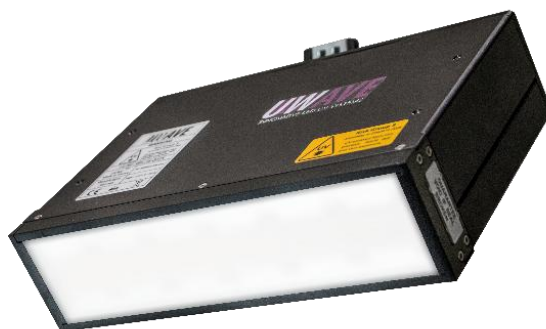




ULINE DATASHEET

Water-Cooled & Powerful UV LED curing line light

Flexible length from 75mm to 375mm

Easy to integrate on automated high-speed processes.



Electronics	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]
Optics	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 ² in the UVA range Up to 1 W/cm ² in the UVB/C range
Mechanics	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
Thermal	Cooling system	Water cooling (flow of 6 L/min recommended)
	Needed cooling capacity	300W for each 75mm increments
Environment	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:

ULINE - XXX - ZZZ

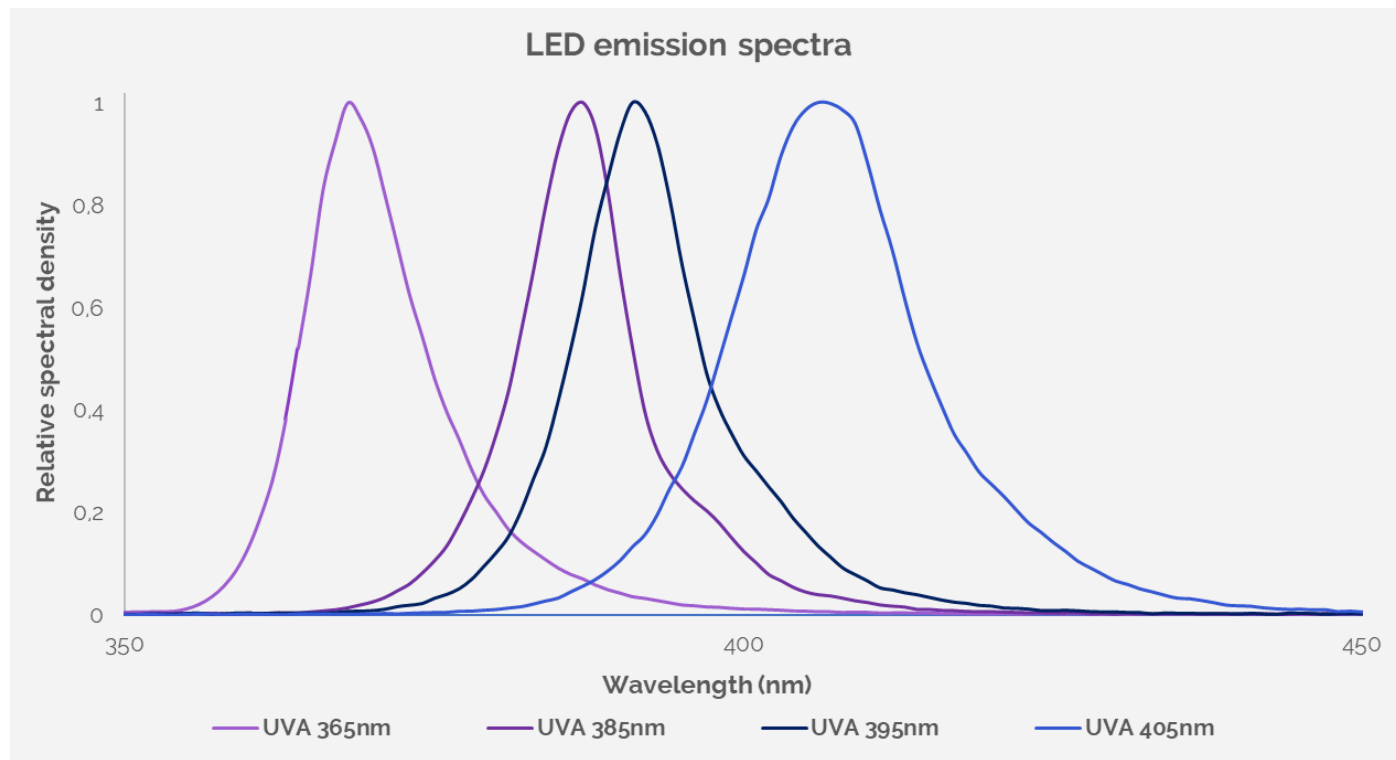
WAVELENGTH (nm)			LENGTH (mm) By 75mm steps
	UVC: 255, 265, 275	075	
		150	
	UVB: 295, 305, 325, 340	225	
	UVA: 365, 385, 395, 405	300	
	BLUE: 450, 465	375	
	GREEN: 525		
	RED: 625		





Optical considerations

LED spectra

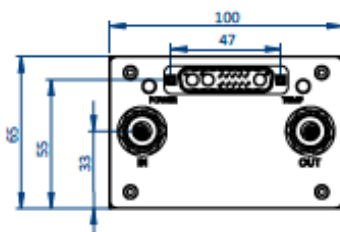
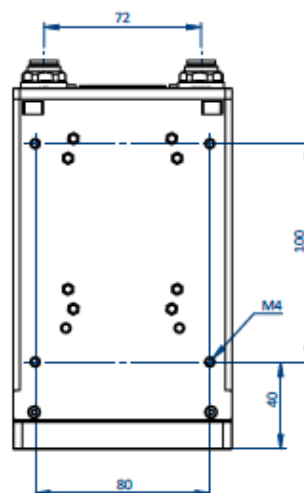
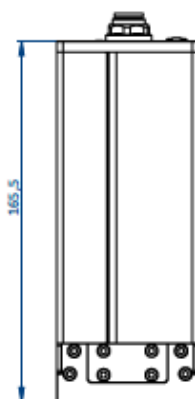
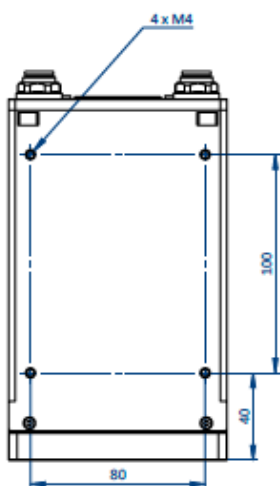
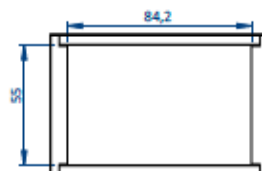
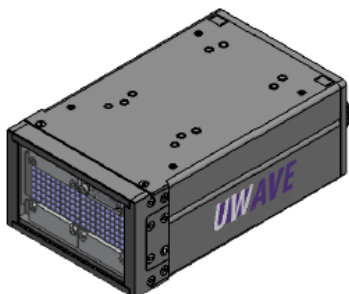


For other wavelengths (UVC / UVB / UVA / VISIBLE / IR), feel free to ask us!

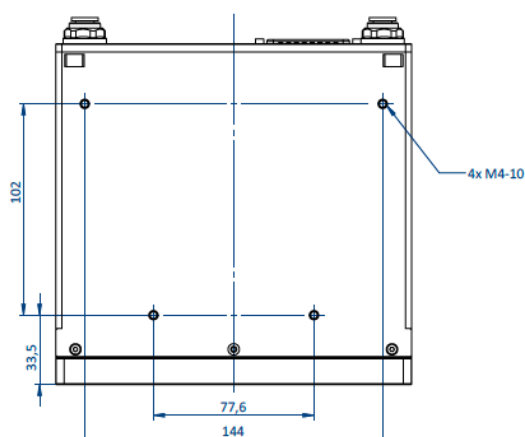
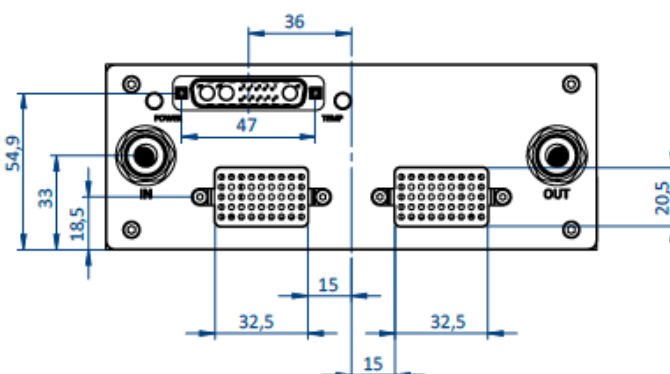
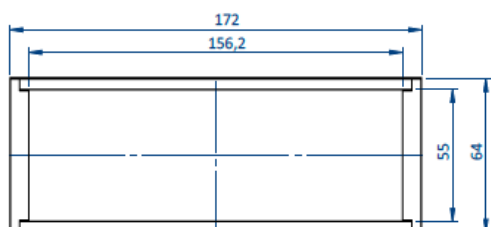
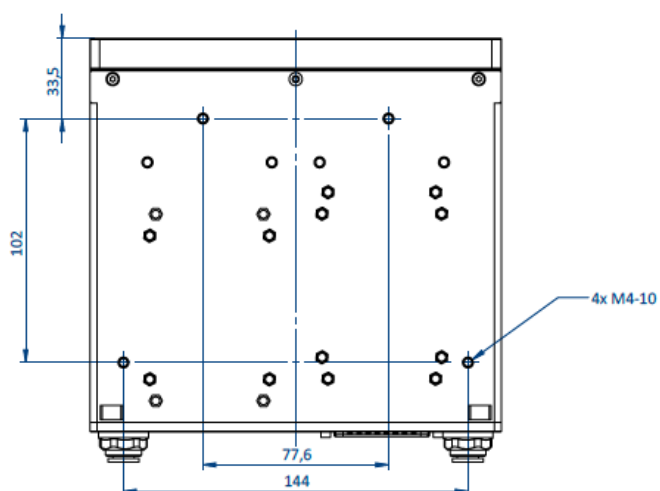
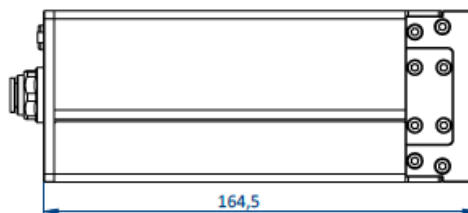
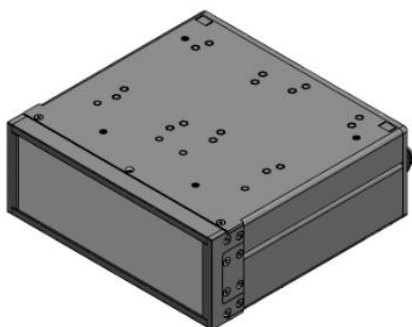


Mechanical considerations (mm)

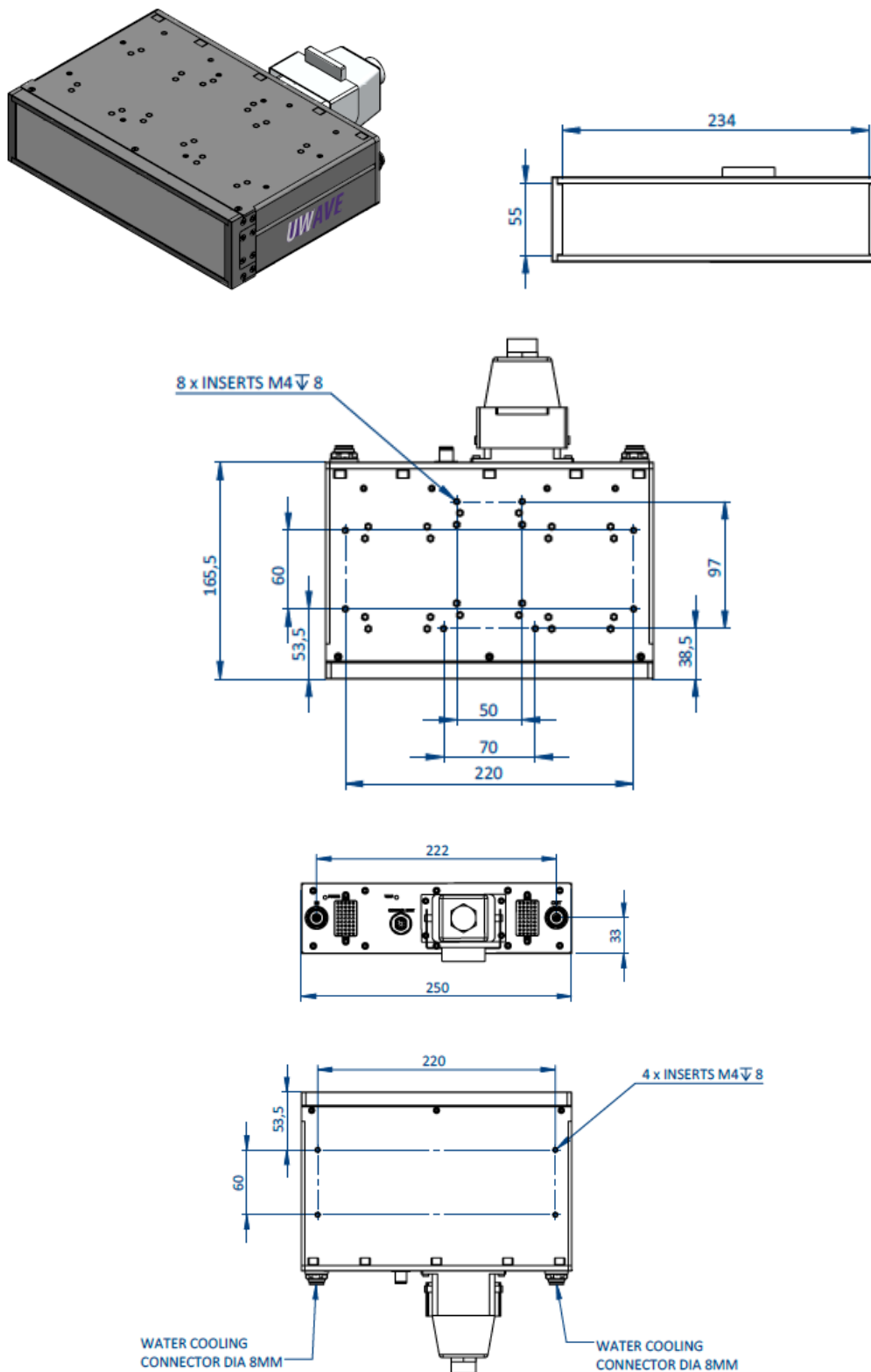
ULINE 75 mm



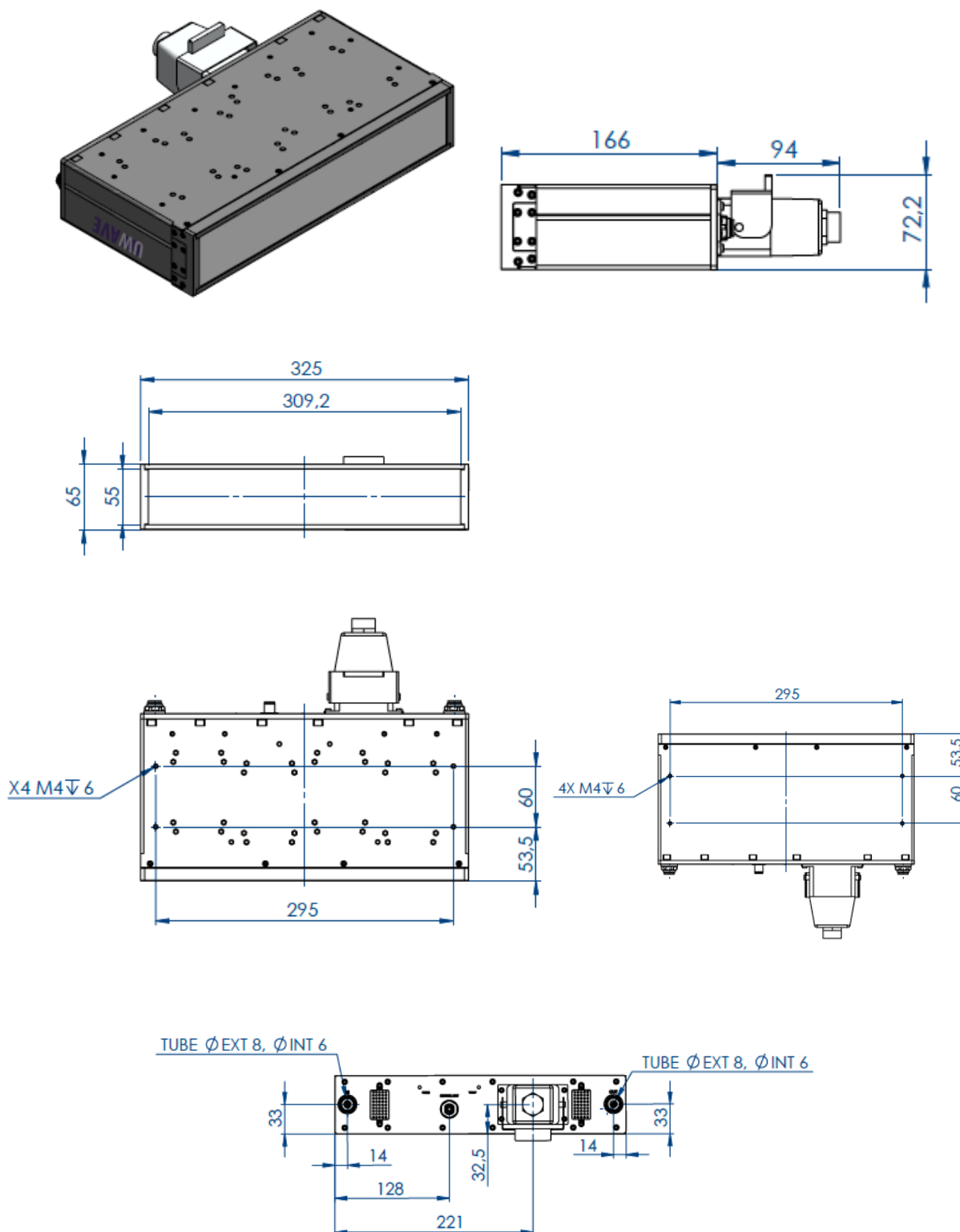
ULINE 150 mm



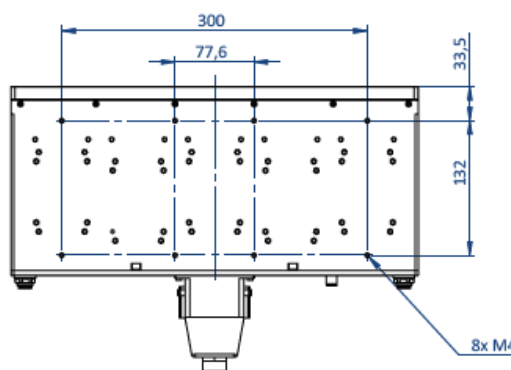
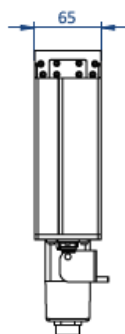
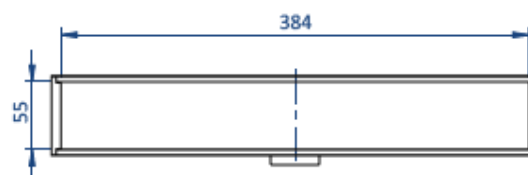
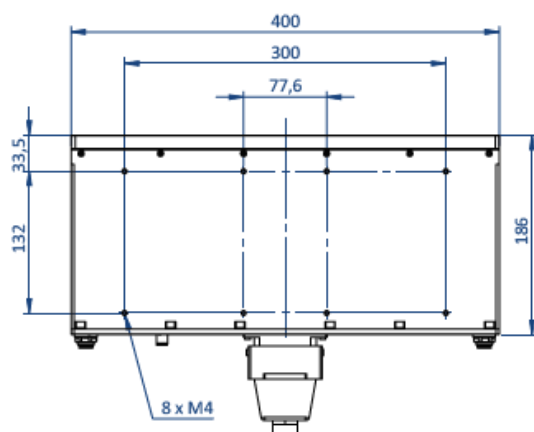
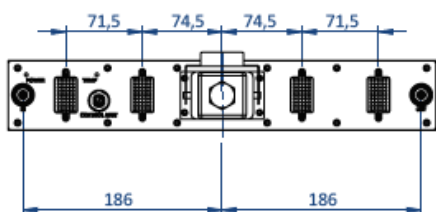
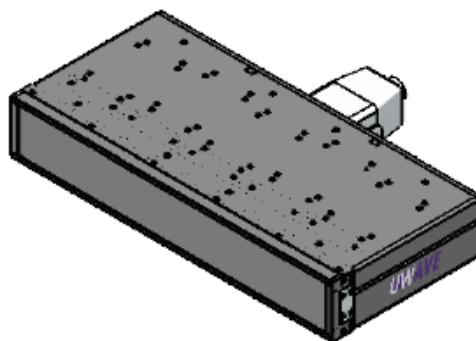
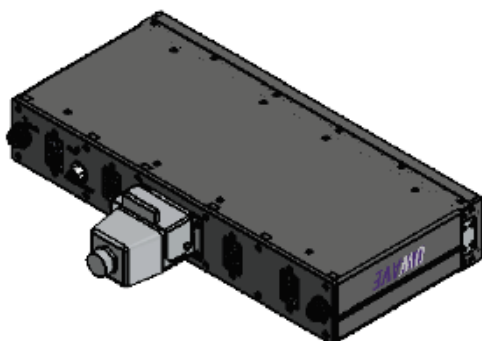
ULINE 225 mm



ULINE 300 mm



ULINE 375 mm





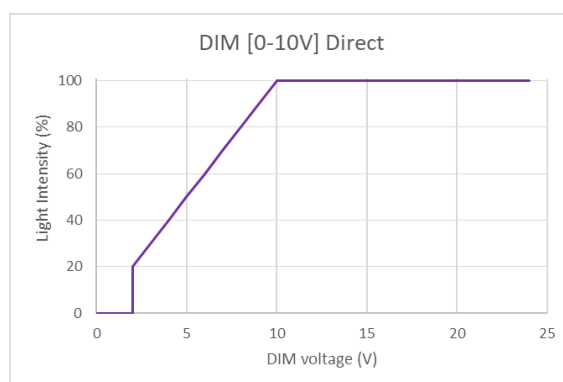
Electronical considerations

Wiring layout

The UCUBE requires 48V DC input power. It integrates smart electronical 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
 Male D-SUB 13W3pins	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:

Cables 	One side with bare wire (towards PLC): UCAB - SUBD - FD - 13W3 - D - L A 2 5 10 Cable length in meters Both sides connector (power supply link): UCAB - SUBD - FM - 13W3 - DD - L A 2 5 10 Cable length in meters
Advanced power supply	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.  <i>For other controlling configurations, please contact directly UWAVE team.</i>



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:

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