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SCHEDA TECNICA
**PRO ALPHA LED UVC**

# PRO ALPHA UV-C

## Sanificatore Led UV-C

## EFFICACIA

**testata su VIRUS E BATTERI in laboratorio***

**disattiva fino al 99,9% dei microrganismi**

***Per informazioni dettagliate rivolgersi all'ufficio tecnico**

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# SCHEDA TECNICA
# PRO ALPHA LED UVC

## Accessori

- Alimentatori dimmerabili
- Schede elettroniche di controllo
- Sensori di presenza / attivazione e sicurezza
- Timer programmabili

## Utile per sanificazione di :

- Ambienti di lavoro: uffici, aree ristoro
- Ambienti scolastici: aule, laboratori, mense
- Superifici di lavoro: desk, sale di attesa, ambulatori
- Sanificazione di scatole, box o armadi

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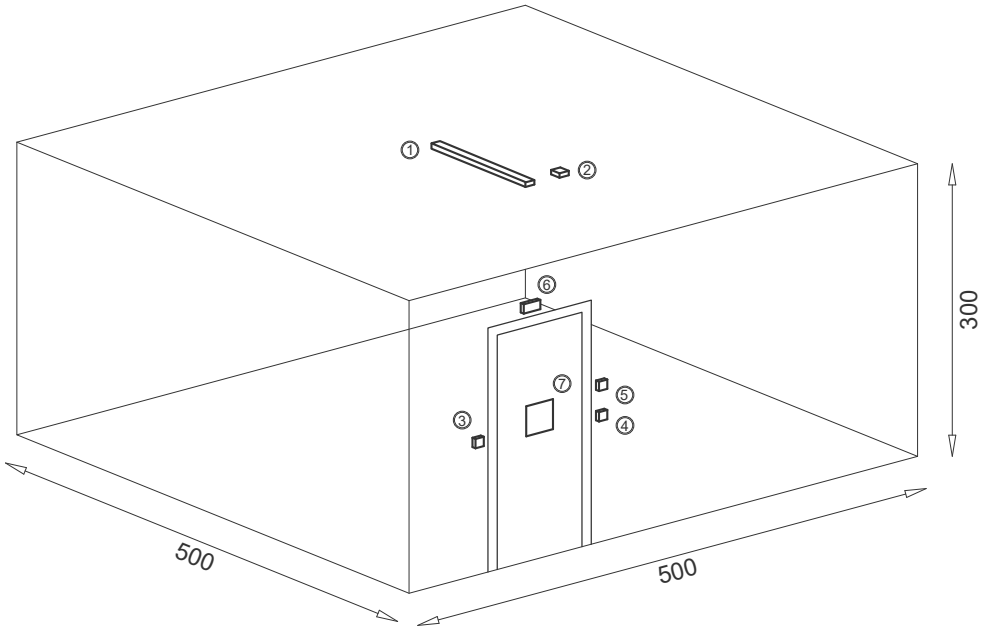
# SCHEDA TECNICA
# PRO ALPHA LED UVC

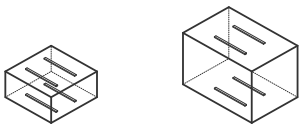



## INSTALLAZIONE CONFORME

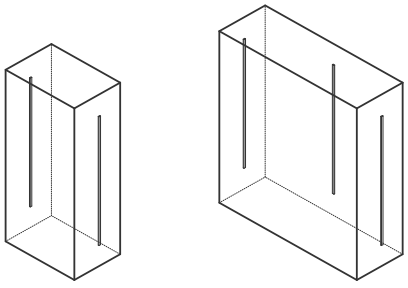
La lampada PRO ALPHA UVC (1) è un prodotto professionale per la disinfezione di superifici e/o di piccoli ambienti in assenza di persone. Per un funzionamento sicuro dell'apparecchio è indispensabile: l'installazione del nostro sensore di presenza Super Compact Version UV cod. 103058-UV o un prodotto con pari caratteristiche (2), la predisposizione di un interruttore di sicurezza sia dentro che fuori dall'ambiente che si intende sanificare (3-4), interruttore temporizzato per programmare i cicli di sanificazione (5), un segnalatore sonoro/luminoso (6) esterno all'ambiente che si intende sanificare e l'idonea segnaletica di pericolo UV-C (7).

Esempio di applicazione
col nostro profilo meno potente:
Dimensioni scatola - da 40x20x20 cm a 60x40x40 cm
Modello dispositivo - Profilo UV-C 250mm 50mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*

Esempio di applicazione
col nostro profilo meno potente:
Dimensioni box - da 60x60x40 cm a 100x60x60 cm
Modello dispositivo - Profilo UV-C 250mm 50mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*



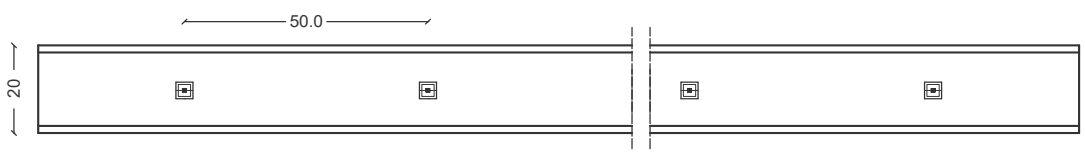
Esempio di applicazione
col nostro profilo meno potente:
Dimensioni armadio - da 90x60x200 cm a 180x60x200 cm
Modello dispositivo - Profilo UV-C 1500mm 300mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*



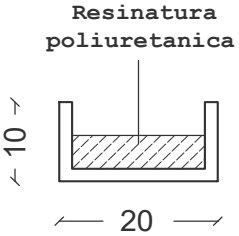
* dati indicativi
** utilizzando profili più potenti si possono diminuire i tempi di sanificazione o aumentarne i livelli

## Caratteristiche

- Profilo modulare
- Dimensioni ridotte ( L x20x10mm)
- Alta efficienza




**Lunghezza profili LED UV-C:**
**250mm, 500mm, 1000mm, 1500mm**
**Altezza profili LED UV-C:**
**10mm**



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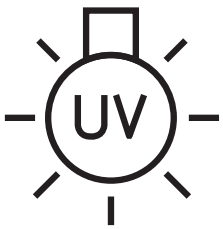
# SCHEDA TECNICA
# PRO ALPHA LED UVC

## ISTRUZIONI PER LA SICUREZZA

- Per restare in presenza dell'apparecchio in funzione è necessario indossare i seguenti DPI :Occhiali di protezione UVC cod. 913904CX, Guanti di protezione cod. 9392030X e tuta di protezione (o con pari caratteristiche).
- Per un funzionamento sicuro dell'apparecchio è indispensabile: l'installazione del nostro sensore di presenza Super Compact Version UV cod. 103058-UV o un prodotto con pari caratteristiche, la predisposizione di un interruttore di sicurezza sia dentro che fuori dall'ambiente che si intende sanificare, interruttore temporizzato per programmare i cicli di sanificazione, un segnalatore sonoro/luminoso esterno all'ambiente che si intende sanificare e l'idonea segnaletica di pericolo UV-C.
- Non utilizzare l'apparecchio in presenza di persone non protette dai DPI obbligatori indicati.
- Non guardare i LED UVC direttamente. La lunghezza d'onda UVC non risulta visibile all'occhio umano.
- Oltre all'utilizzo di tutti i dispositivi di protezione individuale (DPI), per un uso sicuro dell'apparecchio, si deve prendere nota di tutte le prescrizioni relative alla prevenzione degli infortuni riportate nei vari punti di questo manuale.
- Ogni persona che viene incaricata dell'uso e della manutenzione dell'apparecchio, deve aver prima letto il presente documento.
- Durante tutte le fasi dell'utilizzo dell'apparecchio, si raccomanda la massima cautela in modo da evitare danni a persone, a cose o all'apparecchio stesso.
- Utilizzate l'apparecchio solo ed esclusivamente per l'utilizzo previsto e nelle modalità qui descritte (sanificazione superfici e sanificazione di ambienti interni).
- Non manomettere il dispositivo.
- Tenere l'apparecchio fuori dalla portata dei bambini
- Le piante e gli animali da interno non tollerano gli UVC e devono essere schermati o rimossi.
- Opere d'arte costose dovrebbero essere coperte

| Codice | corrente di alimentazione | potenza tipica (UVC + UVA) | flusso radiante (UVC + UVA) | dimensioni | PCB | picco lunghezza d'onda | angolo di emissione |
|---|---|---|---|---|---|---|---|
| PRO alpha 250 | 50mA | 3,22W + 0,294W | 54,54mW + 135mW | 270 x 10 x 20 (mm) | IMS | 275nm | 120° |
| | 100mA | 6,76W + 0,6W | 100mW + 270mW | | | | |
| | 150mA | 10,48W + 0,918W | 136,7mW + 405mW | | | | |
| PRO alpha 500 | 75mA | 4,28W + 0,446W | 111,2mW + 202,5mW | 520 x 10 x 20 (mm) | | | |
| | 150mA | 9W+ 0,918W | 210mW + 405mW | | | | |
| | 200mA | 12,32W + 1,24W | 268,5mW + 540mW | | | | |
| PRO alpha 1000 | 150mA | 8,6W + 0,918W | 211,9mW+ 405mW | 1020 x 10 x 20 (mm) | | | |
| | 250mA | 15,5W + 1,596W | 340mW + 666,56mW | | | | |
| | 300mA | 19,2W+ 1,926W | 399,71mW + 793,12mW | | | | |
| PRO alpha 1500 | 175mA | 10,16W+ 1,078W | 243,1mW + 472,5mW | 1520 x 10 x 20 (mm) | | | |
| | 350mA | 21,7W + 2,26W | 470,26mW + 895,9mW | | | | |

I dati riportati nella presente documentazione sono da intendersi con una tolleranza del +/- 5%.
La lunghezza d'onda riportata nella presente documentazione é da intendersi con una tolleranza del +/- 5nm.
Verificare che le temperature di lavoro dei LED rientrino nelle specifiche tecniche, anche in funzione del lifetime necessario. Per maggiori informazioni rivolgersi all'ufficio tecnico Fuocofreddo.




## ! ATTENZIONE !

Il dispositivo PRO ALPHA UVC emettono luce ultravioletta ad alta intensità che può danneggiare gli occhi e la pelle, seguire quindi scrupolosamente le istruzioni di sicurezza riportate dal presente documento.

**Evitare l'esposizione diretta di occhi e pelle con la luce emessa dai LED UV-C.**
**Tenere fuori dalla portata dei bambini.**

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# SCHEDA TECNICA
# PRO ALPHA LED UVC

Installation must be carried out under observation ot the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation musi be carried out in a voltage-free state (i.e. disconnection from the mains).
The following advice must be observed; non-observance can result in the destruction ot the LED assembly modules, fire and/or other hazards.

- Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanic isolated.
- In mode of operation regard to sufficient isolation.
- Live parts must not be touched in operation mode. Danger in life!!!
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- Adequate anti-static electricity measures, including the use ot conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
- do not treat as bulk cargo
- avoid shear and compressive forces during handling and installation
- do not damage circuit paths
- avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (Imax. see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
- Short-circuit protection
- Overload protection
- Overheating protection
- The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersank screws) Max. torque: 1.2 Nm (M3)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals (WAGO 2060).
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- The following points must be observed when connecting LED modules in parallel:
- All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
- Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- To ensure problem-free operation, the specified maximum temperature at the tp point (see "Operating Life") must be observed (and measured in accordance with EN 60598-l). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognized as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778: risk group 1 (except HB, 6500 K, > 500 mA: risk group 2)

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# PRO ALPHA UV-C

## Sanificatore Led UV-C

## EFFECTIVENESS

**tested on VIRUSES AND BACTERIA in the laboratory ***
**deactivates up to 99.9% of microorganisms**

*** For detailed information, contact the technical department**

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# SCHEDA TECNICA
# PRO ALPHA LED UVC

## Accessories

- Dimmable power supplies
- Electronic control cards
- Presence / activation and safety sensors
- Programmable timers

## Useful for sanitizing:

- Work environments: offices, refreshment areas
- School environments: classrooms, laboratories, canteens
- Work areas: desks, waiting rooms, clinics
- Sanitizing of boxes, boxes or cabinets

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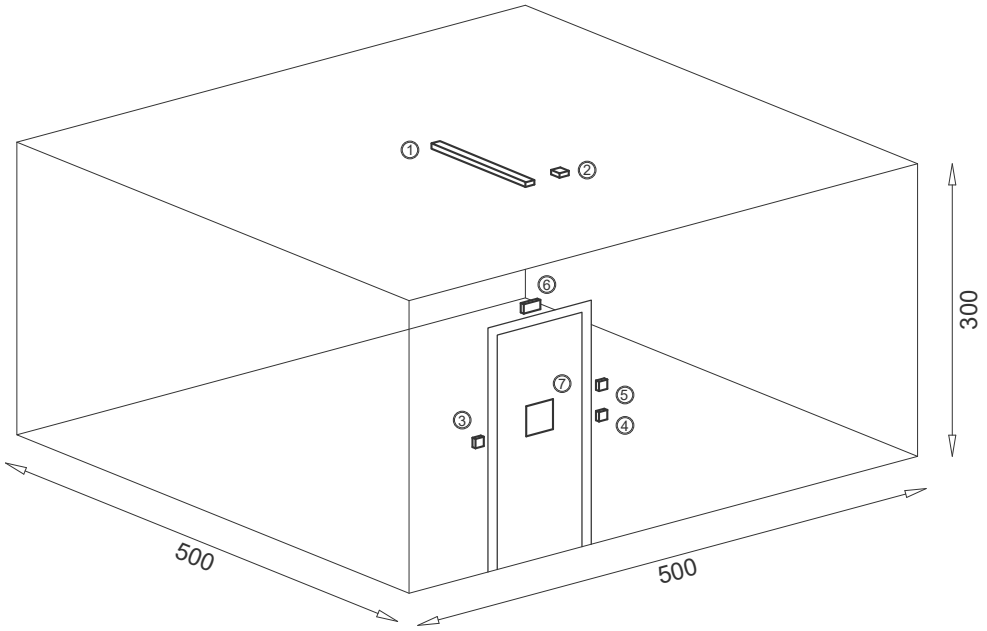
# SCHEDA TECNICA
# PRO ALPHA LED UVC

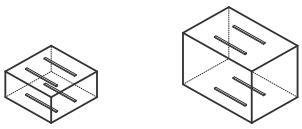



## COMPLIANT INSTALLATION

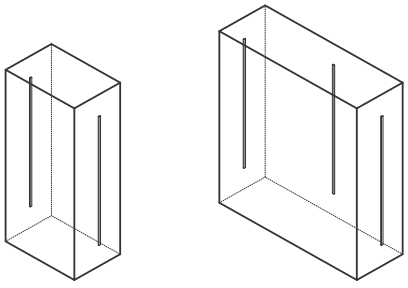
The PRO ALPHA UVC lamp (1) is a professional product for the disinfection of surfaces and / or small rooms in the absence of people. For a safe operation of the device it is essential: the installation of our presence sensor Super Compact Version UV cod. 103058-UV or a product with the same characteristics (2), the provision of a safety switch both inside and outside the environment to be sanitized (3-4), a timed switch to program the sanitation cycles (5), a sound / light indicator (6) outside the environment to be sanitized and suitable UV-C danger signs (7).

Esempio di applicazione
col nostro profilo meno potente:
Dimensioni scatola - da 40x20x20 cm a 60x40x40 cm
Modello dispositivo - Profilo UV-C 250mm 50mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*

Esempio di applicazione
col nostro profilo meno potente:
Dimensioni box - da 60x60x40 cm a 100x60x60 cm
Modello dispositivo - Profilo UV-C 250mm 50mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*



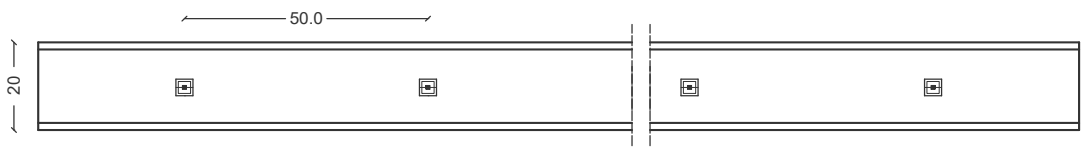
Esempio di applicazione
col nostro profilo meno potente:
Dimensioni armadio - da 90x60x200 cm a 180x60x200 cm
Modello dispositivo - Profilo UV-C 1500mm 300mW IP20 on-off
Tempo di trattamento - 30min.*
Livello di sanificazione - 90%*



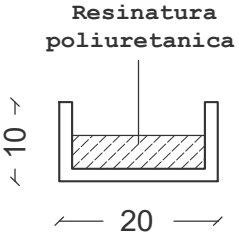
* dati indicativi
** utilizzando profili più potenti si possono diminuire i tempi di sanificazione o aumentarne i livelli

## Features

- Modular profile
- Small size (L x20x10mm)
- High efficiency




**Lunghezza profili LED UV-C:**
**250mm, 500mm, 1000mm, 1500mm**
**Altezza profili LED UV-C:**
**10mm**



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# SCHEDA TECNICA
# PRO ALPHA LED UVC

## SAFETY INSTRUCTIONS

- To remain in the presence of the appliance in operation, it is necessary to wear the following PPE: UVC protective goggles cod. 913904CX, Protective gloves cod. 9392030X and protective suit (or with the same characteristics).
- For safe operation of the device it is essential: the installation of our presence sensor Super Compact Version UV cod. 103058-UV or a product with the same characteristics, the provision of a safety switch both inside and outside the environment to be sanitized, a timed switch to program the sanitation cycles, a sound / light signal external to the environment that is to be sanitize and suitable UV-C danger signs.
- Do not use the device in the presence of people not protected by the mandatory PPE indicated.
- Do not look at the UVC LEDs directly. The UVC wavelength is not visible to the human eye.
- In addition to the use of all personal protective equipment (PPE), for safe use of the device, it is necessary to take note of all the requirements relating to the prevention of accidents listed in the various points of this manual.
- Each person who is in charge of the use and maintenance of the appliance must first have read this document.
- During all phases of the use of the appliance, we recommend the utmost caution in order to avoid damage to people, property or the appliance itself.
- Use the device only and exclusively for its intended use and in the manner described here (sanitizing surfaces and sanitizing indoor environments).
- Do not tamper with the device.
- Keep the appliance out of the reach of children
- Indoor plants and animals do not tolerate UVCs and must be shielded or removed.
- Expensive works of art should be covered

| CodE | power supply | typical power (UVC + UVA) | radiant flow (UVC + UVA) | size | PCB | peak wavelen-gth | emission angle |
|---|---|---|---|---|---|---|---|
| PRO alpha 250 | 50mA | 3,22W + 0,294W | 54,54mW + 135mW | 270 x 10 x 20 (mm) | IMS | 275nm | 120° |
| | 100mA | 6,76W + 0,6W | 100mW + 270mW | | | | |
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La lunghezza d'onda riportata nella presente documentazione é da intendersi con una tolleranza del +/- 5nm.
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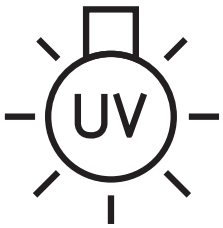


## ! ATTENTION !

The PRO ALPHA UVC device emits high intensity ultraviolet light that can damage the eyes and skin, therefore strictly follow the safety instructions contained in this document.

**Avoid direct exposure of eyes and skin with the light emitted by UV-C LEDs.**
**Keep out of reach of children.**

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- Live parts must not be touched in operation mode. Danger in life!!!
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
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- do not treat as bulk cargo
- avoid shear and compressive forces during handling and installation
- do not damage circuit paths
- avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (Imax. see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
- Short-circuit protection
- Overload protection
- Overheating protection
- The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersank screws) Max. torque: 1.2 Nm (M3)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals (WAGO 2060).
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- The following points must be observed when connecting LED modules in parallel:
- All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
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- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778: risk group 1 (except HB, 6500 K, > 500 mA: risk group 2)