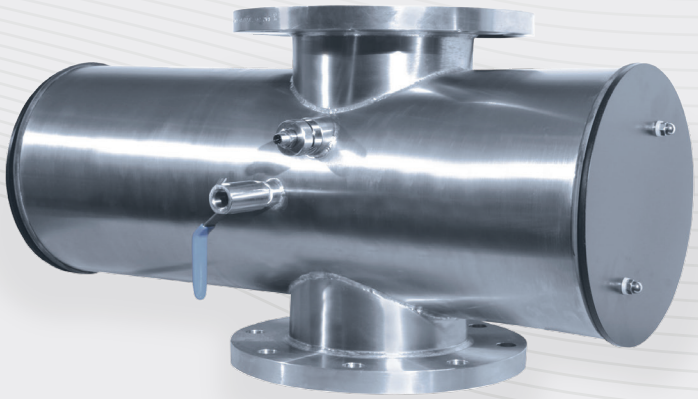
NUVONIC

formerly Aquionics, Berson, Hanovia and Orca GmbH



ProLine PQ IL

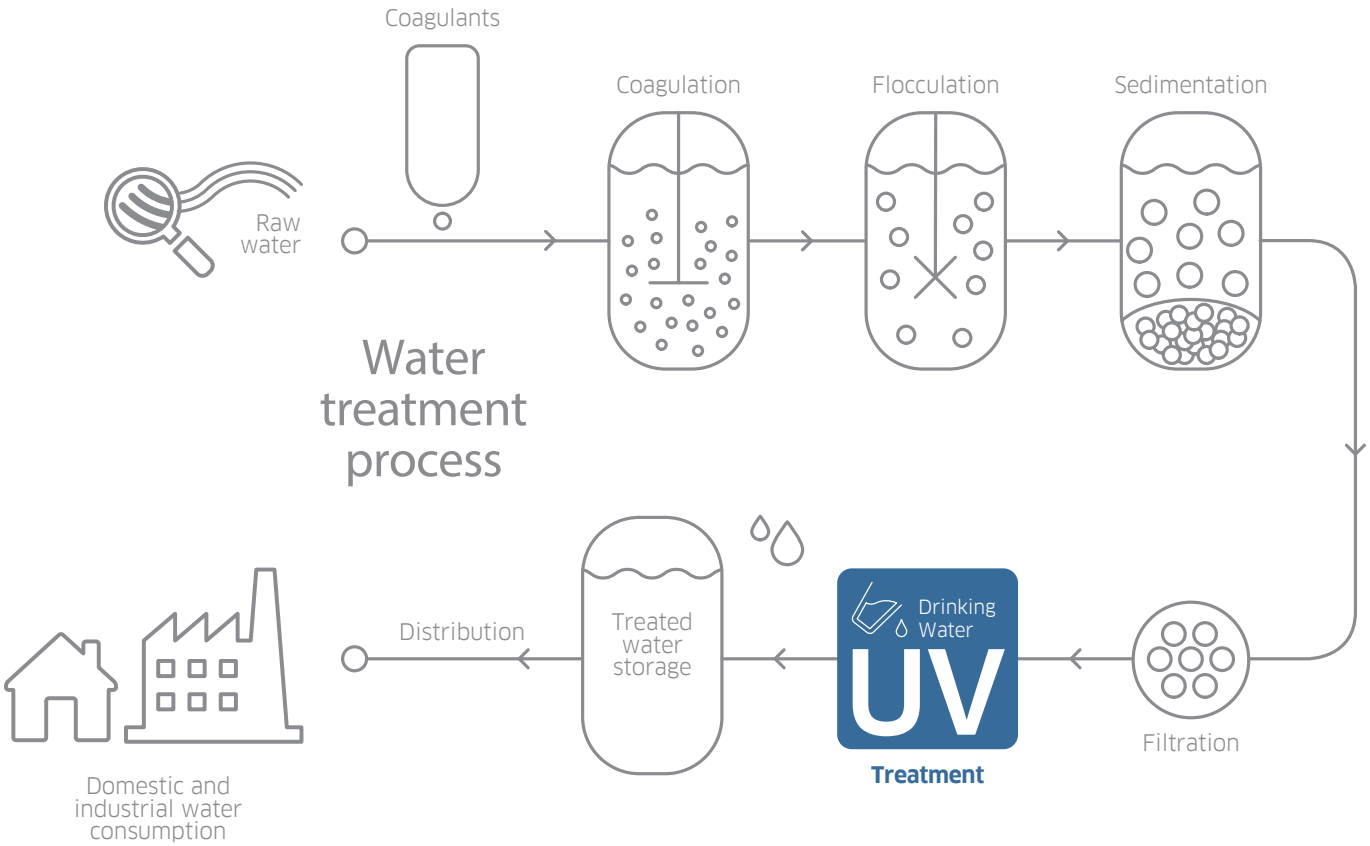
VALIDATED UV TREATMENT FOR DRINKING WATER

Our **ProLine PQ IL** UV systems are designed to provide third party validated UV treatment for municipal drinking water.

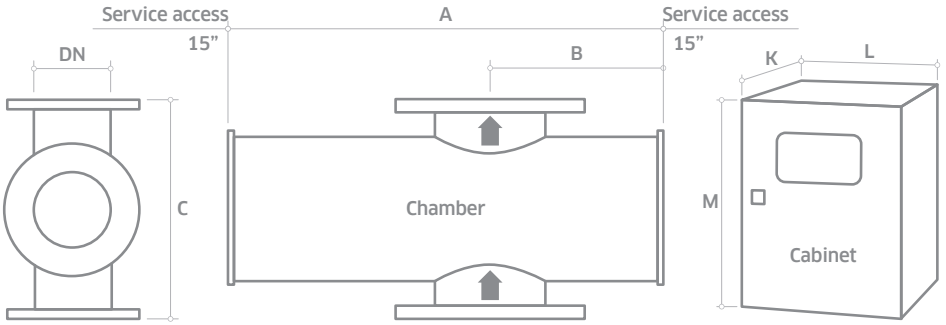
Each system comes with a certified dry UV sensor to measure the germicidal output of the UV system and a UV dose read out to monitor and log performance. The control system also has the ability to take flow and transmittance meter inputs and calculate the UV dose based on real time operating conditions.

Application Optimized UV for Drinking Water

POTENTIAL LOCATIONS OF PROLINE PQ IL™ IN DRINKING WATER TREATMENT PROCESS



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
Dry DVGW approved UV sensor measuring germicidal wavelengths	Continuous verification of performance with real time RED dose reading and in-built low dose warning	Easy to monitor and log system performance
Flow and UV transmittance (UVT) meter inputs	Dose reading based on actual process conditions when meters are connected	Accurate UV dose reading guaranteed under wide range of operating conditions
OPTIMIZATION		
Third party validated UV systems tested in accordance with the USEPA UV Disinfection Guidance Manual	UV system dose equations and sizing have been independently derived	Confidence the system will perform as stated
UV water treatment	Protects your drinking water from microbiological contamination including chlorine resistant Cryptosporidium and Giardia	Does not affect taste and odour
		No chemicals
Designed for treatment of drinking water	FDA-approved materials used for all wetted parts	Industry compliant materials
	Flanged connections, high standard internal finish	Designed to international standards
	Automatic wiper (quartz cleaning)	Self cleaning to maintain performance
INTEGRATION		
Compact design	Can be retrofitted to existing process	Easy integration



* Allow dimension L in front of cabinet for door opening and panel access.

** M dimension includes the space for the cabinet mounting brackets but you need to allow space below the cabinet for cable entry and access (minimum of 9.8”).

*** CC: Control cabinet, PC: Power cabinet Attention: the optional cabinet with A/C is bigger. Ask for dimensions.

All dimensions are approximate for clearance purposes only. We have a policy of continuous product development, exact drawings are available on request.

All specifications are subject to change without notification. Your distributor or our account manager can advise on correct sizing and specification requirements.

MODEL NUMBER	MAX POWER (KW)	NO OF LAMPS	DIMENSIONS (INCHES)								APPROX WEIGHT (LB)	
			Chamber				Cab.	Cabinet (fan cooled)[a]			Chamber	Cabinet
			A	B	C	DN	No***	K*	L	M**	Empty	Fan cooled
ProLine PQ IL 450	5.6	2	30.7	12.2	15.7	8	1	13.84	39.37	56.89	286	286
ProLine PQ IL 1000	11	4	30.7	12.2	15.7	8	1	12.84	39.37	56.89	286	286
ProLine PQ IL 4000	17.5	4	35.3	14.5	21.7	14	1	26.09	47.53	83.05	683	683
ProLine PQ IL 4500	26	6	35.3	14.5	21.7	14	1	26.09	47.53	83.05	683	683
ProLine PQ IL 12000	39	6	41.4	17.6	26.8	20	1CC 1PC	26.09 26.09	47.53 31.77	78.98 82.7	1130	734 396
ProLine PQ IL 14000	52	8	41.4	17.6	26.8	20	1CC 1PC	26.09 26.09	47.53 31.77	83.05 78.98	1189	734 396

UV CHAMBER

Material:	StSt 316L / 1.4404
Internal finish:	< 0.8 µm Ra, welds ground out, electropolished and passivated
External finish:	Brushed to K280, electropolished and passivated
Process (mating) connections:	ANSI 150#
Drain connection:	NPT
Air vent connection:	NPT
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Lamps:	Medium pressure
Quartz Sleeve:	Doped quartz (F240)
Number of Lamps:	See table above
Expected lamp life:	10,000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor (one per lamp)
Working fluid temperature:	33.8°F to 140°F
Hydrostatically pressure tested:	Yes
Chamber mounting:	Flow horizontal or vertical (lamps horizontal only)
Operating pressure:	145 psi (positive pressure only)
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS

- Document Support Pack
- Cabinet: Stainless steel 304
- Cabinet: Stainless steel 304 with air conditioning (41°-122°F), NEMA 4X (IP54), relative humidity <95% non-condensing*
- Cabinet: Stainless steel 316 with air conditioning with slooping roof (41°-122°F), NEMA 4X (IP66), relative humidity <95% non-condensing*
- Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German & Spanish
- Flange options: PN16, JIS, Table ‘E’
- Lead length: 65.6 ft and 95.1 ft
- In-field UV reference sensor kit
- Bleed: valve with BSP connection or NPT if ANSI flange
- Water leak detection: Detects water leaks from quartz sleeve
- Water level sensor: UV chamber full water detection
- UVTouch™ controller (AB850 plc & Touchcreen)

CABINET (CONTROLLER UV TOUCH - AB850 PLC & TOUCHSCREEN)

Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	NEMA 12 (IP54)
Supply voltages:	PQ IL 450-1000: 208V 3Ph 240V 1P+N 220V 1PH +N 277/480V 3P+N PQ IL 4000-14000: 480V 3Ph
Operating temperature range:	41°F to 95°F
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	32.8 ft (default length)
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

***CC: Control cabinet, PC: Power cabinet Attention: the optional cabinet with A/C is bigger. Ask for dimensions.

HMI/CONTROL

Display:	Allen Bradley, Panelview HMI, 7” color touch screen
Operating menu:	3 levels (2 with password protection)
Fault finding:	Event log

CUSTOMER OUTPUTS

4-20 mA passive output:	UV dose, UV intensity, ballast power
VFC outputs:	Standby in remote, system standby, system cooling down, any trip, any warning, UV dose failure, system ready, wiper failure, lamp failure, water leak, water temperature warning, water or cabinet temperature alarm

CUSTOMER INPUTS

4-20 mA active or passive inputs:	Flow meter and UVT transmittance meter
VFC inputs:	Remote stop/start, remote reset, remote wipe, remote set power high

CUSTOMER COMMINICATION PORT

Ethernet

APPROVALS

CE marked, USEPA (UVDGM), UL508A, WQA/NSF61

* See sales drawings for dimensions

ProLine PQ IL

Also available in our Drinking Water product range...

PROLINE PQ AF

Small community, low energy amalgam range with USEPA validation.

PROLINE PQ EO

Energy Optimised medium pressure range, USEPA validated UVT compensation

PROLINE PQ AL

Small-mid sized region, low energy lamp amalgam range with USEPA validation UVT compensation

PROLINE PQ IL DVGW

Compact medium pressure range with DVGW certification

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A Halma company

formerly Aquionics, Berson, Hanovia and Orca GmbH

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