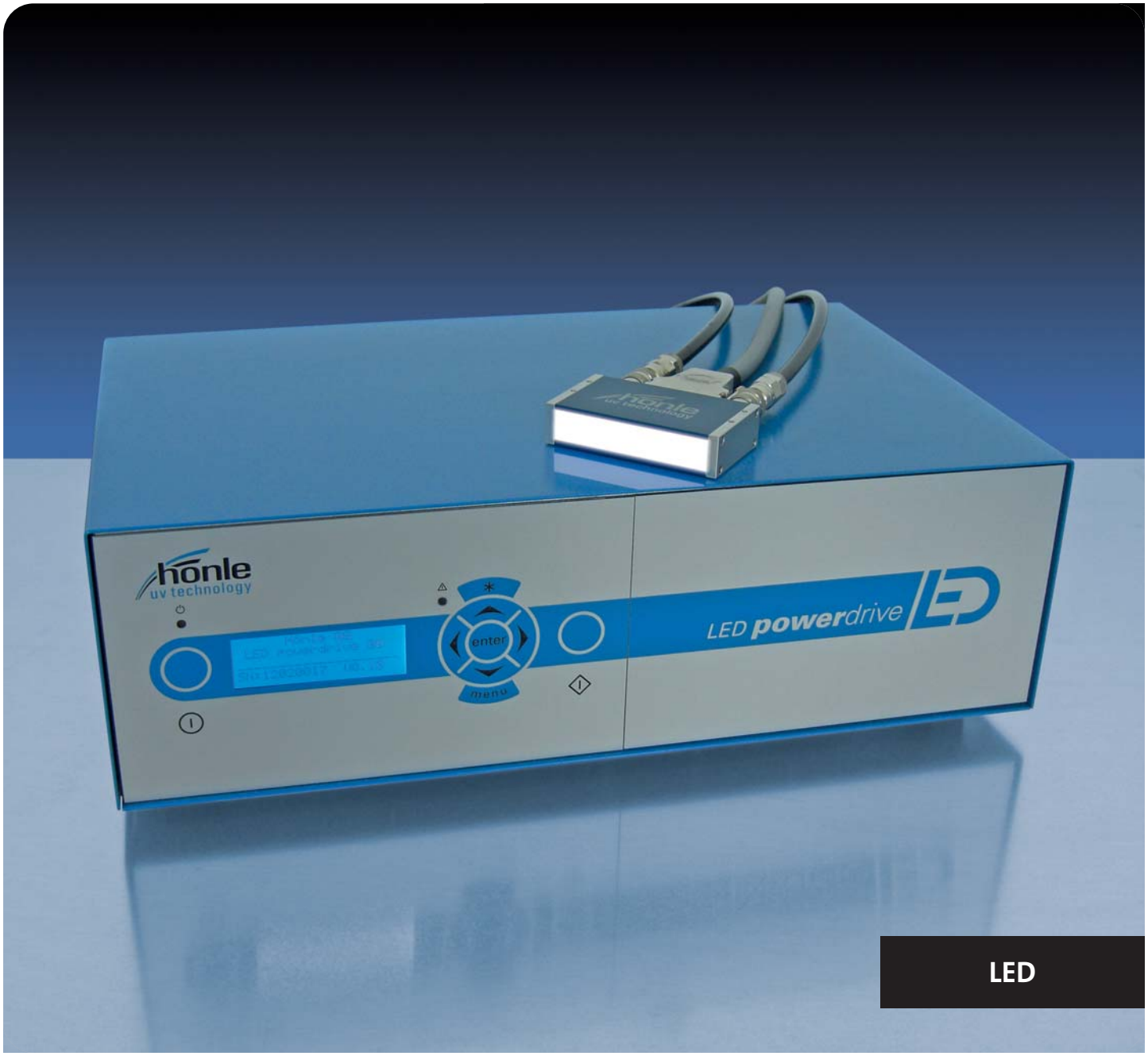
hönle group

hönle uv technology



LED

PureUV LED Powerline 80 / 120 mm & LED **power**drive

System features

- Extremly 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 heating phase
- No stand-by time
- Clean room compatible

PureUV LED Powerline & LED **power**drive

The **PureUV LED Powerline** 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 10.000 hours. The LEDs can be switched on and off as often as necessary. They do not require a heating or cooling phase.

The emitted wavelengths are available in 365/375/385/395/405 nm +/- 10 nm. It is thus possible to adapt the LED head to any application in question.

Applications

The **PureUV LED Powerline** controlled by LED **power**drive 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 activation

The irradiation time can be adjusted over a range of between 0.01 and 99.99 seconds or can changed to continuous operations.

The operating status and the actual temperatures of the LED segments as well as the irradiation times can be seen on the display at one glance. **The electrical LED power can also be adjusted between 10 % and 100 % in 1 %-steps**.

The unit registers the LED operating hours as well as the unit s operating hours.

In summary, the following features characterize the LED **power**drive controller:

- 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 **power**drive control 80 a **PureUV LED Powerline** 80 can be operated
- for a **PureUV LED Powerline** 120 a LED **power**drive 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 PureUV LED Powerline

Interfaces

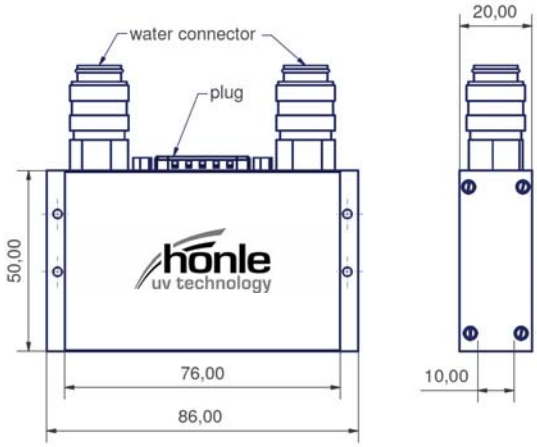
The LED **power**drive controller has the following interfaces:

- Analog preselected power range 1V - 10V ≙ 10% - 100%
- PLC inputs: LED on, LED enable
- PLC outputs: LED on, LED off, LED error, LED warning
- Dry contact with selectable function (cf. PLC outputs)
- Foot switch
- Extern enable input for embedding in safety circuit or for monitoring cooling device

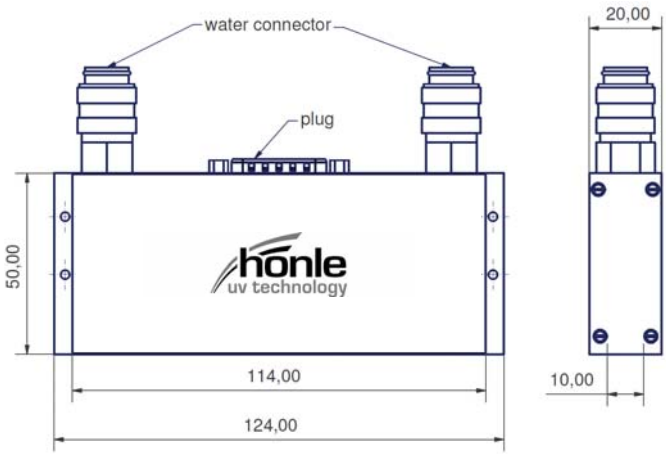
Technical data

typical LED service life	> 10.000 hours*
adjustment range of timer	0.01 – 99.99 sec. or continuous operation
wavelengths in nm typical intensity in mW/cm²**	365 375 385 395 405 1500 1700 2000 7500 9000
power supply LED **power**drive	90 V – 264 V, 47 Hz – 63 Hz
max. input current	2,2 A
irradiation area ***	ca. 76 x 10 mm oder ca. 114 x 10 mm
dimensions LED-head without connectors (H x B x T)	ca. 86 x 20 x 50 mm oder ca. 124 x 20 x 50 mm

* depending on operating conditions and ambient temperature
** 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 heating phase, LED heads can be switched on and off without any problems: **they are ready for immediate operation**.

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.

PureUV Powerline

Maximal length depends on application (lengths variable in 40 mm-steps).
Die PureUV Powerline is available in the wavelengths 365/375/385/395/405 nm.

Aircooled types

LED Spot

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

Bluepoint LED

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

LED Pen

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

LED Power Pen

By using an unique lens-system this high-performance version of the LED Pen offers a focused UVA intensity of 3500 mW/cm² (within 8 mm distance to the irradiation exit).

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