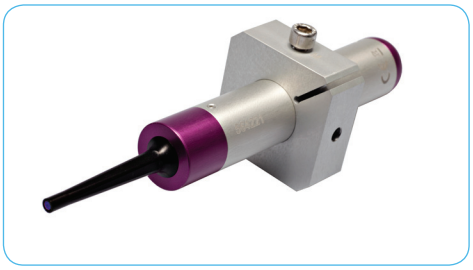
ilumCURE industrial

USB Interface controlled UV light source

(Item No.: 1600000070)

ilumCURE industrial is a USB Interface controlled LED illumination system for curing of UV adhesives reproducibly with high intensity at a central wavelength of 365 nm.

In automated manufacturing processes up to 127 ilumCURE devices are controlled individually from a single PC to perform punctual or wide area exposures with adjustable intensity and duration.



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The operating states of the devices can be monitored remotely to detect issues within automated production. Reproducible hardening processes are ensured by a controller-operated LED current measurement and by an overheat recognition. The longevity of the devices is ensured by a robust aluminum housing, an adequate thermal management and an electronic surge protection.

With the available accessories the devices of ilumCURE industrial Series are highly customizable to existing production environments. The provided Software Development Kit allows easy integration of the devices functionalities into your process-specific automation programs.

STRAIGHTFORWARD CONTROL

- UV-LED is switched on or off via software
- Illumination time and intensity is adjustable
- Status requests (parameterization, UV LED on / off and others)
- Easy integration in various source codes (e.g. from Labview, C#, Python or other windows compatible programming languages)

EXCHANGEABLE OPTICS

- Punctual illumination with standard optics
- Homogeneous illumination of wide areas using the optional available, focusable Variolens

SECURE MOUNTING

- Mount by direct clamping of the round device sleeve
- Mount alternatively with optional available holding clamp (screwable with M6 or ¼ -20 UNC, adequate heat transfer)

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LED	
Wavelength	365 nm
UVA Power	250 mW (typ.) at 100 % adjusted intenity
Lifetime	> 7000 h at 80 % UV LED emission

Control	
Interface	USB 1.0 - USB 3.0, USB 3.0 preferred
Supported Windows Versions	XP (32 bit), 7 (32 and 64 bit), 8 (32 and 64 bit)
Max. number of devices per PC	127
Communication	Via functions of ilumCURE .dll file
UV LED (PC writing)	1 = on, 0 = off
Illumination time (PC writing)	1.0 s - 120.0 s, resolution 0.1 s
Intensity (PC writing)	10 % - 100 %, CW dimmed, 10 % resolution
Beep signal (PC writing)	1 = on, 0 = off, at end of illumination
UV LED status (PC reading)	1 = on, 0 = off, polling
Settings actual (PC reading)	Illumination time, intensity, beep
Device data (PC reading)	Serial number, firmware version
Interface data (PC reading)	Virtual COM port, number of devices
Software and interface errors (PC reading)	Differentiated, 8 errors

Power management	
Supply	USB 5 V / ≥ 500 mA, permanently connected
Maximum on time of UV LED	50 % of the time, intensity ≤ 100 %, tested with cable length 1.5 m
Buffer battery	Buffers LED current, Li-Ion 3.6 V / 2250 mAh, exchangeable

Protection features	
UV LED excess temperature	Switch-off at LED temperature > 50 °C
LED current	Intensity 10 % - 30 %: Switch-off if nominal current value is exceeded by ±10 % Intensity 40 % - 100 %: Switch-off if nominal current value is exceeded by ±5 %
Error indication	• Beeping for 10 s: LED current error • Beeping as long as UV LED too hot: excess temperature
Buffer battery	Overvoltage and undervoltage, overcurrent, excess temperature

General information	
Total device dimensions	Length 185 mm, diameter 25.0 mm
Lighting tip dimensions	Total length of tip 53 mm, diameter at the outlet 5 mm
Weight / material	Approx. 108 g / full-metal housing, anodised aluminium
Operating / storage temperature	+5 °C to +45 °C / -10 °C to +70 °C
Humidity	5 % to 95 % relative humidity (non-condensing)
CE conformity	Approved
Included in delivery scope	USB cable type A / B, USB flash drive with Software Development Kit and LabVIEW programming example
Available accessories	Variolens (Item No. 1600000064), Mounting clamp M6, UNC ¼-20 (Item No. 1600000055)

Subject to technical modifications. As per June 2015.

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