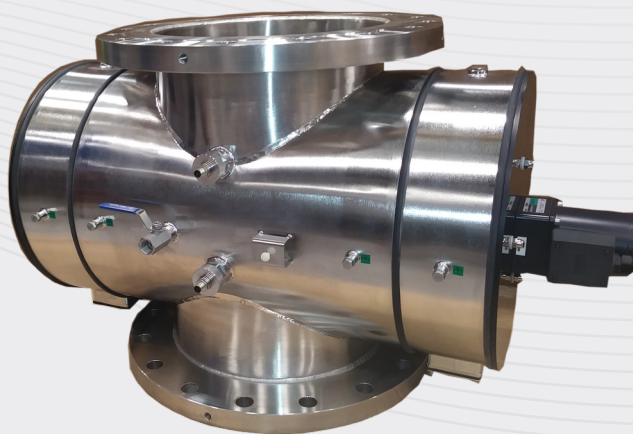




## ProLine PQ IL DVGW

### *CERTIFIED UV TREATMENT FOR DRINKING WATER*

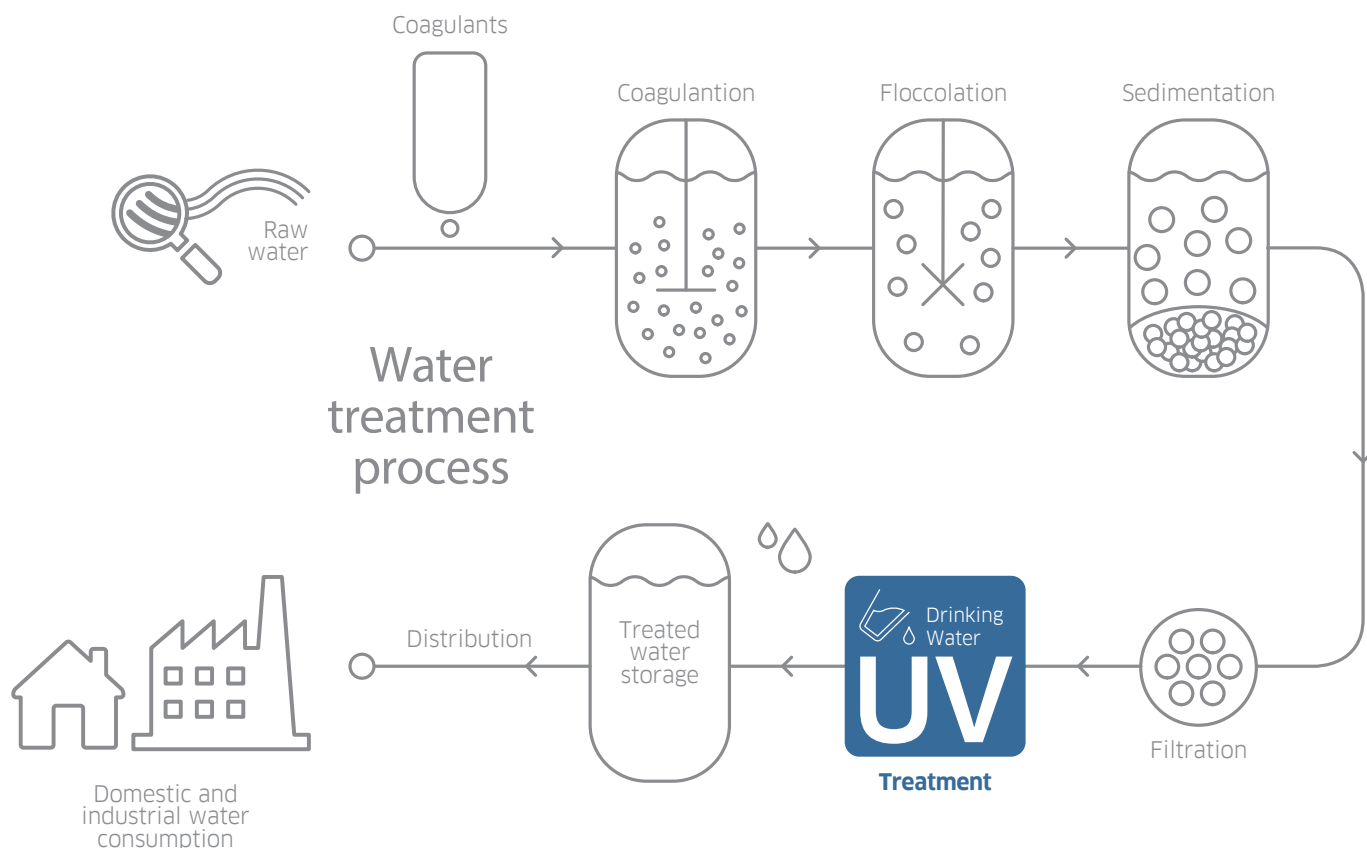
Our ProLine PQ IL DVGW systems are aimed specifically at providing third party certified UV treatment for municipal drinking water. By using a third party certified UV system you can be certain that the UV dose being produced will treat the water, eliminate harmful micro-organisms, reduce the bio-burden, 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/cm<sup>2</sup> as per the DVGW certification.

**UVCCELL™**  
WYŁĄCZNY DYSTRYBUTOR NA RYNKU POLSKIM

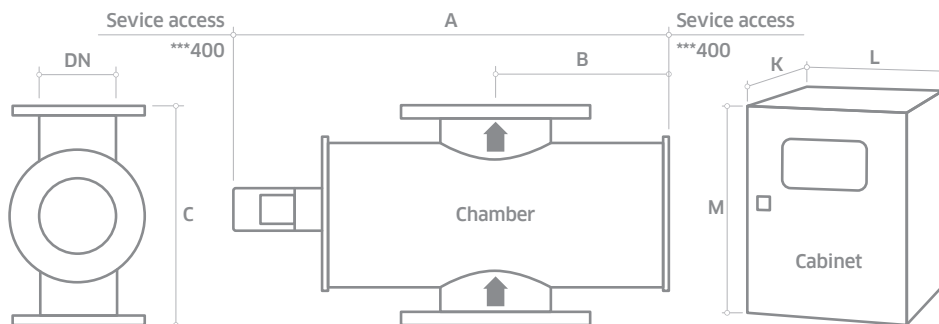


Application  
Optimised UV for  
Drinking Water

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



| KEY FEATURES                                             | WHAT IT GIVES YOU                                                                                                        | BENEFITS FOR YOU                                                                  |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>INTELLIGENCE</b>                                      |                                                                                                                          |                                                                                   |
| 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 |
| <b>OPTIMISATION</b>                                      |                                                                                                                          |                                                                                   |
| 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<br>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                                             |
| <b>INTEGRATION</b>                                       |                                                                                                                          |                                                                                   |
| 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) <sup>a</sup> |      |      | Chamber            | Cabinet    |
|                         |                |             | A               | B   | C   | DN  | No*** | K*                                | L    | M**  | Empty              | Fan cooled |
| 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*                      |
|                                  | Stainless steel 316 with sloping roof and air conditioning (5°-50°C), IP56 (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:                  | 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<br>360-480V (-5/+10%) 3L+N, 50/60 Hz<br>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                                                               |

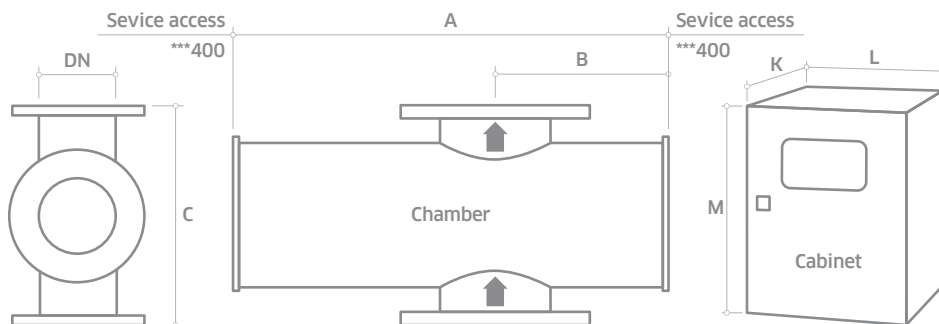
| CUSTOMER OUTPUTS         |                                                                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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
  - ² 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. No*** | Cabinet (fan cooled) <sup>a</sup> |      |      | Chamber Empty      | Cabinet Fan cooled |
|                         |                |             | A               | B   | C   | DN  |            | 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 Elastomerleitunglinie, W270, WRAS approved |

| OPTIONS                          |                                                                                                                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Document Support Pack            |                                                                                                                                                                                                                                                                     |
| Cabinet:                         | Stainless steel 304<br>Stainless steel 304 with air conditioning (5°-50°C), IP54 (NEMA 4X), relative humidity <95% non condensing*<br>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                      |                                                                                                                                                                                                                                                                     |

| 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 |  |

\* 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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