Opsytec Dr. Gröbel

UV-LED solo P

Operating Manual

Version:
1.0.1

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1 Change History

Date	Version	Changed by	Changes
30.01.2014	1.0.0	Paravia	release
06.07.2021	1.0.1	Paravia	ed. changes

2 Symbol Overview

meaning:
Failure to follow the instruction could result in injury to the user.

meaning:
Failure to follow the instruction could result in damage to the device.

meaning:
Instruction is to be considered for regular operation.

3 Safety Information

1.1 General

Low voltage devices such as the UVLED solo P in general can have dangerous voltage carrying parts as well as hot surfaces. All work for transport, installation, start up, maintenance and service have to be done by properly skilled and responsible professionals (comply with EN 50110-1 (VDE 0105-100); IEC 60364). Non-appropriate behaviour can lead to serious injuries and damages.

1.2 Intended Use

The equipment is made for industrial use only. It complies with harmonized standards of the EN 60034 series (VDE O53O). Using the equipment in explosive environment is prohibited.

- Installation, starting up, operation, maintenance and service can only be done by properly skilled and trained professionals considering all safety regulations and standards.
- Liability:
  Damages resulting from non-intended use or non-authorized interventions lead to the termination of any rights to claim warranty or liability of the manufacturer.
- Exclusion of warranty:
  The use of any non-original spare parts terminates warranty.
- Environmental protection:
  Note that defective parts containing environmentally harmful substances have to be disposed accordingly.

1.3 Radiation Safety

- The equipment contains an LED that emits invisible UV-A radiation. Work according to safety rules for UV radiation.
- UV radiation is invisible! The light you may see is just luminescence caused by the UV. Mostly, luminescence is much weaker than the exciting UV!
- UV-A light may lead to cataract formation in the eye lens and to photo-retinitis. Always use proper UV protection goggles when operating the device. The UV-A also causes pigmentation and ageing of skin. Please use proper clothing, gloves and/or sunscreen in dependence on exposure. Avoid irradiating skin or eye directly! UV irradiance in the spot is several hundred times higher than that of sunlight!
- This device was classified to risk group 3 (High Risk) according to DIN EN 62471:2009-03„Photobiologicalsafetyoflampsandlampsystems“.

EN 62471:2009-03
Risk Group 3 (High-Risk) Luminaires present a hazard even for mo- mentary or brief exposure. Use in general lighting service is not allowed

Caution dangerous ultraviolet radiation

Figure 1: Safety information

1.4 Note on safety

The risk assessment for the workplace is the customer responsibility.
For this purpose measurements / assessments according to DIN EN 14255-1:2005-06 "Measurement and assessment of personal exposures to incoherent optical radiation - Part 1: Ultraviolet radiation emitted by artificial sources in the workplace" are necessary. The DIN 14255-1 itself contains no limits. These are given in the "DIRECTIVE 2006/25/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006 on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation)".

There is a risk of photochemical or thermal damage of the eye, retinal damage of the eye and erythema. The operating staff is to be trained appropriately.

For protection of the operating staff, do not look into the LED and do not expose the skin continuously to UV/VIS radiation.

4 Commissioning

4.1 Installation

Unpack all components and remove the packaging material.

The power adaptor of the UV LED solo P is to be operated with an AC voltage of 100 to 264 V ~ with a frequency of 50-60 Hz. The power consumption is max. 6 W.

A footswitch (optional) may be connected already.

Connect the power adaptor with mains.

4.2 Cooling

The UV LED solo P needs no cooling during its operation in an ambient temperature of <40°C and a duty cycle ED< 50%. WithhigherambienttemperaturesorED≥50%,a cooling might be necessary. This can be taken out by e.g. the flow of cooling air or heat conduction.

Avoid any cooling below the dew point.
Condensing water can corrode the LED tip or damage it otherwise.

The maximum housing temperature can reach > 60 °C. These high temperatures can be reached in the manual operation with permanent operation, and there is a risk of skin burns in case of contact.

5 Operating

In continuous operation, the UV-LED is active when the switch / foot switch is pressed. For solo P version without switch, the UV-LED is active when connected to mains.

6 Declaration of Conformity

CE

Manufacturer :	Company name: Opsytec Dr. Gröbel GmbH Street: Am Hardtwald 6-8 City: 76275 Ettlingen Country: Deutschland
Person authorized to compile the technical documentation	Company name: Opsytec Dr. Gröbel GmbH Street: Am Hardtwald 6-8 City: 76275 Ettlingen Country: Deutschland
Product:	High-Power UV-LED
Type designation:	UVLED Solo P on/off
Type number:	860 614 XXXX 860 605 XXXX 860 611 XXXX 860 605C XXXX

The manufacturer hereby declares that we have developed, designed and manufactured the above product(s) under our sole responsibility and that the product complies with the following standard(s) or directive(s) in this declaration:

2014/35/EU
“Directive of the European Parliament and of the Council on the harmonization of the laws of the Member States regarding the provision of electrical equipment for use within certain voltage limits on the market (Low-Voltage Directive)“.

2006/42/EG
“Directive of the European Parliament and of the Council on machinery and amending Directive 95/16/EG (Machinery Directive)”.

2014/30/EU
Directive of the European Parliament and of the Council relating to electromagnetic compatibility (EMC Directive, recast)".

Additional for a use in US:
Federal Radiation Control for Health and Safety Act of 1968
Federal Food, Drug and Cosmetic Act
Code of Federal Regulations, 21 CFR Ch. 1 Subchapter J, Radiological Health.

Ettlingen, 19.10.2019

gez. Dr. Mark Paravia

This document is valid without signature if the person responsible for the release is named in clear writing.