

Irradiation Systems BioSun

Description

BioSun is a complete, microprocessor-controlled UV irradiation system for Petri dishes and microplates. The gold standard for UV irradiation of cells.

Based on a programmable microprocessor, the system constantly monitors the UV light emission. The irradiation stops automatically when the energy received matches the programmed energy. Thanks to its advanced UV sensors, the irradiation cycles are perfectly reproducible, regardless of the intensity fluctuation of the UV source.



Irradiation system Bio-Sun

Specifications

- Options for two wavelengths: 312 nm and 365 nm UV irradiation
- UVC 254nm germicidal lamps for tray sterilisation
- Fully microprocessor controlled, thus perfectly reproducible irradiation results
- UV - safety shutdown when opening the sample chamber
- Pull-out, large sample drawer with stainless steel holder
- Extremely homogeneous UV illumination
- Temperature control: maximum temperature of 30°C in the radiation area at 20°C room temperature
- Calibrated UV sensors
- Continuous acquisition of UV sensor data
- Display of time, UV intensity, temperature and energy
- Epoxy-coated aluminium housing



Interface for data monitoring
(PC not included in delivery)

Models

BioSun ++:

The TOP system for controlled UV irradiation of cultured cells

BioSun UV.H:

The gold standard for controlled UV irradiation of cultured cells

Optional

Optional equipment USB 2.0 interface with control software:

Programming and control via PC, graphic recording of irradiation processes, Database structure for data storage.

Benefits

- Large irradiation area, homogeneously illuminated
- Continuous control of the UV irradiation and data acquisition by calibrated UV sensors, re-calibration possible with certificate
- Irradiation time less than 40 seconds for a programmed dose (energy) of 150 mJ/cm²
- Up to 6 UV measurements per second
- Tray temperature does not exceed 30°C (86°F) for room temperature of 20°C (68°F)
- Optional interface enabling connection between the BioSun and a computer for data monitoring and recording

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Technical Data

Model	BioSun ++	BioSun UV.H
Applications	Suitable for applications requiring higher-power UV irradiation.	More precise—for sensitive samples and short exposure times.
Frequency of measures	4 measures/second	6 measures/second
Intensity measurement range	<ul style="list-style-type: none"> Accuracy and linearity: $\pm 0.2\%$ Automatic range change 	
Programming	<ul style="list-style-type: none"> Minimum programmable quantity : 11 mJ/cm² Programming range: 0.011 to 99.99 J/cm² 	
UV Sources	UVA (365nm): 5 mW/cm ² UVB (312 nm): 2.7 mW/cm ² UVA + UVB (365nm and 312nm): 5.6 mW/cm ² at 365nm and 2.7 mW/cm ² at 312nm 254nm (sterilization)	UVA (365nm) : 5 mW/cm ² UVB (312nm) : 1 mW/cm ² UVA+UVB (365nm and 312nm): 5.6 mW/cm ² at 365nm and 1.3 mw/cm ² at 312nm 254nm (sterilization)
Irradiation area for Petri dishes	260 x 120 mm, height 25 mm	
Irradiation area for microtiter plates	260 x 90 mm, height 25 mm	
Sensors	Accuracy of the measure : $\pm 5\%$ (standard LNE) Linearity : $\pm 0,5\%$ Temperature Coefficient : $\pm 0,05\%/^{\circ}\text{C}$ from 0 to 40°C	
BioSun system dimensions	1.100 x 500 x 600 mm	1.100 x 500 x 600 mm
Voltage	230 V	230 V
Order No.	110.0172	on request