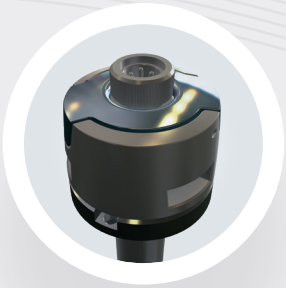
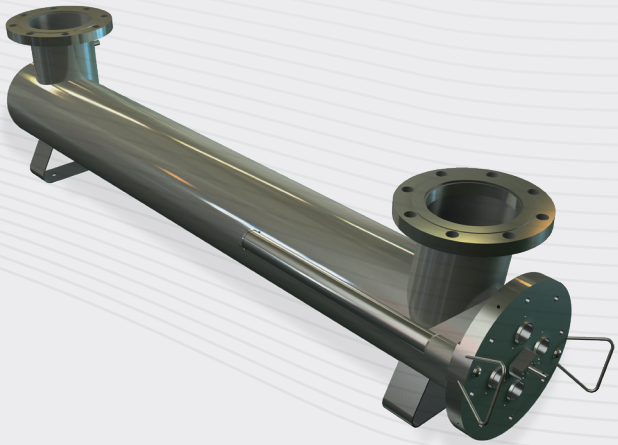
formerly Aquionics, Berson, Hanovia and Orca GmbH

Patented lamp connector provides user safety and easy servicing





Sleeves and wiper can be changed quickly and easily by a single operator

ProLine PQ AL

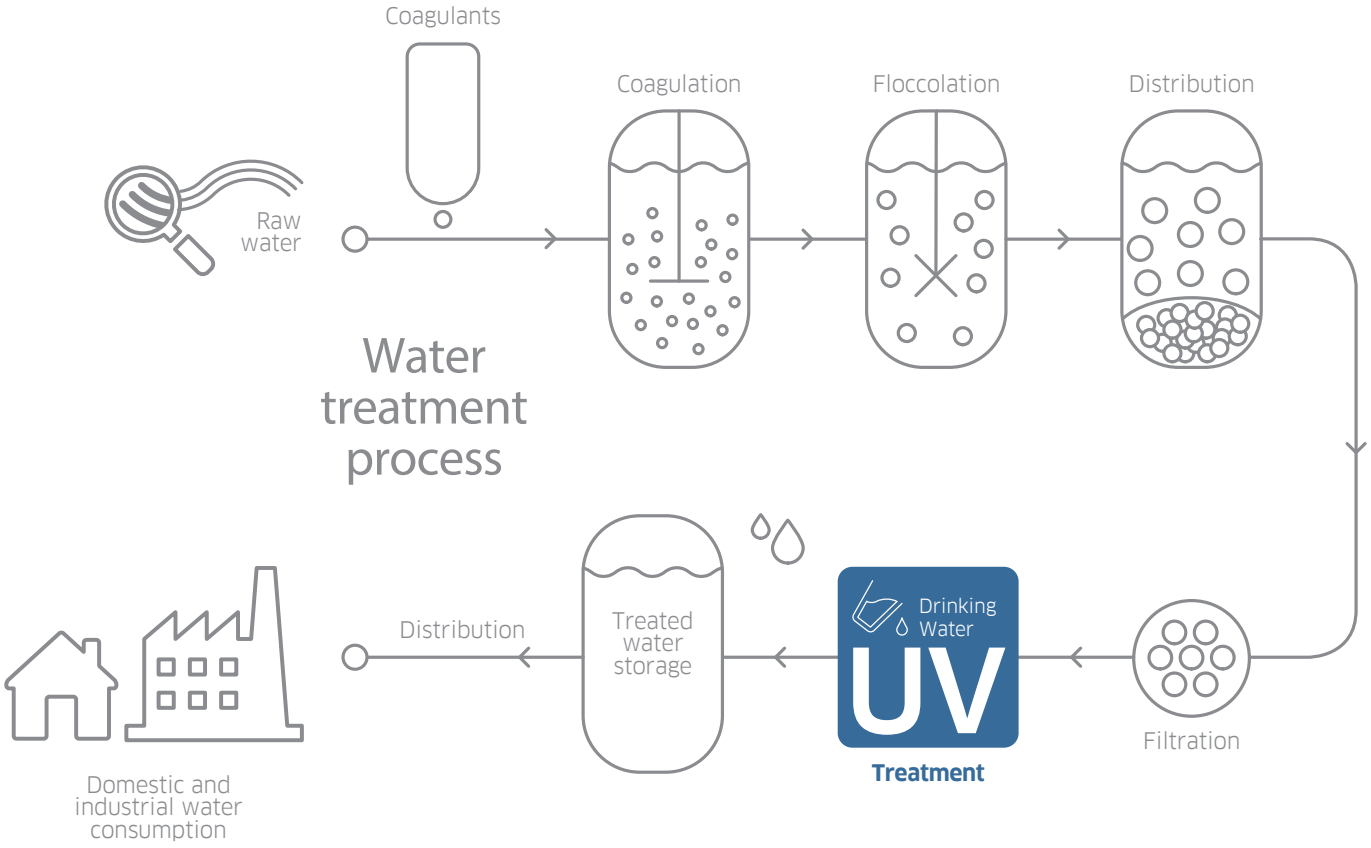
VALIDATED UV TREATMENT FOR DRINKING WATER

Our **Proline PQ AL** UV systems are designed to deliver effective UV treatment for drinking water. They integrate an innovative multiple low pressure lamp chamber with sensors and intelligent control technology to automatically deliver optimum treatment performance with high operational efficiency.

Each system comes with a certified dry UV sensor to measure the active output of the UV system and a UV dose read 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.

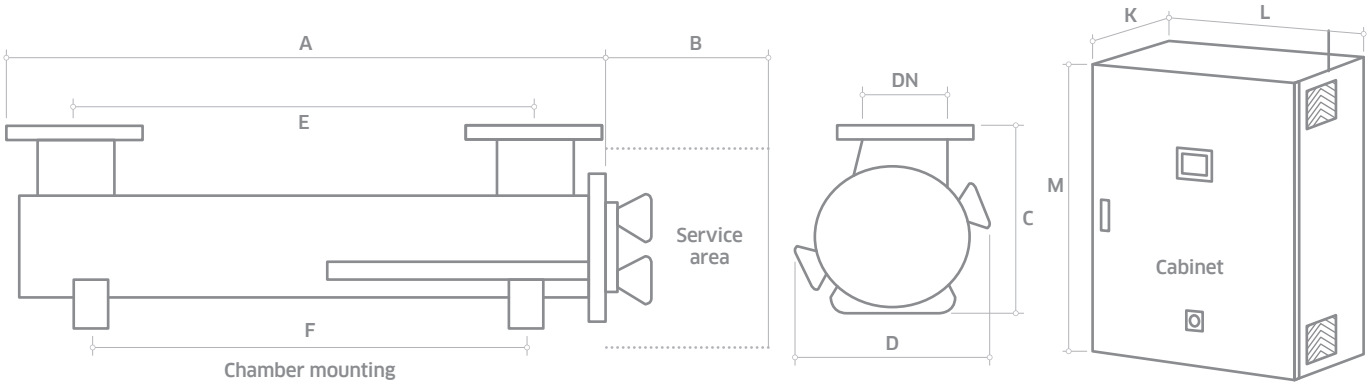
Application Optimised UV for Drinking Water

POTENTIAL LOCATION OF PROLINE PQ AL™ IN DRINKING WATER TREATMENT PROCESS



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV sensor	Continuous verification of performance with real time red UV dose reading and in-built low UV dose alarm	Easy to monitor and log system performance
Flow and UV transmittance (UVT) meter inputs	Stepless adjustment of lamp power based on real time operating conditions	Optimised use of energy, saving operating costs
OPTIMISATION		
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
Multiple low pressure lamps	Provides optimum wavelength to treat your drinking water	Does not affect taste and odour
	High treatment capacity	Compact footprint and reduced operating cost
Innovative chamber design	Maximises the water's exposure to UV light	Reduces energy costs
Designed for treatment of drinking water	Flanged connections, high standard internal finish	Designed to international standards
	FDA and EC approved seals	Industry compliant materials
	Automatic wiper	Self cleaning to maintain performance
INTEGRATION		
Designed for your process	*Skid mountable	Easy to install

*Option



MODEL NUMBER	MAX POWER (KW)		DIMENSIONS (MM)										APPROX WEIGHT (KG)	
	Starting	Running	Chamber							Control				
			A	B	C	D	E	F	DN	K*	L	M**	Chamber (Empty)	Control Cabinet
ProLine PQ AL 100	2.4	1.2-2.4	1710	1500	420	400	1417	1372	150	300	800	1000	150	70
ProLine PQ AL 300	7.2	3.6-7.2	1800	1500	605	560	1372	1475	250	400	1200	1200	300	140

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.
* 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 250 mm).

UV CHAMBER	
Material:	StSt 316L / 1.4404
Internal finish:	As made pipe and tube, <0.8 µm RA, welds ground out, electropolished and passivated
External finish:	Brushed to K280, electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN16
Drain connection:	BSP socket
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12 but not for outside use
Arc tube (lamp):	Low pressure
Arc tube enclosure:	Pure quartz (F200)
Number of arc tubes (lamps):	4 (PQ AL 100), 12 (PQ AL 300)
Expected lamp life:	14,000 hours
Temperature sensor:	Yes
UV sensor:	Calibrated DVGW compliant dry sensor
Working fluid temperature:	5°C to 40°C
Hydrostatically pressure tested:	Yes
Wiper:	Automatic (electrically driven)
Chamber mounting:	Horizontal only
Operating pressure:	10 bar (positive pressure only)
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS
Document Support Pack
Cabinet material: Stainless steel 304, IP54 (NEMA 12)
Cabinet material: Stainless steel 304 with air conditioning (5-50°C), IP66 (NEMA 4x), relative humidity <95% non condensing. See sales drawings for sizes
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish
Flange options: ANSI 150, JIS, Table 'E'
Lead length: 20 and 29 m
Welder Document Pack for chamber construction
Skid mounting (not shipboard or earthquake zone)
Air vent connection
In field UV reference sensor kit
UL 508A labeled for cabinet

CABINET (CONTROLLER UVTOUCH)	
Material:	Polyester coated carbon steel
Degree of protection:	IP54 / NEMA 12
Supply voltages:	AL 100: 200-277V (-5/+10) 1L+N, 2L 50/60Hz 345-480V (-5/+10) 3L+N, 50/60Hz AL 300: 345-480V (-5/+10) 3L+N, 50/60Hz
Operating temp range:	5°C to 40°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Variable power:	Stepless variable power (50% reduction from maximum ballast power)
Interconnecting cable lengths:	10 m to chamber

CUSTOMER OUTPUTS	
4-20 mA outputs:	UV RED dose, lamp driven output power (%)
VFC outputs:	System ready, system stand by, system running, common warning, common trip, system in remote

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

CUSTOMER COMMUNICATIONS PORT
Modbus RS 485 serial RTU for SCADA connection

APPROVALS
CE marked, USEPA (UVDGM)

ProLine PQ AL

Also available in our Drinking Water product range...

PROLINE PQ EO

Energy Optimised medium pressure range, USEPA validated, UVT compensation

PROLINE PQ AF

Small community, low energy amalgam range with USEPA validation

PROLINE PQ IL

Compact medium pressure range with USEPA validation

PROLINE PQ IL DVGW

Compact medium pressure range with DVGW certification

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