# QuantumFlux™ P1010-S

## Pressurized UF Membrane Data Sheet

QuantumFlux™ UF hollow fiber membranes are engineered with Polyvinylidene Fluoride (PVDF) chemistry through the TIPS* process, ensuring exceptional chemical and mechanical durability. Their wide range of module configurations enables users to select the optimal setup for new projects or seamlessly retrofit into existing installations.

*TIPS: Thermally Induced Phase Separation

## Key Features & Benefits

**Excellent Mechanical Durability**

Exceptional mechanical strength reduces fiber breakage and extends fiber lifespan

**Excellent Chemical Durability**

Excellent resistance to acids, caustics and oxidants

**Optimized Module Internal Design**

Minimized solid accumulation and membrane fouling

**Outside-in Filtration**

Versatile operation for a wider range of solid loadings

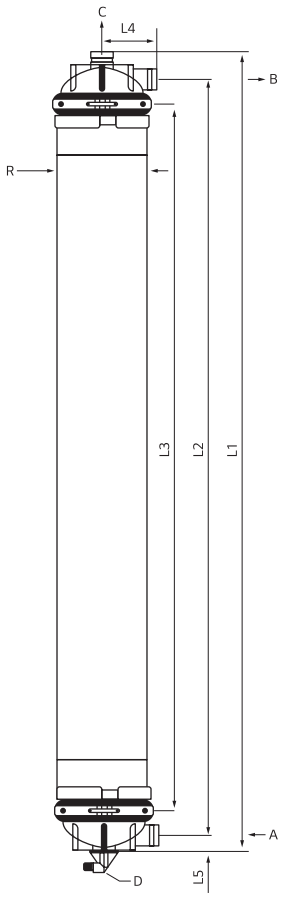
## Material Specifications

| | | | |
|---|---|---|---|
| Membrane Material: | PVDF (TIPS) | Pore Size: | 0.04 µm |
| Housing Material: | uPVC/ABS | Potting Material: | Epoxy/Polyurethane |

## Dimension Parameters

| | |
|---|---|
| Filtration Surface Area ($m^2$) [$ft^2$] | 55 [592] |
| Column Volume (L) [gal] | 25 [6.6] |
| Empty Weight (kg) [lbs] | 39 [86.0] |
| L1 (mm) [inches]* | 1,195 [47.0] |
| L2 (mm) [inches]* | 1,072 [42.2] |
| L3 (mm) [inches]* | 975 [38.4] |
| L4 (mm) [inches]* | 173.5 [6.8] |
| L5 (mm) [inches]* | 45 [1.8] |
| R (mm) [inches]* | 250 [9.8] |

*Approximate dimensions. Check with NanoH2O for the most up-to-date values and applicable drawings.




## Port Configuration

| | |
|---|---|
| Port A (mm) [inches]** | Feed/Drain - DN50 [2] Victaulic Grooved Pipe |
| Port B (mm) [inches]** | Filtrate - DN50 [2] Victaulic Grooved Pipe |
| Port C (mm) [inches]** | Concentrate - DN50 [2] Victaulic Grooved Pipe |
| Port D | Air Inlet - Hose Adapter: 25 mm/19 mm (OD/ID) |

**DN50 clamps not included

## Design and Operating Parameters

| | |
|---|---|
| Typical Filtrate Flowrate ($m^3$/hr) [gpm] | 2.2–6.6 [10–29] |
| Filtration Mode | Outside-in |
| Typical Flux (LMH) [gfd][1] | 40–120 [25–70] |
| Operating Temperature (°C) [°F] | 5–40 [41–104] |
| pH Range | Operating: 2-12; Cleaning: 1-14 |
| Air Scour Flowrate ($m^3$/hr/module) [cfm] | 15 [9] |
| Instantaneous Chlorine Tolerance (ppm) | 10,000 |
| Maximum Lifetime Chlorine Tolerance (ppm-hrs) | 3,000,000 |
| Maximum Feed Turbidity (NTU)[2] | 300 |
| Maximum Transmembrane Pressure (bar) [psi] | 2.0 [29] |
| Maximum Feed Pressure (bar) [psi][3] | 3.0 [44] |
| Oil Content in Feed Water (ppm) | < 2 |
| Allowed Particle Size in Feed Water (mm)[2] | ≤ 0.5<br>≤ 0.12 for Seawater Feeds |

1. Flux selection depends on feed type and water quality. Please consult NanoH2O for flux selection.
2. Please consult NanoH2O for deviations.
3. At temperatures of 40°C.

### Product Nomenclature

QuantumFlux™ P 10 10 -S

- -S: Filtrate Port Configuration
  - S: Single
  - D: Dual
- 10 (second): Module Length
- 10 (first): Module Diameter
- P: Filtration Mode
  - P: Pressurized
  - S: Submerged

The product performance is expressly conditioned on Buyer's storing, installing, operating, and maintaining Product in accordance with industry-accepted good practices and Seller's written instructions provided in the Seller's Technical Manual may be viewed and downloaded at www.nanoh2owater.com information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. NanoH2O assumes no liability for results obtained or damages incurred through the application of the information contained herein. Customer is responsible for determining whether the products and information presented herein are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. QuantumFlux is the Trademark of NanoH2O.
All rights reserved. © NanoH2O Co., Ltd.

This product is certified to NSF/ANSI/CAN 61 for drinking water systems

Please visit our website for regional contact information

www.nanoh2owater.com