



AUVONIC

formerly Aquionics, Berson, Hanovia and Orca GmbH



ProLine PQ IL DVGW

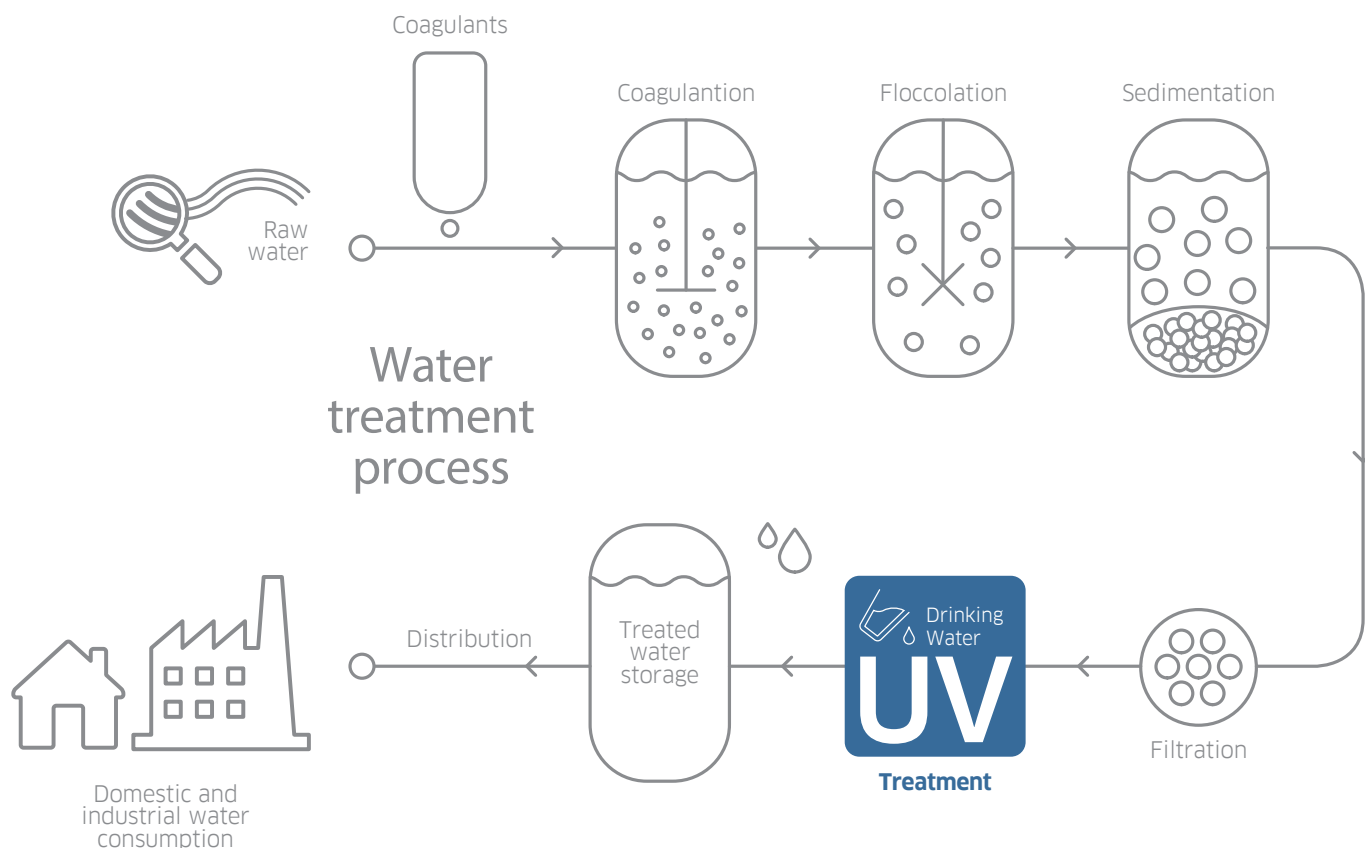
***CERTIFIED UV
TREATMENT FOR
DRINKING WATER***

Our ProLine PQ IL DVGW systems are aimed specifically at providing third party certified UV treatment for municipal drinking water. By using a third party certified UV system you can be certain that the UV dose being produced will treat the water, eliminate harmful micro-organisms, reduce the bio-burden, protect against bio-fouling and lower operating costs. Each system comes with a certified dry UV sensor allowing checking of UV performance. The flow and UV sensor values are monitored to ensure that the dose is always at least 40mJ/cm² as per the DVGW certification.

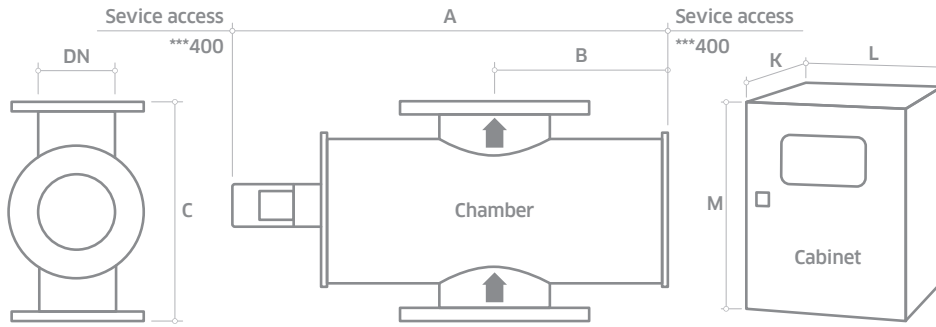


Application
Optimised UV for
Drinking Water

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



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
Dry DVGW approved UV sensor measuring active wavelengths	Continuous verification of performance and in-built low dose warning	Easy to monitor and log system performance
Flow meter input	UV intensity monitoring based on actual process conditions when meters are connected	Accurate UV intensity reading guaranteed under wide range of operating conditions
OPTIMISATION		
DVGW certified UV systems	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	UBA & 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 250 mm).
 - ° Attention: the optional cabinet with A/C is larger. 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.
- *** 400mm up to IL5000, 500mm on IL5000

MODEL NUMBER	MAX POWER (KW)	NO OF LAMPS	DIMENSIONS (MM)								APPROX WEIGHT (KG)	
			Chamber				Cab.	Cabinet (fan cooled) ^a			Chamber Empty	Cabinet Fan cooled
			A	B	C	DN	No***	K*	L	M**		
ProLine PQ IL DVGW 100	1.8	2	780	310	400	100	1	300	800	1200	43	77
ProLine PQ IL DVGW 200	2.9	1	780	310	400	150	1	300	800	1200	49	77
ProLine PQ IL DVGW 450	5.6	2	780	310	400	200	1	300	1000	1400	69	120
ProLine PQ IL DVGW 1000	11.0	4	780	310	400	200	1	300	1000	1400	70	130
ProLine PQ IL DVGW 5000	34.8	8	920	368	550	350	1	600	1200	2100	183	310

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:	Flange EN 1092-1 PN16
Drain connection:	BSP Socket or NPT if ANSI flange
Air vent connection:	BSP Socket or NPT if ANSI flange
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Doped quartz (F240)
Number of arc tubes (lamps):	See table above
Expected lamp life:	12000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor
Working fluid temperature:	1°C to 60°C
Hydrostatically pressure tested:	Yes
Chamber mounting:	Flow horizontal or vertical (lamps horizontal only)
Operating pressure:	10 bar (positive pressure only)
Seals:	EPDM, ADI free, EC 1935:2004, EN681-1 WA-WB-WC-WD, FDA 21 CFR 177.2600, KIWA-ATA, UBA Elastomerleitlinie, W270, WRAS approved

OPTIONS	
Document Support Pack	
Weld documentation pack	
Cabinet:	Stainless steel 304 Stainless steel 304 with air conditioning (5°-50°C), IP56 (NEMA 4X), relative humidity <95% non-condensing*
Manual	Stainless steel 316 with sloping roof and air conditioning (5°-50°C), IP56 (NEMA 4X), relative humidity <95% non-condensing* Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German & Spanish
Flange options:	PN10 (except IL5000), ANSI 150, JIS, Table 'E'
Lead length:	20 and 29 m
In-field UV reference sensor kit	
Water leak detection:	Detects water leaks from quartz sleeve
UV Connect:	Remote access & monitoring

CABINET (CONTROLLER AB850)	
Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	PQ IL DVGW 100-1000: 208-277V (+/-10%) 1L+N, 2L, 3L 50/60 Hz 360-480V (-5/+10%) 3L+N, 50/60 Hz PQ IL DVGW 5000: 380-480V (-5/+10%) 3L, 3L+N 50/60 Hz
Operating temperature range:	5-40°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	10 m (default length)
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

HMI/CONTROL	
Display:	Touch-sensitive back-lit LCD, indicating system status including alarms
Operating menu:	3 access levels (2 with password protection)
Fault finding:	Event log

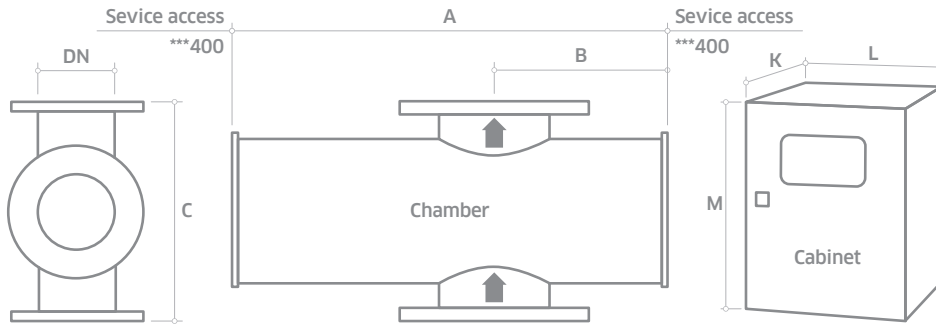
CUSTOMER OUTPUTS	
4-20 mA passive outputs:	UV intensity, UV dose, configurable
VFC outputs:	System in remote control, system available warning, flow enable, running, system cooling down, any trip, any warning, low UV dose, water leak, configurable (x3)

CUSTOMER INPUTS	
4-20 mA active or passive inputs:	Flow meter, UVT meter
VFC inputs:	Remote lamp on/off, remote pulsed start/stop, remote reset, remote wipe, go to high power, reduce power, valve open, valve closed, valve healthy

CUSTOMER COMMUNICATION PORT	
Modbus TCP/IP and Ethernet	

APPROVALS	
CE marked, DVGW certified, UL 508A	

* See sales drawings for dimensions



- * 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).
- *** 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 (MM)								APPROX WEIGHT (KG)	
			Chamber				Cab.	Cabinet (fan cooled) ^a			Chamber Empty	Cabinet Fan cooled
			A	B	C	DN	No***	K*	L	M**		
ProLine PQ IL DVGW 4000	17.5	4	896	368	550	350	1	600	1000	2100	150	180

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:	Flange EN 1092-1 PN10
Drain connection:	BSP Socket or NPT if ANSI flange
Air vent connection:	BSP Socket or NPT if ANSI flange
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Doped quartz (F240)
Number of arc tubes (lamps):	See table above
Expected lamp life:	12000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor
Working fluid temperature:	1°C to 60°C
Hydrostatically pressure tested:	Yes
Chamber mounting:	Flow horizontal or vertical (lamps horizontal only)
Operating pressure:	6 bar (positive pressure only)
Seals:	EPDM, ADI free, EC 1935:2004, EN681-1 WA-WB-WC-WD, FDA 21 CFR 177.2600, KIWA-ATA, UBA Elastomerleitlinie, W270, WRAS approved

CABINET (CONTROLLER UVTRONIC)	
Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	PQ IL DVGW 4000: 380-480V (-5% to +10%), (3ph L1, L2, L3), 50/60 Hz
Operating temperature range:	5°C to 35°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	10 m (default length)
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

HMI/CONTROL	
Display:	4 line LCD, indicating system status including alarms
Operating menu:	3 levels (2 with password protection)
Fault finding:	Event log

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

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

CUSTOMER COMMUNICATION PORT	
Modbus RS 485 serial RTU for SCADA connection	

APPROVALS	
CE marked, DVGW certified	

OPTIONS	
Document Support Pack	
Cabinet:	Stainless steel 304 Stainless steel 304 with air conditioning (5°-50°C), IP54 (NEMA 4X), relative humidity <95% non condensing* Stainless steel 316 with air conditioning with sloping roof (5°-50°C), IP66 (NEMA 4X), relative humidity <95% non condensing*
Manual	Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German & Spanish
Flange options:	PN16, ANSI 150, JIS, Table 'E'
Lead length:	20 and 29 m
In-field UV reference sensor kit	
Bleed:	value with BSP connection or NPT if ANSI flange
Water leak detection:	Detects water leaks from quartz sleeve
UL 508A shop approval	
Welder pack	

* See sales drawings for dimensions



ProLine PQ IL DVGW

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**

Compact medium pressure range with USEPA validation

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NUVONIC

A Halma company

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