



**New:  
3.000 mW/cm<sup>2</sup>  
Air cooled**

**LED**

**LED Spot 100 IC,  
LED Spot 100 HP IC  
& LED powerdrive IC**

Max. irradiation intensity: up to 3.000 mW/cm<sup>2</sup>

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

Air cooled

**System features**

- LED Spot 100 HP IC up to 3.000 mW/cm<sup>2</sup>
- LED Spot 100 IC up to 1.500 mW/cm<sup>2</sup>
- Different wavelengths available
- Intelligent power control
- 100 mm x 100 mm irradiation area

**Advantages**

- Low temperature load
- No warm-up phase
- Stackable for bigger areas
- IC (Integrated Controller) or Plug & Play with LED powerdrive IC

## LED Spot 100 IC / LED Spot 100 HP IC

The **LED Spot 100 IC / HP IC** has been developed for all applications requiring **a highly intensive UV irradiance over a large area**. 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 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 more than 20.000 hours\*\*\***. The LED Spot 40 IC can be switched on and off as often as necessary. It does not require a warm-up or cooling phase.

The emitted wavelengths are available in 365/385/395/405/460 nm +/- 10 nm. This allows to adapt the LED Spot to the existing application.

The square light-emitting aperture has a size of about 100 mm x 100 mm. Depending on the required intensity/homogeneity it can be increased considerably by changing the distance to the substrate. The optimized housing design means the devices are now stackable with only minimal gaps. An integrated fan provides adequate cooling even for continuous operation.

The new **LED Spot 100 HP IC** is the most powerful model. At 405 nm wavelength 2.200 mW / cm<sup>2</sup> guarantee reliable and fast curing. For manufacturing processes which require lower intensities the **LED Spot 100 IC** offers at 405 nm up to 1.100 mW/cm<sup>2</sup>.

The power supply and control of the LED Spot 100 IC / HP IC can be done either by the optionally available LED power drive IC or by an external power supply and PLC signals.

### Special features

- **Integrated controller (IC)**
- Driving and monitoring of the LED segment
- Monitoring of the LED segment regarding short-circuit, interruption and excess temperature
- Recording of the operating hours
- Analogue dimming of the segments via a 0-10 V-signal

- Digital PLC interface (LED enable, LED on, LED error)
- Bus control of all modules via RS485 or optional LED powerdrive IC

### Applications

The LED Spot 100 IC / HP IC is appropriate for various applications, such as

- Bonding, fixing or encapsulating of components in the electronic, optical or medical-technical sector
- Fluorescence stimulation for materials testing; also suitable for automatic image processing
- High-intensive UV irradiation in the chemical, biological and pharmaceutical sector

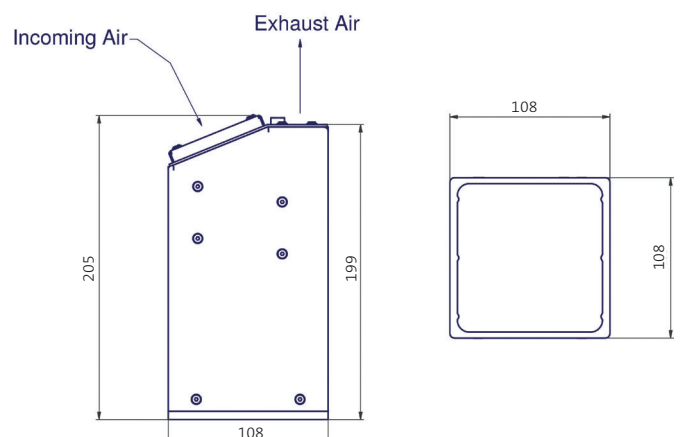
### Technical data

Light-emitting aperture in mm:	about 100 x 100
Dimensions in mm: L x W x D	205 x 108 x 108
Wavelengths in nm	365 385 395 405 460
typical intensity in mW/cm <sup>2</sup>	
LED Spot 100 HP IC	1200* 2200* 2200* 2200* 3000**
LED Spot 100 IC	600* 1100* 1100* 1100* 1500**
Cooling	Air cooled

\* measured with Hönlle UV meter and LED surface sensor, distance 0 mm

\*\* measured with Hönlle UV meter and VIS surface sensor, distance 0 mm

\*\*\* typical lifetime under specified operating conditions



## LED powerdrive IC

### LED powerdrive IC (Integrated Controller)

The LED powerdrive IC allows the independent operation of up to 3 LED Spot 100 IC / HP IC. Two versions are available:

- the **LED powerdrive IC 400** can drive one LED Spot 100 IC / HP IC.
- the **LED powerdrive IC 1200** can drive three LED Spot 100 IC / HP IC.

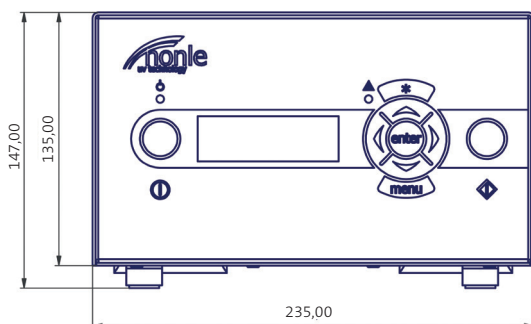
The adjustment of the irradiation time is freely selectable in the ranges of 0.01 - 99.99 sec. or 0.1 - 999.9 sec or 1 - 9999 sec. Alternatively, continuous operation can be chosen.

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 IC 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 when set on display / 100  $\mu$ s in case of external activation)



Front view

### Special features

- Monitoring of LED segments regarding short-circuit, interruption and excess temperature
- Auto recognition of connected LED Spot 100 IC / HP IC

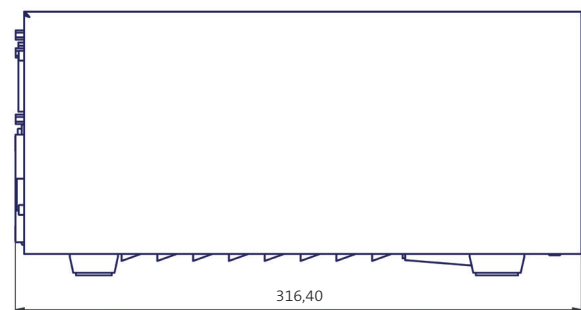
### Interfaces

The LED powerdrive IC 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)
- Foot switch
- LED enable signal
- Option: Fail-safe enable (Performance level e)

### Advantages of the LED technology

**LEDs do not emit IR radiation.** Even temperature-sensitive materials can be irradiated. A wide range of applications is covered by the variety of available wavelengths. 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.**



Side view



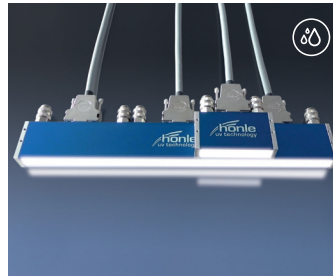
## More Hönle LED-Units

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 LC

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



### 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 Spot 40 IC

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



### bluepoint LED eco

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



### LED Powerline AC/IC

Air cooled high-performance UV LED array optional with LED powerdrive IC



### 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/cm<sup>2</sup> or 16.000 mW/cm<sup>2</sup>.

hönle group		Curing	Drying	Bonding	Potting	Measuring
eleco panacol-efd	eltosch grafix	gepa coating	hönle	panacol	printconcept	raesch
						uv-technik speziallampen



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