



New:
up to 24.000 mW/cm²

LED

LED Spot W & LED powerdrive

UV LED flood lamp

Max. irradiation intensity: up to 24.000 mW/cm²

Wavelength: 365, 385, 395, 405 and 460 nm

Water cooled

System features

- Very small lamp head design
- Extremely long LED service life
- Available in different wavelengths
- Intelligent power control
- Controller for one, two or three LED Spot W available

Advantages

- Reduction of maintenance costs
- Homogeneous irradiation of larger areas
- Suitable for temperature sensitive materials
- No warm-up phase
- No standby-time
- Clean room capable

LED Spot W & LED powerdrive

The **LED Spot W** provides a **most intensive UV irradiation on a larger area**, while having only **very small space requirements**. Thanks to the external water cooling the extremely small lamp head design offers highest intensity. As the LED Spot does not require an integrated fan, it can also be used in a clean room environment.

The quadrate light emitting aperture has a size of 20 mm x 20 mm. Depending on the selected intensity/homogeneity it can be increased considerably by changing the distance to the substrate.

The LED Spot allows for a very flexible use due to its high intensity and the possibility to control the LEDs in a cycle time $< 100 \mu\text{s}$ externally. Thus, it is possible to realize **shortest cycle and machine throughput times**, especially in fully automated production lines.



LED Spot W

In addition, the LED Spot W features the characteristic advantages of the **LED-technology, as for example the typical LED service life of more than 20.000 hours***. Furthermore, the LEDs can be switched on and off as often as necessary, without any heating or cooling phase.

The emitted wavelengths are available in 365/385/395/405/460 nm \pm 10 nm. It is thus possible to adapt the LED head to any application in question.

Applications

The LED Spot W controlled by the LED **powerdrive** controller 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-intensive UV irradiation in the chemical, biological and pharmaceutical sector
- UV-irradiation for different applications in a clean room

LED Spot control

The LED **powerdrive** allows the independent operation of up to **3 LED Spots W**. 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 clearly arranged display
- Intelligent power control
- LED temperature and error monitoring
- Shortest cycle time (0.01 s when set via display / $100 \mu\text{s}$ with external control)

Interfaces

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

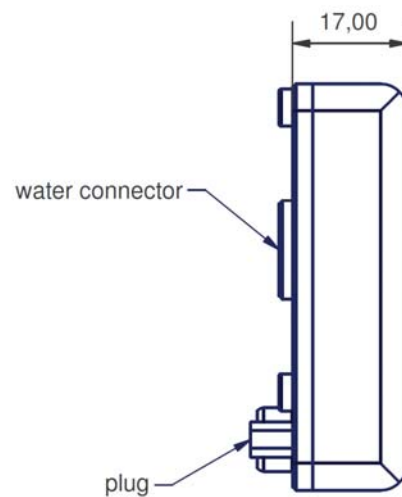
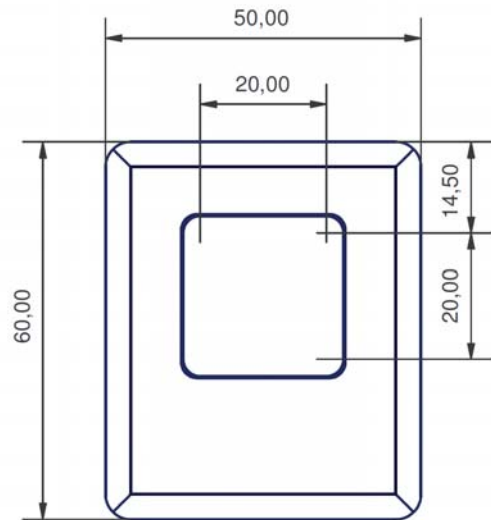
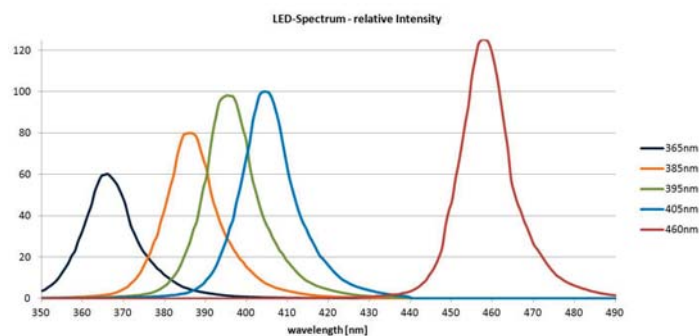
- Analog preselected target value 0,2V - 10V \pm 2% - 100%
- PLC inputs: LED on, LED enable
- PLC outputs: LED is on, LED is off, LED error, LED warning
- Dry relais contact function (see PLC outputs) or for driving an external cooling device
- Foot switch
- Release safety circuit (= LED enable)

Technical data

LED service life	> 20.000 hours*
adjustment range of timer (in seconds)	0,01 - 99,99 or 0,1 - 999,9 or 1- 9999 or continuous operation
wavelength in nm typical	365 385 395 405 460
intensity in mW/cm ² **	12000 16000 20000 20000 24000
power supply	90 V – 264 V, 47 Hz – 63 Hz
max. input current	2,2 A
Power rating	200 W
dimensions LED-head without connectors (H x B x T)	ca. 60 x 50 x 17 mm
cooling	External water cooling

* typical lifetime under specified operating conditions

** measured with Hönle LED sensors for UV meter



Advantages of the LED technology

LEDs **do not emit IR radiation**. Due to the inferior temperature load of the substrate, even **temperature-sensitive materials** can be irradiated. The **different spectra** available guarantee a safe and fast curing.

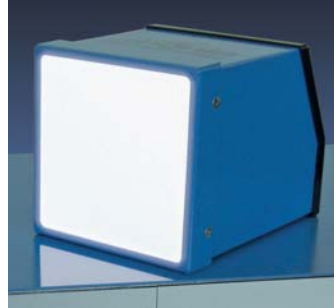
As LEDs do not require a warm-up phase, LED heads can be switched on and off without any problems: **they are immediately ready for operation**.

More Hönle LED-Units (selection)



LED Spot aircooled

The LED Spot operates only with air-cooling and is characterized by a highly intensive irradiation power.



LED Spot 100

The unit has a size of 100 x 100 mm. For bigger irradiation fields, several LED Spots 100 can be connected without gaps.



LED Powerline LC

Maximal length depends on application (length variable in 40 mm-steps). The LED Powerline LC is available in the wavelengths 365/385/ 395/405 nm.



Bluepoint LED eco

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



LED Pen 2.0

The UV-Pen is a LED-technology based reliable point source with an output spectrum of 365 nm +/- 10 nm.



LED Power Pen 2.0

By using an unique lens-system this high-performance version of the LED Pen offers a focused UVA intensity of 7.500 mW/cm² (within 12 mm distance to the irradiation exit).



hönle group		Curing	Drying	Bonding	Potting	Measuring



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Operating parameters depend on production characteristics and may differ from the foregoing information.
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