltage	230V AC 50/60Hz
Protection class	I
Ingress protection	IP40
Light source type	LED strips ¹⁾
Light source temperature	5000K
Colour rendering index	70
Light source supply power	2W
Light source lifespan	> 50 000h
Battery type	Ni-MH
Battery voltage	4,8V
Battery capacity	1,0Ah; 2,1Ah
Battery recharging time	24h
Emergency operation time	1h, 3h
Supply cable cross-section area	0,5 - 1,5mm ²
Suitable for through wiring	YES

¹⁾ 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 designed for use inside the building.

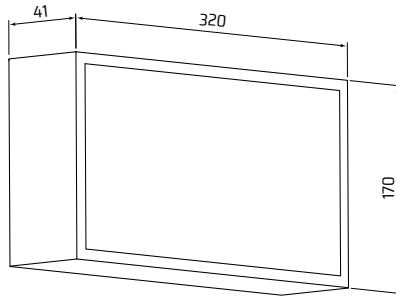
The above-mentioned luminaire is a fire protection equipment and therefore falls within relevant standards and regulations.



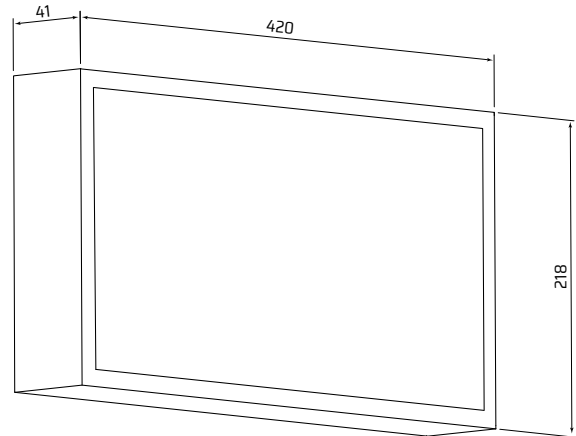
NOT OBEYING THE SAFETY INSTRUCTIONS AND RECOMMENDATIONS CAN CAUSE LIFE THREAT OR EVEN DEATH
NOT OBEYING THIS INSTRUCTION MANUAL CAN RESULT IN LUMINAIRE DAMAGE AND LOSS OF WARRANTY

LUMINAIRE DIMENSIONS (in mm)

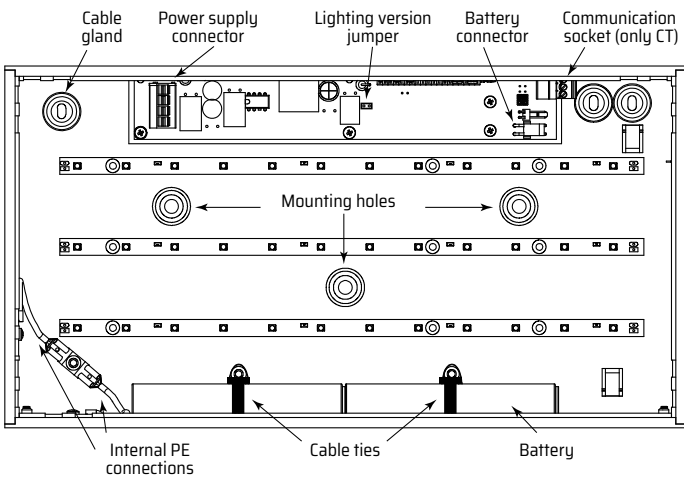
30x15



40x20



LUMINAIRE CONSTRUCTION



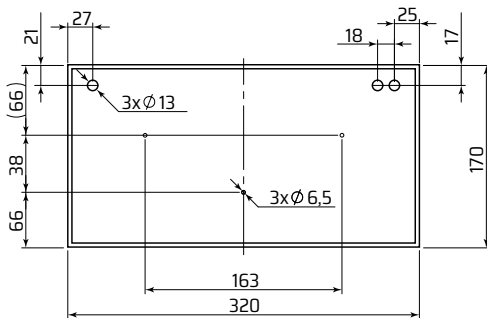
LUMINAIRE STATE SIGNALLING

green	red	LED indicators
●	○	Luminaire operating properly, battery fully charged
●/●	○	Luminaire operating properly, battery being charged
○	●/●	Test being executed
○	●	Control module malfunction, light source failure, battery disconnected
○	○	Emergency operation

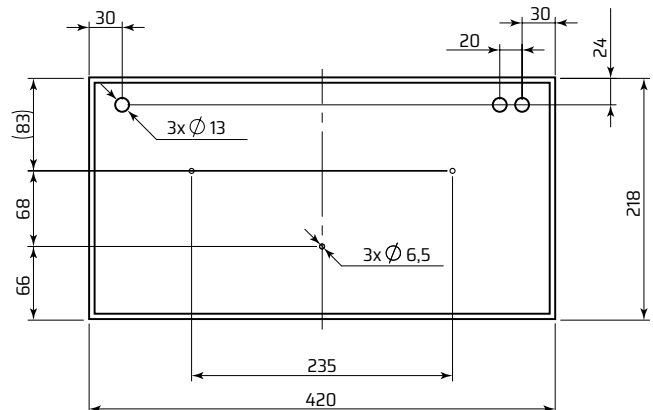
○ - off, ● - on, ●/● - blinks

MOUNTING DIMENSIONS (in mm)

30x15

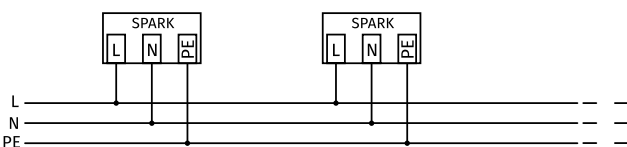


40x20

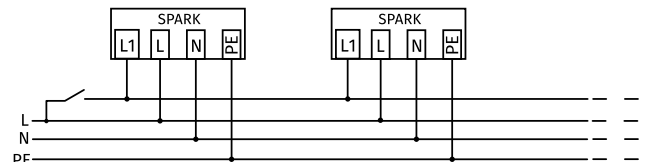


WIRING DIAGRAM

NM/M version



SM version

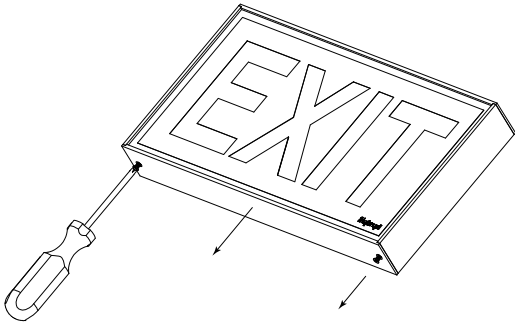


WARNING
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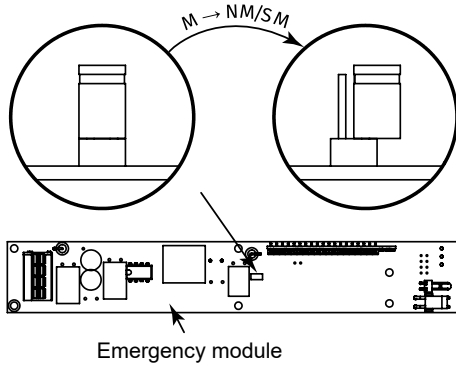
Before any installation or maintenance operation is performed on the luminaire the power supply should be disconnected. All installation and maintenance procedures can be performed only by qualified, properly trained and if appropriate, certified staff.

INSTALLATION

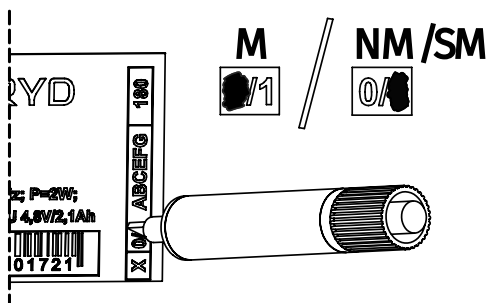
1. Unpack the luminaire after transport and verify its condition.
2. Drill holes in wall according to luminaire mounting hole spacing, so that power cables can be pushed freely into the luminaire through the cable glands. Use dowels or screws, appropriate for the material luminaire is being mounted to.
3. Unscrew the two M3 screws fixing the bottom part of luminaire and remove it, at the same time, remove the plate with pictogram.



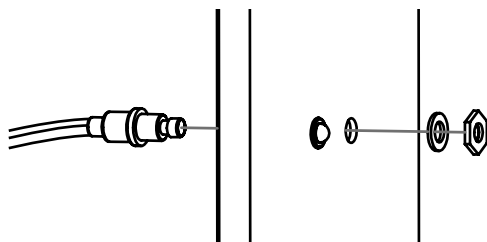
4. For the version NM and SM lightning types choose the appropriate operating mode. Default setting is maintained mode (M). To change to non-maintained mode (NM) or switched maintained (SM), remove the jumper as shown on the figure..



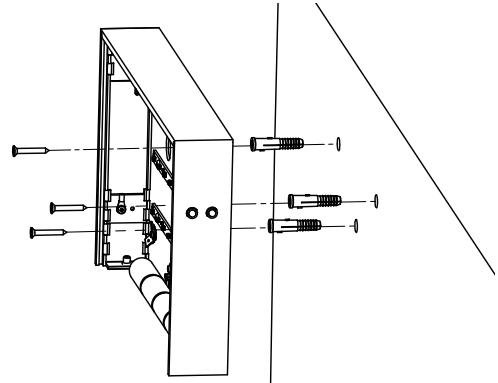
5. Mark the operating mode on the luminaire label. Mark 0 for the maintained mode and 1 for the non-maintained or switched maintained (SM) mode.



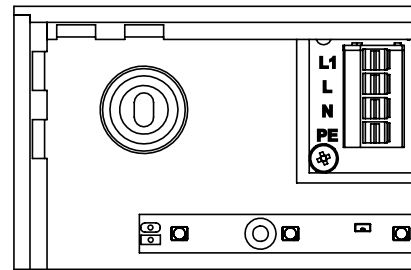
6. In the case of ST type secure the TEST button according to figure.



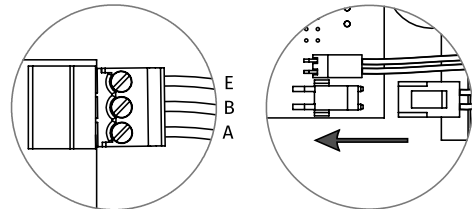
7. Carry out the power cable and communication cable (CT type) through the cable gland in luminaire. Screw the luminaire to the wall using previously prepared mounting hole.



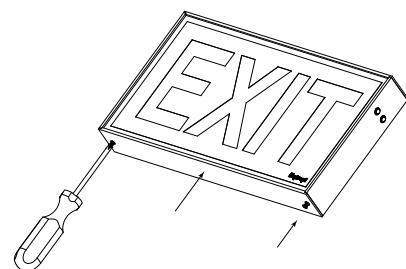
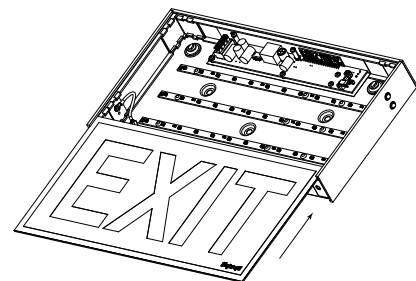
8. Connect the power supply cables according to the wiring diagram, strip 7 - 8mm of wire copper insulation.



9. In the case of CT type luminaires connect the communication plug to the communication socket according to document "Communication line installation manual". Remember to properly insulate the shielding wire. Connect the battery plug to the battery socket on the emergency module.



10. Insert the plate with pictogram. Put the bottom part of luminaire and using two M3 screws screw the two luminaire parts together.



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 power supply and leave it for about 30s. During this time, red LED should not light, green LED should blink or light continuously.
2. Turn off the power, luminaire should enter emergency mode and LEDs should turn off. Light source should illuminate.
3. Turn on the power again - luminaire should start as in the first point.
4. For SM operating mode switch on the supply voltage of the switching phase during the solid phase is on and verify that the luminaire operating properly.
5. Carry out the procedure of forming 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 lampshade.

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. Remove the two screws holding both parts of luminaire together.
2. Disconnect the communication cable (CT only), the power supply cable and the PE cable from back luminaire body.
3. Disconnect the battery from the emergency module.
4. Peel off the battery and replace it with a new one of the same types as on the battery label and connect the battery to the emergency module.
5. Close the luminaire as shown in the Installation section.
6. Perform the commissioning procedure.

BATTERY FORMING PROCEDURE

To ensure long battery life, perform the procedure of its formation. To do this you should perform the following operation:

1. Turn the mains power supply on - battery is charging. Mains power supply cannot be disconnected until it is completed.
2. After 36 hours turn the main power supply off. The luminaire will automatically start the emergency mode and will be lighting until battery discharging - it will take one hour more than luminaire nominal emergency work time.
3. Turn the mains power supply on again.
4. Wait 36h and turn the mains power supply off. The luminaire starts the emergency mode again and will be lighting until battery is discharged.
5. Turn the mains power supply on.
6. After 24 hours the luminaire is ready to work properly.

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 -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.