

# 3M<sup>™</sup> Liqui-Cel<sup>™</sup> SP-1×3 Series Membrane Contactor

## **Typical Properties**

Membrane Characteristics			
Cartridge Configuration	Radial Flow		
Liquid Flow Guidelines	15–60 ml/min (Liquid must flow on the shellside)		
Flow rates are guidelines for product selection and reflect the flow range at which the product was tested. Product may be capable of operating above listed flow range depending on liquid being degassed and user's target dissolved gas requirements.			
Membrane Type	UP	UPII	
	Recommended for low surface tension liquids that are water-based	Recommended for low surface tension fluids with aggressive formulations	
Membrane/Potting Material	Polyolefin / Polyethylene		
Priming Volume			
Shellside	15 ml		
December On intelligent			
Pressure Guidelines*			



 Pressure Guidelines\*

 Maximum Shellside LIQUID
 5-25°C, 3.1 barg (41-77°F, 45 psig)

 Working Temperature/ Pressure
 40°C, 1.0 barg (104°F, 15 psig)

 \* Note: Liquid pressure should always exceed gas pressure.

Housing Characteristics		
Material	Black Polyethylene	
Connections		
Shellside (Liquid Inlet/Outlet)**	¼ inch NPT Male Standard Female Luer Lock	
Lumenside (vacuum)**	% inch NPT Male Standard Female Luer Lock	

\*\* Note: Use of metal connectors is not recommended.

### Weight (approximate) Dry

28 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). 3M<sup>™</sup> Liqui-Cel<sup>™</sup> SP-1×3 Series Membrane Contactors are not constructed of FDA Title 21 CFR § 174-186 compliant materials. Not for use in food contact applications.

# 35 mm (1.4 in) Vacuum Vacuum 70 mm (2.8 in)

Liquid

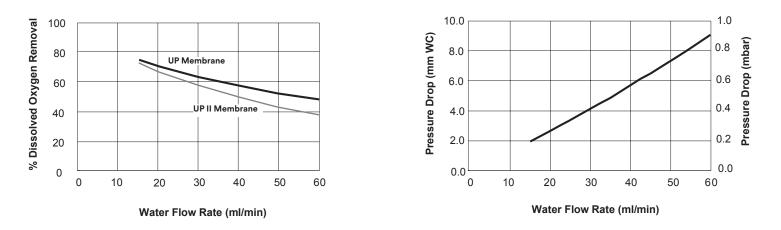
Inlet

Liquid

Outlet

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

Not for consumer sale or use.



Test condition O<sub>2</sub> Removal: Vacuum mode with water at 35°C. Vacuum: 50 torr

### **Product Selection and 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. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

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