



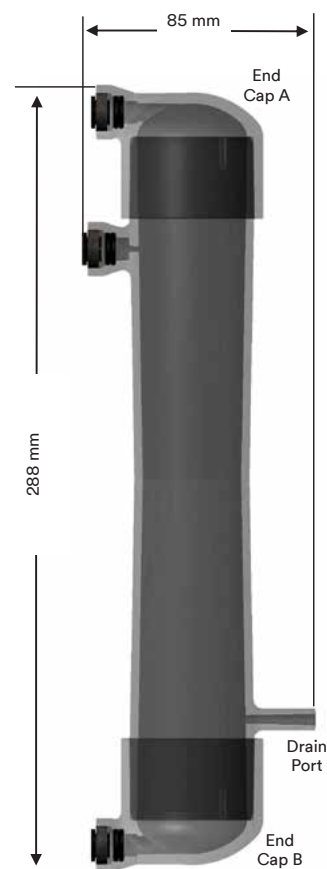
Liqui-Cel™
Membrane Contactors

LENNTECH
WATER TREATMENT SOLUTIONS

3M™ Liqui-Cel™ MM-1.7×10 Series Membrane Contactor

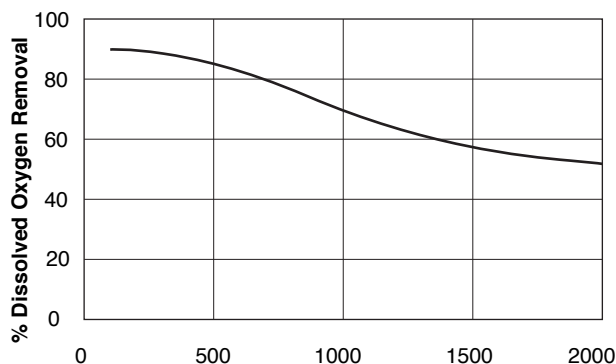
Typical Properties

Membrane Characteristics	
Cartridge Configuration	Lumenside liquid flow
Liquid Flow Guidelines	<2000 ml/min
Membrane Type	X40 Fiber
	Recommended for carbonation, nitrogenation and other gasification applications. Can also be used for degassing applications.
Membrane/Potting Material	Polypropylene/Epoxy
Priming Volume (approximate)	
Shellside	161 ml
Lumenside	70 ml
Pressure Guidelines*	
	X50 or X40 Fiber
Maximum Lumenside <u>LIQUID</u> Working Temperature/ Pressure	5-20° C, 8 barg
Maximum Applied Shellside Gas Temperature/ Pressure	20° C, 6 barg
* Note: Liquid pressure (lumenside) should always exceed gas pressure (shellside).	
Housing Options and Characteristics	
Material	PVC
Flange Connections	
Shellside (gas/vacuum)	5/16-inch John Guest® Straight tube drain port
Lumenside (wetted surface)	5/16-inch John Guest®
Additional end cap rotation options: 20° rotation of end cap A or 180° rotation of end cap B.	
Weight (approximate)	
Dry	281g
Regulatory	
Complies with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC. CFR Title 21 compliant. FDA compliant for wetted parts only at ambient temperatures.	

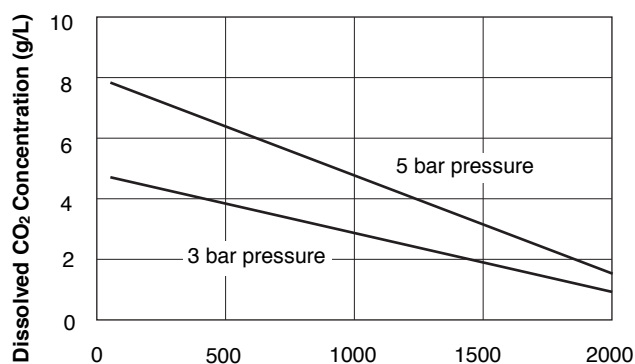


All dimensions are nominal values.
Refer to 3M.com/Liqui-Cel for
detailed housing drawings.

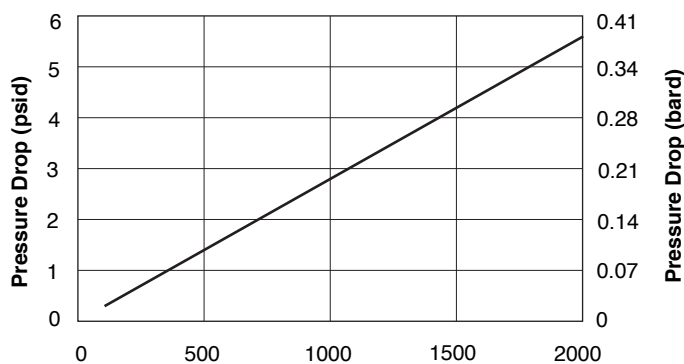
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Water Flow Rate (ml/min)



Water Flow Rate (ml/min)



Water Flow Rate (ml/min)

Curves represent nominal values using X40 membrane with water on the lumen side. Characteristics may change under different operating conditions.

Test conditions O₂ removal: Vacuum 50 torr at 20° C.

Test conditions for carbonation: Water at 5° C containing 0 g/L CO₂ at inlet.

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