

UVC LED Water Disinfection Purifier

MASSPHOTON

—MP-UVC-70LP



Mercury-Free, Instant-Start, High-Efficiency Water Disinfection

The MASSPHOTON UVC LED Water Disinfection System features independently developed high-performance UV-C LED devices and a unique structure. It outperforms traditional mercury-lamp solutions with higher disinfection efficiency, better stability, and faster response. It redefines domestic and commercial water safety through Technology — from efficient disinfection and durability to easy installation and smart energy saving. The system meets the continuous high-flow disinfection needs of whole-house water purification, commercial water supply, and food processing, achieving 99.999% bacterial inactivation with zero maintenance and mercury-free safety.

Key Features

- **Safe: Mercury-Free UV-C LED Technology** Eco-Friendly non-toxic, and compliant with global regulations.
- **Effective:** Achieves up to **99.999% Pathogen Reduction** (5.0 log) against bacteria, viruses, and microbes.
- **Efficient:** Up to **90% energy savings** with low-power operation, reducing costs.

Product Overview

- Designed for disinfection, the MP-UVC-70LP uses **mercury-free UVC LEDs** (270-280 nm) to deliver **up to 99.999% pathogen reduction**, ensuring safe, clean water. Every module undergoes **100% efficacy and water tight testing**, ensuring quality and durability.



Effective Disinfection



Low Maintenance



100% Efficacy Test



Intelligent



Easy to Install



Eco-Friendly & Energy-Efficient



Whole-House
Water Treatment



Food and Drink
Processing



Swimming Pool
Water Treatment



Aquaculture
& Irrigation Water



Pharmaceutical
Industry



Livestock and
Poultry Farming



MASSPHOTON LIMITED

Semiconductor Ultraviolet Technology and Applications Expert



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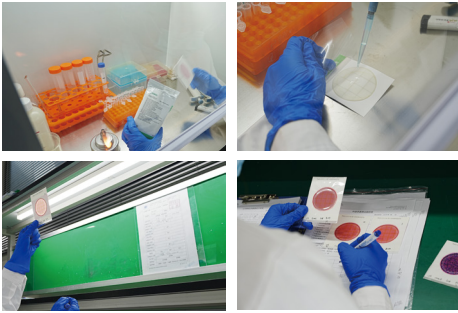
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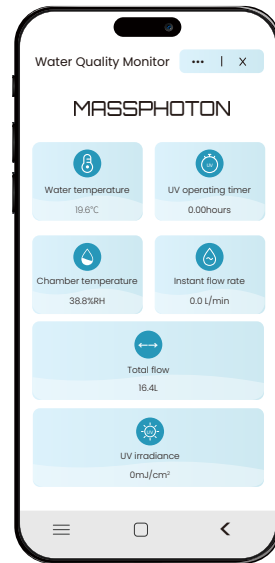
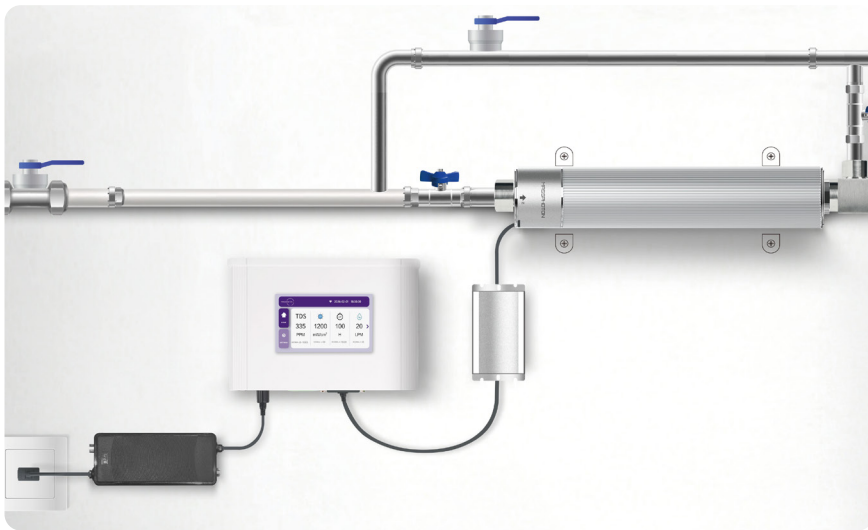
Product Features

100% Factory-Tested for Disinfection Efficacy



Control	5.7×10 ⁵ CFU/mL	3.6×10 ⁵ CFU/mL	3.1×10 ⁵ CFU/mL
Control Group Image(10,000 dilution)	57CFU	36CFU	31CFU
Test Group Image(Non Dilution)	0CFU	0CFU	0CFU
Test Summary	No E coli was detected in the experimental group samples	No E coli was detected in the experimental group samples	No E coli was detected in the experimental group samples

Influent spiked water	Effluent filtered water	Removal rate(s) %	
5-10 ⁵	<1	>99.999	
Disinfection Rate (%)	First Test Value	Second Test Value	Third Test Value
	>99.999%	>99.999%	>99.999%
Version: A.0			



Abnormal alarm

The APP will send alerts when UV output weakens, flow is abnormal, temperature exceeds limits, equipment malfunctions or disinfection duration is insufficient.

Real-time monitoring

It continuously collects and displays real-time data of water temperature, flow rate, UV irradiation intensity and equipment operating status.

Key Product Parameters

Model	MP-UVC-70LP
MASSPHOTON STANDARD CONFIGURATION (40 mJ/cm ² at 95% UVT)	70 LPM / 18.5 gpm / 4.2 m ³ /hr
ALTERNATE CONFIGURATION (16 mJ/cm ² at 95% UVT)	175 LPM / 46.3 gpm / 10.5 m ³ /hr
ALTERNATE CONFIGURATION (30 mJ/cm ² at 95% UVT)	93 LPM / 24.7 gpm / 5.6 m ³ /hr
Operating Pressure	0.8 MPa (116 psi)
Connection Size	1" MNPT
UVC LED Wavelength	270 nm~280 nm
Electrical	100~240 V 50/60 Hz
UVC LED Lifetime	L70 > 15,000 hours
Power	29 W
Disinfection Efficiency	≥99.999% or 5.0 Log Reduction (*)
Exterior Material	Anodized Aluminum
Operating Water Temperature	5°C to 40°C (41°F to 104°F)
Product Dimensions	Φ3.3*18 in (Φ84*458 mm)

(*) The actual disinfection efficiency subjects to the water quality.

The above test results are based on the following test conditions with test strain of Escherichia coli (8099), with 5 × 10⁴ to 5 × 10⁵ CFU/mL dechlorinated sterile test water.

pH	UV transmittance	Turbidity	Temperature	TDS
7.5 ± 0.5	98 ± 2%	<1.0 NTU	20 ± 2.5°C (68 ± 5 °F)	200 to 500 mg/L