penguin ∧ water™

CONTROL YOUR OWN WATER QUALITY!

Models: 405-PWUV-200/300-02, 405-PWUV-200/300-03, 405-PWUV-200/300-06, 405-PWUV-200/300-10, 405-PWUV-200/300-15, 405-PWUV-200/300-20

If you are unsure of the microbiological quality of your source water or if you are looking for additional security from your municipal water source, then Penguin Water UV Systems have the solution in the 405-PWUV-200/300 series of residential UV systems.

UV technology is proven to control microbiological (bacteria & virus) issues in water including *E.coli, Cryptosporidium* and *Giardia lamblia*.

Penguin provides the ultimate in UV protection for your home with the inclusion of a true 254nm Teflon® based UV sensor that continuously monitors the performance of the UV system and displays the output via a colour screen (optional on 405-PWUV-200 systems). In addition to UV output, diagnostics, system status, warnings, even QR codes are included.

With the integral expandability port, the addition of a 4-20mA output or a solenoid valve is a simple plug-and-play option!

Product Features

- Free floating (no cable twist), keyed-in-place, 254nm Teflon® based UV sensor continuously measures and displays UV output (as a %) (std. on 405-PWUV-300, optional on 405-PWUV-200)

- Colour screen controller with lamp key technology for protected lamp replacement, includes QR codes, full diagnostics & warnings

- "Future-proof" expandability port for future upgrades and options

- Axial flow, 304 stainless steel polished reactors, designed & manufactured to ASME pressure vessel standards

- 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)

- Constant current electronic controller (one controller for all LP 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.)
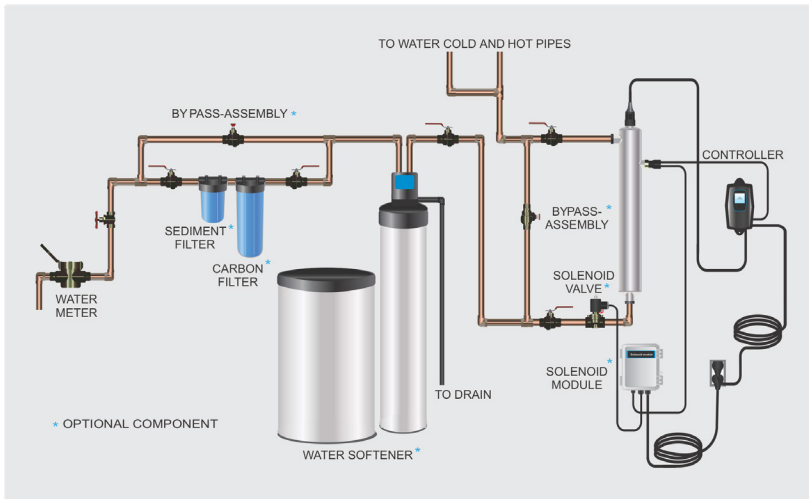
Sample Screens

Point-of-Use (POU)

405-PWUV-200/300-02 series, for flow rates of 8 lpm (2 gpm)
405-PWUV-200/300-03 series, for flow rates of 11 lpm (3 gpm)

Point-of-Entry (POE)

405-PWUV-200/300-06 series, for flow rates of 23 lpm (6 gpm)
405-PWUV-200/300-10 series, for flow rates of 41 lpm (11 gpm)
405-PWUV-200/300-15 series, for flow rates of 57 lpm (15 gpm)
405-PWUV-200/300-20 series, for flow rates of 79 lpm (21 gpm)

Typical POE Installation

Diagram labels: TO WATER COLD AND HOT PIPES, BY PASS-ASSEMBLY *, CONTROLLER, SEDIMENT FILTER *, CARBON FILTER *, BYPASS-ASSEMBLY *, SOLENOID VALVE *, WATER METER, SOLENOID MODULE, TO DRAIN, WATER SOFTENER *, * OPTIONAL COMPONENT

Standard Output - Equipment Specifications

MODEL	405-PWUV-200-02-300-02	405-PWUV-200-03-300-03	405-PWUV-200-06-300-06	405-PWUV-200-10-300-10	405-PWUV-200-15-300-15	405-PWUV-200-20-300-20
Flow Rate 30mJ/cm² @ 95% UVT	2 gpm / 7.6 lpm / 0.45 m³/hr	3 gpm / 11.4 lpm / 0.70 m³/hr	6 gpm / 22.7 lpm / 1.4 m³/hr	11 gpm / 41 lpm / 2.5 m³/hr	15 gpm / 56.8 lpm / 3.4 m³/hr	21 gpm / 79 lpm / 4.8 m³/hr
Flow Rate 16mJ/cm² @ 95% UVT	4 gpm / 15.1 lpm / 0.87 m³/hr	6 gpm / 23 lpm / 1.4 m³/hr	11 gpm / 41 lpm / 2.5 m³/hr	20 gpm / 77 lpm / 4.6 m³/hr	30 gpm / 113.6 lpm / 6.8 m³/hr	39 gpm / 150 lpm / 8.9 m³/hr
Flow Rate 40mJ/cm² @ 95% UVT	1.6 gpm / 6.1 lpm / 0.36 m³/hr	2.4 gpm / 9.1 lpm / 0.50 m³/hr	4.4 gpm / 17 lpm / 1.0 m³/hr	8.3 gpm / 31 lpm / 1.9 m³/hr	12 gpm / 45.4 lpm / 2.7 m³/hr	16 gpm / 59 lpm / 3.6 m³/hr
Port Size	½"FNPT	½"MNPT	¾"MNPT	¾"MNPT	1"MNPT	1"MNPT
Electrical	90-265V/50-60Hz. 1A Max.					
Plug Type	American: NEMA 5-15P					
Lamp Power (Watts)	8	15	22	39	50	42
Power (Watts)	14	20	30	49	62	51
Replacement Lamp	406-PUV-LM-02	406-PUV-LM-03	406-PUV-LM-06	406-PUV-LM-10	406-PUV-LM-15	406-PUV-LM-20
Replacement Sleeve	406-PUV-QS-02	406-PUV-QS-03	406-PUV-QS-06	406-PUV-QS-10	406-PUV-QS-15	406-PUV-QS-20
Reactor Dimensions	6.4 x 26.2 cm (2.5 x 10.3")	6.4 x 36.4 cm (2.5 x 14.3")	6.4 x 54.2 cm (2.5 x 21.3")	6.4 x 89.5 cm (2.5 x 35.2")	6.4 x 101.6 cm (2.5 x 40.0")	8.9 x 91.7 cm (3.5 x 36.1")
Chamber Material	304 Stainless Steel, A249 Pressure Rated Tubing					
Controller Dimensions	171.5 x 92.1 x 101.6 mm (6.8 x 3.6 x 4")					
Operating Pressure	0.7-10.3 bar (10-150 psi)					
Operating Water Temperature	2-40° C (36-104° F)					
UV Monitor	YES on all "405-PWUV-300" models. Upgrade available for "405-PWUV-200" models					
Solenoid Output	YES (optional solenoid module (406-PWUV-MD-SOL1) sold separately)					
Dry Contacts	YES (remote alarm module (406-PWUV-MD-RAM) sold separately)					
4-20mA Output	YES (4-20mA module (406-PWUV-MD-420) sold separately)					
Lamp Change Reminder	YES					
Lamp Out Indicator	YES					
Shipping Weight	7.1 lbs	8 lbs	9.3 lbs	15 lbs	17.6 lbs	16.5 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
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.

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.

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.

Manufacturer's Warranty

BEST WARRANTY IN THE UV INDUSTRY

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

Contact Penguin for complete warranty document including conditions and exclusions.

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