

# QuantumFlux™ P1010-S

## Product Data Sheet


### Pressurized UF Membrane Data Sheet

LG QuantumFlux™ UF hollow fiber membranes are engineered with Polyvinylidene Fluoride (PVDF) chemistry through the TIPS\* process, ensuring exceptional chemical and mechanical durability. Its 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

### Demension Parameters

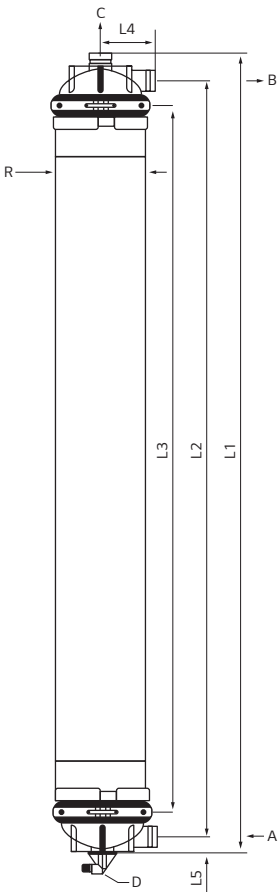
|  |              |
|--|--------------|
| Filtration Surface Area (m <sup>2</sup> ) [ft <sup>2</sup> ] | 55 [592]     |
| Column Volume (L) [gal]                                      | 25 [6.6]     |
| Empty Weight (kg) [lbs]                                      | 39 [86.0]    |
| L1 (mm) [inches]*  | 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 LG Chem 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

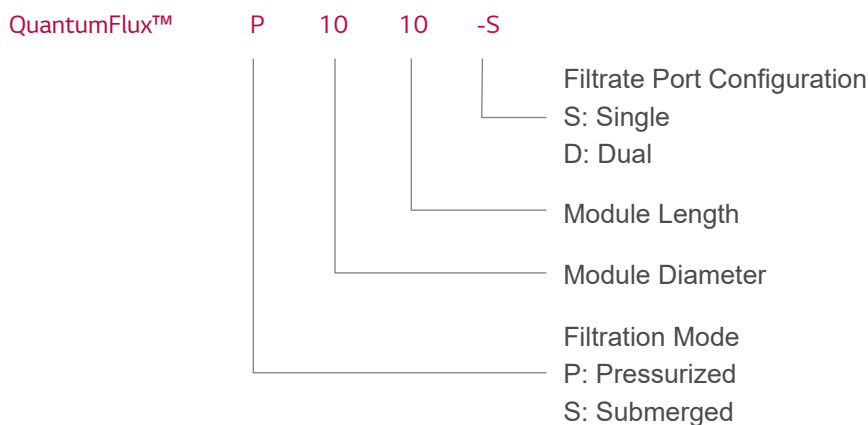
|   |                                    |
|---|------------------------------------|
| Typical Filtrate Flowrate (m³/hr) [gpm]               | 2.2–6.6 [10–29]                    |
| Filtration Mode                                       | Outside-in                         |
| Typical Flux (LMH) [gfd] <sup>1</sup>                 | 40–120 [25–70]                     |
| Operating Temperature (°C) [°F]                       | 5–40 [41–104]                      |
| pH Range  | Operating: 2-12; Cleaning: 1-14    |
| Air Scour Flowrate (m³/hr/module) [cfm]               | 15 [9]                             |
| Instantaneous Chlorine Tolerance (ppm)                | 10,000                             |
| Maximum Lifetime Chlorine Tolerance (ppm-hrs)         | 3,000,000                          |
| Maximum Feed Turbidity (NTU) <sup>2</sup>             | 300                                |
| Maximum Transmembrane Pressure (bar) [psi]            | 2 [29]                             |
| Maximum Feed Pressure (bar) [psi] <sup>3</sup>        | 3 [44]                             |
| Oil Content in Feed Water (ppm)                       | < 2                                |
| Allowed Particle Size in Feed Water (mm) <sup>2</sup> | ≤ 0.5<br>≤ 0.12 for Seawater Feeds |

1. Flux selection depends on feed type and water quality. Please consult LG Chem for flux selection.

2. Please consult LG Chem for deviations.

3. At temperatures of 40°C.

## Product Nomenclature



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.lgwatersolutions.com](http://www.lgwatersolutions.com) information and data contained herein are Deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability

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