

**DELO**

LED  
SPOT LAMPS  
DELOLUX 50 series



# DELOLUX 50 LED spot lamps

Precise adhesive curing  
in seconds

Short cycle times and fast reproducible processes are decisive criteria in industrial series production.

The UV spot lamps of the DELOLUX 50 series feature the latest LED technology. Ultra-high intensities of up to 18,000 mW/cm<sup>2</sup> ensure fast and reliable adhesive curing in fractions of a second. With their low current consumption and low maintenance requirements, the lamps contribute to cost-efficient production.

Benefit from maximum flexibility for your process: Choose between five lamp heads for irradiated areas of sizes ranging from 1 to 15 mm in diameter.

All models impress with a long lifetime and a compact design that enables space-saving integration into production lines. Up to four lamp heads can be connected to a base unit via plug & play and controlled individually.



Discuss your project and your requirements with our experts:  
[equipment-experts@DELO.de](mailto:equipment-experts@DELO.de)



## Your benefits at a glance:



► Shortest cycle times thanks to highest intensities





















► High process reliability thanks to homogeneity and stable intensities



► Long lamp head lifetime of > 20,000 hours

# Overview

## Lamp heads and intensities

Full-size images	Light exit area	Wavelength   Intensity   Working distance	Cooling
 <p>DELOLUX 50 x1</p>	<p>Ø 8.6 mm</p> 	<p>365 nm   <math>\geq 18,000</math> mW/cm<sup>2</sup>   2 mm            400 nm   <math>\geq 15,000</math> mW/cm<sup>2</sup>   2 mm            460 nm   <math>\geq 14,000</math> mW/cm<sup>2</sup>   2 mm</p>	
 <p>DELOLUX 50 x4</p>	<p>Ø 11.5 mm</p> 	<p>365 nm   <math>\geq 3,500</math> mW/cm<sup>2</sup>   9 mm            400 nm   <math>\geq 7,000</math> mW/cm<sup>2</sup>   9 mm</p>	
 <p>DELOLUX 505</p>	<p>Ø 10 mm</p> 	<p>365 nm   <math>\geq 7,950</math> mW/cm<sup>2</sup>   10 mm            400 nm   <math>\geq 10,500</math> mW/cm<sup>2</sup>   10 mm</p>	
 <p>DELOLUX 502</p>	<p>7 mm × 2 mm</p> 	<p>365 nm   <math>\geq 1,350</math> mW/cm<sup>2</sup>   6 mm</p>	
 <p>DELOLUX 504</p>	<p>7 mm × 2 mm</p> 	<p>365 nm   <math>\geq 5,200</math> mW/cm<sup>2</sup>   6 mm            400 nm   <math>\geq 7,500</math> mW/cm<sup>2</sup>   6 mm</p>	
 <p>DELOLUX 503</p>	<p>10 mm × 3 mm            30° inclined</p> 	<p>365 nm   <math>\geq 1,000</math> mW/cm<sup>2</sup>   15 mm            400 nm   <math>\geq 1,600</math> mW/cm<sup>2</sup>   15 mm            460 nm   <math>\geq 1,300</math> mW/cm<sup>2</sup>   15 mm            460 nm LP   <math>\geq 500</math> mW/cm<sup>2</sup>   15 mm</p>	

# DELOLUX pilot S4

## Two base units for efficient control

For reliable control and power supply of DELOLUX 50 spot lamps, you can choose between two powerful models:

DELOLUX pilot S4i is designed for integration into PLC-operated process systems and impresses with its cost efficiency and very low volume. The DELOLUX pilot S4T model can also be operated by PLC while still allowing manual control via touch screen. In addition, it has its own integrated power supply and can therefore operate autonomously in laboratory or test environments.

Thanks to a space-saving design, the devices are ideal for integration into

systems with limited installation space. Regardless of the model, up to four lamp heads can be parameterized and operated independently of each other via a control unit. To ensure high process reliability, the base unit automatically keeps the lamp intensity at a constant value.



**DELOLUX pilot S4i**



**DELOLUX pilot S4T**

	<b>DELOLUX pilot S4i</b>	<b>DELOLUX pilot S4T</b>
<b>Position for operation</b>	Switch cabinet	Table device Optional installation in 19" rack
<b>Dimensions (W x H x D)</b>	94 mm x 104 mm x 86 mm	235 mm x 202 mm x 152 mm
<b>User interface</b>	Three-digit 7-segment display	7" touch screen
<b>Number of controllable lamp heads</b>	Up to 4	Up to 4
<b>Status and error display</b>	Error code	Error display
<b>Operating mode</b>	PLC	Manual, semi-automatic (PLC), fully automatic (PLC)
<b>Article number</b>	9520310	9520311



Example lamp setup with DELOLUX pilot S4i and 2 lamp heads each of types DELOLUX 50 x1 and DELOLUX 504.



# DELOLUX 50 ×1



Light exit area:  
 Ø 8.6 mm

## Wavelength | Typical intensity | Working distance

365 nm |  $\geq 18,000$  mW/cm<sup>2</sup> | 2 mm  
 400 nm |  $\geq 15,000$  mW/cm<sup>2</sup> | 2 mm  
 460 nm |  $\geq 14,000$  mW/cm<sup>2</sup> | 2 mm



## Cooling mechanism

Passive cooling via heat sink in the lamp head.

DELOLUX 50 ×1	365 nm	400 nm	460 nm
Article number	9520250	9520256	9520252

## Interchangeable lenses

Distance, irradiated area, and intensity can be individually adjusted depending on the lens. For more information and selection options, see user manual.



L1

9520094



L2

9520095



L3

9520096



L6

9520097



90° deflection

0009053

Lens

Article number



Curing pin sealing with DELOLUX 50 ×1

# DELOLUX 50 ×4



Light exit area:  
Ø 11.5 mm

## Wavelength | Typical intensity | Working distance

365 nm |  $\geq 3,500 \text{ mW/cm}^2$  | 9 mm

400 nm |  $\geq 7,000 \text{ mW/cm}^2$  | 9 mm



## Cooling mechanism

Passive cooling via heat sink in the lamp head.

DELOLUX 50 ×4	365 nm	400 nm
Article number	9520258	9520259

## Interchangeable lenses

Distance, irradiated area, and intensity can be individually adjusted depending on the lens. For more information and selection options, see user manual.



L5



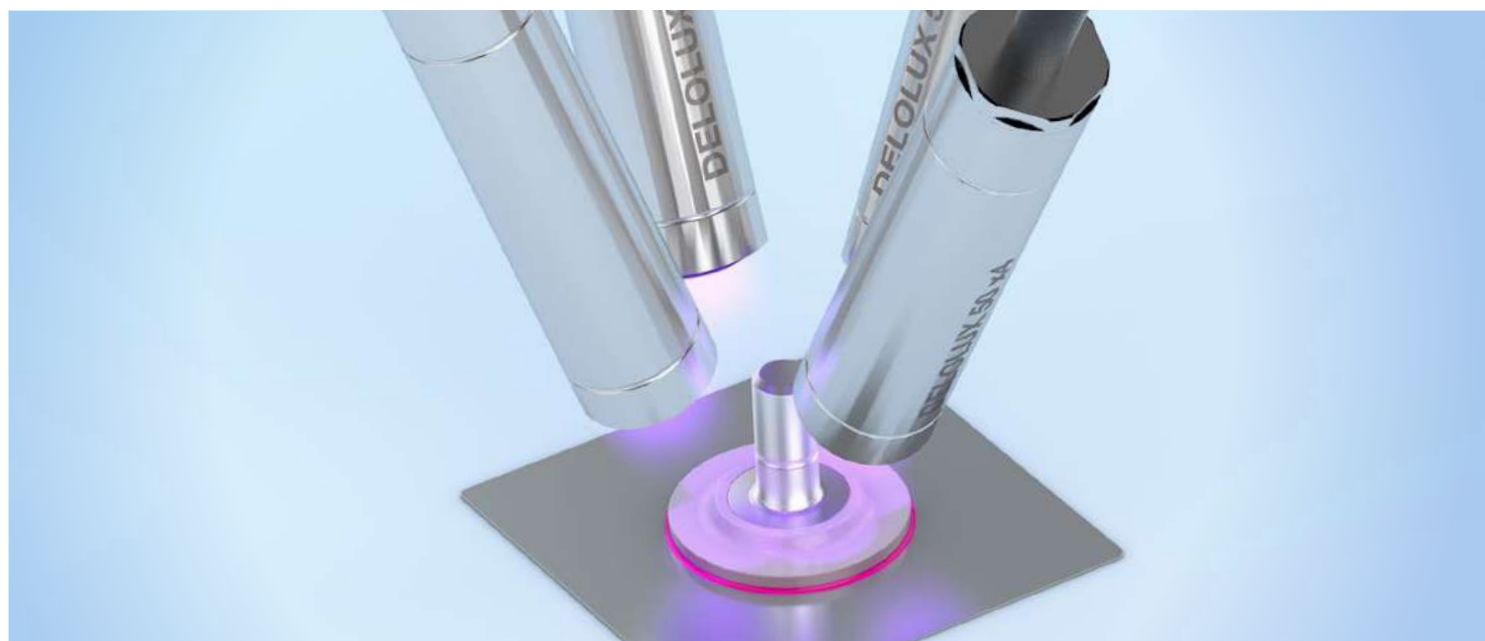
L10

Lens

Article number

9520086


9520087



The transparent "ONSERT" connecting elements are joined with adhesive and cured with DELOLUX 50 ×4.

# DELOLUX 505



 Light exit area:  
Ø 10 mm

## Wavelength | Typical intensity | Working distance

365 nm |  $\geq 7,950 \text{ mW/cm}^2$  | 10 mm  
400 nm |  $\geq 10,500 \text{ mW/cm}^2$  | 10 mm



## Cooling mechanism

Passive cooling via heat sink in the lamp head.

DELOLUX 505	365 nm	400 nm
Article number	9520402	9520403

## Interchangeable lenses

Distance, irradiated area, and intensity can be individually adjusted depending on the lens. For more information and selection options, see user manual.



S3

9520404



S4

9520405



S6

9520406



S8

9520407

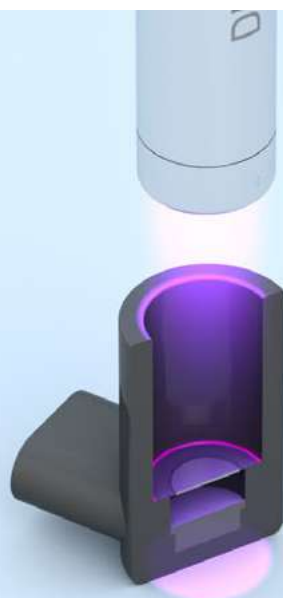


S10

9520408

Lens

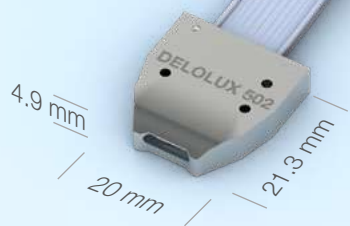
Article number



When fixing the fillet of piezo drives for distance sensors, the optical system of DELOLUX 505 enables larger working distances while providing for high intensities and homogeneities.



# DELOLUX 502



Light exit area:  
7 mm × 2 mm

# DELOLUX 504



Light exit area:  
7 mm × 2 mm

### Wavelength | Typical intensity | Working distance

365 nm |  $\geq 1,350 \text{ mW/cm}^2$  | 6 mm



#### Cooling mechanism

Passive cooling via heat sink in the lamp head.

### Wavelength | Typical intensity | Working distance

365 nm |  $\geq 5,200 \text{ mW/cm}^2$  | 6 mm  
400 nm |  $\geq 7,500 \text{ mW/cm}^2$  | 6 mm



#### Cooling mechanism

Passive cooling via heat sink in the lamp head.

#### DELOLUX 502

365 nm

Article number

9520249

#### DELOLUX 504

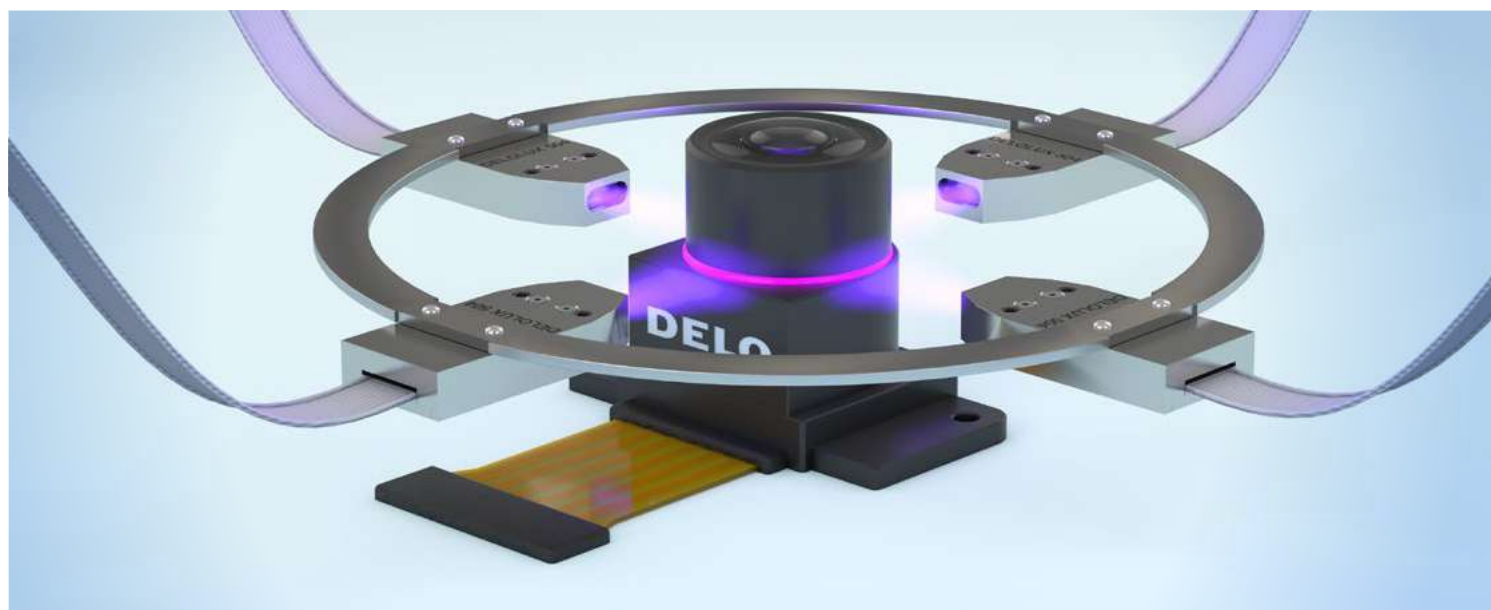
365 nm

400 nm

Article number

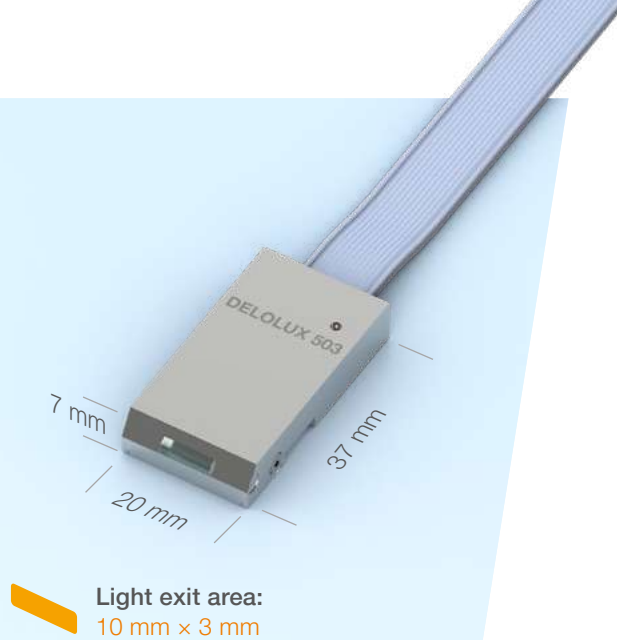
9520400

9520409



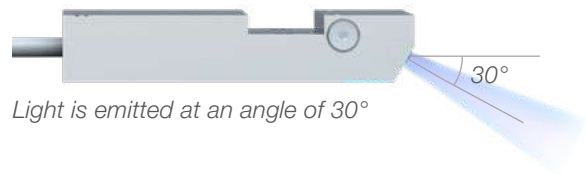
Adhesive curing in a camera module. Depending on the working distance, installation space and intensity requirements, users can choose between DELOLUX 502 and DELOLUX 504.

# DELOLUX 503



## Wavelength | Typical intensity | Working distance

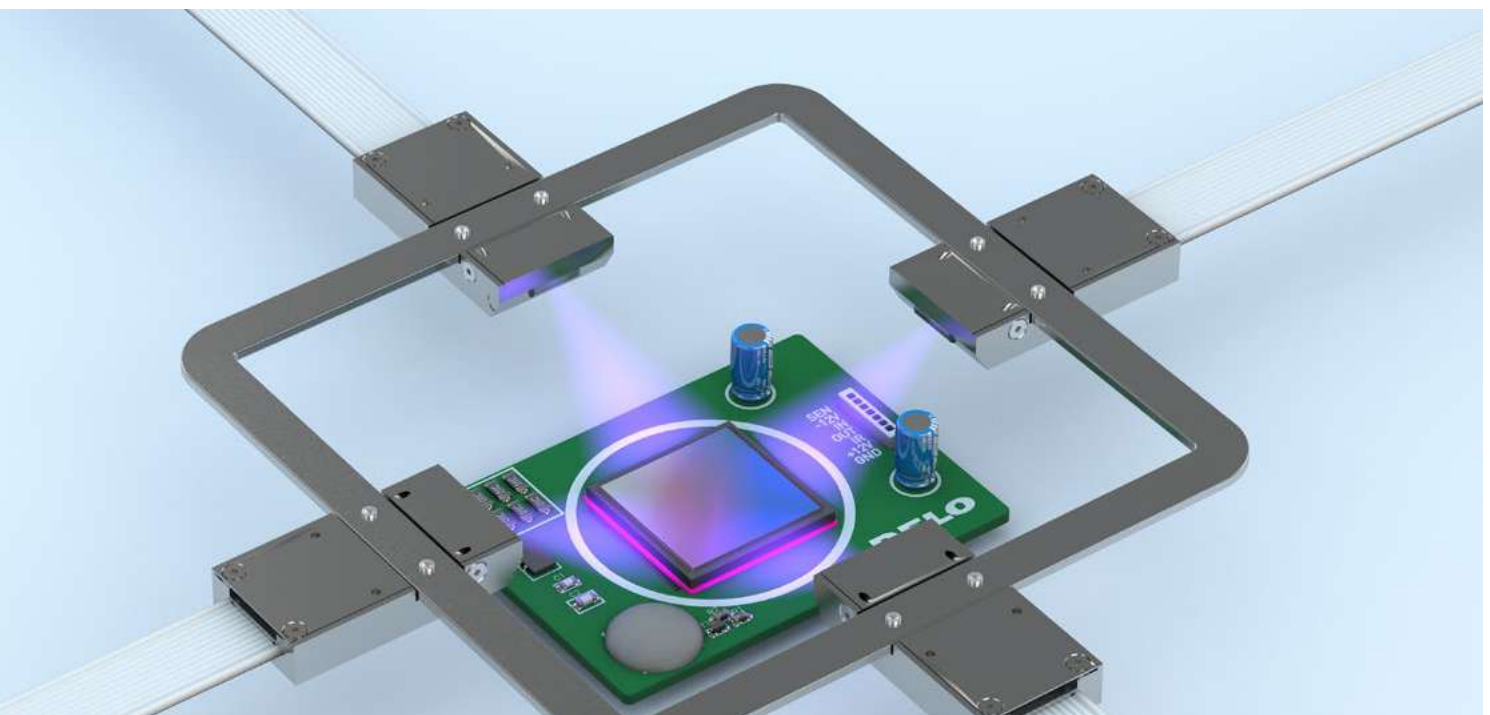
365 nm |  $\geq 1,000 \text{ mW/cm}^2$  | 15 mm  
 400 nm |  $\geq 1,600 \text{ mW/cm}^2$  | 15 mm  
 460 nm |  $\geq 1,300 \text{ mW/cm}^2$  | 15 mm  
 460 nm LP |  $\geq 500 \text{ mW/cm}^2$  | 15 mm



## Cooling mechanism

Passive cooling via heat sink in the lamp head.

DELOLUX 503	365 nm	400 nm	460 nm	460 nm LP for DELO-ACTIVIS
Article number	9520246	9520284	9520411	9520410



Light exit at a 30° angle simplifies the curing of bonding areas that are difficult to reach.

# DELOLUXcontrol

The DELOLUXcontrol measuring device can be used to detect changes in light intensity that may result from aging, contamination, or changed distances between the lamp heads. It can be equipped and operated with various detector heads. The EEPROM technology used eliminates the need for additional, regular calibration of the display units with the detector heads. This allows detector heads and display units to be replaced or expanded quickly and easily.



	Display unit		Detector head	
<b>Article</b>	DELOLUXcontrol without detector head	DELOLUXcontrol RS232 without detector head	DELOLUXcontrol 9 mm LED detector head	DELOLUXcontrol 1 mm LED detector head
<b>Features</b>	Output of intensity, dose, max. value (peak intensity)	Integration into PLC environment via RS232 connector	Diameter of detection area 9 mm	Diameter of detection area 1 mm
<b>Article number</b>	9520340	9520345	9520341	9520342

## Plug and Play



DELOLUX lamps and their matching base units can be integrated into production lines via plug & play. Immediately after connection, the base unit automatically outputs all important information about the plugged light source, without the need for manual configuration in advance. The devices are ready for use within a few minutes.



## Highest quality

All DELO devices are “made in Windach”. To ensure highest product quality, we unite development, production, technical testing, and support (e. g. also process simulations) at our headquarters. However, wherever you are, our sales engineers are there to support you – worldwide from our subsidiaries, representative offices, and distributors.

# DELO

## DELO Industrial Adhesives

China | Germany HQ | France | Italy | Japan | Korea  
Malaysia | Singapore | Thailand | Czech Republic | USA

The technical data is for informational purposes only. Specific values can be found in the user manual. It is the user's responsibility to test the suitability of the device for the intended purpose by considering all specific requirements. If you need support in using the devices, please feel free to ask your contacts in our Engineering Department.

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