



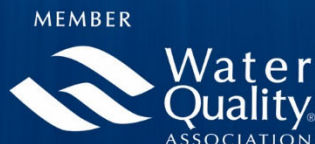
# SOLA PUR

ULTRAVIOLET DISINFECTION



# APPLIED MEMBRANES INC.®

Industry Leader in RO Expertise and Membrane Applications Since 1983™





# Solapur Ultraviolet Water Treatment Systems

**Reliable, Safe, and Economical Drinking Water Disinfection without Chemicals.**

Ultraviolet water disinfection technology is a chemical-free, efficient, and highly effective method of destroying waterborne microbiological contamination, making water safe for drinking and food preparation.

Applied Membranes Solapur ultraviolet disinfection systems use the most advanced ultraviolet disinfection technology available in the industry. Our Solapur UV product line is available in sizes ranging from 2 gpm to over 1,000 gpm and are suitable for a wide variety of residential, commercial, and industrial-sized applications.

## SOLAPUR ULTRAVIOLET DISINFECTION ADVANTAGES

- ◆ 99.99% destruction of bacteria, virus and protozoan cysts (Giardia Lamblia and Cryptosporidium) at rated flow.
- ◆ No chemical additives - no added taste or odors.
- ◆ Environmentally friendly, cost effective & energy efficient.
- ◆ No disinfection by-products (DBP's) or residuals.
- ◆ No resistance as with chlorine and antibiotics.
- ◆ No regrowth of viruses, bacteria and parasites.
- ◆ Easy to install and service - simply change the bulb once per year.
- ◆ No moving parts to wear out or break.
- ◆ Compact, streamline design takes minimal space.



## APPLICATIONS FOR SOLAPUR ULTRAVIOLET DISINFECTION

Applied Membranes Solapur UV Disinfection systems are offered in sizes ranging from 2 gpm to over 1,000 gpm. Because it is chemical and additive-free, UV can be used in virtually any application where microbiologically safe water is required – from home point of use and point of entry solutions, to commercial and industrial applications, including the below:

- |                                     |                     |                                     |
|-------------------------------------|---------------------|-------------------------------------|
| ◆ Homes, Condos, Cottages           | ◆ RVs               | ◆ Food & Beverage                   |
| ◆ Offices                           | ◆ Boats             | ◆ Small Municipality                |
| ◆ Public Buildings                  | ◆ Rainwater         | ◆ Marine                            |
| ◆ Restaurants                       | ◆ Dairy & Livestock | ◆ Pharmaceuticals                   |
| ◆ Schools & Daycares                | ◆ Manufacturing     | ◆ Cooling Towers                    |
| ◆ Eldercare & Healthcare Facilities | ◆ Aquaculture       | ◆ Pools                             |
| ◆ Dental Practices                  | ◆ Microelectronics  | ◆ Recreational Waters (Splash Pads) |
| ◆ Campgrounds & Cabins              |                     |                                     |



## Helios Series - 2 to 21 gpm Basic UV Systems

- ◆ Built-In UV Lamp Countdown Timer and Total Elapsed Running Time Readouts with a 4-Digit LED Display
- ◆ Visual Sight Port for "Lamp-On" Verification
- ◆ Audible and Visual Lamp Change Reminders
- ◆ Audible and Visual Lamp Failure Indicators
- ◆ Axial Flow 304 Stainless Steel Reactor Chamber
- ◆ Reliable, Industry Proven, Coated UV Lamps with Ceramic Bases for Durability and Long Life (9,000 Hours)
- ◆ User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- ◆ Constant Current Electronic Controller in a Splash-Proof Case
- ◆ Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/Outlet
	gpm	lpm	
<b>UV-SPH-2</b>	2.0	7.6	½" FNPT
<b>UV-SPH-3</b>	3.1	11	½" MNPT
<b>UV-SPH-6</b>	5.8	23	¾" MNPT
<b>UV-SPH-11</b>	11.0	41	¾" MNPT
<b>UV-SPH-15</b>	15.0	57	1" MNPT
<b>UV-SPH-21</b>	21.0	79	1" MNPT



UV-SPH-2



UV-SPH-3



UV-SPH-11



UV-SPH-15

# Helios Series UV Systems Specifications

UV System Model →	UV-SPH-2	UV-SPH-3	UV-SPH-6	UV-SPH-11	UV-SPH-15	UV-SPH-21
<b>Flow Rate</b>	2 gpm	3 gpm	6 gpm	11 gpm	15 gpm	21 gpm
<b>Recommended</b> (30mJ/cm <sup>2</sup> @95% UVT)	7.6 lpm 0.45 m <sup>3</sup> /hr	11.4 lpm 0.7 m <sup>3</sup> /hr	22.7 lpm 1.4 m <sup>3</sup> /hr	41 lpm 2.5 m <sup>3</sup> /hr	57 lpm 3.4 m <sup>3</sup> /hr	79 lpm 4.8 m <sup>3</sup> /hr
<b>Flow Rate</b>	4 gpm	6 gpm	11 gpm	20 gpm	30 gpm	39 gpm
<b>US Public Health Std.</b> (16mJ/cm <sup>2</sup> @95% UVT)	15.1 lpm 0.9 m <sup>3</sup> /hr	23 lpm 1.4 m <sup>3</sup> /hr	41 lpm 2.5 m <sup>3</sup> /hr	77 lpm 4.6 m <sup>3</sup> /hr	114 lpm 6.8 m <sup>3</sup> /hr	150 lpm 8.9 m <sup>3</sup> /hr
<b>Flow Rate</b>	1.6 gpm	2.4 gpm	4.4 gpm	8.3 gpm	12 gpm	16 gpm
<b>NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	6.1 lpm 0.36 m <sup>3</sup> /hr	9.4 lpm 0.5 m <sup>3</sup> /hr	17 lpm 1.0 m <sup>3</sup> /hr	31 lpm 1.9 m <sup>3</sup> /hr	45.4 lpm 2.7 m <sup>3</sup> /hr	59 lpm 3.6 m <sup>3</sup> /hr
<b>Port Size</b>	½" FNPT	½" MNPT	¾" MNPT	¾" MNPT	1" MNPT	1" MNPT
<b>Lamp Watts</b>	8	15	22	39	50	42
<b>Power (Watts)</b>	14	20	30	49	62	51
<b>Max. Current (amps)</b>	1	1	1	1	1	1
<b>Replacement Lamp</b>	UV-SPH-2-L	UV-SPH-3-L	UV-SPH-6-L	UV-SPH-11-L	UV-SPH-15-L	UV-SPH-21-L
<b>Replacement Sleeve</b>	UV-SPH-2SLV	UV-SPH-3SLV	UV-SPH-6SLV	UV-SPH-11SLV	UV-SPH-15SLV	UV-SPH-21SLV
<b>Replacement Controller</b>	USA: UV-CH-US; European: UV-CH-EU; British Standard: UV-CH-UK; Australia/NZ: UV-CH-AU					
<b>Chamber Material</b>	Polished 304 Stainless Steel, A249 Pressure Rated Tubing					
<b>Reactor Dimensions</b>	2.5 × 10.3" (6.4 × 26.2cm)	2.5 × 14.3" (6.4 × 36.4cm)	2.5 × 21.3" (6.4 × 54.2cm)	2.5 × 35.2" (6.4 × 89.5cm)	2.5 × 40" (6.4 × 101.6cm)	3.5 × 36.1" (8.9 × 97.7cm)
<b>Controller Dimensions</b>	6.8 × 3.6 × 4" (17.2 × 9.2 × 10.2cm)					
<b>Electrical</b>	90-265V/50-60Hz					
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.					
<b>European CEE 7/7</b>	UV-SPH-2-EU	UV-SPH-3-EU	UV-SPH-6-EU	UV-SPH-11-EU	UV-SPH-15-EU	UV-SPH-21-EU
<b>British Standard BS 1363</b>	UV-SPH-2-UK	UV-SPH-3-UK	UV-SPH-6-UK	UV-SPH-11-UK	UV-SPH-15-UK	UV-SPH-21-UK
<b>Australia/New Zealand 3112</b>	UV-SPH-2-AU	UV-SPH-3-AU	UV-SPH-6-AU	UV-SPH-11-AU	UV-SPH-15-AU	UV-SPH-21-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)					
<b>Operating Water Temp.</b>	36-104°F (2-40°C)					
<b>Lamp Change Reminder</b>	YES (4-digit LED Display)					
<b>Lamp Out Indicator</b>	YES – Audible & Visual					
<b>Shipping Weight</b>	7.1 lbs (3.2 kg)	8.0 lbs (3.6 kg)	9.3 lbs (4.2 kg)	15.0 lbs (6.8 kg)	17.6 lbs (8.0 kg)	16.5 lbs (7.5 kg)

## CONDITIONS FOR USE

Your system will provide years of use provided the system is maintained on a regular basis as per the specifications outlined in the Owner's Manual. For the system to perform as tested, the following water quality parameters must be met.

Parameter	Level
<b>Hardness</b>	<120 mg/L (7 gpg)
<b>Iron (Fe)</b>	< 0.3 mg/L (ppm)
<b>Manganese (Mn)</b>	< 0.05 mg/L (ppm)
<b>Tannins</b>	< 0.1 mg/L (ppm)
<b>Turbidity</b>	< 1 NTU
<b>Transmittance</b>	> 75% UVT

For levels outside these limits, please contact sales@appliedmembranes.com for further technical assistance.

## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

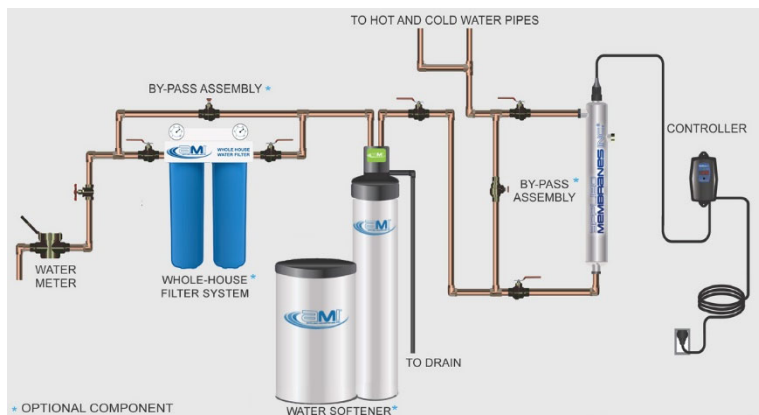
## CONTACT US TO ORDER

☎ (760) 727-3711

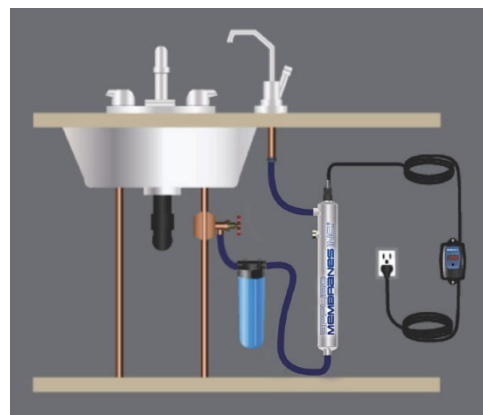
✉ [sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)

🌐 [www.appliedmembranes.com](http://www.appliedmembranes.com)

## TYPICAL POINT-OF-ENTRY INSTALLATION



## TYPICAL POINT-OF-USE INSTALLATION





# SOLAPUR

ULTRAVIOLET DISINFECTION

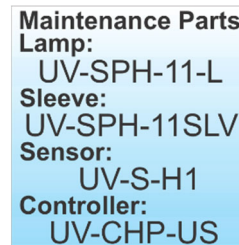
## Helios Plus Series - 2 to 21 gpm UV with 4-Color Controller

- ◆ Color Screen Controller with Protected Lamp Replacement, Includes QR Codes, Full Diagnostics & Warnings\*
- ◆ Expandability Port for Future Upgrades and Options\*
- ◆ Visual Sight Port For "Lamp-On" Verification
- ◆ Audible and Visual Lamp Change Reminders
- ◆ Audible and Visual Lamp Failure Indicators
- ◆ Axial Flow 304 Stainless Steel Reactor Chamber
- ◆ Reliable, Industry Proven, Coated UV Lamps with Ceramic Bases for Durability and Long Life (9,000 Hours)
- ◆ User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- ◆ Constant Current Electronic Controller in a Splash-Proof Case
- ◆ Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/Outlet
	gpm	lpm	
UV-SPH-2P	2.0	7.6	½" FNPT
UV-SPH-3P	3.1	11	½" MNPT
UV-SPH-6P	5.8	23	¾" MNPT
UV-SPH-11P	11.0	41	¾" MNPT
UV-SPH-15P	15.0	57	1" MNPT
UV-SPH-21P	21.0	79	1" MNPT

### HELIOS PLUS SAMPLE SCREENS



\*Features unique to the Helios Plus Series

## Helios Plus Series UV Systems Specifications

UV System Model →	UV-SPH-2P	UV-SPH-3P	UV-SPH-6P	UV-SPH-11P	UV-SPH-15P	UV-SPH-21P
<b>Flow Rate</b>	2 gpm	3 gpm	6 gpm	11 gpm	15 gpm	21 gpm
<b>Recommended</b> (30mJ/cm <sup>2</sup> @95% UVT)	7.6 lpm 0.45 m <sup>3</sup> /hr	11.4 lpm 0.7 m <sup>3</sup> /hr	22.7 lpm 1.4 m <sup>3</sup> /hr	41 lpm 2.5 m <sup>3</sup> /hr	57 lpm 3.4 m <sup>3</sup> /hr	79 lpm 4.8 m <sup>3</sup> /hr
<b>Flow Rate</b>	4 gpm	6 gpm	11 gpm	20 gpm	30 gpm	39 gpm
<b>US Public Health Std.</b> (16mJ/cm <sup>2</sup> @95% UVT)	15.1 lpm 0.9 m <sup>3</sup> /hr	23 lpm 1.4 m <sup>3</sup> /hr	41 lpm 2.5 m <sup>3</sup> /hr	77 lpm 4.6 m <sup>3</sup> /hr	114 lpm 6.8 m <sup>3</sup> /hr	150 lpm 8.9 m <sup>3</sup> /hr
<b>Flow Rate</b>	1.6 gpm	2.4 gpm	4.4 gpm	8.3 gpm	12 gpm	16 gpm
<b>NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	6.1 lpm 0.36 m <sup>3</sup> /hr	9.4 lpm 0.5 m <sup>3</sup> /hr	17 lpm 1.0 m <sup>3</sup> /hr	31 lpm 1.9 m <sup>3</sup> /hr	45.4 lpm 2.7 m <sup>3</sup> /hr	59 lpm 3.6 m <sup>3</sup> /hr
<b>Port Size</b>	½" FNPT	½" MNPT	¾" MNPT	¾" MNPT	1" MNPT	1" MNPT
<b>Lamp Watts</b>	8	15	22	39	50	42
<b>Power (Watts)</b>	14	20	30	49	62	51
<b>Max. Current (amps)</b>	1	1	1	1	1	1
<b>Replacement Lamp</b>	UV-SPH-2-L	UV-SPH-3-L	UV-SPH-6-L	UV-SPH-11-L	UV-SPH-15-L	UV-SPH-21-L
<b>Replacement Sleeve</b>	UV-SPH-2SLV	UV-SPH-3SLV	UV-SPH-6SLV	UV-SPH-11SLV	UV-SPH-15SLV	UV-SPH-21SLV
<b>Replacement Controller</b>	USA: UV-CHP-US; European: UV-CHP-EU; British Standard: UV-CHP-UK; Australia/NZ: UV-CHP-AU					
<b>Chamber Material</b>	Polished 304 Stainless Steel, A249 Pressure Rated Tubing					
<b>Reactor Dimensions</b>	2.5 × 10.3" (6.4 × 26.2cm)	2.5 × 14.3" (6.4 × 36.4cm)	2.5 × 21.3" (6.4 × 54.2cm)	2.5 × 35.2" (6.4 × 89.5cm)	2.5 × 40" (6.4 × 101.6cm)	3.5 × 36.1" (8.9 × 97.7cm)
<b>Controller Dimensions</b>	6.8 × 3.6 × 4" (17.2 × 9.2 × 10.2cm)					
<b>Electrical</b>	90-265V/50-60Hz					
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.					
<b>European CEE 7/7</b>	UV-SPH-2P-EU	UV-SPH-3P-EU	UV-SPH-6P-EU	UV-SPH-11P-EU	UV-SPH-15P-EU	UV-SPH-21P-EU
<b>British Standard BS 1363</b>	UV-SPH-2P-UK	UV-SPH-3P-UK	UV-SPH-6P-UK	UV-SPH-11P-UK	UV-SPH-15P-UK	UV-SPH-21P-UK
<b>Australia/New Zealand 3112</b>	UV-SPH-2P-AU	UV-SPH-3P-AU	UV-SPH-6P-AU	UV-SPH-11P-AU	UV-SPH-15P-AU	UV-SPH-21P-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)					
<b>Operating Water Temp.</b>	36-104°F (2-40°C)					
<b>UV Monitor</b>	Available with UV Sensor Add-On: Up to 15 gpm systems: UV-S-H1, 21 gpm: UV-S-H2					
<b>Solenoid Output</b>	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1					
<b>Dry Contacts</b>	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM					
<b>4-20mA Output</b>	Equipped but Requires 4-20mA Module Add-On UV-MOD-420					
<b>Lamp Change Reminder</b>	YES – Audible & Visual Full-Color Graphic Display with Countdown					
<b>Lamp Out Indicator</b>	YES – Audible & Visual Full-Color Graphic Display					
<b>Shipping Weight</b>	7.1 lbs (3.2 kg)	8.0 lbs (3.6 kg)	9.3 lbs (4.2 kg)	15.0 lbs (6.8 kg)	17.6 lbs (8.0 kg)	16.5 lbs (7.5 kg)

### OPTIONAL EQUIPMENT MODULES

**Remote Water Quality Monitor**  
Compatible with Helios Plus & Ultra systems and allows for remote monitoring of all alarms on the UV system. Three LEDs visually display system functionality from up to 150' (46m) away (UV-MOD-ALARM)



**UV Sensor Module** allows the 254nm UV wavelength to be measured and displayed via the controller. The sensor plugs directly into the controller and is mounted in the sensor port located on all reactors.



**Solenoid Module** Will power a remote normally closed solenoid valve (not included). Solenoid will close on lamp failure or when low UV conditions are detected by the sensor. Available in 110V. (UV-MOD-SOL1) or 230V. (UV-MOD-SOL2)



**TRV (temperature management relief valve)** allows for a small amount of water to be physically released (dumped) from the UV unit to allow for cooling of the water. Used in applications of extended "no flow" conditions, or when the temperature of the treated water is of a critical nature.



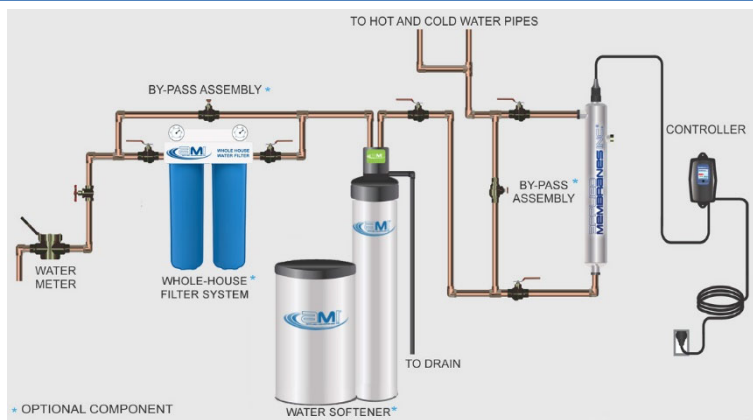
**4-20mA Module** will signal transfer to a remote device such as a data logger or computer. Order UV-MOD-420.



**Remote Alarm (Dry Contact) Module** to signal transfer to a remote alarm or dry contacts. Order UV-MOD-RAM



### TYPICAL POINT-OF-ENTRY INSTALLATION



### MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

### CONTACT US TO ORDER

(760) 727-3711

[sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)

[www.appliedmembranes.com](http://www.appliedmembranes.com)



# SOLAPUR

ULTRAVIOLET DISINFECTION

## Helios Ultra Series - 2 to 21 gpm UV with UV Monitoring

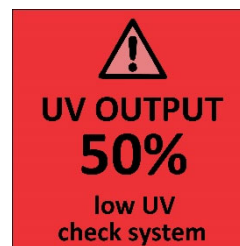
- Continuous UV Monitoring with UV Output Display (as %)\*
- System Diagnostics and Potential Fault Codes\*
- Color Screen Controller with Protected Lamp Replacement, Includes QR Codes, Full Diagnostics & Warnings
- Expandability Port for Future Upgrades and Options
- Audible and Visual Lamp Change Reminders
- Audible and Visual Lamp Failure Indicators
- Axial Flow 304 Stainless Steel Reactor Chamber
- Reliable, Industry Proven, Coated UV Lamps with Ceramic Bases for Durability and Long Life (9,000 Hours)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/Outlet
	gpm	lpm	
UV-SPH-2U	2.0	7.6	½" FNPT
UV-SPH-3U	3.1	11	½" MNPT
UV-SPH-6U	5.8	23	¾" MNPT
UV-SPH-11U	11.0	41	¾" MNPT
UV-SPH-15U	15.0	57	1" MNPT
UV-SPH-21U	21.0	79	1" MNPT



### HELIOS ULTRA SAMPLE SCREENS



\*Features unique to the Helios Ultra Series



# Helios Ultra Series Monitored UV Systems Specifications

UV System Model →	UV-SPH-2U	UV-SPH-3U	UV-SPH-6U	UV-SPH-11U	UV-SPH-15U	UV-SPH-21U
<b>Flow Rate</b>	2 gpm	3 gpm	6 gpm	11 gpm	15 gpm	21 gpm
<b>Recommended</b> (30mJ/cm <sup>2</sup> @95% UVT)	7.6 lpm 0.45 m <sup>3</sup> /hr	11.4 lpm 0.7 m <sup>3</sup> /hr	22.7 lpm 1.4 m <sup>3</sup> /hr	41 lpm 2.5 m <sup>3</sup> /hr	57 lpm 3.4 m <sup>3</sup> /hr	79 lpm 4.8 m <sup>3</sup> /hr
<b>Flow Rate</b> <b>US Public Health Std.</b> (16mJ/cm <sup>2</sup> @95% UVT)	4 gpm 15.1 lpm 0.9 m <sup>3</sup> /hr	6 gpm 23 lpm 1.4 m <sup>3</sup> /hr	11 gpm 41 lpm 2.5 m <sup>3</sup> /hr	20 gpm 77 lpm 4.6 m <sup>3</sup> /hr	30 gpm 114 lpm 6.8 m <sup>3</sup> /hr	39 gpm 150 lpm 8.9 m <sup>3</sup> /hr
<b>Flow Rate</b> <b>NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	1.6 gpm 6.1 lpm 0.36 m <sup>3</sup> /hr	2.4 gpm 9.4 lpm 0.5 m <sup>3</sup> /hr	4.4 gpm 17 lpm 1.0 m <sup>3</sup> /hr	8.3 gpm 31 lpm 1.9 m <sup>3</sup> /hr	12 gpm 45.4 lpm 2.7 m <sup>3</sup> /hr	16 gpm 59 lpm 3.6 m <sup>3</sup> /hr
<b>Port Size</b>	½" FNPT	½" MNPT	¾" MNPT	¾" MNPT	1" MNPT	1" MNPT
<b>Lamp Watts</b>	8	15	22	39	50	42
<b>Power (Watts)</b>	14	20	30	49	62	51
<b>Max. Current (amps)</b>	1	1	1	1	1	1
<b>Replacement Lamp</b>	UV-SPH-2-L	UV-SPH-3-L	UV-SPH-6-L	UV-SPH-11-L	UV-SPH-15-L	UV-SPH-21-L
<b>Replacement Sleeve</b>	UV-SPH-2SLV	UV-SPH-3SLV	UV-SPH-6SLV	UV-SPH-11SLV	UV-SPH-15SLV	UV-SPH-21SLV
<b>Replacement Controller</b>	USA: UV-CHP-US; European: UV-CHP-EU; British Standard: UV-CHP-UK; Australia/NZ: UV-CHP-AU					
<b>Chamber Material</b>	Polished 304 Stainless Steel, A249 Pressure Rated Tubing					
<b>Reactor Dimensions</b>	2.5 × 10.3" (6.4 × 26.2cm)	2.5 × 14.3" (6.4 × 36.4cm)	2.5 × 21.3" (6.4 × 54.2cm)	2.5 × 35.2" (6.4 × 89.5cm)	2.5 × 40" (6.4 × 101.6cm)	3.5 × 36.1" (8.9 × 97.7cm)
<b>Controller Dimensions</b>	6.8 × 3.6 × 4" (17.2 × 9.2 × 10.2cm)					
<b>Electrical</b>	90-265V/50-60Hz					
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.					
<b>European CEE 7/7</b>	UV-SPH-2P-EU	UV-SPH-3P-EU	UV-SPH-6P-EU	UV-SPH-11P-EU	UV-SPH-15P-EU	UV-SPH-21P-EU
<b>British Standard BS 1363</b>	UV-SPH-2P-UK	UV-SPH-3P-UK	UV-SPH-6P-UK	UV-SPH-11P-UK	UV-SPH-15P-UK	UV-SPH-21P-UK
<b>Australia/New Zealand 3112</b>	UV-SPH-2P-AU	UV-SPH-3P-AU	UV-SPH-6P-AU	UV-SPH-11P-AU	UV-SPH-15P-AU	UV-SPH-21P-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)					
<b>Operating Water Temp.</b>	36-104°F (2-40°C)					
<b>UV Monitor</b>	YES – Standard on Helios Ultra Series					
<b>Solenoid Output</b>	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1					
<b>Dry Contacts</b>	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM					
<b>4-20mA Output</b>	Equipped but Requires 4-20mA Module Add-On UV-MOD-420					
<b>Lamp Change Reminder</b>	YES – Audible & Visual Full-Color Graphic Display with Countdown					
<b>Lamp Out Indicator</b>	YES – Audible & Visual Full-Color Graphic Display					
<b>Shipping Weight</b>	7.1 lbs (3.2 kg)	8.0 lbs (3.6 kg)	9.3 lbs (4.2 kg)	15.0 lbs (6.8 kg)	17.6 lbs (8.0 kg)	16.5 lbs (7.5 kg)

## OPTIONAL EQUIPMENT MODULES

### Water Quality Monitor

Compatible with Helios Plus & Ultra systems: allows remote monitoring of all alarms on the UV system. Three LEDs visually display system functionality from up to 150' (46m) away (UV-MOD-ALARM)



**Solenoid Module** Will power a remote normally closed solenoid valve (not included). Solenoid will close on lamp failure or when low UV conditions are detected by the sensor. Available in 110V. (UV-MOD-SOL1) or 230V. (UV-MOD-SOL2)



**TRV (temperature management relief valve)** allows for a small amount of water to be physically released (dumped) from the UV unit to allow for cooling of the water. Used in applications of extended "no flow" conditions, or when the temperature of the treated water is of a critical nature.



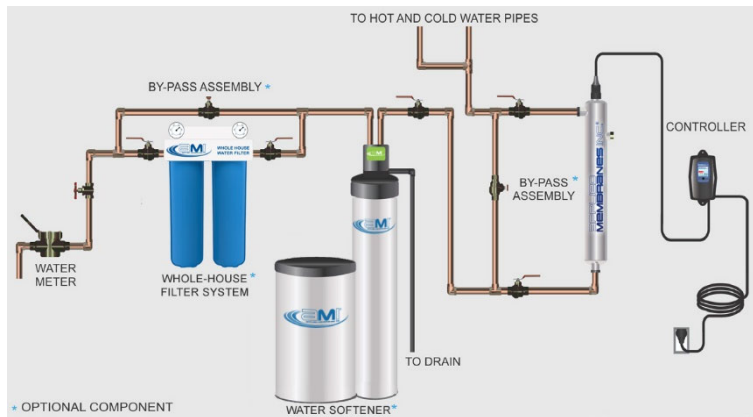
**4-20mA Module** will signal transfer to a remote device such as a data logger or computer. Order UV-MOD-420.



**Remote Alarm (Dry Contact) Module** to signal transfer to a remote alarm or dry contacts. Order UV-MOD-RAM



## TYPICAL POINT-OF-ENTRY INSTALLATION



## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

## CONTACT US TO ORDER

☎ (760) 727-3711

✉ [sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)

🌐 [www.appliedmembranes.com](http://www.appliedmembranes.com)







HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS

## Helios HP Series - 5 to 40 gpm Basic UV Systems

- Solapur High Performance Helios HP Series Use High-Output Lamps to Offer Higher Service Flow Rates.
- Built-In UV Lamp Countdown Timer and Total Elapsed Running Time Readouts with a 4-Digit LED Display
- Visual Sight Port for "Lamp-On" Verification
- Audible and Visual Lamp Change Reminders
- Audible and Visual Lamp Failure Indicators
- Axial Flow 316L Stainless Steel Reactor Chamber
- Designed & Manufactured to ASME Pressure Vessel Standards
- Reliable, Industry Proven, High-Output Coated UV Lamps with Ceramic Bases for Durability and Long Life (10,000 Hours)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/ Outlet
	gpm	lpm	
<b>UV-SPH-5-HP</b>	5	19	½" MNPT
<b>UV-SPH-10-HP</b>	10	38	¾" MNPT
<b>UV-SPH-15-HP</b>	15	57	1" MNPT
<b>UV-SPH-25-HP</b>	25	95	1" MNPT
<b>UV-SPH-40-HP</b>	40	151	1-½" MNPT



HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS

# Helios HP Series UV Systems Specifications

UV System Model →	UV-SPH-5-HP	UV-SPH-10-HP	UV-SPH-15-HP	UV-SPH-25-HP	UV-SPH-40-HP
<b>Flow Rate</b>	5 gpm	10 gpm	15 gpm	25 gpm	40 gpm
<b>Recommended</b> (30mJ/cm <sup>2</sup> @95% UVT)	18.9 lpm 1.1 m <sup>3</sup> /hr	37.9 lpm 2.3 m <sup>3</sup> /hr	57 lpm 3.4 m <sup>3</sup> /hr	95 lpm 5.7 m <sup>3</sup> /hr	151 lpm 9.3 m <sup>3</sup> /hr
<b>Flow Rate</b> <b>US Public Health Std.</b> (16mJ/cm <sup>2</sup> @95% UVT)	8 gpm 30.3 lpm 1.8 m <sup>3</sup> /hr	19 gpm 71.9 lpm 4.3 m <sup>3</sup> /hr	27 gpm 102.2 lpm 6.1 m <sup>3</sup> /hr	47 gpm 178 lpm 10.7 m <sup>3</sup> /hr	78 gpm 295 lpm 17.7 m <sup>3</sup> /hr
<b>Flow Rate</b> <b>NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	3 gpm 11.4 lpm 0.7 m <sup>3</sup> /hr	7 gpm 26.5 lpm 1.6 m <sup>3</sup> /hr	11 gpm 41 lpm 2.5 m <sup>3</sup> /hr	19 gpm 72 lpm 4.3 m <sup>3</sup> /hr	31 gpm 117 lpm 7.0 m <sup>3</sup> /hr
<b>Port Size</b>	½" MNPT	¾" MNPT	1" MNPT	1" MNPT	1-½" MNPT
<b>Lamp Waits</b>	18	34	45	67	101
<b>Power (Watts)</b>	20 (19 @ 230V)	38 (36 @ 230V)	57 (48 @ 230V)	73 (72 @ 230V)	115 (108 @ 230V)
<b>Replacement Lamp</b>	UV-SPH-5-HP-L	UV-SPH-10-HP-L	UV-SPH-15-HP-L	UV-SPH-25-HP-L	UV-SPH-40-HP-L
<b>Replacement Sleeve</b>	UV-SPH-5-HPSLV	UV-SPH-10-HPSLV	UV-SPH-15-HPSLV	UV-SPH-25-HPSLV	UV-SPH-40-HPSLV
<b>Replacement Controller</b>	UV-CH-HP (All Voltages. Power cord is sold separately.)				
<b>Chamber Material</b>	Polished & Passivated 316L Stainless Steel, A249 Pressure Rated Tubing				
<b>Reactor Dimensions</b>	3.5 × 11.7" (8.9 × 29.8cm)	3.5 × 16.5" (8.9 × 41.8cm)	3.5 × 20.0" (8.9 × 50.8cm)	3.5 × 26.9" (8.9 × 68.3cm)	3.5 × 40.7" (8.9 × 103.4cm)
<b>Controller Dimensions</b>	8.6 × 4.2 × 3.5" (21.7 × 10.8 × 8.9cm)				
<b>Electrical</b>	90-265V/50-60Hz				
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.				
<b>European CEE 7/7</b>	UV-SPH-5-HP-EU	UV-SPH-10-HP-EU	UV-SPH-15-HP-EU	UV-SPH-25-HP-EU	UV-SPH-40-HP-EU
<b>British Standard BS 1363</b>	UV-SPH-5-HP-UK	UV-SPH-10-HP-UK	UV-SPH-15-HP-UK	UV-SPH-25-HP-UK	UV-SPH-40-HP-UK
<b>Australia/New Zealand 3112</b>	UV-SPH-5-HP-AU	UV-SPH-10-HP-AU	UV-SPH-15-HP-AU	UV-SPH-25-HP-AU	UV-SPH-40-HP-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)				
<b>Operating Water Temp.</b>	36-104°F (2-40°C)				
<b>Lamp Change Reminder</b>	YES (4-digit LED Display)				
<b>Lamp Out Indicator</b>	YES – Audible & Visual				
<b>Shipping Weight</b>	9.9 lbs (4.5 kg)	11.9 lbs (5.4 kg)	13.2 lbs (6.0 kg)	15.9 lbs (7.2 kg)	21.4 lbs (9.7 kg)

## CONDITIONS FOR USE

Your system will provide years of use provided the system is maintained on a regular basis as per the specifications outlined in the Owner's Manual. For the system to perform as tested, the following water quality parameters must be met.

Parameter	Level
<b>Hardness</b>	<120 mg/L (7 gpg)
<b>Iron (Fe)</b>	< 0.3 mg/L (ppm)
<b>Manganese (Mn)</b>	< 0.05 mg/L (ppm)
<b>Tannins</b>	< 0.1 mg/L (ppm)
<b>Turbidity</b>	< 1 NTU
<b>Transmittance</b>	> 75% UVT

For levels outside these limits, please contact sales@appliedmembranes.com for further technical assistance.

## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

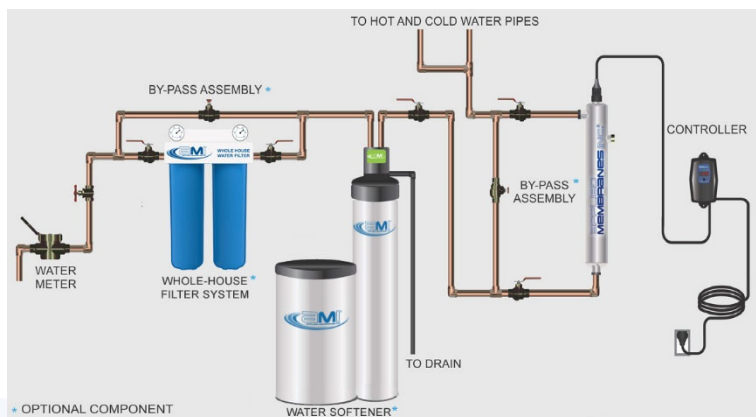
## CONTACT US TO ORDER

☎ (760) 727-3711

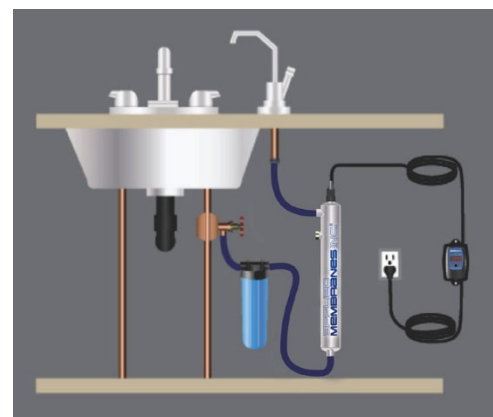
✉ [sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)

🌐 [www.appliedmembranes.com](http://www.appliedmembranes.com)

## TYPICAL POINT-OF-ENTRY INSTALLATION



## TYPICAL POINT-OF-USE INSTALLATION





# SOLAPUR

ULTRAVIOLET DISINFECTION

HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS

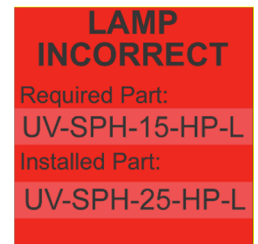
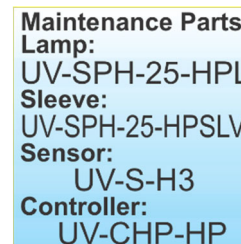
## Helios HP Plus Series - 5 to 40 gpm UV with 4-Color Controller

- Color Screen Controller with Protected Lamp Replacement. Includes QR Codes, Full Diagnostics & Warnings\*
- Expandability Port for Future Upgrades and Options\*
- Visual Sight Port For "Lamp-On" Verification
- Audible and Visual Lamp Change Reminders
- Audible and Visual Lamp Failure Indicators
- Axial Flow 316l Stainless Steel Reactor Chamber, Designed & Manufactured to ASME Pressure Vessel Standards
- Reliable, Industry Proven, High-Output Coated UV Lamps with Ceramic Bases for Durability and Long Life (10,000 Hours)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/ Outlet
	gpm	lpm	
UV-SPH-5P-HP	5	19	½" MNPT
UV-SPH-10P-HP	10	38	¾" MNPT
UV-SPH-15P-HP	15	57	1" MNPT
UV-SPH-25P-HP	25	95	1" MNPT
UV-SPH-40P-HP	40	151	1-½" MNPT

### HELIOS PLUS SAMPLE SCREENS



\*Features unique to the Helios Plus Series



**HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS**

# Helios HP Plus Series UV Systems Specifications

UV System Model →	UV-SPH-5P-HP	UV-SPH-10P-HP	UV-SPH-15P-HP	UV-SPH-25P-HP	UV-SPH-40P-HP
<b>Flow Rate Recommended</b> (30mJ/cm <sup>2</sup> @95% UVT)	5 gpm 18.9 lpm 1.1 m <sup>3</sup> /hr	10 gpm 37.9 lpm 2.3 m <sup>3</sup> /hr	15 gpm 57 lpm 3.4 m <sup>3</sup> /hr	25 gpm 95 lpm 5.7 m <sup>3</sup> /hr	40 gpm 151 lpm 9.3 m <sup>3</sup> /hr
<b>Flow Rate US Public Health Std.</b> (16mJ/cm <sup>2</sup> @95% UVT)	8 gpm 30.3 lpm 1.8 m <sup>3</sup> /hr	19 gpm 71.9 lpm 4.3 m <sup>3</sup> /hr	27 gpm 102.2 lpm 6.1 m <sup>3</sup> /hr	47 gpm 178 lpm 10.7 m <sup>3</sup> /hr	78 gpm 295 lpm 17.7 m <sup>3</sup> /hr
<b>Flow Rate NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	3 gpm 11.4 lpm 0.7 m <sup>3</sup> /hr	7 gpm 26.5 lpm 1.6 m <sup>3</sup> /hr	11 gpm 41 lpm 2.5 m <sup>3</sup> /hr	19 gpm 72 lpm 4.3 m <sup>3</sup> /hr	31 gpm 117 lpm 7.0 m <sup>3</sup> /hr
<b>Port Size</b>	½" MNPT	¾" MNPT	1" MNPT	1" MNPT	1-½" MNPT
<b>Lamp Watts</b>	18	34	45	67	101
<b>Power (Watts)</b>	20 (19 @ 230V)	38 (36 @ 230V)	57 (48 @ 230V)	73 (72 @ 230V)	115 (108 @ 230V)
<b>Replacement Lamp</b>	UV-SPH-5-HP-L	UV-SPH-10-HP-L	UV-SPH-15-HP-L	UV-SPH-25-HP-L	UV-SPH-40-HP-L
<b>Replacement Sleeve</b>	UV-SPH-5-HPSLV	UV-SPH-10-HPSLV	UV-SPH-15-HPSLV	UV-SPH-25-HPSLV	UV-SPH-40-HPSLV
<b>Replacement Controller</b>	UV-CH-HP (All Voltages. Power cord is sold separately.)				
<b>Chamber Material</b>	Polished & Passivated 316L Stainless Steel, A249 Pressure Rated Tubing				
<b>Reactor Dimensions</b>	3.5 × 11.7" (8.9 × 29.8cm)	35 × 16.5" (8.9 × 41.8cm)	3.5 × 20.0" (8.9 × 50.8cm)	3.5 × 26.9" (8.9 × 68.3cm)	3.5 × 40.7" (8.9 × 103.4cm)
<b>Controller Dimensions</b>	8.6 × 4.2 × 3.5" (21.7 × 10.8 × 8.9cm)				
<b>Electrical</b>	90-265V/50-60Hz				
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.				
<b>European CEE 7/7</b>	UV-SPH-5P-HP-EU	UV-SPH-10P-HP-EU	UV-SPH-15P-HP-EU	UV-SPH-25P-HP-EU	UV-SPH-40P-HP-EU
<b>British Standard BS 1363</b>	UV-SPH-5P-HP-UK	UV-SPH-10P-HP-UK	UV-SPH-15P-HP-UK	UV-SPH-25P-HP-UK	UV-SPH-40P-HP-UK
<b>Australia/New Zealand 3112</b>	UV-SPH-5P-HP-AU	UV-SPH-10P-HP-AU	UV-SPH-15P-HP-AU	UV-SPH-25P-HP-AU	UV-SPH-40P-HP-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)				
<b>Operating Water Temp.</b>	36-104°F (2-40°C)				
<b>UV Monitor</b>	Available with UV Sensor Add-On: Up to 15 gpm systems: UV-S-H1, 21 gpm: UV-S-H2				
<b>Solenoid Output</b>	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1				
<b>Dry Contacts</b>	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM				
<b>4-20mA Output</b>	Equipped but Requires 4-20mA Module Add-On UV-MOD-420				
<b>Lamp Change Reminder</b>	YES – Audible & Visual Full-Color Graphic Display with Countdown				
<b>Lamp Out Indicator</b>	YES – Audible & Visual Full-Color Graphic Display				
<b>Shipping Weight</b>	9.9 lbs (4.5 kg)	11.9 lbs (5.4 kg)	13.2 lbs (6.0 kg)	15.9 lbs (7.2 kg)	21.4 lbs (9.7 kg)

## OPTIONAL EQUIPMENT MODULES

### Water Quality Monitor

Compatible with Helios Plus & Ultra systems and allows for remote monitoring of all alarms on the UV system. Three LEDs visually display system functionality from up to 150' (46m) away. (UV-MOD-ALARM)



**UV Sensor Module** allows the 254nm UV wavelength to be measured and displayed via the controller. The sensor plugs directly into the controller and is mounted in the sensor port located on all reactors.



**Solenoid Module** Will power a remote normally closed solenoid valve (not included). Solenoid will close on lamp failure or when low UV conditions are detected by the sensor. Available in 110V. (UV-MOD-SOL1) or 230V. (UV-MOD-SOL2)



**TRV (temperature management relief valve)** allows for a small amount of water to be physically released (dumped) from the UV unit to allow for cooling of the water. Used in applications of extended "no flow" conditions, or when the temperature of the treated water is of a critical nature.



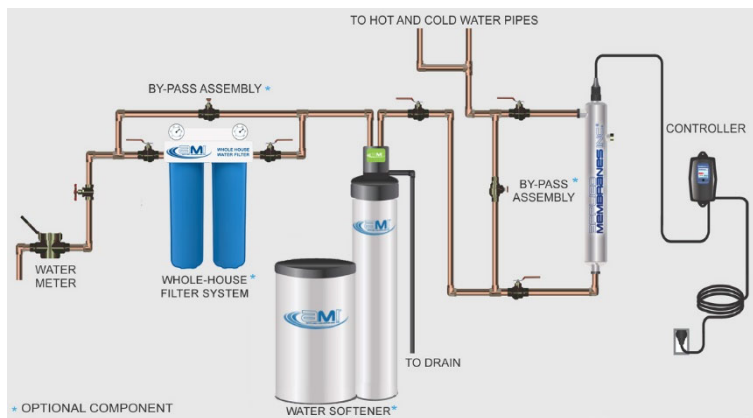
**4-20mA Module** will signal transfer to a remote device such as a data logger or computer. Order UV-MOD-420.



**Remote Alarm (Dry Contact) Module** to signal transfer to a remote alarm or dry contacts. Order UV-MOD-RAM



## TYPICAL POINT-OF-ENTRY INSTALLATION



## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

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# SOLAPUR

## ULTRAVIOLET DISINFECTION

HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS

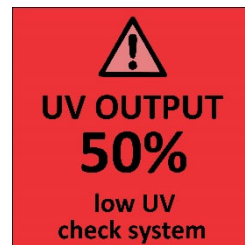
### Helios HP Ultra Series - 5 to 40 gpm UV with UV Monitoring

- Continuous UV Monitoring with UV Output Display (as %)\*
- System Diagnostics and Potential Fault Codes\*
- Color Screen Controller with Protected Lamp Replacement, Includes QR Codes, Full Diagnostics & Warnings
- Expandability Port for Future Upgrades and Options
- Audible and Visual Lamp Change Reminders
- Audible and Visual Lamp Failure Indicators
- Axial Flow 316l Stainless Steel Reactor Chamber, Designed & Manufactured to ASME Pressure Vessel Standards
- Reliable, Industry Proven, High-Output Coated UV Lamps with Ceramic Bases for Durability and Long Life (10,000 Hours)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No.	Service Flow		Inlet/ Outlet
	gpm	lpm	
UV-SPH-5U-HP	5	19	½" MNPT
UV-SPH-10U-HP	10	38	¾" MNPT
UV-SPH-15U-HP	15	57	1" MNPT
UV-SPH-25U-HP	25	95	1" MNPT
UV-SPH-40U-HP	40	151	1-½" MNPT

#### HELIOS HP ULTRA SAMPLE SCREENS



\*Features unique to the Helios Ultra Series





**HIGH PERFORMANCE SOLAPUR HELIOS SERIES WITH HIGH OUTPUT ULTRAVIOLET LAMPS**

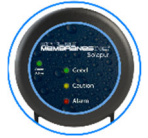
**Helios HP Ultra Series Monitored UV Systems Specifications**

UV System Model →	UV-SPH-5U-HP	UV-SPH-10U-HP	UV-SPH-15U-HP	UV-SPH-25U-HP	UV-SPH-40U-HP
<b>Flow Rate</b>	5 gpm	10 gpm	15 gpm	25 gpm	40 gpm
<b>Recommended</b> (30mJ/cm <sup>2</sup> @ 95% UVT)	18.9 lpm 1.1 m <sup>3</sup> /hr	37.9 lpm 2.3 m <sup>3</sup> /hr	57 lpm 3.4 m <sup>3</sup> /hr	95 lpm 5.7 m <sup>3</sup> /hr	151 lpm 9.3 m <sup>3</sup> /hr
<b>Flow Rate</b> <b>US Public Health Std.</b> (16mJ/cm <sup>2</sup> @ 95% UVT)	8 gpm 30.3 lpm	19 gpm 71.9 lpm	27 gpm 102.2 lpm	47 gpm 178 lpm	78 gpm 295 lpm
<b>Flow Rate</b> <b>NSF Standard</b> (40mJ/cm <sup>2</sup> @ 95% UVT)	3 gpm 11.4 lpm	7 gpm 26.5 lpm	11 gpm 41 lpm	19 gpm 72 lpm	31 gpm 117 lpm
<b>Port Size</b>	½" MNPT	¾" MNPT	1" MNPT	1" MNPT	1-½" MNPT
<b>Lamp Watts</b>	18	34	45	67	101
<b>Power (Watts)</b>	20 (19 @ 230V)	38 (36 @ 230V)	57 (48 @ 230V)	73 (72 @ 230V)	115 (108 @ 230V)
<b>Replacement Lamp</b>	UV-SPH-5-HP-L	UV-SPH-10-HP-L	UV-SPH-15-HP-L	UV-SPH-25-HP-L	UV-SPH-40-HP-L
<b>Replacement Sleeve</b>	UV-SPH-5-HPSLV	UV-SPH-10-HPSLV	UV-SPH-15-HPSLV	UV-SPH-25-HPSLV	UV-SPH-40-HPSLV
<b>Replacement Controller</b>	UV-CH-HP (All Voltages. Power cord is sold separately.)				
<b>Chamber Material</b>	Polished & Passivated 316L Stainless Steel, A249 Pressure Rated Tubing				
<b>Reactor Dimensions</b>	3.5 × 11.7" (8.9 × 29.8cm)	3.5 × 16.5" (8.9 × 41.8cm)	3.5 × 20.0" (8.9 × 50.8cm)	3.5 × 26.9" (8.9 × 68.3cm)	3.5 × 40.7" (8.9 × 103.4cm)
<b>Controller Dimensions</b>	8.6 × 4.2 × 3.5" (21.7 × 10.8 × 8.9cm)				
<b>Electrical</b>	90-265V/50-60Hz				
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.				
<b>European CEE 7/7</b>	UV-SPH-5U-HP-EU	UV-SPH-10U-HP-EU	UV-SPH-15U-HP-EU	UV-SPH-25U-HP-EU	UV-SPH-40U-HP-EU
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<b>Australia/New Zealand 3112</b>	UV-SPH-5U-HP-AU	UV-SPH-10U-HP-AU	UV-SPH-15U-HP-AU	UV-SPH-25U-HP-AU	UV-SPH-40U-HP-AU
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)				
<b>Operating Water Temp.</b>	36-104°F (2-40°C)				
<b>UV Monitor</b>	YES – Standard on Helios Ultra Series				
<b>Solenoid Output</b>	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1				
<b>Dry Contacts</b>	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM				
<b>4-20mA Output</b>	Equipped but Requires 4-20mA Module Add-On UV-MOD-420				
<b>Lamp Change Reminder</b>	YES – Audible & Visual Full-Color Graphic Display with Countdown				
<b>Lamp Out Indicator</b>	YES – Audible & Visual Full-Color Graphic Display				
<b>Shipping Weight</b>	9.9 lbs (4.5 kg)	11.9 lbs (5.4 kg)	13.2 lbs (6.0 kg)	15.9 lbs (7.2 kg)	21.4 lbs (9.7 kg)

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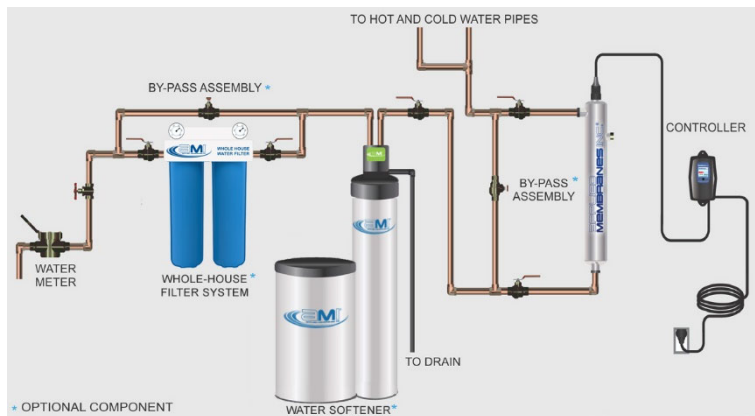
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**TYPICAL POINT-OF-ENTRY INSTALLATION**



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<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

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# SOLAPUR

## ULTRAVIOLET DISINFECTION

### NSF VALIDATED ULTRAVIOLET DISINFECTION SYSTEMS

## Aurora NSF A Series – Certified to NSF Standard 55, Class A

- Tested and Certified by NSF International against CSA B483.1 and NSF/ANSI 55 for Disinfection Performance, Class A
- Continuous True 254nm UV Monitoring with UV Output Display (as a %)
- System Diagnostics and Potential Fault Codes
- Color Screen Controller with Protected Lamp Replacement, Includes QR Codes, Full Diagnostics & Warnings
- Expandability Port for Future Upgrades and Options
- Audible and Visual Lamp Change Reminders
- Audible and Visual Lamp Failure Indicators
- Axial Flow Stainless Steel Reactor Chamber, Designed & Manufactured to ASME Pressure Vessel Standards
- Reliable, Industry Proven, High-Output Coated UV Lamps with Ceramic Bases for Durability and Long Life (9,000 Hours for standard, 10,000 Hours for HP)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



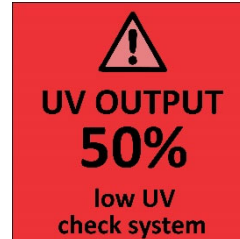
Model No. (Standard)	Service Flow	
	gpm	lpm
UV-SPNSFA-1.6M	1.6	6.1
UV-SPNSFA-2.2M	2.2	8.3
UV-SPNSFA-3.4M	3.4	12.9
UV-SPNSFA-6.3M	6.3	23.8
UV-SPNSFA-7.9M	7.9	29.9

Model No. (HP) High Output	Service Flow	
	gpm	lpm
UV-SPNSFA-2.2M-HP	2.2	8.3
UV-SPNSFA-4.0M-HP	4.0	15.1
UV-SPNSFA-5.4M-HP	5.4	20.4
UV-SPNSFA-7.9M-HP	7.9	29.9
UV-SPNSFA-18M-HP	18.0	68.1



System Tested and Certified by NSF International against CSA B483.1 and NSF/ANSI 55 for Disinfection Performance, Class A

### AURORA NSF-A SAMPLE SCREENS





**NSF VALIDATED ULTRAVIOLET DISINFECTION SYSTEMS**

**Aurora NSF A Series UV System Specifications**

UV System Model →	Aurora NSFA Series Standard					Aurora NSFA HP Series- High Output Lamps				
	UV-SPNSFA-1.6M	UV-SPNSFA-2.2M	UV-SPNSFA-3.4M	UV-SPNSFA-6.3M	UV-SPNSFA-7.9M	UV-SPNSFA-2.2M-HP	UV-SPNSFA-4.0M-HP	UV-SPNSFA-5.4M-HP	UV-SPNSFA-7.9M-HP	UV-SPNSFA-18M-HP
<b>NSF Class A Flow Rate</b> (40mJ/cm <sup>2</sup> @95% UVT)	1.6 gpm 6.1 lpm 0.36 m <sup>3</sup> /hr	2.2 gpm 8.3 lpm 0.5 m <sup>3</sup> /hr	3.4 gpm 12.9 lpm 0.77 m <sup>3</sup> /hr	6.3 gpm 23.8 lpm 1.43 m <sup>3</sup> /hr	7.9 gpm 29.9 lpm 1.79 m <sup>3</sup> /hr	2.2 gpm 8.3 lpm 0.5 m <sup>3</sup> /hr	4.0 gpm 15.1 lpm 0.91 m <sup>3</sup> /hr	5.4 gpm 20.4 lpm 1.23 m <sup>3</sup> /hr	7.9 gpm 29.9 lpm 1.79 m <sup>3</sup> /hr	18.0 gpm 68.1 lpm 4.08 m <sup>3</sup> /hr
<b>Flow Restrictor</b>	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral
<b>Port Size</b>	½" MNPT	½" MNPT	¾" MNPT	¾" MNPT	1" MNPT	½" MNPT	¾" MNPT	1" MNPT	1" MNPT	1-½" MNPT
<b>Lamp Watts</b>	8	15	22	39	50	18	34	45	67	101
<b>Power (Watts)</b>	14	20	30	49	62	20 (19 @230v)	38 (36 @230v)	57(48 @230v)	73 (72 @230v)	115 (108 @230v)
<b>Lamp Life</b>	9,000 Hours					10,000 Hours				
<b>Replacement Lamp</b>	UV-SPH-2-L	UV-SPH-3-L	UV-SPH-6-L	UV-SPH-11-L	UV-SPH-15-L	UV-SPH-5-HPL	UV-SPH-10-HPL	UV-SPH-15-HPL	UV-SPH-25-HPL	UV-SPH-40-HPL
<b>Replacement Sleeve</b>	UV-SPH-2SLV	UV-SPH-3SLV	UV-SPH-6SLV	UV-SPH-11SLV	UV-SPH-15SLV	UV-SPH-5SLV	UV-SPH-10SLV	UV-SPH-15SLV	UV-SPH-25SLV	UV-SPH-40SLV
<b>Replacement UV Sensor</b>	UV-S-H1V					UV-S-H3V				
<b>Replacement Controller</b>	USA: UV-CHP-US; European: UV-CHP-EU; British Standard: UV-CHP-UK; Australia/NZ: UV-CHP-AU					UV-CH-HP (All Voltages. Power cord is sold separately.)				
<b>Chamber Material</b>	Polished 304 stainless steel, A249 pressure rated tubing					Polished 316L stainless steel, A249 pressure rated tubing				
<b>Reactor Dimensions</b>	2.5 x 10.3" (6.4 x 26.2cm)	2.5 x 14.3" (6.4 x 36.4cm)	2.5 x 21.3" (6.4 x 54.2cm)	2.5 x 35.2" (6.4 x 89.5cm)	2.5 x 40" (6.4 x 101.6cm)	3.5 x 11.7" (8.9 x 29.8cm)	3.5 x 16.5" (8.9 x 41.8cm)	3.5 x 20.0" (8.9 x 50.8cm)	3.5 x 26.9" (8.9 x 68.3cm)	3.5 x 40.7" (8.9 x 103.4cm)
<b>Controller Dimensions</b>	6.8 x 3.6 x 4" (17.2 x 9.2 x 10.2cm)					8.6 x 4.2 x 3.5" (21.7 x 10.8 x 8.9cm)				
<b>Electrical</b>	90-265V/50-60Hz (12 VDC/24 VDC where indicated)					90-265V/50-60Hz				
<b>Plug Type</b>	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order by adding the suffix below.					Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.				
<b>European CEE 7/7</b>	Suffix: <b>EU</b> (Example: UV-SPNSFA-1.6M-EU)					Suffix: <b>EU</b> (Example: UV-SPNSFA-2.2M-HP-EU)				
<b>British Standard BS 1363</b>	Suffix: <b>UK</b> (Example: UV-SPNSFA-1.6M-UK)					Suffix: <b>UK</b> (Example: UV-SPNSFA-2.2M-HP-UK)				
<b>Australia/NZ 3112</b>	Suffix: <b>AU</b> (Example: UV-SPNSFA-1.6M-AU)					Suffix: <b>AU</b> (Example: UV-SPNSFA-2.2M-HP-AU)				
<b>Operating Pressure</b>	10-150 psi (7-10.3 bar)					10-150 psi (7-10.3 bar)				
<b>Operating Water Temp.</b>	36-104°F (2-40°C)					36-104°F (2-40°C)				
<b>UV Monitor</b>	YES					YES				
<b>Solenoid Output</b>	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1					Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1				
<b>Dry Contacts</b>	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM					Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM				
<b>4-20mA Output</b>	Equipped but Requires 4-20mA Module Add-On UV-MOD-420					Equipped but Requires 4-20mA Module Add-On UV-MOD-420				
<b>Lamp Change Reminder</b>	YES – Audible & Visual Full-Color Graphic Display with Countdown					YES – Audible & Visual Full-Color Graphic Display with Countdown				
<b>Lamp Out Indicator</b>	YES – Audible & Visual Full-Color Graphic Display					YES – Audible & Visual Full-Color Graphic Display				
<b>Shipping Weight</b>	7 lbs (3.0 kg)	8 lbs (3.3 kg)	10 lbs (4.2 kg)	15 lbs (6.8 kg)	18lbs (8.0 kg)	9.9 lbs (4.5 kg)	11.9 lbs (5.4 kg)	13.2 lbs (6.0 kg)	15.9 lbs (7.2 kg)	21.4 lbs (9.7 kg)



Systems Tested and Certified by NSF International against CSA B483.1 and NSF/ANSI 55 for Disinfection Performance, Class A

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**Lamp Life:** UV lamps are rated for 9000 hours of continuous use (10,000 hours for HP models).

**General Operation and Maintenance:** UV lamps are to be replaced on an annual basis (9000 hours for standard, 10,000 hours for HP). Quartz sleeves and UV sensors are to be cleaned every 6-12 months and replaced every 5 years.

This Class A system conforms to NSF/ANSI 55 for the disinfection of microbiologically contaminated water that meets all other public health standards. The system is not intended to convert wastewater or raw sewage to drinking water. The system is intended to be installed on visually clear water.

NSF/ANSI 55 defines wastewater to include human and/or animal body waste, toilet paper, and any other material intended to be deposited in a receptacle designed to receive urine and/or feces (blackwaste), and other waste materials deposited in plumbing fixtures (greywaste). If this system is used for the treatment of untreated surface waters or ground water under the direct influence of surface water, a device found to be in conformance for cyst reduction under the appropriate NSF/ANSI standard shall be installed upstream of the system.

While testing was performed under standard laboratory conditions, actual performance may vary. The systems and installation shall comply with applicable provincial/state and local regulations.

Your Solapur Aurora UV System will provide years of use provided that the system is maintained on a regular basis as outlined in the owner's manual. For the systems to perform as tested, the following water quality parameters must be met.

<b>Hardness</b>	<120 mg/L (7 gpg)
<b>Iron (Fe)</b>	<0.3 mg/L (ppm)
<b>Manganese (Mn)</b>	<0.05 mg/L (ppm)
<b>Tannins</b>	< 0.1 mg/L (ppm)
<b>Turbidity</b>	<1 NTU
<b>Transmittance</b>	>75% UVT







# SOLAPUR

ULTRAVIOLET DISINFECTION

## NSF VALIDATED ULTRAVIOLET DISINFECTION SYSTEMS

### Aurora HP NSF B Series – Certified to NSF Standard 55, Class B

- Tested and certified by NSF International against CSA B483.1 and NSF/ANSI 55 for Disinfection Performance, Class B
- Continuous True 254nm UV Monitoring with UV Output Display (as a %) – standard on monitored units only.
- System Diagnostics and Potential Fault Codes
- Color Screen Controller with Protected Lamp Replacement, Includes QR Codes, Full Diagnostics & Warnings
- Expandability Port for Future Upgrades and Options
- Audible and Visual Lamp Change Reminders and Lamp Failure Indicators
- Axial Flow Stainless Steel Reactor Chamber, Designed & Manufactured to ASME Pressure Vessel Standards
- Reliable, Industry Proven, High-Output Coated UV Lamps with Ceramic Bases for Durability and Long Life (9,000 Hours for standard, 10,000 Hours for HP)
- User-Friendly Bayonet Style Lamp Connector for Easy, No-Tools Change-Out
- Constant Current Electronic Controller in a Splash-Proof Case
- Fully Potted Ballast Virtually Eliminates Common Water Damage Issues



Model No. (Standard)	Service Flow	
	gpm	lpm
UV-SPNSFB-2.9 UV-SPNSFB-2.9M <i>monitored</i>	2.9	11.0
UV-SPNSFB-5.2 UV-SPNSFB-5.2M <i>monitored</i>	5.2	19.7
UV-SPNSFB-7.6 UV-SPNSFB-7.6M <i>monitored</i>	7.6	28.8
UV-SPNSFB-13 UV-SPNSFB-13M <i>monitored</i>	13	49.2
UV-SPNSFB-22 UV-SPNSFB-22M <i>monitored</i>	22	83.3

Model No. (HP) High Output	Service Flow	
	gpm	lpm
UV-SPNSFB-5.4-HP UV-SPNSFB-5.4M-HP <i>monitored</i>	5.4	20.4
UV-SPNSFB-7.6-HP UV-SPNSFB-7.6M-HP <i>monitored</i>	7.6	28.8
UV-SPNSFB-13-HP UV-SPNSFB-13M-HP <i>monitored</i>	13	49.2
UV-SPNSFB-22-HP UV-SPNSFB-22M-HP <i>monitored</i>	22	83.3
UV-SPNSFB-28-HP UV-SPNSFB-28M-HP <i>monitored</i>	28	106

### AURORA NSF-B SAMPLE SCREENS

31 Days  
Lamp Life Remaining

7 Days Until Lamp Change required  
press button for lamp change info.

lamp expired 1 days ago  
press button for lamp change info.

UV OUTPUT 50%  
low UV check system

LAMP INCORRECT  
Required Part: UV-SPH-6-L  
Installed Part: UV-SPH-3-L



NSF VALIDATED ULTRAVIOLET DISINFECTION SYSTEMS

# Aurora NSF B Series UV System Specifications

UV System Model →	Aurora NSFB Series Standard					Aurora NSFB HP Series- High Output Lamps				
	UV-SPNSFB-2.9(M)	UV-SPNSFB-5.2(M)	UV-SPNSFB-7.6(M)	UV-SPNSFB-13(M)	UV-SPNSFB-22(M)	UV-SPNSFB-5.4(M)-HP	UV-SPNSFB-7.6(M)-HP	UV-SPNSFB-13(M)-HP	UV-SPNSFB-22(M)-HP	UV-SPNSFB-28(M)-HP
NSF Class B Flow Rate (16mJ/cm² @70% UVT)	2.9 gpm	5.2 gpm	7.6 gpm	13.0 gpm	22.0 gpm	5.4 gpm	7.6 gpm	13.0 gpm	22.0 gpm	28.0 gpm
	11.0 lpm	19.7 lpm	28.8 lpm	49.2 lpm	83.3 lpm	20.4 lpm	28.8 lpm	49.2 lpm	83.3 lpm	106.0 lpm
	0.70 m³/hr	1.18 m³/hr	1.73 m³/hr	2.95 m³/hr	5.00 m³/hr	1.23 m³/hr	1.73 m³/hr	2.95 m³/hr	5.00 m³/hr	6.36 m³/hr
Flow Restrictor	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral	Integral
Port Size	½" MNPT	½" MNPT	¾" MNPT	¾" MNPT	1" MNPT	½" MNPT	¾" MNPT	1" MNPT	1" MNPT	1-½" MNPT
Lamp Watts	8	15	22	39	50	18	34	45	67	101
Power (Watts)	14	20	30	49	62	20 (19 @230v)	38 (36 @230v)	57(48 @230v)	73 (72 @230v)	115 (108 @230v)
Lamp Life	9,000 Hours					10,000 Hours				
Replacement Lamp	UV-SPH-2-L	UV-SPH-3-L	UV-SPH-6-L	UV-SPH-11-L	UV-SPH-15-L	UV-SPH-5-HPL	UV-SPH-10-HPL	UV-SPH-15-HPL	UV-SPH-25-HPL	UV-SPH-40-HPL
Replacement Sleeve	UV-SPH-2SLV	UV-SPH-3SLV	UV-SPH-6SLV	UV-SPH-11SLV	UV-SPH-15SLV	UV-SPH-5SLV	UV-SPH-10SLV	UV-SPH-15SLV	UV-SPH-25SLV	UV-SPH-40SLV
Replacement UV Sensor	UV-S-H1V (Monitored Units Only)					UV-S-H3V (Monitored Units Only)				
Replacement Controller	USA: UV-CHP-US; European: UV-CHP-EU; British Standard: UV-CHP-UK; Australia/NZ: UV-CHP-AU					UV-CH-HP (All Voltages. Power cord is sold separately.)				
Chamber Material	Polished 304 stainless steel, A249 pressure rated tubing					Polished 316L stainless steel, A249 pressure rated tubing				
Reactor Dimensions	2.5 x 10.3" (6.4 x 26.2cm)	2.5 x 14.3" (6.4 x 36.4cm)	2.5 x 21.3" (6.4 x 54.2cm)	2.5 x 35.2" (6.4 x 89.5cm)	2.5 x 40" (6.4 x 101.6cm)	3.5 x 11.7" (8.9 x 29.8cm)	3.5 x 16.5" (8.9 x 41.8cm)	3.5 x 20.0" (8.9 x 50.8cm)	3.5 x 26.9" (8.9 x 68.3cm)	3.5 x 40.7" (8.9 x 103.4cm)
Controller Dimensions	6.8 x 3.6 x 4" (17.2 x 9.2 x 10.2cm)					8.6 x 4.2 x 3.5" (21.7 x 10.8 x 8.9cm)				
Electrical	90-265V/50-60Hz (12 VDC/24 VDC where indicated)					90-265V/50-60Hz				
Plug Type	Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order by adding the suffix below.					Standard models are equipped with American, NEMA 5/15. For alternative plug styles, order using the part numbers below.				
European CEE 7/7	Suffix: <b>EU</b> (Example: UV-SPNSFB-2.9M-EU)					Suffix: <b>EU</b> (Example: UV-SPNSFB-5.4M-HP-EU)				
British Standard BS 1363	Suffix: <b>UK</b> (Example: UV-SPNSFB-2.9M-UK)					Suffix: <b>UK</b> (Example: UV-SPNSFB-5.4M-HP-UK)				
Australia/NZ 3112	Suffix: <b>AU</b> (Example: UV-SPNSFB-2.9M-AU)					Suffix: <b>AU</b> (Example: UV-SPNSFB-5.4M-HP-AU)				
Operating Pressure	10-150 psi (7-10.3 bar)					10-150 psi (7-10.3 bar)				
Operating Water Temp.	36-104°F (2-40°C)					36-104°F (2-40°C)				
UV Monitor	Standard on Models with "M" after the flow. (IE: UV-SPNSFB-2.9M)					Standard on Models with "M" after the flow. (IE: UV-SPNSFB-5.4M-HP)				
Solenoid Output	Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1					Equipped but Requires Solenoid Module Add-on UV-MOD-SOL1				
Dry Contacts	Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM					Equipped but Requires Remote Alarm Module Add-On UV-MOD-RAM				
4-20mA Output	Equipped but Requires 4-20mA Module Add-On UV-MOD-420					Equipped but Requires 4-20mA Module Add-On UV-MOD-420				
Lamp Change Reminder	YES – Audible & Visual Full-Color Graphic Display with Countdown					YES – Audible & Visual Full-Color Graphic Display with Countdown				
Lamp Out Indicator	YES – Audible & Visual Full-Color Graphic Display					YES – Audible & Visual Full-Color Graphic Display				
Shipping Weight	7 lbs (3.0 kg)	8 lbs (3.3 kg)	10 lbs (4.2 kg)	15 lbs (6.8 kg)	18lbs (8.0 kg)	9.9 lbs (4.5 kg)	11.9 lbs (5.4 kg)	13.2 lbs (6.0 kg)	15.9 lbs (7.2 kg)	21.4 lbs (9.7 kg)



Systems Tested and Certified by NSF International against CSA B483.1 and NSF/ANSI 55 for Disinfection Performance, Class B

## CONTACT US TO ORDER

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**Lamp Life:** UV lamps are rated for 9000 hours of continuous use (10,000 hours for HP models).

**General Operation and Maintenance:** UV lamps are to be replaced on an annual basis (9000 hours for standard, 10,000 hours for HP). Quartz sleeves and UV sensors are to be cleaned every 6-12 months and replaced every 5 years.

This Class B system or component conforms to NSF/ANSI 55 for the supplemental bactericidal treatment of disinfected public drinking water or other drinking water that has been tested and deemed acceptable for human consumption by the state or local health agency having jurisdiction. The system is only designed to reduce normally occurring nonpathogenic, nuisance microorganisms. Class B systems are not intended for treatment of contaminated water. While testing was performed under standard laboratory conditions, actual performance may vary. The systems and installation shall comply with applicable provincial/state and local regulations.

Your Solapur Aurora UV System will provide years of use provided that the system is maintained on a regular basis as outlined in the owner's manual. For the systems to perform as tested, the following water quality parameters must be met.

Hardness	<120 mg/L (7 gpg)
Iron (Fe)	<0.3 mg/L (ppm)
Manganese (Mn)	<0.05 mg/L (ppm)
Tannins	<0.1 mg/L (ppm)
Turbidity	<1 NTU
Transmittance	>75% UVT





## Apollo Series - 35 to 175 gpm Commercial UV Systems

- Modular control panel with LED display for UV output, remaining lamp life, total running hours, audible & visual lamp failure, remote on and solenoid ready
- 316L stainless steel, polished reactors, with integral sensor port to allow for sensor upgradeability in the future (comes standard with visual glow plug)
- Designed & manufactured to ASME pressure vessel standards
- Reliable, industry proven low pressure amalgam (LP-AM) coated UV lamps with ceramic bases for durability, 12,000-hour lamp life
- Uniform lamp output in both hot or cold applications
- Flexible vertical or horizontal installation
- User friendly bayonet style lamp connector (quick ¼ turn removal with no extra tools needed)
- True gland seal retaining nut with positive stop
- Constant current electronic controller in a splash-proof (IP-54) case with audible and visual lamp failure indicators



Model No.	Service Flow	
	gpm	lpm
<b>UV-SPA-35</b> <i>UV-SPA-35M monitored</i>	35	132
<b>UV-SPA-58</b> <i>UV-SPA-58M monitored</i>	58	220
<b>UV-SPA-85</b> <i>UV-SPA-85M monitored</i>	85	322
<b>UV-SPA-110</b> <i>UV-SPA-110M monitored</i>	110	416
<b>UV-SPA-140</b> <i>UV-SPA-140M monitored</i>	140	530
<b>UV-SPA-175</b> <i>UV-SPA-175M monitored</i>	175	662

**Voltage:** Add voltage code to the end of the system model:  
 -116: 110v/60Hz with NEMA 5/15 power cord. e.g., UV-SPA-58-116  
 -216/5 230v/50-60Hz, power cord sold separately. e.g. UV-SPA-58-216/5

**Easy Turn Lamp Change**  
 Lamp changes with an effortless ¼ turn of the connector. No more broken sleeves or metal clips.

**Remote Output**  
 Allows for dry contact signal to be sent to a remote location or solenoid.  
 (Requires UV-210010 cable).



# Apollo Series Commercial UV Specifications

UV System Model →	UV-SPA-35 UV-SPA-35M	UV-SPA-58 UV-SPA-58M	UV-SPA-85 UV-SPA-85M	UV-SPH-110 UV-SPA-110M	UV-SPH-140 UV-SPA-140M	UV-SPA-175 UV-SPA-175M
<b>Normal Flow Rate</b> (30mJ/cm <sup>2</sup> @75% UVT)	35 gpm	58 gpm	85 gpm	110 gpm	140 gpm	175 gpm
	132 lpm	220 lpm	322 lpm	416 lpm	530 lpm	662 lpm
	8 m <sup>3</sup> /hr	13.2 m <sup>3</sup> /hr	19.3 m <sup>3</sup> /hr	25 m <sup>3</sup> /hr	31.8 m <sup>3</sup> /hr	39.7 m <sup>3</sup> /hr
<b>Hot Water Flow Rate</b> (30mJ/cm <sup>2</sup> @75% UVT)	22 gpm	38 gpm	60 gpm	64 gpm	81 gpm	95 gpm
	83 lpm	144 lpm	227 lpm	242 lpm	306 lpm	360 lpm
	5 m <sup>3</sup> /hr	8.6 m <sup>3</sup> /hr	13.6 m <sup>3</sup> /hr	14.5 m <sup>3</sup> /hr	18.4 m <sup>3</sup> /hr	21.6 m <sup>3</sup> /hr
<b>Low UVT Flow Rate</b> (30mJ/cm <sup>2</sup> @50% UVT)	14 gpm	23 gpm	35 gpm	36 gpm	45 gpm	51 gpm
	53 lpm	87 lpm	133 lpm	136 lpm	170 lpm	193 lpm
	3.2 m <sup>3</sup> /hr	5.2 m <sup>3</sup> /hr	8 m <sup>3</sup> /hr	8.2 m <sup>3</sup> /hr	10.2 m <sup>3</sup> /hr	11.6 m <sup>3</sup> /hr
<b>TOC Flow Rate</b> (150mJ/cm <sup>2</sup> @95% UVT)	7 gpm	12 gpm	17 gpm	22 gpm	28 gpm	35 gpm
	26 lpm	45 lpm	64 lpm	83 lpm	106 lpm	132 lpm
	1.6 m <sup>3</sup> /hr	2.7 m <sup>3</sup> /hr	3.9 m <sup>3</sup> /hr	5 m <sup>3</sup> /hr	6.4 m <sup>3</sup> /hr	8 m <sup>3</sup> /hr
<b>Alt Flow - US Public Health</b> (16mJ/cm <sup>2</sup> @95% UVT)	66 gpm	109 gpm	167 gpm	207 gpm	263 gpm	327 gpm
	250 lpm	413 lpm	632 lpm	784 lpm	996 lpm	1240 lpm
	15 m <sup>3</sup> /hr	24.8 m <sup>3</sup> /hr	37.9 m <sup>3</sup> /hr	47 m <sup>3</sup> /hr	59.7 m <sup>3</sup> /hr	74.3 m <sup>3</sup> /hr
<b>Flow Rate NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	27 gpm	44 gpm	67 gpm	84 gpm	106 gpm	131 gpm
	102 lpm	167 lpm	252 lpm	318 lpm	401 lpm	496 lpm
	6.1 m <sup>3</sup> /hr	10 m <sup>3</sup> /hr	15.1 m <sup>3</sup> /hr	19.1 m <sup>3</sup> /hr	24.1 m <sup>3</sup> /hr	29.8 m <sup>3</sup> /hr
<b>Port Size</b>	1-1/2" MNPT	2" MNPT	2" MNPT	2-1/2" MNPT	3" MNPT	4" MNPT
<b>Lamp Watts</b>	104	152	207	304	344	414
<b>Power (Watts)</b>	120	170	220	320	360	430
<b>Lamp Life</b>	12,000 hours	12,000 hours	12,000 hours	12,000 hours	12,000 hours	12,000 hours
<b>Replacement Lamp (Standard) 254 nm</b>	UV-SPA-35-L	UV-SPA-58-L	UV-SPTA-85-L	UV-SPA-58-L (Two Required)	UV-SPA-70-L (Two Required)	UV-SPTA-85-L (Two Required)
<b>Hot Water Lamp (254 nm)</b>	UV-SPA-35-HW-L	UV-SPA-58-HW-L	UV-SPTA-85-HW-L	UV-SPA-58-HW-L (Two Required)	UV-SPA-70-HW-L (Two Required)	UV-SPTA-85-HW-L (Two Required)
<b>TOC Lamp (185 nm)</b>	UV-SPA-35-TOC-L	UV-SPA-58-TOC-L	UV-SPTA-85-TOC-L	UV-SPA-58-TOC-L (Two Required)	UV-SPA-70-TOC-L (Two Required)	UV-SPTA-85-TOC-L (Two Required)
<b>Replacement Sleeve</b>	UV-SPA-35SLV	UV-SPA-58SLV	UV-SPTA-85SLV	UV-SPA-58SLV (Two Required)	UV-SPA-70SLV (Two Required)	UV-SPTA-85SLV (Two Required)
<b>Chamber Material</b>	316L Stainless Steel, A249 Pressure Rated Tubing, Polished & Passivated					
<b>Reactor Dimensions</b>	4 × 27.2 × 7" (10×69×18cm)	4 × 35.8 × 7" (10×91×18cm)	4 × 46.9 × 7" (10×119×18cm)	6 × 35.8 × 9.4" (15×91×24cm)	6 × 40.7 × 9.4" (15×103×24cm)	6 × 46.9 × 9.4" (15×119×24cm)
<b>Controller Dimensions</b>	12 × 8.4 × 7" (30 × 21 × 18cm)			13.8 × 10.3 × 7" (35 × 26 × 18cm)		
<b>Electrical</b>	110v/60Hz or 230v/50-60Hz. Add voltage code to the end of the system model when ordering. -116: 110v/60Hz with NEMA 5/15 power cord. e.g., UV-SPA-58-116 -216/5 230v/50-60Hz, power cord sold separately. e.g. UV-SPA-58-216/5					
<b>Power Cord</b>	110v/60Hz supplied with NEMA 5/15 cord. 230v/50-60Hz cord must be ordered separately: IEC, European, CEE 7/7 order UV-260005 IEC, AS/NZS 3112 order UV-260006 IEC, BS 1363 order UV-260008 IEC, 230V, NEMA 6-15 order UV-260009					
<b>Max. Operating Pressure</b>	150psi (10.3 bar)					
<b>Operating Water Temp.</b>	36-148°F (2-60°C)					
<b>UV Monitor</b>	Standard on Models with "M" after the flow. (IE: UV-SPA-35M)					
<b>Remote - On</b>	YES					
<b>Dry Contacts</b>	YES - Solenoid Ready. Requires UV-210010 cable assembly (sold separately).					
<b>4-20 mA Output</b>	OPTIONAL (requires UV Sensor and UV-2100100 cable assembly)					
<b>Lamp Age Counter</b>	YES					
<b>Visual Lamp-Out Indicator</b>	YES					
<b>Audible Lamp-Out Alarm</b>	YES					

## EQUIPMENT & OPTIONS

**UV Monitoring Port** included in all non-monitored systems – visually verify lamp-on status. Upgradeable: Can later be replaced with a UV sensor to monitor UV output of the lamp.



**UV Sensor** included in all monitored systems (indicated by M at the end of the number). Continuously monitors the UV lamp output to display on the system controller. Part # UV-S-A



### Remote Monitoring (Dry Contacts) Output (Capability Only) Included

Allows for the dry contact signal (on/off) provided by the controller to be sent to a remote location. Can be used for remote on, solenoid connection, PLC connection, remote alarm, remote visual, or many other options. Requires UV-210010 cable.



### Remote Monitoring Cable - Optional

Connector and 33' (10m) of cable to remotely control the Apollo dry contact signal. Part # UV-210010



## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

## CONTACT US TO ORDER

(760) 727-3711

sales@appliedmembranes.com

www.appliedmembranes.com





## Titan Series – 175 to 625 gpm Industrial UV Systems

- ◆ Modular 304 stainless steel control panel with LCD display for remaining lamp life, total running hours, audible & visual lamp failure, remote-on and dry contacts
- ◆ 31 6L stainless steel, polished reactors with flanged endplate
- ◆ Designed & manufactured to ASME pressure vessel standards
- ◆ User friendly bayonet style lamp connectors (quick ¼ turn removal with no extra tools needed)
- ◆ True gland seal retaining nuts with positive stop
- ◆ Reliable, industry proven low pressure amalgam (LP-AM) coated UV lamps with ceramic bases for durability and a 12,000-hour lamp life
- ◆ Constant current electronic ballasts



Model No.	Service Flow	
	gpm	lpm
UV-SPT-175-215/6 UV-SPT-175M-215/6 <i>monitored</i>	175	662
UV-SPT-404-215/6 UV-SPT-404M-215/6 <i>monitored</i>	404	1530
UV-SPT-625-215/6 UV-SPT-625M-215/6 <i>monitored</i>	625	2366

### APPLICATIONS INCLUDE:

- ◆ **Food & Beverage**
- ◆ **Pharmaceutical**
- ◆ **Swimming Pools**
- ◆ **Water Reuse**
- ◆ **Ultrapure**
- ◆ **Recreational Water**
- ◆ **Aquaculture**
- ◆ **Municipal**

### CONTACT US TO ORDER

- ☎ (760) 727-3711
- ✉ [sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)
- 🌐 [www.appliedmembranes.com](http://www.appliedmembranes.com)

### CONTROL FEATURES:

- ◆ Individual lamp status indicators (visual & audible)
- ◆ Lamp age monitor (visual & audible failure indicators)
- ◆ Lamp cycle counter (tracks total on-off lamp cycles)
- ◆ Service time monitor (tracks total system running time)
- ◆ Chamber temperature monitor (monitors high temperatures and no flow conditions)
- ◆ Panel temperature monitor (protects electronic circuits from extreme temperatures)
- ◆ Remote on/off feature (allows reactor to be controlled remotely and timed with other system components)
- ◆ Automatic reactor shutdown (user configurable)
- ◆ Dry contact outputs:
  - Minor alarm (NO/NC)
  - Major alarm (NO/NC)
- ◆ Reactor ready (valve control feature) (NO/NC)
- ◆ Major & minor alarm output (audible & visual)



# Titan Series Industrial UV Specifications

UV System Model →	UV-SPT-175-215/6 UV-SPT-175M-215/6	UV-SPT-404-215/6 UV-SPT-404M-215/6	UV-SPT-625-215/6 UV-SPT-514M-215/6
<b>Normal Flow Rate</b> (30mJ/cm <sup>2</sup> @95% UVT)	<b>175 gpm</b>	<b>404 gpm</b>	<b>625 gpm</b>
	<b>662 lpm</b>	<b>1530 lpm</b>	<b>2366 lpm</b>
	<b>39.7 m<sup>3</sup>/hr</b>	<b>91.8 m<sup>3</sup>/hr</b>	<b>142 m<sup>3</sup>/hr</b>
<b>Flow* - US Public Health</b> (16mJ/cm <sup>2</sup> @95% UVT)	327 gpm	758 gpm	1170 gpm
	1240 lpm	2870 lpm	4420
<b>Flow - NSF Standard</b> (40mJ/cm <sup>2</sup> @95% UVT)	74.3 m <sup>3</sup> /hr	172.2 m <sup>3</sup> /hr	265.7 m <sup>3</sup> /hr
	131 gpm	303 gpm	467 gpm
	496 lpm	1150 lpm	1770 lpm
	29.8 m <sup>3</sup> /hr	68.8 m <sup>3</sup> /hr	106 m <sup>3</sup> /hr
<b>Port Size</b>	3" Flange	4" Flange	6" Flange
<b>Electrical</b>	220v/50-60Hz, Direct Wire Connection		
<b>Lamp Watts</b>	414	828	1242
<b>Power (Watts)</b>	460	900	1340
<b>Chamber Material</b>	316L Stainless Steel; A249 Pressure Rated Tubing; Polished and Passivated		
<b>Lamp Life</b>	12,000 hours	12,000 hours	12,000 hours
<b>Replacement Lamp (Standard) 254 nm</b>	UV-SPTA-85-L (2 Required)	UV-SPTA-85-L (4 Required)	UV-SPTA-85-L (6 Required)
<b>Replacement Sleeve</b>	UV-SPTA-85SLV (2 Required)	UV-SPTA-85SLV (4 Required)	UV-SPTA-85SLV (6 Required)
<b>Reactor Dimensions</b>	10.5 × 53.7 × 15.7" (27 × 136 × 40cm)	11 × 54.7 × 17.8" (28 × 139 × 45cm)	11 × 54.7 × 18" (28 × 139 × 46cm)
<b>Controller Dimensions</b>	19 × 16.5 × 8.3" (48 × 42 × 21cm)	23 × 16.5 × 8.3" (58 × 42 × 21cm)	27 × 24.5 × 10.3" (69 × 62 × 26cm)
<b>Max Operating Pressure</b>	150 psi (10.3 bar)		
<b>Operating Temp. Range</b>	36-104°F (2-40°C)		
<b>UV Intensity Monitor</b>	Standard on Models with "M" after the flow. (IE: UV-SPT-175M-215/6) Non-monitored systems may be upgraded with addition of UV-S-T.		
<b>UVT Monitor</b>	Optional/Upgradeable		
<b>Dose Calculations</b>	Optional/Upgradeable		
<b>Flow Monitor</b>	Optional/Upgradeable		
<b>Internal Fault History</b>	YES		
<b>Remote - On</b>	YES		
<b>Dry Contact</b>	YES - Solenoid Ready		
<b>4-20 mA Output</b>	YES		
<b>Drain Ports</b>	½"		
<b>Lamp Age Counter</b>	Yes		
<b>Sample Ports</b>	½"		
<b>Lamp Out Indicators</b>	Visual & Audible		

## EQUIPMENT & OPTIONS

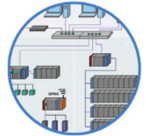
**UV Monitoring Port** included in all non-monitored systems – visually verify lamp-on status. Upgradeable: Can later be replaced with a UV sensor to monitor UV output of the lamp.



**UV Sensor** included in all monitored systems (indicated by M at the end of the number). Continuously monitors the UV lamp output to display on the system controller. Part # UV-S-T



**Remote Monitoring (Dry Contacts) Output** Allows for the dry contact signal (on/off) provided by the controller to be sent to a remote location. Can be used for remote on, solenoid connection, PLC connection, remote alarm, remote visual, or many other options.



## MANUFACTURER'S WARRANTY

<b>Reactors</b>	10 Year Limited Warranty
<b>Electronics</b>	3 Year Limited Warranty
<b>UV Lamps</b>	1 Year Limited Warranty
<b>Quartz Sleeves</b>	1 Year Limited Warranty

See Applied Membranes, Inc. complete warranty document including conditions and exclusions.

## CONTACT US TO ORDER

☎ (760) 727-3711

✉ [sales@appliedmembranes.com](mailto:sales@appliedmembranes.com)

🌐 [www.appliedmembranes.com](http://www.appliedmembranes.com)

\*Port sizes are based on flow rates for 30mJ/cm<sup>2</sup> or higher doses. Flow rates for lower doses may not be achievable. Contact factory for custom port sizing.  
NOTE: Electrical certification optional for various markets.

## VIQUA Sterilight TAP Series Point of Use UV Systems

VIQUA TAP Series Ultraviolet Disinfection Systems are specifically designed for point-of-use applications where microbiological control is required. Ultraviolet water treatment controls bacteria, virus and protozoan cyst (specifically giardia lamblia and cryptosporidium). VIQUA TAP series are installed at a single tap (or faucet) within a home, cottage or business. TAP systems are also suitable for fountains or low-flow applications (1-4 gpm).



### FEATURES & SPECIFICATIONS

- ◆ 99.99% destruction of bacteria, virus and protozoan cysts (Giardia Lamblia and Cryptosporidium) at rated flow.
- ◆ TAP Systems feature an “on” indicator light.
- ◆ TAP Plus System features visual lamp change count down timer display and audible lamp failure and lamp replacement reminder alarms.
- ◆ 304 Stainless Steel Reactor Chamber
- ◆ Sterilume-EX hard glass, coated lamps with 9000 hour lamp life
- ◆ 214 fused quartz sleeves with fire polished end
- ◆ 5’ lamp cord
- ◆ Maximum Operating Pressure: 125 psi (8.62 bar)
- ◆ Ambient Temperature: 36-104°F (2-40°C)

### TAP SERIES UV SYSTEMS

Model No.*	Flow Rate**				Connection	Power Consumption	Dimensions, Inches		Shipping Weight Lbs.
	@ 16 mJ/cm <sup>2</sup>		@ 40 mJ/cm <sup>2</sup>				Length	Cell Dia.	
	GPM	L/Min	GPM	L/Min					
VT1	2.0	8	0.7	3	½" MNPT/ ¾" FNPT	13W	12.5	2.5	4.0
VT4	6.5	24	2.5	9	½" MNPT	20W	17.0	2.5	6.5
<b>TAP Plus System – with count down timer display and audible lamp failure &amp; replacement alarms.</b>									
S2Q-PA	5.0	11	2	8	½" MNPT	22W	17.0	2.5	7.0

\*Models listed above are North America (NEMA P-15) Voltage. Alternative voltages can be ordered by adding the voltage code to the end of the part number. /2 = EU CEE (CEE 7/7) /2A = AUS/NZ (AS 3112) /2B = UK (BS 1363). Example: VT1/2

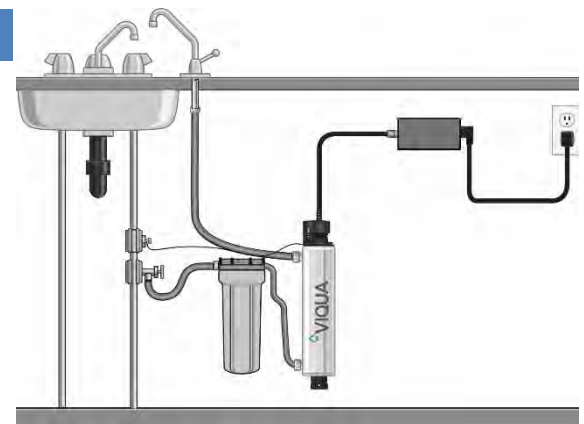
\*\*Flow Rates listed are based on 95% UVT water and are dose dependent. 40 mJ/cm<sup>2</sup> = NSF/EPA Std. 16 mJ/cm<sup>2</sup> = US Public Health Std.

### REPLACEMENT PARTS

For System	UV Lamp	Quartz Sleeve	Controller Kit
VT1	S212RL	QS-212	BA-VT *
VT4	S330RL	QS-330	BA-VT*
S2Q-PA	S330RL	QS-330	BA-ICE-S*

\*North America voltage. Use Voltage Codes above for alternative voltages.

Part #	For System	Description
OR-212	All	Lamp O-Ring (410867)
RN-001	All	Retaining Nut
4109958-R	All	2.5" Mounting Brackets
270276-R	All	Lamp Connector Base
SP008	All	Lamp Connector Spring



Typical TAP System Installation

## VIQUA Sterilight Home Series Point of Entry UV

VIQUA HOME Series Ultraviolet Disinfection Systems are specifically designed for point-of-entry water treatment in homes or light commercial applications where microbiological control is required.

### FEATURES & SPECIFICATIONS

- ◆ 99.99% destruction of bacteria, virus & protozoan cysts (Giardia lamblia & Cryptosporidium) at rated flow
- ◆ 304 stainless steel reactor chamber
- ◆ Visual lamp change count down timer with audible lamp replacement reminder
- ◆ Audible lamp failure indicator alarm
- ◆ Visual "Power On" LED
- ◆ Home PLUS System also features UV Sensor to monitor the UV intensity in the system
- ◆ Maximum Operating Pressure: 125 psi (8.62 bar)
- ◆ Ambient temperature: 36-104°F (2-40°C)



Model No.*	Flow Rate**				Power Consumption	Inlet/Outlet Connection (Inches)	Chamber Dimensions	Shipping Weight
	@ 16 mJ/cm <sup>2</sup>		@ 40 mJ/cm <sup>2</sup>					
	GPM	L/Min	GPM	L/Min				
VH200	16.0	60	7.0	26	35W	¾" -1" Combo NPT	17 ¾" x 3 ½"	12 lbs
VH410	34.0	130	14.0	54	60W	¾" -1" Combo NPT	23 ½" x 3 ½"	17 lbs
<b>Home Plus System – with UV intensity monitor with continuous feedback of UV disinfection performance.</b>								
VH410M	34.0	130	14.0	54	60W	¾" -1" Combo NPT	23 ½" x 3 ½"	17 lbs

\*Models listed above are North America (NEMA P-15) Voltage. Alternative voltages can be ordered by adding the voltage code to the end of the part number. /2 = EU CEE (CEE 7/7) /2A = AUS/NZ (AS 3112) /2B = UK (BS 1363). Example: S5Q-PA/2

\*\*Flow Rates listed are based on 95% UVT water and are dose dependent. 40 mJ/cm<sup>2</sup> = NSF/EPA Std. 16 mJ/cm<sup>2</sup> = US Public Health Std.

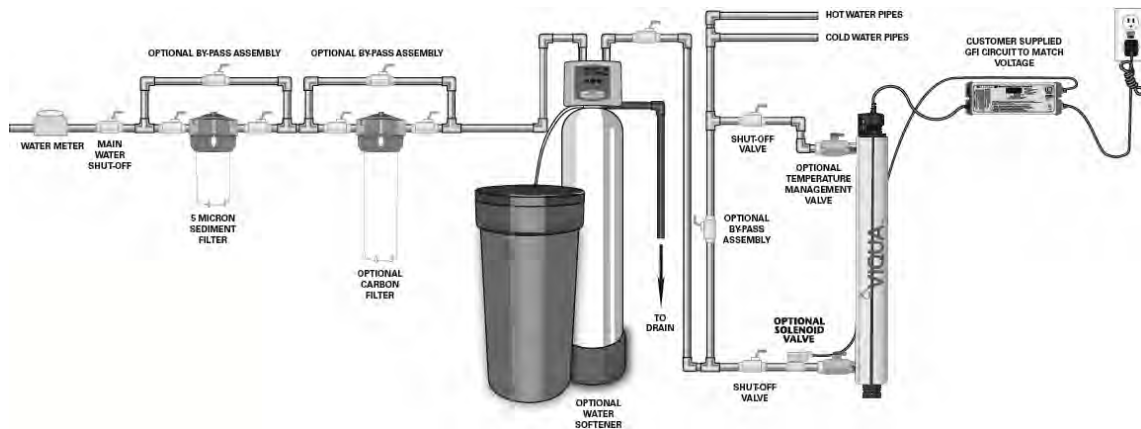
**Optional:** VH200, VH410(M) are available with temperature management: Order valve part # 440179 (sold separately.)

### REPLACEMENT PARTS

For System	UV Lamp	Quartz Sleeve	Controller*
S5Q-PA (retired)	S463RL	QS-463	BA-ICE-S
S8Q-PA (retired)	S810RL	QS-810	BA-ICE-S
VH200	S200RL-HO	QS-001	BA-ICE-CL
VH410	S410RL-HO	QSO-410	BA-ICE-CL
VH410M	S410RL-HO	QSO-410	BA-ICE-CM

Part #	For System	Description
OR-212	All	Lamp O-Ring (410867)
RN-001	All	Retaining Nut
4109958-R	SQ	2.5" Mounting Bracket
410076	VH	3.5" Mounting Bracket
270276-R	SQ	Lamp Connector Base
SP008	SQ	Lamp Connector Spring
254NM-C1	VH410M	UV Sensor for Monitored

\*North America voltage. Use Voltage Codes above for alternative voltages.





## VIQUA Professional & Professional Plus UV Systems

AMI offers VIQUA Professional Series light commercial product line in flow rates ranging from 10 to 340 GPM for use in a wide range of applications. VIQUA Professional Plus series include a UV sensor to monitor the UV intensity, for increased assurance of water sterilization at all times, and NSF 55 rating on select models.

### APPLICATIONS FOR VIQUA PROFESSIONAL SERIES UV INCLUDE:

- ◆ Schools/Daycares
- ◆ Cottages
- ◆ Public Buildings
- ◆ Dairy
- ◆ Elder Care Facilities
- ◆ Camps
- ◆ Restaurants
- ◆ Livestock
- ◆ Healthcare Facilities
- ◆ Offices
- ◆ Hotels & Resorts

### PROFESSIONAL SERIES VIQUA STERILIGHT ULTRAVIOLET SYSTEMS

#### FEATURES & SPECIFICATIONS:

- ◆ 99.99% destruction of bacteria, virus & protozoan cysts (Giardia lamblia & Cryptosporidium) at rated flow
- ◆ Visual lamp change count down timer & audible replacement reminder
- ◆ Audible lamp failure indicator alarm
- ◆ Visual "Power On" LED
- ◆ Maximum Operating Pressure: 125 psi (8.62 bar)
- ◆ Ambient temperature: 36-104°F (2-40°C)



Model No.*	Flow Rate*				Power Consumption	Inlet/Outlet Connection	Reactor Chamber Material	Dimensions		Shipping Weight
	@ 16 mJ/cm <sup>2</sup>		@ 40 mJ/cm <sup>2</sup>					Chamber	Controller (L×H×D)	
	GPM	L/Min	GPM	L/Min						
<b>VP600</b>	40	150	22	83	70W	1" MNPT	304SS	30 <sup>7</sup> / <sub>32</sub> " × 3 <sup>1</sup> / <sub>2</sub> "	9 <sup>1</sup> / <sub>3</sub> " × 3 <sup>1</sup> / <sub>4</sub> " × 2 <sup>1</sup> / <sub>2</sub> "	19
<b>VP950</b>	60	230	35	130	96W	1 1/2" MNPT	304SS	45" × 3 <sup>1</sup> / <sub>2</sub> "	9 <sup>1</sup> / <sub>3</sub> " × 3 <sup>1</sup> / <sub>4</sub> " × 2 <sup>1</sup> / <sub>2</sub> "	29
<b>SHF-140</b>	268	1014	107	406	320W	3" Flange	316SS	34" × 6" × 14"	17 <sup>1</sup> / <sub>2</sub> " × 19 <sup>1</sup> / <sub>2</sub> " × 18 <sup>1</sup> / <sub>5</sub> "	68
<b>SHF-180</b>	340	1285	137	519	400W	3" Flange	316SS	42 <sup>1</sup> / <sub>2</sub> " × 6" × 14"	17 <sup>1</sup> / <sub>2</sub> " × 19 <sup>1</sup> / <sub>2</sub> " × 18 <sup>1</sup> / <sub>5</sub> "	78

\*Models listed above are North America (NEMA P-15) Voltage. Alternative voltages can be ordered by adding the voltage code to the end of the part number. /2 = EU CEE (CEE 7/7) /2A = AUS/NZ (AS 3112) /2B = UK (BS 1363). Example: VP600/2

\*\*Flow Rates listed are based on 95% UVT water and are dose dependent. 40 mJ/cm<sup>2</sup> = NSF/EPA Std. 16 mJ/cm<sup>2</sup> = US Public Health Std.

**Optional:** VP600 & VP950 are available with temperature management: Order valve part # 440179 (sold separately.)

### PROFESSIONAL PLUS SERIES VIQUA STERILIGHT MONITORED ULTRAVIOLET SYSTEMS

#### FEATURES & SPECIFICATIONS:

- ◆ 99.99% destruction of bacteria, virus & protozoan cysts (Giardia lamblia & Cryptosporidium) at rated flow
- ◆ UV Sensor for continual monitoring & continuous feedback of UV disinfection performance for added peace of mind
- ◆ Sensor reading output (4-20mA) available with cable: 260134 (sold separately)
- ◆ Visual lamp change count down timer & audible replacement reminder
- ◆ Audible lamp failure indicator alarm
- ◆ Visual "Power On" LED
- ◆ Maximum Operating Pressure: 125 psi (8.62 bar)
- ◆ Ambient temperature: 36-104°F (2-40°C)



Model No.*	Flow Rate*				Power Consumption	Inlet/Outlet Connection	Reactor Chamber Material	Dimensions		Shipping Weight
	@ 16 mJ/cm <sup>2</sup>		@ 40 mJ/cm <sup>2</sup>					Chamber	Controller (L×H×D)	
	GPM	L/Min	GPM	L/Min						
<b>VP600M</b>	40	150	22	83	70W	1" MNPT	304SS	30 <sup>7</sup> / <sub>32</sub> " × 3 <sup>1</sup> / <sub>2</sub> "	9 <sup>1</sup> / <sub>3</sub> " × 3 <sup>1</sup> / <sub>4</sub> " × 2 <sup>1</sup> / <sub>2</sub> "	19
<b>VP950M</b>	60	230	35	130	96W	1 1/2" MNPT	304SS	45" × 3 <sup>1</sup> / <sub>2</sub> "	9 <sup>1</sup> / <sub>3</sub> " × 3 <sup>1</sup> / <sub>4</sub> " × 2 <sup>1</sup> / <sub>2</sub> "	29

\*Models listed above are North America (NEMA P-15) Voltage. Alternative voltages can be ordered by adding the voltage code to the end of the part number. /2 = EU CEE (CEE 7/7) /2A = AUS/NZ (AS 3112) /2B = UK (BS 1363). Example: VP600M/2

\*\*Flow Rates listed are based on 95% UVT water and are dose dependent. 40 mJ/cm<sup>2</sup> = NSF/EPA Std. 16 mJ/cm<sup>2</sup> = US Public Health Std.

**Optional:** VP600M & VP950M are available with temperature management: Order valve part # 440179 (sold separately.)

# ULTRAVIOLET WATER TREATMENT



## VIQUA Professional & Professional Plus UV Systems

### NSF RATED PROFESSIONAL PLUS SERIES VIQUA UV MAX MONITORED ULTRAVIOLET SYSTEMS

#### FEATURES & SPECIFICATIONS:

- ◆ 99.99% destruction of bacteria, virus & protozoan cysts (Giardia lamblia & Cryptosporidium) at rated flow
- ◆ NSF 55 Class A Certified for Disinfection Performance
- ◆ Flow meter & UV sensor for real-time UV dose measurement & reporting
- ◆ Sensor reading output (4-20mA) available with cable: 260134 (sold separately)
- ◆ Visual lamp change count down timer & audible replacement reminder
- ◆ Audible lamp failure indicator alarm
- ◆ Visual "Power On" LED
- ◆ Dynamic flow restrictor to ensure UV dose of 40 mJ/cm<sup>2</sup>
- ◆ LightWise™ technology to lower lamp power during no flow periods to extend lamp life, reduce sleeve fouling, and lower energy consumption.
- ◆ Cool Touch Fan
- ◆ Inlet solenoid valve
- ◆ Operating pressure: 15 -100 psi (1-6.89 bar)
- ◆ Ambient air temperature: 32-104°F (0-40°C)
- ◆ Influent water temperature: 34-113°F (1-45°C)
- ◆ Installation Orientation: Vertical Only



Powered by  
**UV MAX™ LIGHT WISE**

Part Number*	Model	Flow Rate**		Power Consumption	Inlet/Outlet Connection	Reactor Chamber Material	Dimensions		Shipping Weight
		GPM	L/Min				Chamber	Controller (LxHxD)	
650647	PRO10	10	38	120W	1¼" MNPT x 1" FNPT	316L SS	22" x 4"	13" x 6½" x 4½"	25 lbs
650653	PRO20	20	76	160W	1¼" MNPT x 1" FNPT	316L SS	31" x 4"	13" x 6½" x 4½"	28 lbs
650659	PRO30	30	113	230W	1¼" MNPT x 1" FNPT	316L SS	44" x 4"	13" x 6½" x 4½"	31 lbs

\*Part numbers listed above are North America (NEMA) Voltage. EU CEE (CEE 7-7) voltage is also available; contact us for details.

\*\*Flow Rates listed are based on 70% UVT water and 40 mJ/cm<sup>2</sup> (NSF/EPA Standard).

### REPLACEMENT PARTS FOR PROFESSIONAL, PROFESSIONAL PLUS, AND NSF RATED SYSTEMS

#### REPLACEMENT LAMPS, SLEEVES, & CONTROLLERS

For System	UV Lamp	Quartz Sleeve	Controller*
VP600	S600RL-HO	QSO-600	BA-ICE-C
VP950	S950RL-HO	QSO-950	BA-ICE-C
SHF-140	S740RL-4C	QS-012	BA-ICE-HF
SHF-180	S950RL-4C	QS-180	BA-ICE-HF
VP600M	S600RL-HO	QSO-600	BA-ICE-CM
VP950M	S950RL-HO	QSO-950	BA-ICE-CM
650647 (PRO10)	602854	602974	650709-003
650653 (PRO20)	602855	602975	650709-006
650659 (PRO30)	602856	602976	650709-009

\*Controller part numbers listed above are North America (NEMA) Voltage. Contact us for additional voltage options.

#### ADDITIONAL REPLACEMENT PARTS

Part #	For System	Description
254NM-C1	VP Plus	UV Sensor
OR-212	VP/SHF	Lamp O-Ring (410867)
RN-001	VP/SHF	Retaining Nut
410076	VP	Mounting Bracket/Clamp
602916 & 602896	PRO	Top Bolt & Wire Form
650630	PRO	Cool Touch Fan
002233	PRO	Lamp O-Ring
603053	PRO	Bottom Bolt (Includes Screw)
602988	PRO	Sleeve Removal Tool
410982R-10	PRO10	Flow Meter Sensor
410982R-20	PRO20	Flow Meter Sensor
410982R-30	PRO30	Flow Meter Sensor
650580	PRO	UV Sensor

#### OPTIONAL ADD-ON PARTS

Part #	For System	Description
440179	VP Systems	Temperature Management Valve
260134	Monitored	Sensor Reading Output Cable

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## VIQUA VENDING Series - UV for Vending Machines

The VIQUA Sterilight Vending UV systems have been specifically designed for requirements found in OEM application of vending machines and dispensing equipment. The unique design incorporating a separate reactor vessel and ballast lends itself to installation inside the equipment. This space saving design when coupled with the electronic ballast offer reduced heat build-up and application flexibility.

### FEATURES & SPECIFICATIONS

- ◆ 99.99% destruction of bacteria, virus & protozoan cysts (Giardia lamblia & Cryptosporidium) at rated flow
- ◆ Compact Space-Saving design optimal for installation inside of vending machines or dispensing equipment.
- ◆ 304 stainless steel reactor chamber
- ◆ Audible lamp failure indicator alarm
- ◆ Visual "Power On" LED
- ◆ Maximum Operating Pressure: 125 psi (8.62 bar)
- ◆ Ambient temperature: 36-104°F (2-40°C)
- ◆ Mounting: Vertical or Horizontal



Model No.*	Flow Rate**				Power Consumption	Inlet/Outlet Connection (Inches)	Chamber Dimensions	Shipping Weight
	@ 16 mJ/cm <sup>2</sup>		@ 40 mJ/cm <sup>2</sup>					
	GPM	L/Min	GPM	L/Min				
<b>S2Q-PV</b>	5.0	11	2	8	22W	½" MNPT	18½" x 2½"	7 lbs
<b>S5Q-PV</b>	11.0	42	4.5	17	30W	¾" MNPT	22" x 2½"	8 lbs

\*Models listed above are North America (NEMA P-15) Voltage. Alternative voltages can be ordered by adding the voltage code to the end of the part number. /2 = EU CEE (CEE 7/7) /2A = AUS/NZ (AS 3112) /2B = UK (BS 1363). Example: S5Q-PA/2

\*\*Flow Rates listed are based on 95% UVT water and are dose dependent. 40 mJ/cm<sup>2</sup> = NSF/EPA Std. 16 mJ/cm<sup>2</sup> = US Public Health Std.

### REPLACEMENT PARTS

For System	UV Lamp	Quartz Sleeve	Controller*
<b>S2Q-PV</b>	S330RL	QS-330	BA-ICE-V
<b>S5Q-PV</b>	S463RL	QS-463	BA-ICE-V

Part #	Description
<b>410867-R</b>	Lamp O-Ring
<b>RN-001</b>	Retaining Nut
<b>4109958-R</b>	2.5" Mounting Bracket
<b>270276</b>	Lamp Connector Base
<b>SP008</b>	Lamp Connector Spring

\*North America voltage. Use Voltage Codes above for alternative voltages.

# ULTRAVIOLET WATER TREATMENT

## Technical Information & Installation Diagrams

### MICROORGANISMS DESTRUCTION CHART

Use the below chart to determine the required UV dose (in mJ/cm<sup>2</sup>) required to destroy specific microorganisms in water.

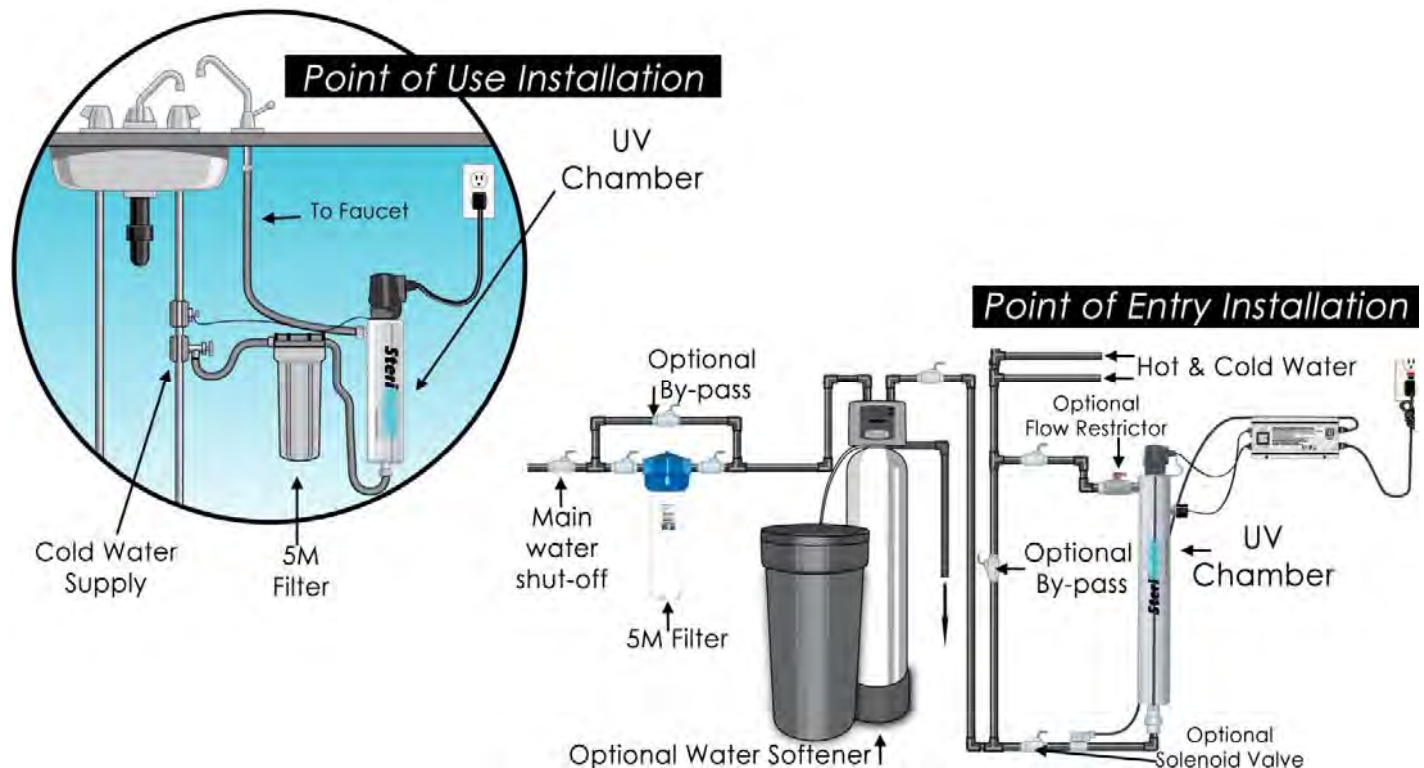
Name	Dose
<b>Bacteria</b>	
Agrobacterium tumefaciens	8.5
Bacillus anthracis	8.7
Bacillus megatherium (vegetative)	2.5
Bacillus megatherium (spores)	2.5
Bacillus subtilis (vegetative)	11
Bacillus subtilis (spores)	58
Clostridium tetani	22
Corynebacterium diphtheria	6.5
Dysentery bacilli (diarrhea)	4.2
Escherichia coli (diarrhea)	6.6
Legionella bozemanii	3.5
Legionella dumoffii	5.5
Legionella gormanii	4.9
Legionella micdadei	3.1
Legionella longbeachae	2.9
Legionella pneumophila (legionnaires disease)	3.8
Leptospira interrogans (infectious jaundice)	6
Mycobacterium tuberculosis	10
Neisseria catarrhalis	8.5
Proteus vulgaris	6.6
Pseudomonas aeruginosa (laboratory)	3.9
Pseudomonas aeruginosa (environmental)	10.5
Rhodospirillum rubrum	6.2
Salmonella (food poisoning)	10
Salmonella enteritidis	7.6

Name	Dose
<b>Bacteria</b>	
Salmonella paratyphi (enteric fever)	6.1
Salmonella typhimurium	15.2
Salmonella typhosa (typhoid fever)	7
Saracen lutea	26.4
Serratia marcescens	6.2
Shigella dysenteriae (dysentary)	4.2
Shigella flexneri (dysentary)	3.4
Shigella sonnei	7
Staphylococcus epidermidis	5.8
Staphylococcus aureus	7
Streptococcus faecalis	10
Streptococcus healyeae	5.5
Streptococcus lactis	8.8
Viridans streptococci	3.8
Vibro comma (cholera)	6.5
<b>Mold Spores</b>	
Aspergillus flavus (yellowish green)	99
Aspergillus glaucus (bluish green)	88
Aspergillus nigar (yellowish green)	330
Mucor ramosissimus (white-grey)	35.2
Penicillium digitatum (olive)	88
Penicillium expansum (olive)	22
Penicillium roqueforti (green)	26.4
Rhizopus nigricans (cheese mold)	220

Name	Dose
<b>Algae</b>	
Chlorella vulgaris	22
<b>Protozoa</b>	
Nematode eggs	92
Paramecium	200
Giardia lamblia (3-log)	6-10
Cryptosporidium (3-log)	<10
<b>Viruses</b>	
Influenza	6.6
Poliovirus (poliomyelitis)	7
Rotavirus	24
Tobacco mosaic virus	440
Bacteriophage (E. Coli)	6.6
Hepatitis	8
<b>Yeast</b>	
Baker's yeast	8.8
Brewer's yeast	6.6
Common yeast cake	13.2
Saccharomyces ellipsoideus	13.2
Saccharomyces sp	17.6

\*UV dose shown in mJ/cm<sup>2</sup>

### TYPICAL INSTALLATIONS



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