

Capillary Ultrafiltration Module

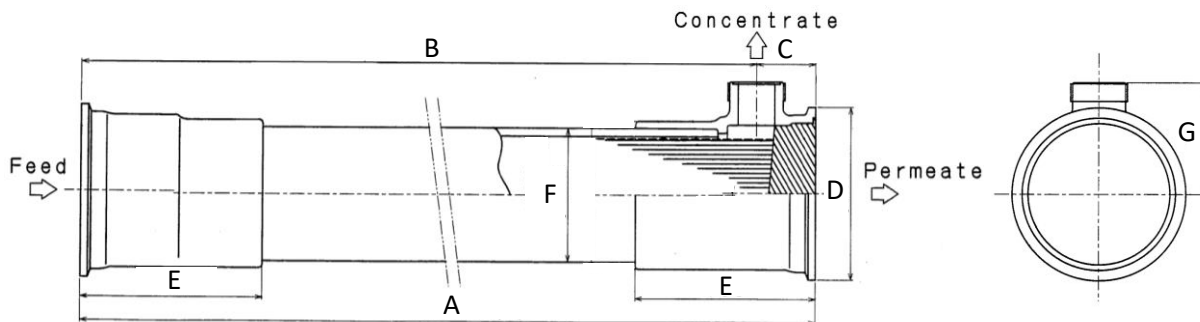
K4R-PW1

K4R-PW1 is a high-performance, heat-sanitizable ultrafiltration (UF) membrane engineered for critical high-purity water applications in the pharmaceutical, biotechnology, and life science industries. Designed to support effective control of microbiological contaminants and endotoxins, K4R-PW1 plays a key role as a final purification and polishing step within advanced water treatment systems. The K4R-PW1 is a 6000 Dalton MWCO, out to in ultra-filtration module which is manufactured using materials that are referenced in applicable sections of FDA CFR Title 21, Part 177 and have been tested in accordance with USP <88> Class VI (as applicable).

Performance¹	Initial permeate flow:	2.5 m ³ /h (11.0 GPM) (minimum)
	Test conditions:	1.0 bar (14.5 psi) (Trans membrane pressure) @25°C (77 °F)
	Nominal molecular weight cut off:	6,000 Dalton (protein)

Type	Configuration:	Capillary Ultrafiltration Module
	Membrane polymer:	Polysulfone
	Module diameter:	114±0.6 mm (4.488±0.024 inch)
	Module length:	1077±1.5 mm (42.40±0.059 inch)
	Preservative:	Hydrogen peroxide solution (0.3%) Pyrogen-free ²

Application Data³	Temperature range:	5 - 40°C(41-104°F)	~ 70°C(~158°F)	~85°C(~185°F)	~ 98°C(~208°F)
	Max. transmembrane pressure	3.0 bar (43.5 psi)	2.0 bar (29.0 psi)	1.5 bar (21.8 psi)	1.0 bar (14.5 psi)
	Max. feed pressure	6.0 bar (87.0 psi)	3.0 bar (43.5 psi)	2.0 bar (29.0 psi)	1.5 bar (21.8 psi)
	Max. permeate pressure	6.0 bar (87.0 psi)	3.0 bar (43.5 psi)	2.0 bar (29.0 psi)	1.5 bar (21.8 psi)
	pH range	1 ~ 14			
	Operating mode:	Outside to inside filtration			



Dimensions

A	B	C	D	E	F	G
1077mm (42.40 inch)	1027mm (40.43 inch)	50mm (1.97 inch)	φ 147mm (5.79 inch)	153mm (6.02 inch)	φ 114mm (4.49 inch)	95mm (3.74 inch)

1) Typical module performance with UPW (Ultra-Pure Water).

2) Tested by Limulus test before ex-factory

3) The limitations shown here are for general use. The values may be more conservative for specific projects to ensure the best performance and longest life of the membrane.

Note: Hot water sanitization procedures

Transmembrane pressure:	0.2 bar (2.85 psi)
Heating rate:	Typically, 5°C (9°F) /min
Feed water temperature after heating:	85 to 95 °C (185 to 203 °F)
Circulatory cleaning time:	30 to 60 min
Cooling rate:	Typically, 5°C (9°F)/min

Disclaimer: The information and data are presented in good faith and in lieu of all warranties. All express or implied warranties, including the warranties of merchantability and fitness for a particular purpose, are hereby disclaimed and excluded. Conditions and methods of use of our products are beyond our control. Hydranautics assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of Hydranautics' products for the user's specific end uses.

7/31/2026

Hydranautics Corporate office

401 Jones Road, Oceanside, CA 92058, USA Toll Free: +1-800-CPA-PURE Tel: +1-760-901-2500 Fax: +1-760-901-2578
Web: www.membranes.com Email: hy-info@nitto.com