NSF STANDARD 55, Class B

Total Wells
Pumps and Filtration
206.484.5826 - totalwells.com

POLAR UV
Disinfection Systems

VALIDATED PERFORMANCE

Independently Certified for Supplemental Disinfection

NSF

System Tested and Certified by NSF International, NSF/ANSI 55 for Disinfection Performance, Class B

If you are looking for an independently validated UV system for supplemental disinfection of a potable water source, POLAR UV's "NSF 55 CLASS B" validated systems is your solution.

Available in two version, HWUV6 includes a true 254nm Teflon® based UV sensor to continuously monitor the UV output (performance) of the system. HWUV5 is "factory ready" to accept a UV Intensity Module in the future if so desired.

Based on a modular, plug and play platform, these systems have the most advanced residential controller on the market with a colour user interface with a multitude of screens displaying diagnostics, status, warnings and even QR codes for a link back to the dealers website.

Couple this with the capability to fully customize the colour screens with your own dealer information, or different language, and you can easily see how this UV system shines above all others (the optional Custom Dealer Programmer is required...contact Headwater for further information)!

Product Features

- True 254nm Teflon® based UV sensor continuously measures and displays UV output (as a %) (standard on HWUV6 / HWUV6-C units ONLY)
- Colour screen controller with Lightlock™ for protected lamp replacement, includes QR codes, full diagnostics & warnings
- "Future-proof" expandability port for future upgrades and options
- Axial flow, stainless steel polished reactors, designed & manufactured to ASME pressure vessel standards (304 on HWUV5/6 units and 316L on HWUV5/6-C units)
- User friendly bayonet style lamp connector (quick ¼ turn removal with no extra tools needed)
- Reliable, industry proven, proprietary low pressure coated UV lamps with ceramic bases for durability and long life (9,000 hours on HWUV5/6 units and 10,000 hours on HWUV5/6-C units)
- Constant current electronic controller (one controller for all LP units and one for all LPHO units) in a splash proof case, fully potted ballast virtually eliminates common water damage issue
- Full customization available as an option (language, home screen, phone number, QR codes, etc.)

Sample Screens

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 following system to perform as tested, the following water quality parameters must be met.

Parameter	Level
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

For levels outside those specified in the table above, please contact Headwater Companies, LLC for further technical assistance.

Manufacturer's Warranty

REACTORS - Ten (10) year Limited Warranty
ELECTRONICS - Three (3) year Limited Warranty
UV LAMPS - One (1) year Limited Warranty
QUARTZ SLEEVES - One (1) year Limited Warranty

★ ★ ★ BEST WARRANTY IN THE UV INDUSTRY

See website for complete warranty document including conditions and exclusions.

POLAR UV NSF STANDARD 55, Class B - Equipment Specifications

	Standard-output					High-output				
Model	**POLAR UV HWUV5-02B POLAR UV HWUV6-02B**	**POLAR UV HWUV5-03B POLAR UV HWUV6-03B**	**POLAR UV HWUV5-06B POLAR UV HWUV6-06B**	**POLAR UV HWUV5-10B POLAR UV HWUV6-10B**	**POLAR UV HWUV5-15B POLAR UV HWUV6-15B**	**POLAR UV HWUV5-05CB POLAR UV HWUV6-05CB**	**POLAR UV HWUV5-10CB POLAR UV HWUV6-10CB**	**POLAR UV HWUV5-15CB POLAR UV HWUV6-15CB**	**POLAR UV HWUV5-25CB POLAR UV HWUV6-25CB**	**POLAR UV HWUV5-40CB POLAR UV HWUV6-40CB**
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 GPM	22 GPM	28 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
	0.7 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									
Port Size	½"FNPT	½"MNPT	¾"MNPT	¾"MNPT	1"MNPT	½"MNPT	¾"MNPT	1"MNPT	1"MNPT	1 ½"MNPT
Electrical	90-265V/50-60Hz.									
Plug Type	American, Nema 5/15, 3 wire for all 110V systems									
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.)
Maximum Current (amps)	1	1	1	1	1	1	1	1	1	1
Replacement Lamp	HWUV-L210	HWUV-L290	HWUV-L470	HWUV-L820	HWUV-L999	HWUV-L210C	HWUV-L330C	HWUV-L420C	HWUV-L600C	HWUV-L950C
Replacement Sleeve	HWUV-Q210	HWUV-Q290	HWUV-Q470	HWUV-Q820	HWUV-Q999	HWUV-Q210	HWUV-Q330	HWUV-Q420	HWUV-Q600	HWUV-Q950
Replacement UV Sensor	HWUV-S1	HWUV-S1	HWUV-S1	HWUV-S1	HWUV-S1	HWUV-S3	HWUV-S3	HWUV-S3	HWUV-S3	HWUV-S3
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 40.0" (6.4 x 101.6cm)	3.5 x 16.5" (8.9 x 41.8cm)	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	17.2 x 9.2 x 10.2 cm (6.8 x 3.6 x 4")					21.7 x 10.8 x 10.2 cm (8.6 x 4.2 x 4")				
Operating Pressure	7-10.3 bar (10-150 psi)									
Operating Water Temp.	2-40° C (36 - 104°F)									
UV Monitor	YES on all HWUV6 / HWUV6-C units , OPTIONAL on all HWUV5 / HWUV5-C units (**HWUV-S1** for HWUV5/6 units and **HWUV-S3** for HWUV5/6-C units)									
Solenoid Output	YES (but requires optional solenoid module) (**MOD-SOL1-HWUV**)									
Dry Contacts	YES (but requires optional remote alarm module) (**MOD-RAM-HWUV**)									
4-20mA Output	YES (but requires optional 4-20mA module) (**MOD-420-HWUV**)									
Lamp Change Reminder	YES (both audible and visual (full colour graphic))									
Lamp Out Indicator	YES (both audible and visual (full colour graphic))									
Shipping Weight	3.0 kg (6.6 lbs)	3.3 kg (7.3 lbs)	4.2 kg (9.3 lbs)	6.8 kg (15.0 lbs)	8.0 kg (17.6 lbs)	4.5 kg (9.9 lbs)	5.4 kg (11.9 lbs)	6.0 kg (13.2 lbs)	7.3 kg (16.1 lbs)	9.8 kg (21.6 lbs)

Optional Equipment Modules

UV Concierge
Available for WEB, IOS, and Android platforms providing live, dynamic feedback on all features and functions of your UV system.

Water Quality Monitor
Installs on all POLAR UV systems and allows for remote monitoring of all major and minor alarms that take place on the main UV system. Three LED's visually display system functionality from up to 150' (46m) away.

Custom Dealer Programmer
Customize your UV controller with your own company name, logo, website, QR code and contact information. Capture the lucrative replacement lamp market by creating a direct link back to your own website!

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
Used to 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.

TRV (temperature management relief valve)
TRV 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.

Cooling Fan
To reduce water temperature inside the reactor through mechanics and convection without wasting any water. Runs independently and continuously. Comes with a compact modular power adapter with interchangeable AC clips that operates from 90-264V (47-63Hz.)

4-20mA Module
Used for signal transfer to a remote device such as a data logger or computer.

Remote Alarm (Dry Contact) Module
Used for signal transfer to a remote alarm or dry contacts.

Lamp Life: UV lamps are rated for 9,000 hours of continuous use (10,000 hours for HWUV5/6-C units) (one-year of operation).

General Operation and Maintenance: UV lamps are to be replaced on an annual basis (9,000 hours of operation for HWUV5/6 units and 10,000 hours for HWUV5/6-C units). 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 non-pathogenic, 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.

NSF c SP us CE EPA Establishment #088776-CAN-001

Headwater Companies, LLC
7720 E Belleview Avenue
Suite B 300
Greenwood Village, CO
80111

2M
Tel 866-289-6475
www.2mco.com/locations

Hydro WESTERN HYDRO
Tel 800-972-5945
www.westernhydro.com/locations