

3M™ Liqui-Cel™ MM-0.5×1 Series Membrane Contactor for TransMembrane ChemiSorption

All operating parameters listed in this data sheet are based on a sulfuric acid stripping solution on the lumen side. Refer to Operating Guide for other acids. Usual operation is semi-batch mode with feedwater running in single pass through membrane contactor with acid in recirculation mode.

Typical Properties

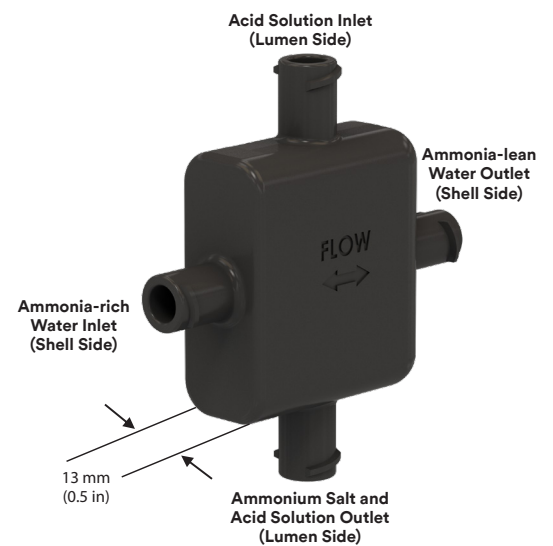
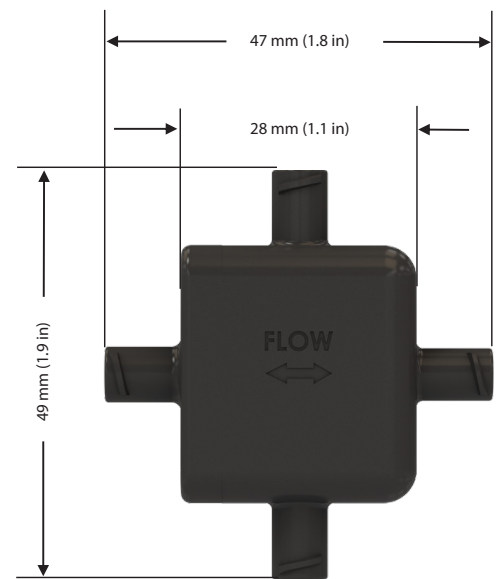
Membrane Characteristics	
Cartridge Configuration	No Baffle Membrane Array Design
Shell Side Liquid Flow Guideline	5 – 30 ml/min
Lumen Side Liquid Flow Guideline	5 – 30 ml/min
Membrane Type	X50 Fiber
	Recommended for Transmembrane Chemisorption (TMCS) process
Membrane/Potting Material	Polypropylene / Epoxy

Pressure Guidelines*	
Maximum Shell Side Liquid Operating Temperature/Pressure	5-40°C, <1 barg (41-104°F, <15 psig)
Maximum Lumen Side Liquid Operating Temperature/Pressure*	5-40°C, <1 barg (41-104°F, <15 psig)
* Maximum 50% acid concentration. Lumen side pressure may require derating depending on acid type. See User Guide for TransMembrane ChemiSorption (TMCS) for details.	

Housing Options and Characteristics	
Material	Black Polyethylene
Port Connections	
Shell Side (Inlet/Outlet)	Female Luer Lock
Lumen Side (Inlet/Outlet)	Female Luer Lock

Weight (approximate)	
Dry	7.9 grams
Water-Filled (Shell Side and Lumen Side)	18.6 grams

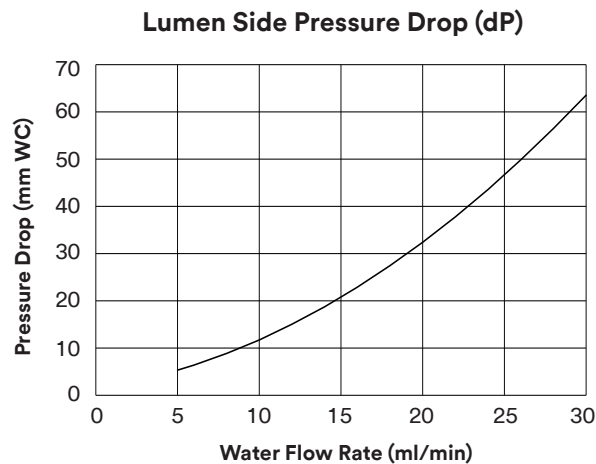
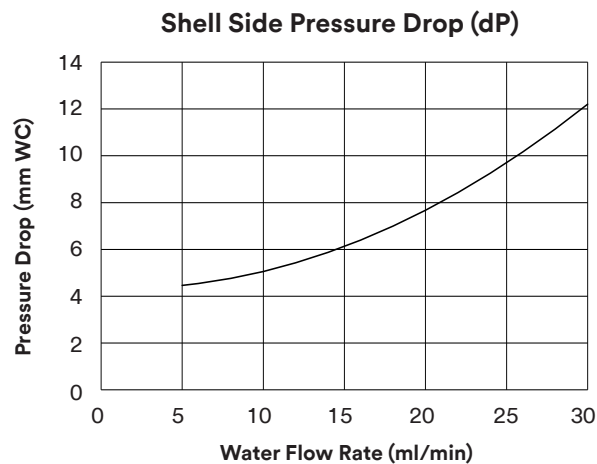
Regulatory	
Complies with the limits as set by (EU) 2015/863 amending Annex II to the Restriction on Hazardous Substances (RoHS) Directive (2011/65/EU).	



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

Not for consumer sale or use.

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Pressure drop (dP) curves represent nominal values using water. Characteristics may change under different operating conditions. These charts should not be used to design systems.

Test conditions

One membrane contactor in series
Water temperature: 25 °C (77 °F)
Viscosity: 1 cP (1 mPa-s)

Viscosity has a strong influence on dP and is a function of liquid type, concentration, and temperature.

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