

ProLine PQ AF

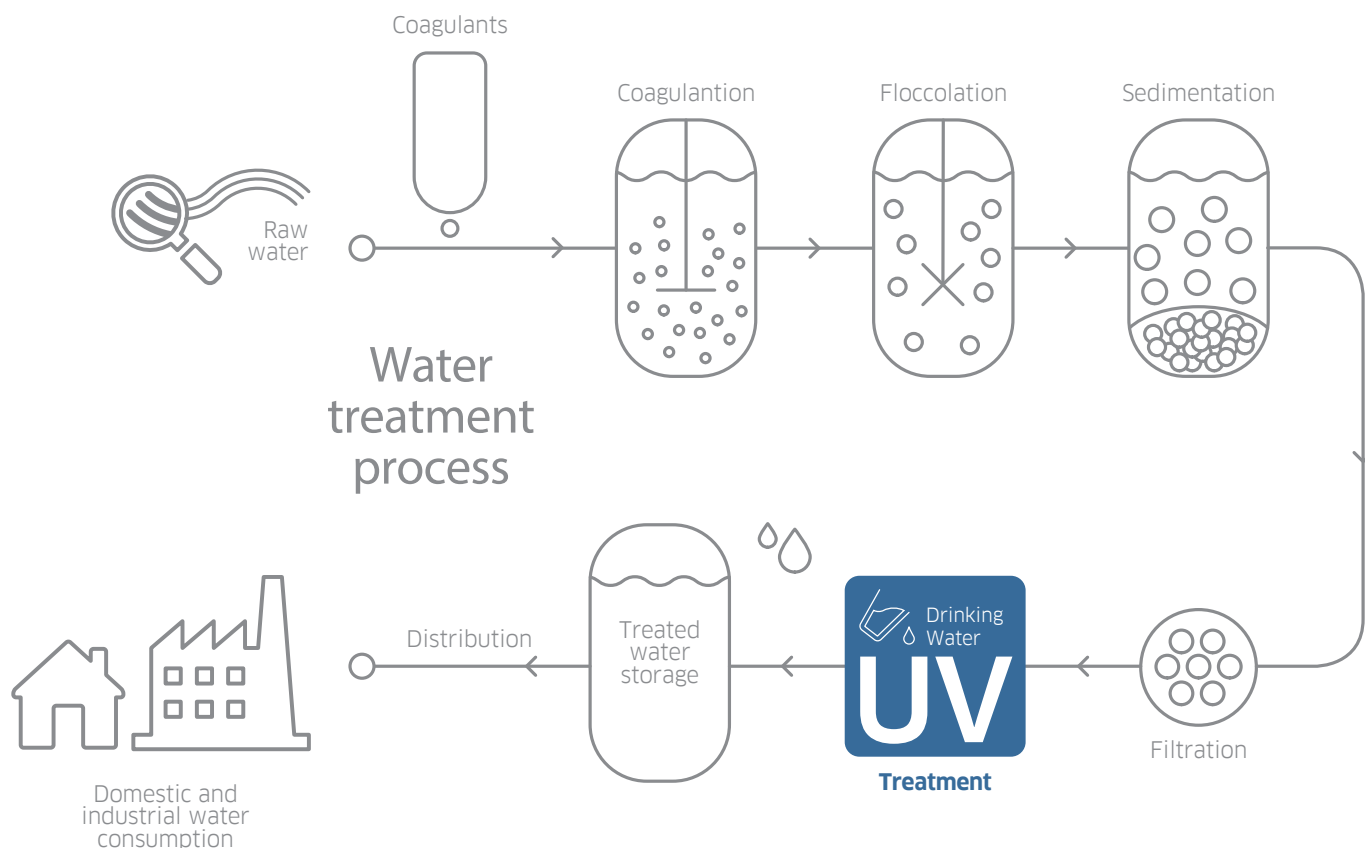
VALIDATED UV TREATMENT FOR DRINKING WATER

Our ProLine PQ AF range of Drinking Water UV solutions protects people from harmful contamination from bacteria and viruses. Even at low doses UV provides protection against Chlorine resistant pathogens such as Cryptosporidium and Giardia. UV is used for Drinking Water worldwide often used in conjunction with Chlorine. UV is an additional level of safety and allows lower Chlorine consumption at much lower costs than Ozone or membrane filtration. At higher doses UV provides general treatment and can provide Virus protection, depending on your design philosophy. PQ AF integrates a low pressure lamp chamber with sensors and control technology to automatically deliver optimum performance. Provided with a certified dry UV sensor that measures the output of the UV system and a UV dose read out makes it easy to monitor and log performance.

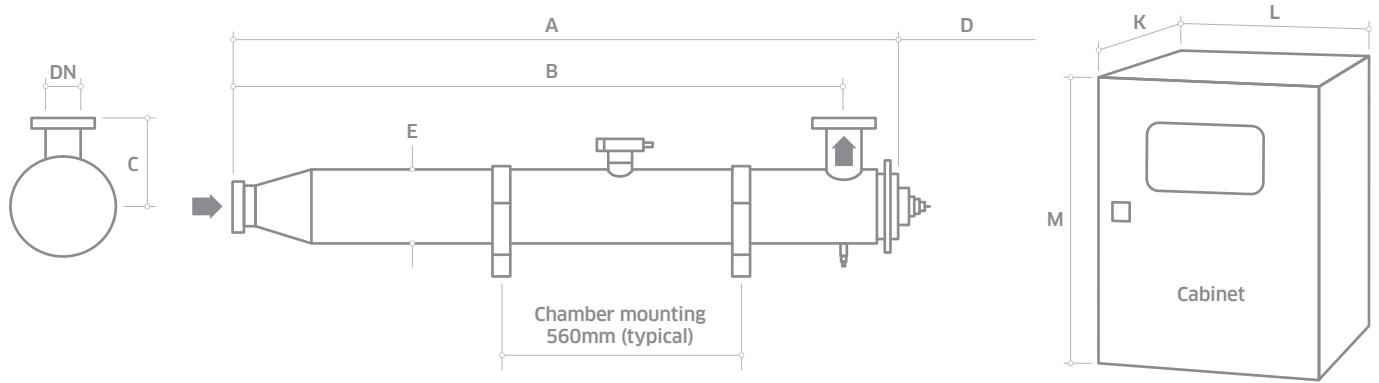


Application
Optimised UV for
Drinking Water

POTENTIAL LOCATIONS OF THE PROLINE PQ AF™ 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 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
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
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 Flanged connections, high standard internal finish Automatic wiper (quartz cleaning)	Industry compliant materials Designed to international standards Self cleaning to maintain performance
INTEGRATION		
Compact Design	*Skid mountable Can be retrofitted to existing process	Easy to install
RS 485 interface *Option	Single cable connection to customer control system	Easy integration to SCADA or plant control systems



MODEL NUMBER	MAX POWER (W)	MIN T10(%)	DIMENSIONS (MM)										APPROX WEIGHT (KG)	
			A	B	C	D	E	DN	K*	L	M**	Chamber (Empty)	Control Cabinet	
ProLine PQ AF 0008	200	60	1388	1273	82	1300	102	50	224	600	890	9	36	
ProLine PQ AF 0016	350	60	1388	1273	82	1300	102	50	224	600	890	9	36	
ProLine PQ AF 0090	750	60	1980	1825	200	1900	206	150	224	600	890	46	36	

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, welds as laid, electropolished and passivated
External finish:	Sateen polish (120 grit) electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN16
Drain connection:	BSPT
End plate:	Removable tri-clamp except PQ AF 0090 which is flanged
Degree of protection:	IP65 equivalent to NEMA 4 but not for outside use
Arc tube (lamp):	Low pressure amalgam
Wiper:	Automatic (pneumatically driven)
Arc tube enclosure:	Pure quartz (F200)
Number of arc tubes (lamps):	1
Expected lamp life:	12000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor with UVGuard™ window
Working fluid temperature:	5°C to 40°C
Hydrostatically pressure tested:	Yes to PED requirements EN 13445
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

Transmittance compensating dose equation
Document Support Pack
Cabinet material: Stainless steel 304 or 316 with sloping roof
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish
Flange options: ANSI 150 (NPT drain), JIS, Table 'E'
UVShield™
Water leak detection
UL listing
UL 508A panel shop
Bleed: BSPT connection and valve
Lead length: 20 & 29 m PQ AF 0008, 14 m PQ AF 0016 - 0090

OPTION (CONTINUED)

In-field UV reference sensor kit
Welder Document Pack for chamber construction
Skid mounting (not shipboard or earthquake zone)

CABINET (CONTROLLER UVTRONIC)

Material:	Polyester coated carbon steel
Degree of protection:	IP66 / NEMA 4
Supply voltages (nominal):	230 V (+/- 10%) 50/60 Hz
Operating temperature range:	5°C to 40°C
Relative humidity:	<95% non-condensing
Cooling fans:	No
Interconnecting cable:	10 m
Variable power:	Stepless variable power on PQ AF 0090 only (40% reduction from max ballast power, 20% dose reduction)

HMI/CONTROL

Display:	4 line LCD, indicating system status including alarms
Operating menu:	3 levels with password protection
Fault finding:	Event log

CUSTOMER OUTPUTS

4-20 mA active outputs:	UV dose and UV intensity
24 V dc 10 mA max outputs:	Lamp ON, any trip, any warning, system ready, system in remote, bleed valve

CUSTOMER INPUTS

4-20 mA active or passive inputs:	Flow meter and transmittance meter
VFC inputs:	Remote stop/start and remote reset

CUSTOMER COMMUNICATION PORT

RS 485:	Modbus
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APPROVALS

CE marked, USEPA (UVDGM)



ProLine PQ AF

Also available in our Drinking Water product range...



**PROLINE
PQ IL**

Compact medium pressure 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

Canada

+1 980 256 5700
americas@nuvonicuv.com

China

+86 21 6167 9599
apac@nuvonicuv.com

Germany

+44 175 351 5300
emea@nuvonicuv.com

Malaysia

+60 16 440 8834
sea@nuvonicuv.com



Mexico

+1 980 256 5700
americas@nuvonicuv.com

United Kingdom

+44 175 351 5300
emea@nuvonicuv.com

USA

+1 980 256 5700
americas@nuvonicuv.com



NUVONIC

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