



## ULINE DATASHEET

**Water-Cooled & Powerful UV LED curing line light**

**Flexible length from 75mm to 375mm**

**Easy to integrate on automated high-speed processes.**

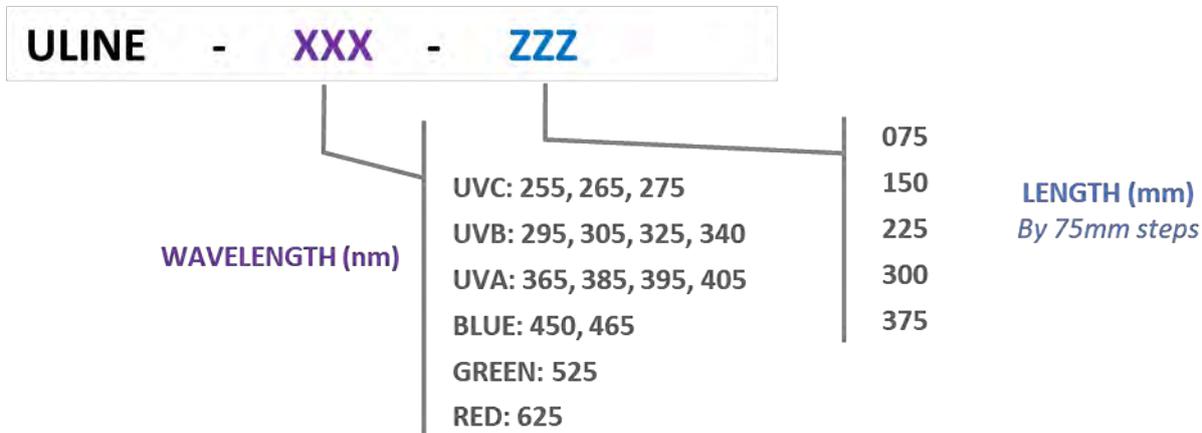


<b>Electronics</b>	Power supply	48 VDC $\pm$ 10% (maximal power consumption: 500W for each 75mm increments)
	Connector	SUBD13W3 – 13pins for power and signals
	Illumination mode	Continuous with a direct DIM signal [0-10V]
<b>Optics</b>	Wavelength	UVC: 255, 265, 275 nm UVB: 295, 305, 325, 340 nm UVA: 365, 385, 395, 405 nm VIS: 450, 465nm (Blue), 525nm (Green), 625nm (Red), Other on request.
	Irradiance	Up to 16 W/cm <sup>2</sup> in the UVA range Up to 1 W/cm <sup>2</sup> in the UVB/C range
<b>Mechanics</b>	Width x Height	65 mm x 166 mm
	Length	25mm + 75mm increments
	Weight	1100g for each 75mm increments
	Material	Device body: Aluminum alloy / Window type: Quartz
	IP rating	IP40
<b>Thermal</b>	Cooling system	Water cooling (flow of 6 L/min recommended)
	Needed cooling capacity	300W for each 75mm increments
<b>Environment</b>	Operation	Temperature: 10°C to 35°C – Humidity: 20% to 80% humidity (with no condensation) – Altitude: Up to 2000m
	Regulations & marking	CE - UKCA - FCC - ICES-3/NMB-3
	Environmental standards	RoHS III Directives - REACH Regulation - WEEE Regulation



Product reference

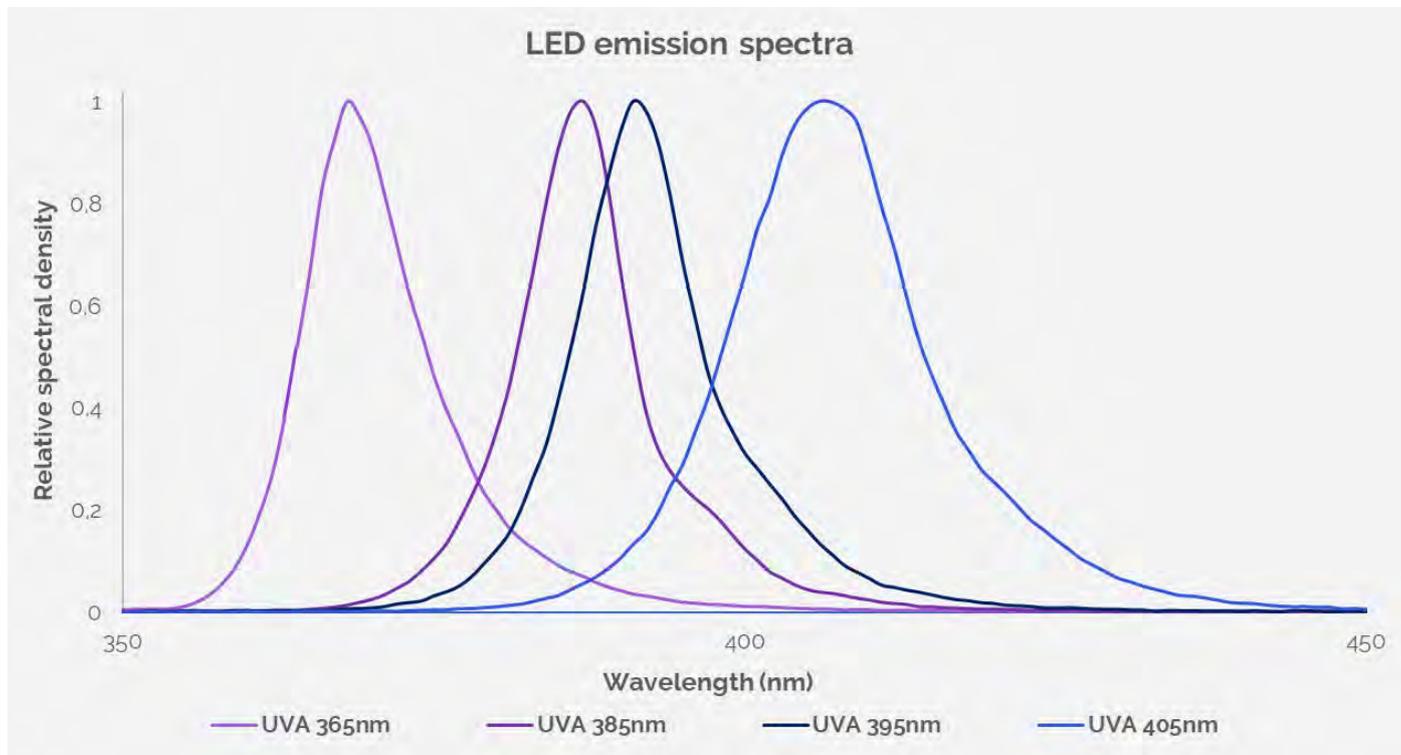
ULINE standard version:

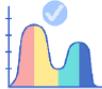




Optical considerations

LED spectra

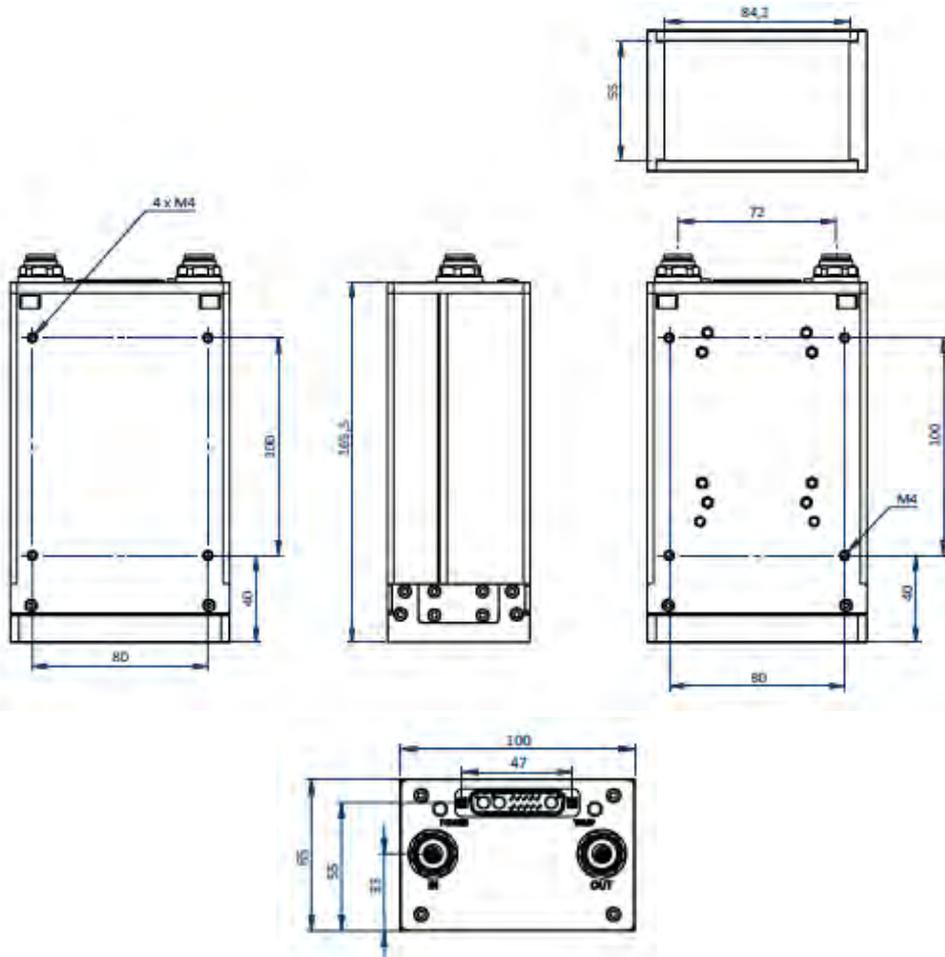


 For other wavelengths (UVC / UVB / UVA / VISIBLE / IR), feel free to ask us!

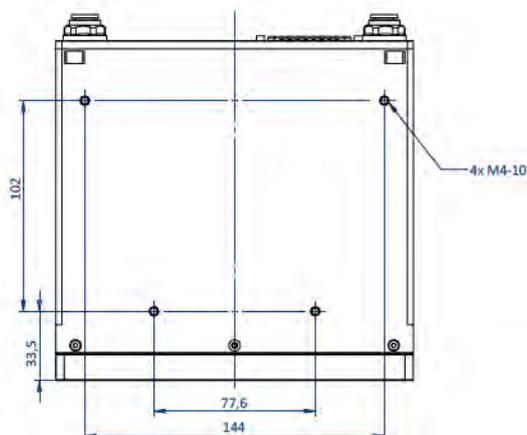
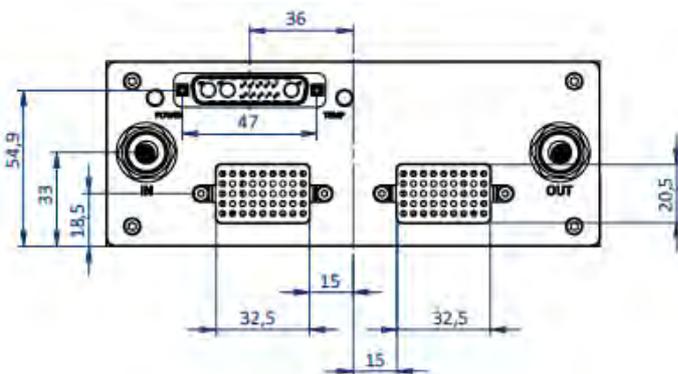
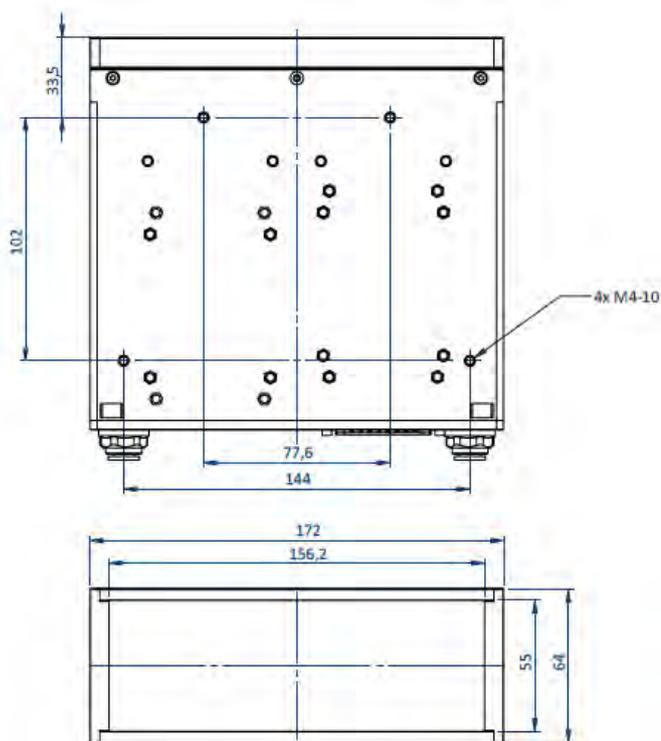
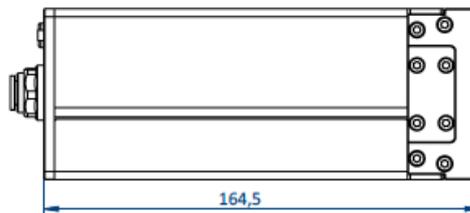
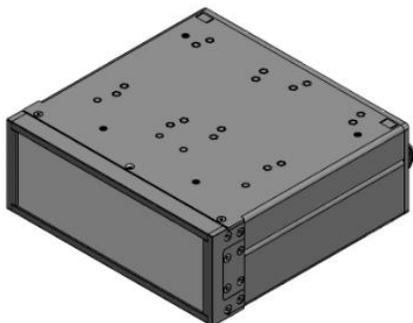


Mechanical considerations (mm)

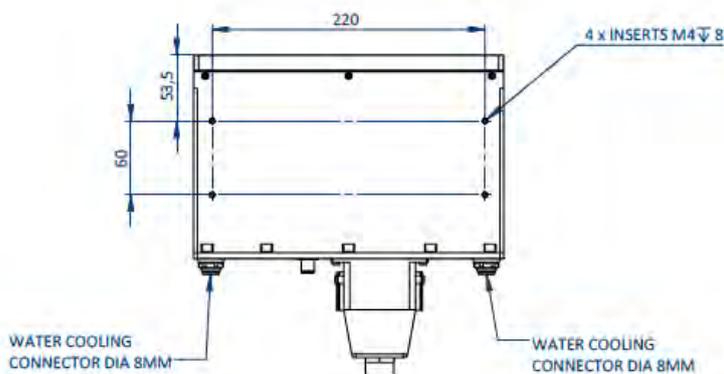
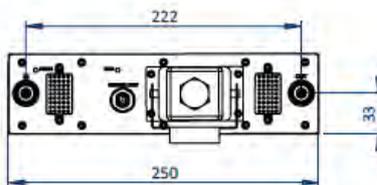
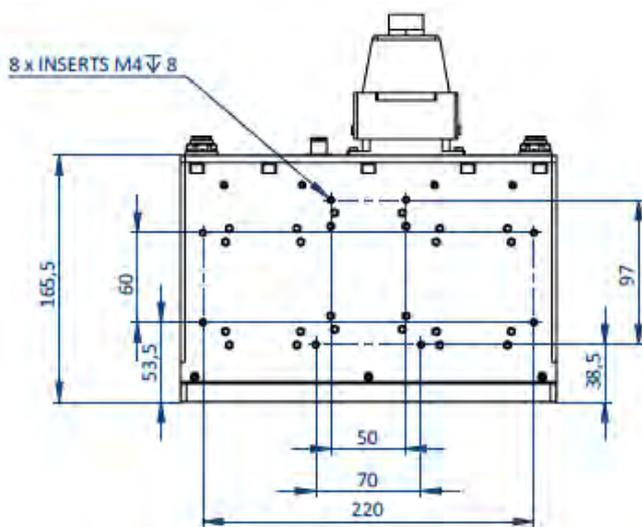
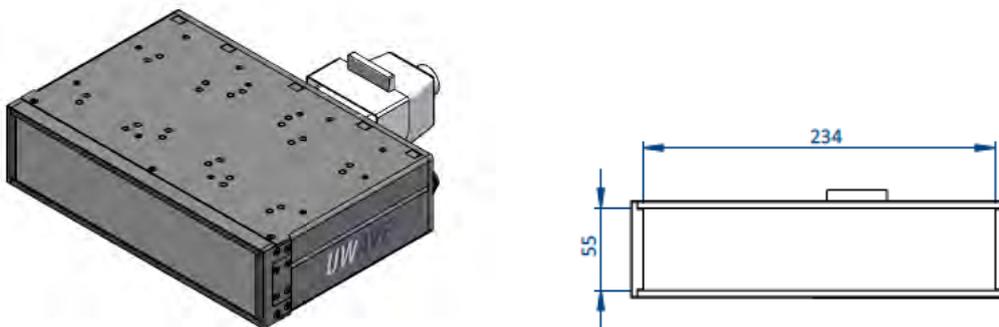
ULINE 75 mm



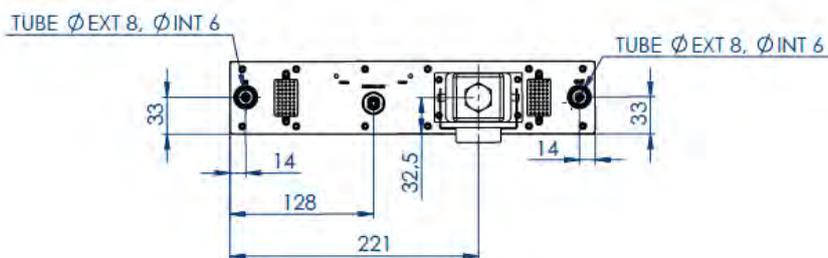
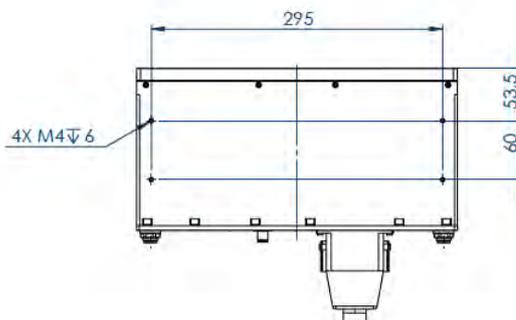
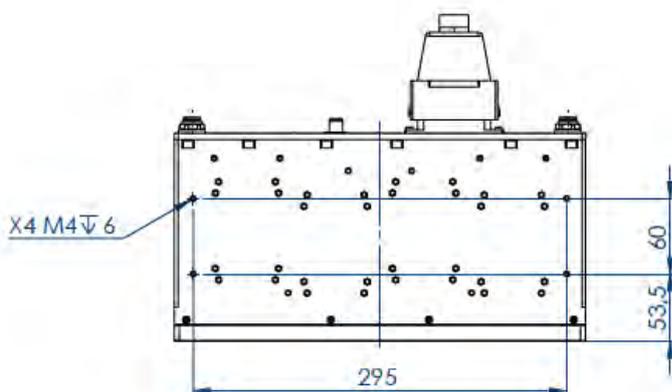
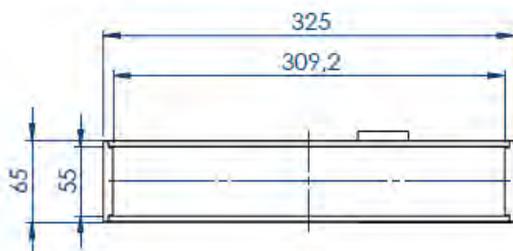
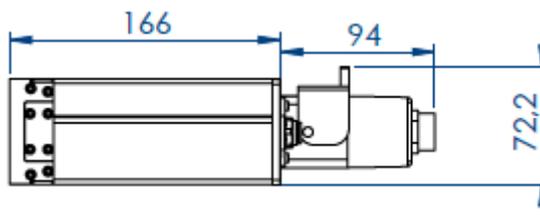
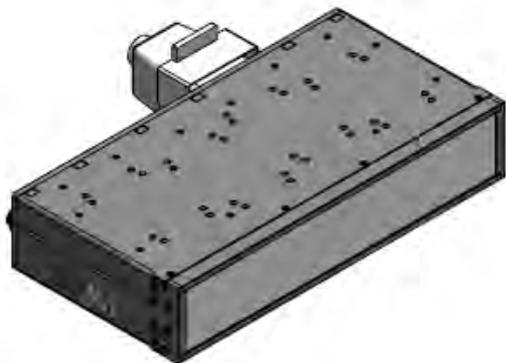
**ULINE 150 mm**



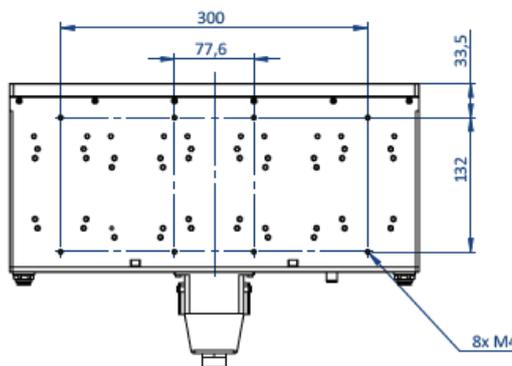
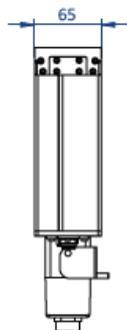
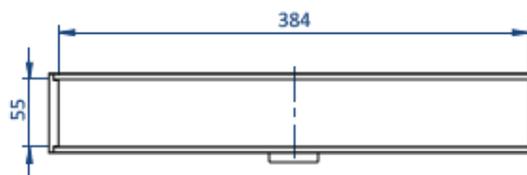
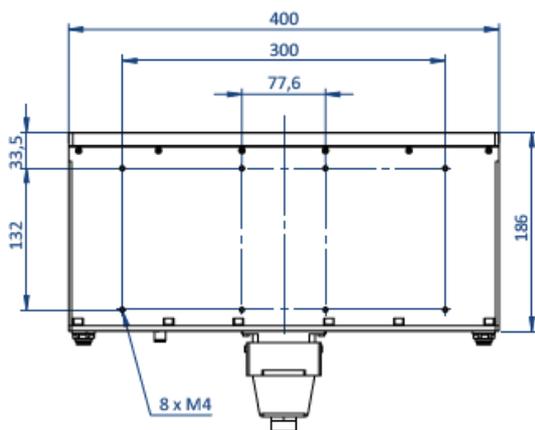
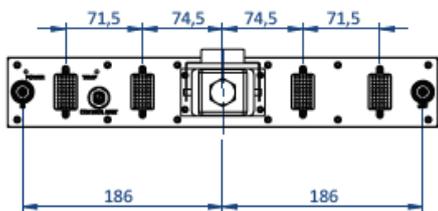
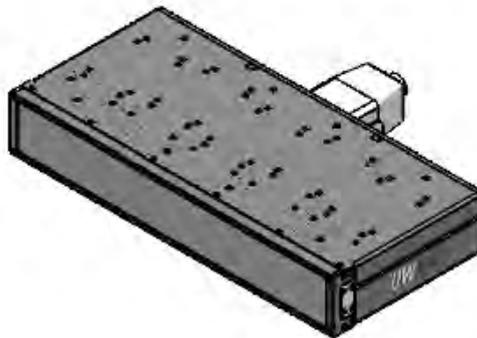
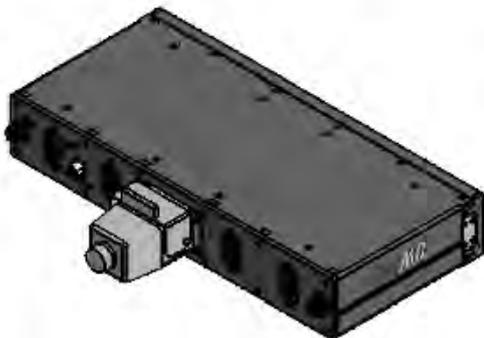
**ULINE 225 mm**



**ULINE 300 mm**



**ULINE 375 mm**

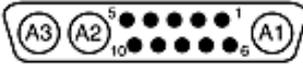




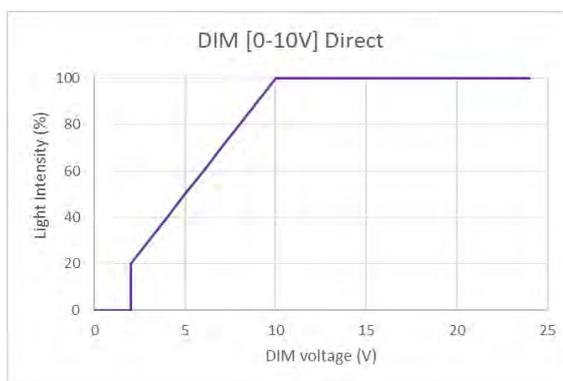
## Electrical considerations

### Wiring layout

The UCUBE requires 48V DC input power. It integrates smart electronic board to achieve stable optical power and exploitable output signals. The UCUBE can be managed with a control unit (UPOWER – please refer to accessories part of this datasheet) or without a control unit through PLC wiring.

Contact arrangement	Pin number	Cable color	Designation
 <p>Male D-SUB 13W3pins</p>	A1	Brown	Power supply Input – 48V DC (3,3 A max)
	A2	Yellow & Green	Protective ground
	A3	Blue	Power supply Input – 0V DC (GND)
	1	White	Dimming Input – [0-10V] direct
	2	Blue	COMMON_OUT – Allows dry contact with pin 3, 6 and 7. 40mA maximum per contact.
	3	White	UV LED ON output – dry contact with pin 2 if device is currently emitting UV or opened if UV LED are off.
	4	Blue	Enable + (dry contact with pin 5 to allow UV insolation)
	5	White	Enable – (dry contact with pin 4 to allow UV insolation)
	6	Blue	TEMPERATURE ERROR output – dry contact with pin 2 if device is overheating or opened if LED temperature is OK.
	7	White	DRIVER ERROR output – dry contact with pin 2 if there is a driver issue is detected or opened if drivers are OK.
	8	Blue	Power supply input – 0V DC (GND)
9 & 10	-	Not used	

### Intensity Control



Other Dimming signals are available upon request: 0-24V indirect, 0-10V direct, 0-10V indirect, 0-5V direct or 0-5V indirect.



**Accessories**

UWAVE offers a wide range of accessories to complete its UV LED lighting solution:

<p><b>Cables</b></p> 	<p>One side with bare wire (towards PLC):  <b>UCAB - SUBD - FD - 13W3 - D - L A</b></p>  <p>Both sides connector (power supply link):  <b>UCAB - SUBD - FM - 13W3 - DD - L A</b></p> 
<p><b>Advanced power supply</b></p>	<p>UPOWER-0600-48 to control x1 ULINE-XXX-0075.          UPOWER-1500-48 to control x1 ULINE-XXX-0150 or x1 ULINE-XXX-0225.          UPOWER-3000-48 to control x1 ULINE-XXX-0300 or x1 ULINE-XXX-0375.</p>  <p><i>For other controlling configurations, please contact directly UWAVE team.</i></p>

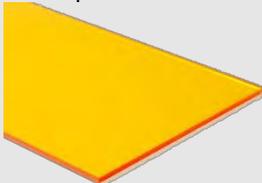


**UV security**

UWAVE products come under the standard DIN EN 62471:2008 which classified sources of optical radiation into risk groups subject to their potential photo biological hazard. Due to the emission of high UV irradiation, our products belong to Risk Group 3 (hazardous even for momentary exposure) therefore special safety measures, detailed in the following, must be observed.



Thanks to its experience and knowledge about UV risks, UWAVE offers to its customer a wide range of UV protections & services:

<p><b>Eyes protection</b></p>	<p>UGLASS-02: To protect eyes from direct rays.</p> 	<p>UGLASS-03: To cover all the face.</p> 	
<p><b>Body protection</b></p>	<p>UGLOVE-01: to protect hands.</p> 	<p>UV-SHIELD: To protect all workers around.</p> 	
<p><b>UV measurement</b></p>	<p>LEDCURE: UV values recording.</p> 	<p>URAD-PR: Direct UV value reading.</p> 	
<p><b>UWAVE expertise</b></p>	<p>EXPOSURE LIMIT VALUE</p>  <p>According to European Directive 2006/25/EC.</p>	<p>PERFORMANCES QUALIFICATION</p>  <p>Monitoring of all performances of your device.</p>	<p>MAINTENANCE &amp; REPAIR</p>  <p>Preventive maintenance on site &amp; LED repair service.</p>