

LED

LED Powerline LC & LED powerdrive

Max. irradiation intensity: up to 25.000 mW/cm²

Wavelength: 365, 385, 395 and 405 nm

Water cooled

System features

- Extremely long LED service life
- Available in different wavelengths
- High irradiation power
- Small size
- Low weight

Advantages

- Reduction of maintenance costs
- Suitable for temperature sensitive materials
- No warm-up phase
- No stand-by time
- Clean room compatible

LED Powerline LC & LED powerdrive

The **LED Powerline LC** has been developed for all applications requiring a **highly intensive UV irradiance with a low temperature load on the substrate**. The LED assembly, as well as an electronic power control, guarantee high intensity and homogenous distribution of light. The recognition of LED-malfunction and a comprehensive monitoring function provide for very high process stability. So, especially in fully automated production lines, repeatable results can be realised even in shortest cycle times.

The typical **service life of a LED is longer than 20.000 hours***. The LEDs can be switched on and off as often as necessary. They do not require a warm-up or cooling phase.

The emitted wavelengths are available in 365/385/395/405 nm +/- 10 nm. It is thus possible to adapt the LED head to any application in question.

Applications

The **LED Powerline LC** controlled by LED **powerdrive** is appropriate for various applications, such as

- Bonding, fixing or encapsulating of components in the electronic, optical or medical sector
- Fluorescence stimulation for materials testing and picture processing
- High-intensity UV irradiation in the chemical, biological and pharmaceutical sector

LED control

The adjustment of the irradiation time is freely selectable in the ranges of 0.01 - 99.99 sec. or 0.1 - 999.9 sec pr 1 - 9999 sec. Alternatively, continuous operation can be chosen.

The operating status and the temperature of the LED segments as well as the irradiation time can be seen on the display at a glance. **The electrical LED power can be adjusted between 2 % and 100 % in 1 %-steps.**

The device is recording the LED operating hours and the service menu gives comprehensive information about the current operation status.

In addition the LED **powerdrive** controller is characterized by the following features:

- Large and clear display with all relevant information
- Intelligent power control
- Temperature / error control of LED
- Shortest cycle time 0,01 s
- with a LED **powerdrive** control 80 a **LED Powerline 80** can be operated
- for a **LED Powerline 120** a LED **powerdrive** control 120 is needed
- **LED Powerline 80** has got 2 LED segments, whereas **LED Powerline 120** owns 3 LED segments



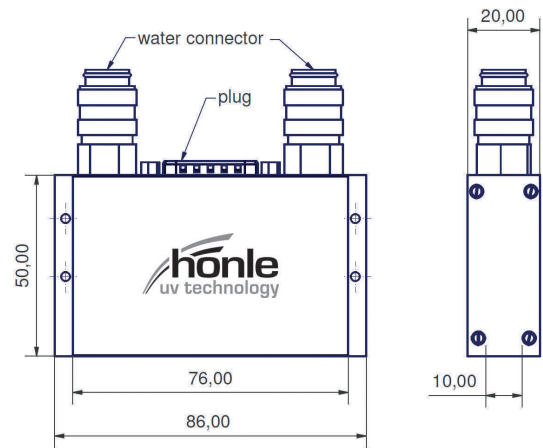
Special features

- Monitoring of LED segments regarding short-circuit, interruption and excess temperature
- auto recognition of connected **LED Powerline LC**

Interfaces

The LED **powerdrive** controller has the following interfaces:

- Analog preselected target value 0,2V - 10V \pm 2% - 100%
- PLC inputs: LED on, LED enable
- PLC outputs: LED is on, LED is off, LED error, LED warning
- Dry relais contact function (see PLC outputs) or for driving an external cooling device
- Foot switch
- LED enable signal



Technical data

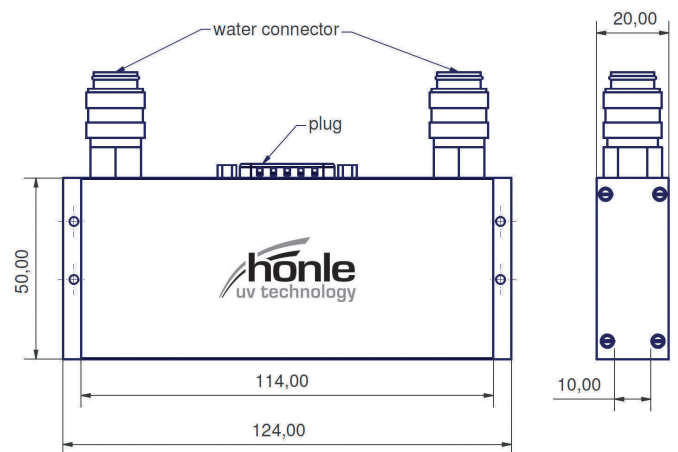
LED service life	> 20.000 hours*
adjustment range of timer	0,01 - 99,99 or 0,1 - 999,9 or 1 - 9999 sec. or continuous operation
wavelengths in nm	365 385 395 405
typical intensity in mW/cm ² **	14.000 20.000 25.000 25.000
power supply LED powerdrive	90 V – 264 V, 47 Hz – 63 Hz
max. input current	2,2 A
irradiation area ***	ca. 76 x 10 mm or ca. 114 x 10 mm
dimensions LED-head without connectors (H x B x T)	ca. 86 x 20 x 50 mm or ca. 124 x 20 x 50 mm

* typical lifetime under specified operating conditions

** measured with Hönle LED sensors for UV meter

*** other lengths on enquiry

Powerline 80 mm



Powerline 120 mm



Advantages of the LED technology

LEDs **do not emit IR radiation**. Even **temperature-sensitive materials** can be irradiated. The **different spectra** available guarantee safe and fast curing. As LEDs do not require a warm-up phase, LED heads can be switched on and off without any problems: **they are ready for immediate operation**.

More Hönle LED-Units

Water cooled type

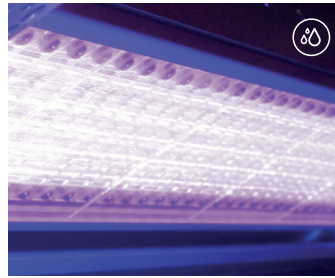


Air cooled type



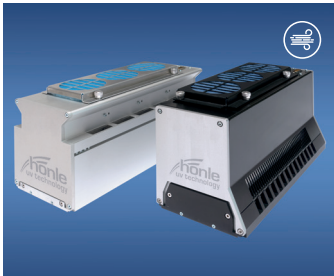
LED Spot W

The LED Spot W allows an extremely high UV intensity output - and requires only a very small amount of space.



LED Powerline Focus

Almost distance-independent high intensity due to focusing optics



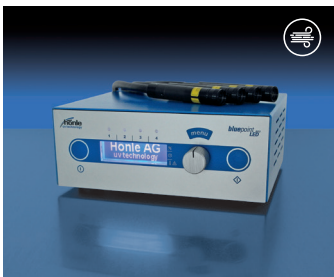
jetCURE LED

Modularly controll- and changeable (grid 41 mm) as well as continuously adjustable. Available in two versions which differ in their cooling air duct.



LED Power Pen 2.0

This handy LED point source is available in the wavelengths 365 nm and 405 nm. Depending on the wavelength it is able to generate UVA-intensities of either 10.000 mW/cm² or 16.000 mW/cm².



bluepoint LED eco

bluepoint LED eco has been developed for all applications requiring a most intensive punctiform UV irradiation.



LED Spot 40 IC

The LED Spot 40 IC was developed for all applications requiring a compact flood unit with high intensities.



LED Spot 100 IC / HP IC

The square light-emitting aperture has a size of about 100 mm x 100 mm. For bigger irradiation fields, several LED Spots 100 can be connected without gaps.



UVAHAND LED

A high-intensity hand-held UV lamp. It is easy to transport, ergonomically designed and ideal for mobile use.

hönlegroup

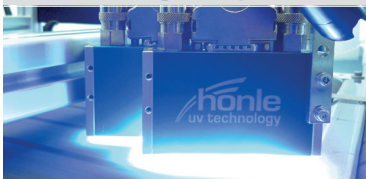
Curing

Drying

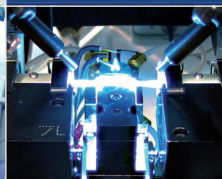
Bonding

Potting

Measuring



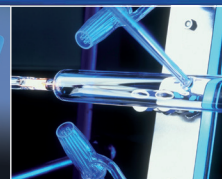
aladin



eleco



panacol-efd



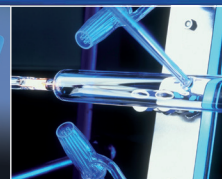
eltosch grafix



hönle



panacol



printconcept



raesch



uv-technik speziallampen

Panacol-USA Inc., 142 Industrial Lane, Torrington CT 06790, USA
Phone: (001) 860-738-7449. www.panacol-usa.com



Operating parameters depend on production characteristics and may differ from the foregoing information. We reserve the right to modify technical data. © Copyright Dr. Hönle AG. Updated 11/19.