



**New:
compact and
powerful**

LED

bluepoint LED eco

LED point source with Process FLOW Control

Max. irradiation intensity: up to **16.000 mW/cm²**

Wavelength: **365, 385 and 405 nm**

System-Features

- LED power output separately adjustable
- Clean room compatible
- Processing of temperature sensitive materials
- Entry of complete program sequences
- Signal input for safe switch-off

Advantages

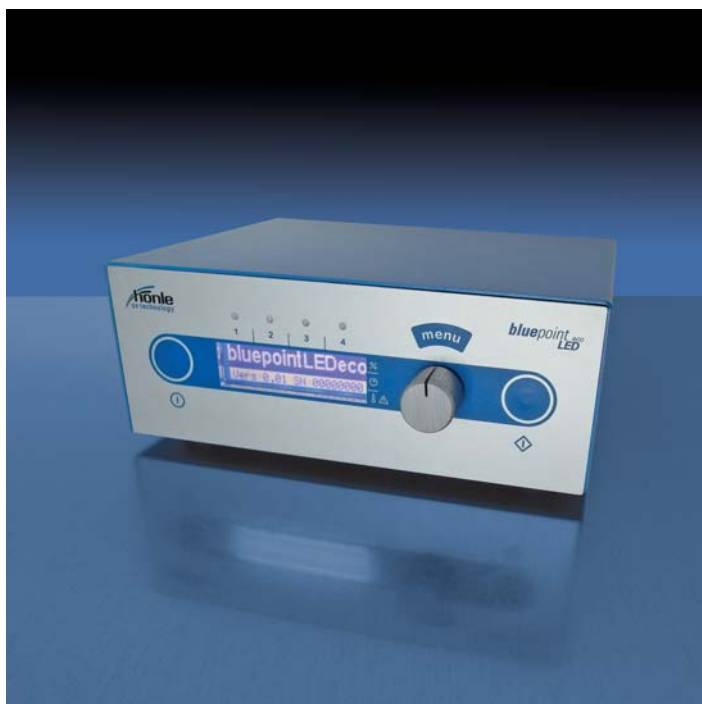
- Reduction of maintenance costs
- Extremely long service life
- Low temperature load
- Intelligent power control
- Compact size
- Excellent cost-performance ratio

bluepoint LED eco

bluepoint LED eco has been developed for all applications requiring a **most intensive UV irradiation**. Thanks to its high intensity and the possibility to program complete process sequences, e.g. exposure series with different intensities and holding times, it is possible to realize **shortest cycle and machine throughput times** especially in fully automated production lines. Likewise, bluepoint LED eco can be used in the laboratory for manual irradiation.

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 365/385/405 nm +/- 10 nm. It is thus possible to adapt the intensity to any application in question.

Up to four LED heads can be connected to the very compact control unit which can emit **different wavelengths**. Each LED head can be **activated separately**. The Hönle bluepoint LED eco autonomously recognizes the type of LED head and adapts the parameters automatically.



LED control unit

Applications

bluepoint spot sources are appropriate for various applications like:

- 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

Lamp activation

The irradiation time can be adjusted for each LED head separately in range between 0.01 and 9999 seconds. The alternative is a continuous operation. With a very long non-stop irradiation, an additional passive cooling of the heads may be necessary.

Operating states, the temperatures of all connected LED heads as well as the exposure times can be read off the display at one glance. The **electric lamp power output can also be adjusted between 10% and 100% in 1%-steps**. The unit registers the LED operating hours as well as LED temperatures and switches off the unit in the event of a fault. The operating state of each LED are indicated by bright signal lamps which can be seen easily even at longer distances.

Due to the application bluepoint LED eco offers different modes of power control. In the standard power-mode a value between 10% and 100% is forced.

The ConstPower-mode allows an almost constant optical output. In this mode the intensity of irradiation is kept constant over a broad temperature range.

For a short time irradiation with longer breaks between separate irradiation cycles the optical output can be maximised in the PeakPower mode.

The Step-mode allows individual irradiation sequences, just as the customer requires. Thereby, a sequence is created out of a maximum of four steps (time/power).

Interfaces

bluepoint LED eco has the following interfaces:

- PLC inputs: 4x LED on (can optionally be assigned to one or more LEDs)
- PLC outputs: 4x status LED with selectable function (LED on, LED off, LED error, LED warning)
- 24 V digital output with selectable function (unit on, unit error; LED on etc.)
- RS 232 interface for programming the operating parameters, for operating the unit with PLC or PC, for transferring program sequences or for downloading the update of the operating software
- Release safety circuit
- Signal input for safe LED switch-off according to current safety guidelines

Process FLOW Control

With bluepoint LED eco, **complete process sequences can be programmed**. They can be entered through the control system or by transferring a text file compiled on PC. The following sequences can be programmed:

- Exposure series with different intensities
- Activation of external handling components
- Holding times
- Conditional commanding depending on external control signals



LED head

Further features

The language for the menu texts can be selected between German, English, French or Italian.

Advantages of the LED technology

LEDs do not emit IR radiation. Thanks 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 heating phase, LED heads can be switched on and off without any problems: they are immediately ready for operation.

Moreover, the following features characterise the bluepoint LED eco:

- Large and clear display with all relevant information
- Intelligent power control (for each LED head separately)
- Entry of complete program sequences
- Step-mode for individual exposure sequences
- Compact size
- Cleanroom compatible

Technical Data bluepoint LED eco

LED service life	> 20.000 hours*
Max. UVA intensity	up to 16.000 mW/cm ² **
Adjustment range of timer	0,01 – 9999 sec or continuous operation
Wavelengths	365, 385, 405 nm +/-10 nm
Power supply	20 V – 28 V DC or power pack
Max. input current	3,5 A
Dimensions (H x W x D)	65 x 160 x 130 mm
Weight	approx. 0,5 kg

* typical time for usage under standard environment conditions

** depending on the LED head used, measured with Hönle UV meter with LED sensor



More Hönle LED-Units

Watercooled types



LED Spot W

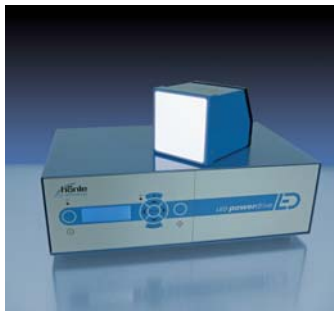
The LED Spot W allows an extremely high UV intensity output - and requires only a very small amount of space.



LED Powerline LC

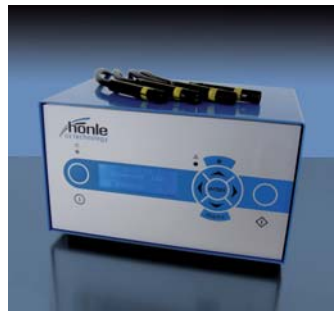
Maximal length depends on application (lengths variable in 40 mm-steps).
Die LED Powerline LC is available in the wavelengths 365/385/395/405 nm.

Aircooled types



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.



bluepoint LED

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



LED Spot

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



LED Power Pen 2.0

By using a 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

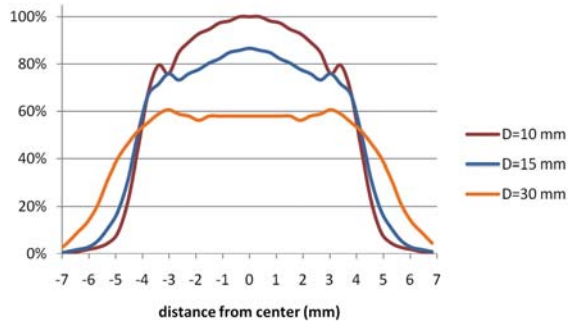


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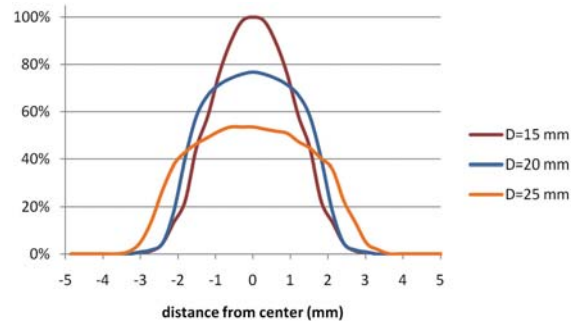
Operating parameters depend on production characteristics and may differ from the foregoing information.
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UV-LED lens types

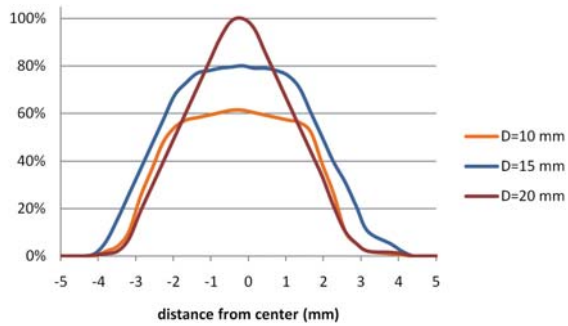
Hönle LED head „Flat Optic“



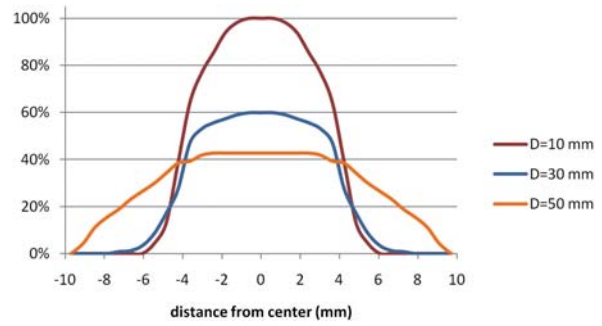
Hönle LED lens Type 3



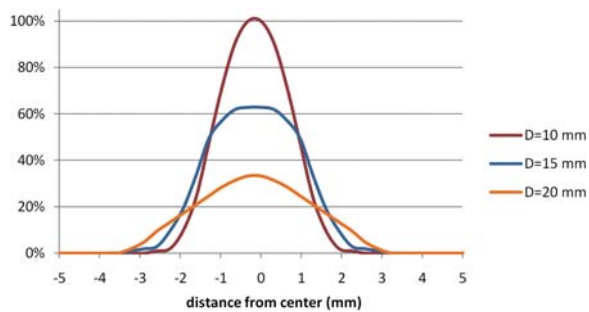
Hönle LED lens Type 4



Hönle LED lens Type 5

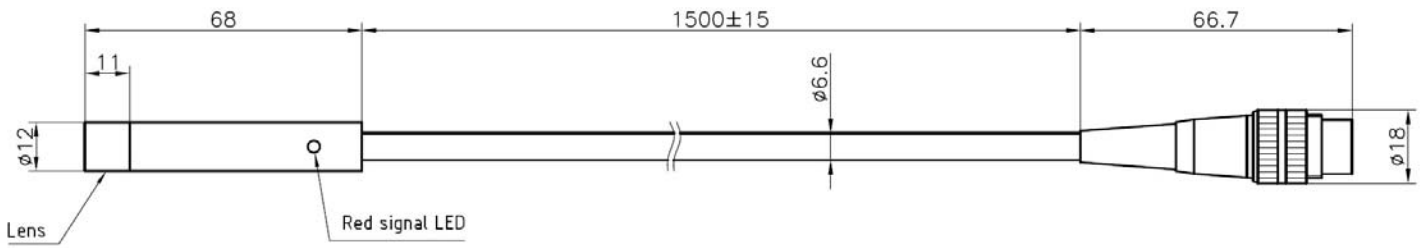


Hönle LED lens Type 6

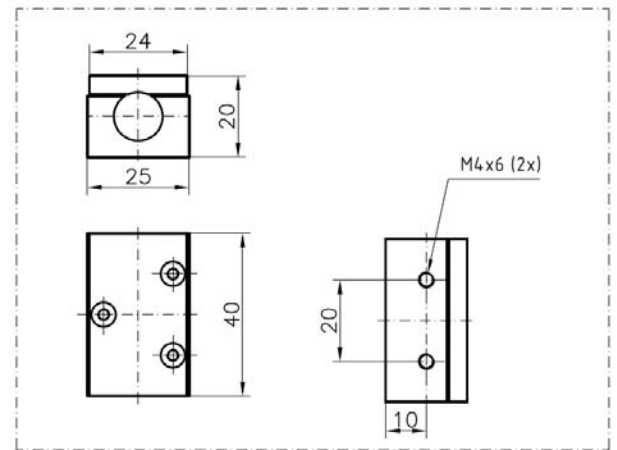


	LED Head Flat Optic			LED Lens Type 3			LED Lens Type 4			LED Lens Type 5			LED Lens Type 6		
Wavelength [nm]	365	385	405	365	385	405	365	385	405	365	385	405	365	385	405
Peak intensity* [mW/cm ²]	950	1100	1500	6000	7000	10000	3000	3700	5000	1500	2100	3000	10000	12800	16000
Fokus-distance [mm]	10			15			15			10			10		
Fokus-Diameter [mm]	10			3			4			9			2		

* measured at focus-distance with a Hönle UV meter and LED sensor



Drawing LED head



Mounting adapter

More Hönle LED-Units



hönle group

Curing	Drying	Bonding	Potting	Measuring						
aladin	eleco-efd	eltosch	grafix	hönle	mitronic	panacol	printconcept	raesch	uv-technik	speziallampen