

Microza¹ UF Modules OLT Series



Description

The Microza UF Modules, OT Series of ultrafiltration modules feature hollow fiber membranes having a uniformly smooth, tight skin on both the inside and outside of the fiber.

- Designed specifically for ultra high purity DI water
- Polysulfone membrane and housing
- 6,000 and 10,000 molecular weight cut off ratings
- External feed:
Feed water flows from the outside to the inside of the hollow fiber. This flow path produces exceptionally clean water and eliminates stagnant areas on the permeate side
- Large membrane area results in high flow rates per module
- High temperature resistance:
 - 80°C / 176°F continuous operation
 - 90°C / 194°F hot water sanitization
- High pressure modules available

Applications

The OT modules are recommended for high purity water systems where the TOC is less than 20 ppb and the particle counts in the feed are as shown in the table below.

Feed Conditions

Particle Size	Maximum no. of particles/ml
≥ 0.1 μm	100
≥ 0.2 μm	20

Connections

- Feed/Reject:
PVDF union sockets for these ports are available for thermal fusion to PVDF piping.
- Permeate:
Connections are 2" or 2½" Tri-Clamp²

¹ Microza is a trademark of Asahi Kasei Corporation

² Tri-Clamp is a trademark of Triclover Inc.

Operating Parameters

			OLT-3026 ³	OLT-5026	OLT-5026G High Pressure	OLT-6036H High Pressure
Performance	MWCO	daltons	10,000	10,000	10,000	6,000
	Permeate flow ⁴	m ³ /h	3.5	7.5	7.5	16
		gpm	15.4	33	33	70
Dimensions	Fiber inner/outer diameter	mm	0.6/1.1	0.6/1.1	0.6/1.1	0.6/1.1
	Membrane area	m ²	10.7	23	23	34
		ft ²	115	248	248	366
	Module length	mm	1,129	1,147	1,147	1,177
		in	44.5	45.1	45.1	46.3
	Module diameter ⁵	mm	89	140	149	172
		in	3.5	5.5	5.8	6.8
Operating Conditions	Maximum inlet pressure (30°C / 86°F) ⁶	bar	6	6	9	9
		psi	90	90	130	130
	Maximum differential transmembrane pressure (50°C / 122°F)	bar	3	3	3	3
		psi	45	45	45	45
	Maximum operating temperature ^{6,7}	°C	80	80	80	80
		°F	176	176	176	176
	Maximum sanitizing temperature ^{6,7}	°C	90	90	90	90
		°F	194	194	194	194
	pH range		1-14	1-14	1-14	1-14

Materials

- Membrane: Polysulfone
- Housing: Polysulfone
- Fiber bundle sleeve: Polyethylene
- Guard: Polysulfone for OLT-6036H; polypropylene for the others
- Potting material: Epoxy resin
- Gasket: Viton⁸
- Antifreeze/bacteriostat: Glycerin/ethanol/DI water

³ Also available in a high pressure version.

⁴ Initial clean water permeate flow at 25°C / 77°C and 1 bar / 14.5 psi average transmembrane pressure. Please consult manual for general operating guidelines.

⁵ Nominal shell diameter excluding headers and permeate ports.

⁶ Pressure must be reduced at higher temperatures. See tables.

⁷ For operating temperatures > 80°C / 176°F, please contact Pall Microelectronics.

⁸ Viton is a trademark of DuPont Dow Elastomers.

Unit conversion: 1 bar = 100 kilopascals

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Operating Pressure vs Water Temperature

The allowable operating pressure will vary with water temperature. See tables below.

Part Number: OLT-6036H

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	Maximum Feed Pressure	Maximum Permeate Pressure
0-30 / 32-86	3 bar / 45 psi	9 bar / 130 psi	9 bar/130 psi
30-50 / 86-122	3 bar / 45 psi	8 bar / 120 psi	8 bar / 120 psi
50-70 / 122-158	2 bar / 30 psi	7 bar / 105 psi	7 bar / 105 psi
70-80 / 158-176	1.5 bar / 22 psi	6 bar / 90 psi	6 bar / 90 psi
80-90 / 176-194	1 bar / 15 psi	5 bar / 75 psi	5 bar / 75 psi

Part Number: OLT-5026G

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	Maximum Feed Pressure	Maximum Permeate Pressure
0-30 / 32-86	3 bar / 45 psi	9 bar / 130 psi	9 bar / 130 psi
30-50 / 86-122	3 bar / 45 psi	7.5 bar / 110 psi	7.5 bar / 110 psi
50-70 / 122-158	2 bar / 30 psi	6.5 bar / 95 psi	6.5 bar / 95 psi
70-80 / 158-176	1.5 bar / 22 psi	6 bar / 90 psi	6 bar / 90 psi
80-90 / 176-194	1 bar / 15 psi	5.5 bar / 80 psi	5.5 bar / 80 psi

Part Number: OLT-5026

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	Maximum Feed Pressure	Maximum Permeate Pressure
0-30 / 32-86	3 bar / 45 psi	6 bar / 90 psi	6 bar / 90 psi
30-50 / 86-122	3 bar / 45 psi	5 bar / 75 psi	5 bar / 75 psi
50-70 / 122-158	2 bar / 30 psi	4 bar / 60 psi	4 bar / 60 psi
70-80 / 158-176	1.5 bar / 22 psi	3.5 bar / 50 psi	3.5 bar / 50 psi
80-90 / 176-194	1 bar / 15 psi	3 bar / 45 psi	3 bar / 45 psi

Part Number: OLT-3026

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	Maximum Feed Pressure	Maximum Permeate Pressure
0-50 / 32-122	3 bar / 45 psi	6 bar / 90 psi	6 bar / 90 psi
50-70 / 122-158	2 bar / 30 psi	3 bar / 45 psi	3 bar / 45 psi
70-90 / 158-194	1 bar / 15 psi	2 bar / 30 psi	2 bar / 30 psi

Unit conversion: 1 bar = 100 kilopascals

Part Numbers / Ordering Information

Module

Part Number	Permeate Connection Size	Feed and Reject Connection Size	Length (L1) (in / mm)	Length (L2) (in / mm)	Length (L3) (in / mm)
OLT-6036H	2 1/2" Tri-Clamp	63 mm O.D.	34.4 / 873	46.3 / 1177	9.8 / 250
OLT-5026G	2" Tri-Clamp	40 mm O.D.	35.6 / 903	45.1 / 1147	9.1 / 232
OLT-5026	2" Tri-Clamp	40 mm O.D.	35.6 / 903	45.1 / 1147	9.1 / 232
OLT-3026	2" Tri-Clamp	32 mm O.D.	38.8 / 985	44.5 / 1129	7.4 / 187

Spare Parts

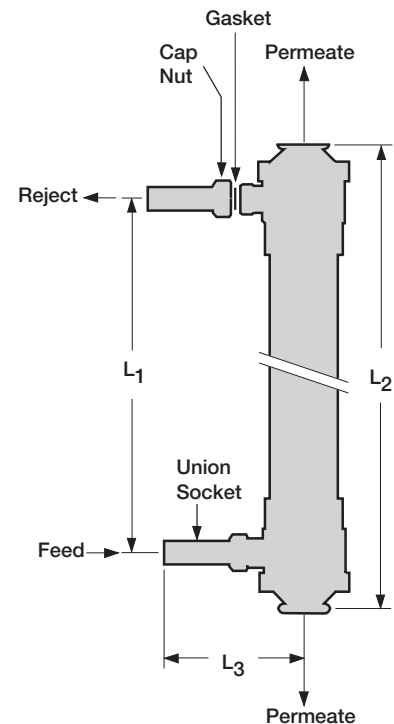
Description	Material	Module Spare Part Numbers			
		OLT-6036H	OLT-5026G	OLT-5026	OLT-3026
Union Socket	PVDF	AUME-OT60H-31	AUME-OT50G-20	AUME-OT50-20	AUME-OT30-20
Cap Nut	GF reinforced PPE	AUME-OT60H-13b	AUME-OT50G-13 ⁹	AUME-OT50-23 ¹⁰	AUME-OT30-13 ¹⁰
Cap Nut Retainer Ring	GF reinforced PPE	AUME-OT60H-13a	-	-	-
Permeate Gasket	Viton	AUME-OT60H-17	AUME-OT50G-17	AUME-OT50-17	AUME-OT30-17
Feed/Reject O-Ring	Viton	AUME-OT60H-14	AUME-OT50G-14	AUME-OT50-14	AUME-OT30-14
Dummy	Polysulfone	AUME-OT60H-30	AUME-OT50G-30	AUME-OT50-30	AUME-OT30-30

⁹ 304 SS with PFA coating

¹⁰ PVDF

Unit conversion: 1 bar = 100 kilopascals

Dimensions



2200 Northern Boulevard
East Hills, New York 11548-1289 USA

1.800.360.7255 toll free (Only in US)
1.516.484.5400 phone
1.516.625.3610 fax

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