



Liqui-Cel™
Membrane Contactors

LENNTECH
WATER TREATMENT SOLUTIONS

3M™ Liqui-Cel™ SP-4×13 Series Membrane Contactor

Typical Properties

Membrane Characteristics	
Cartridge Configuration	Extra-Flow with Center Baffle
Liquid Flow Guidelines	0.2 – 3.4 m³/hr (1–15 gpm) Liquid must flow on the shellside
Membrane/Potting Material	Polyolefin / Polyethylene
Priming Volume (approximate)	
Shellside	1.3 L (0.3 gal)
Lumenside	0.5 L (0.1 gal)

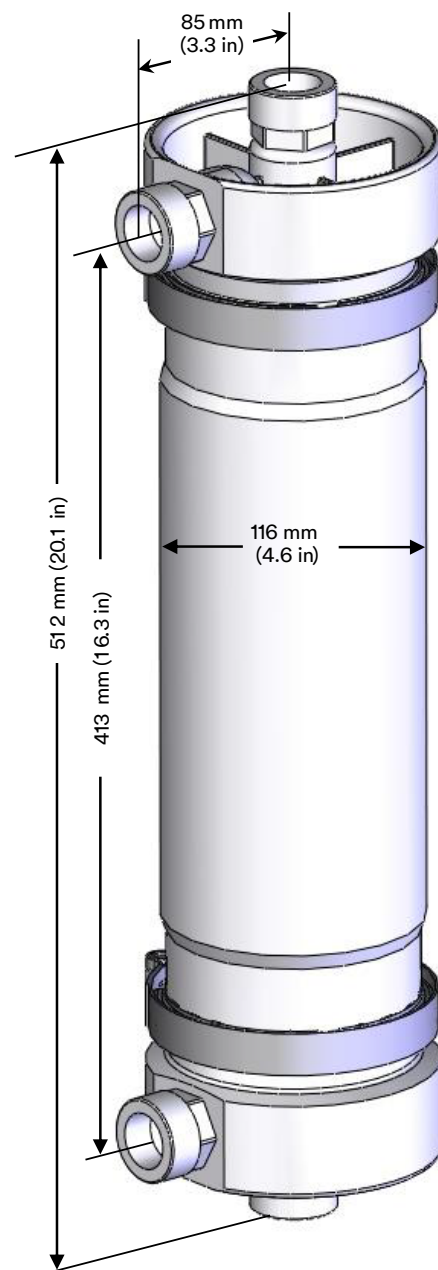
Pressure Guidelines*	
Maximum Shellside LIQUID Working Temperature/ Pressure	5-25°C, 4.1 barg (41-77°F, 60 psig) 50°C, 1.0 barg (122°F, 15 psig)
If no vacuum is used, 1.0 barg (15 psig) can be added to pressures above.	
Maximum Applied Gas Pressure	4.1 barg at 25°C (60 psig at 77°F)
* See Operating Guide for complete listing of temp/pressure limits for housings and membrane. Note: Liquid pressure should always exceed gas pressure.	

Housing Characteristics	
Material	Polypropylene
Flange Connections	
Shellside (Wetted surface)	1 inch Sanitary ¾ inch NPT Female 1 inch George Fisher Rc ¾ per JIS B0203
Lumenside (Gas/Vacuum)	1 inch 90° Sanitary ¾ inch 90° NPT Female

Seal Options	
Material	Applications
Fluoroelastomer	General Purpose
Perfluoroelastomer	Ultra Pure Water

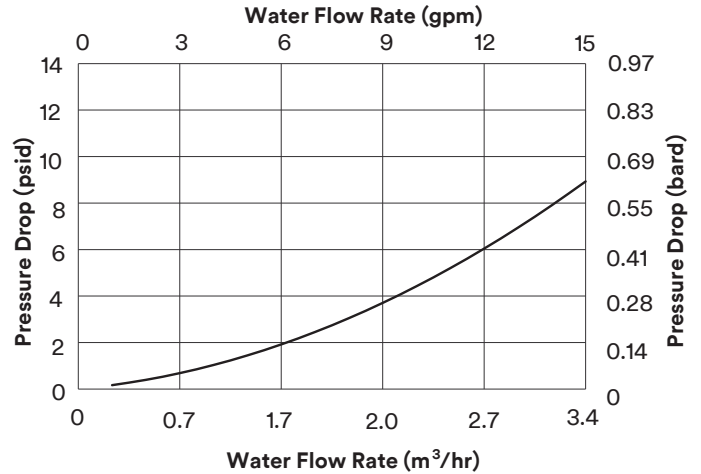
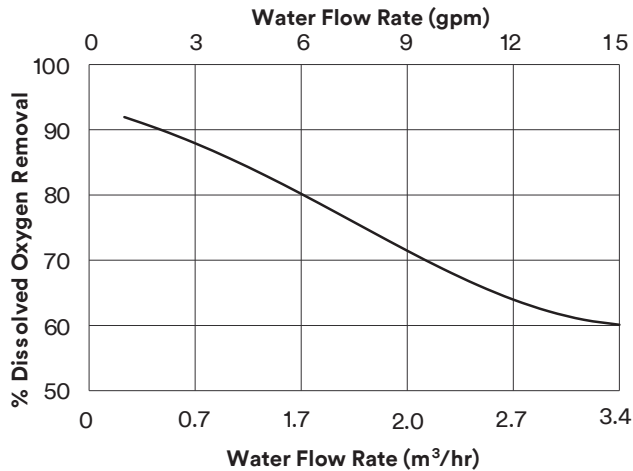
Weight (approximate)	
Dry	3 kg (6 lbs)
Water-Filled (shellside)	4 kg (9 lbs)

Regulatory	
Complies with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC. Constructed of FDA CFR title 21 compliant materials for wetted parts only at ambient temperatures.	



All dimensions are nominal values for the Polypropylene housing. See full housing drawing on 3M.com/Liqui-Cel for additional details.

3M™ Liqui-Cel™ SP-4×12 Series Membrane Contactor



Curves represent nominal values, generated using water at 25°C (77°F).

Test condition O₂ Removal with 50 torr abs vacuum.

Characteristics may change under different operating conditions.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer: Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

3M and Liqui-Cel are trademarks of 3M Company. All other trademarks are the property of their respective owners. © 2017 3M Company. All rights reserved.



ISO 9001



LENNTECH

info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289

LC-1219
Rev. 03/2017