LG Water Solutions

LG Chem

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

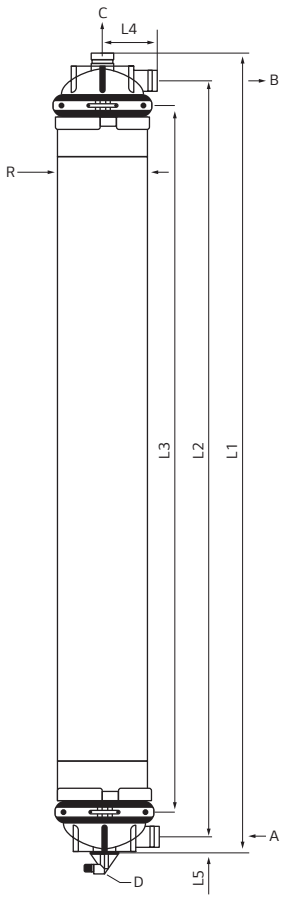
Membrane Material: PVDF (TIPS) | Pore Size: 0.04 μm

Housing Material: uPVC/ABS | Potting Material: Epoxy/Polyurethane

Demension Parameters

Filtration Surface Area (m^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 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][1]	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)[2]	300
Maximum Transmembrane Pressure (bar) [psi]	2 [29]
Maximum Feed Pressure (bar) [psi][3]	3 [44]
Oil Content in Feed Water (ppm)	< 2
Allowed Particle Size in Feed Water (mm)[2]	≤ 0.5 ≤ 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

QuantumFlux™ P 10 10 -S

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