

3M[™] Liqui-Cel[™] SP-2.5×8 Series Membrane Contactor

Typical Properties

Membrane Characteristics		(3.1in)
Cartridge Configuration	Extra-Flow with Center Baffle	and the second s
Liquid Flow Guidelines	0.1 – 0.7 m³/hr (0.5 – 3 gpm) Liquid must flow on the shellside	
Membrane/Potting Material	Polyolefin / Polyethylene	
Priming Volume		
Shellside	0.23 liters (0.06 gal)	T TREAM
Lumenside	0.09 liters (0.02 gal)	
Pressure Guidelines*		
Maximum Shellside <u>LIQUID</u> 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 ps	ig) can be added to pressures above.	
Maximum Applied Gas Pressure	4.1 barg at 25°C (60 psig at 77°F)	
Max applied gas pressure is for inte Normal operating pressures are typ	grity testing at ambient temperatures. ically lower.	
* See Operating Guide for complete Note: Liquid pressure should alwa	e listing of temp/pressure limits for housings and membrane. ays exceed gas pressure.	
Housing Characteristics		
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Material	Polypropylene	
Material Flange Connections	Polypropylene	$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $
Material Flange Connections Shellside (Liquid Inlet/Outlet)	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)**	522 mm 522 mm (10.0 in) (2.6 in) (2.6 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female	ZZ2 (10.0 in) (10.0 in) (10.0 in) (2.6 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female	C10.0 in)
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Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material	Polypropylene ½ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female vith welded end caps Applications	522 mm (10.0 in) → (2.6 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female vith welded end caps Applications General Purpose	277 277 (10.0 in) (10.0 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM FFKM (K-UPW)***	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female //ith welded end caps Applications General Purpose Ultra Pure Water	277 (10.0 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM FFKM (K-UPW)*** FFKM (K-EXT)****	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female ith welded end caps Applications General Purpose Ultra Pure Water Chemical Extraction	255 mm (10.0 in) (10.0 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM FFKM (K-UPW)*** FFKM (K-EXT)**** ***Only available with welded end cap ****Only available with clamped end cap	Polypropylene ¼ inch NPT female ⅓ inch Flaretek® (nut included)** ⅓ inch Flaretek® (nut included)** ⅓ inch NPT female with welded end caps Applications General Purpose Ultra Pure Water Chemical Extraction os with NPT connections. caps with NPT connections.	277 (10.0 in) (10.0 in) (10.0 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM FFKM (K-UPW)*** FFKM (K-EXT)**** ***Only available with welded end cap ****Only available with clamped end cap Weight (approximate)	Polypropylene ¼ inch NPT female ⅓ inch Flaretek® (nut included)** ⅓ inch Flaretek® (nut included)** ⅓ inch NPT female ith welded end caps Applications General Purpose Ultra Pure Water Chemical Extraction ps with NPT connections. caps with NPT connections.	255 mm (10.0 in)
Material Flange Connections Shellside (Liquid Inlet/Outlet) Lumenside **Only available with FKM seal option w Seal Options Material FKM FFKM (K-UPW)*** FFKM (K-EXT)**** ***Only available with welded end cap ****Only available with clamped end cap Weight (approximate) Dry	Polypropylene ¼ inch NPT female ¾ inch Flaretek® (nut included)** ½ inch Flaretek® (nut included)** ¼ inch NPT female vith welded end caps Applications General Purpose Ultra Pure Water Chemical Extraction os with NPT connections. caps with NPT connections. 0.5 kg (1.1 lbs)	255 mm (10.0 in) (2.6 in)

Welded end caps with NPT connections. All dimensions are nominal values for contactors with NPT connections. Overall length with Flaretek® connections increases. Refer to 3M.com/Liqui-Cel for detailed housing drawings.

Regulatory

Complies with the limits as set by RoHS Directive 2011/65/EU Annex II. 3M[™] Liqui-Cel[™] SP-2.5×8 Series Membrane Contactors with FKM seals are constructed of FDA Title 21 CFR parts 177-190 compliant materials for wetted parts only at ambient temperatures. 3M[™] Liqui-Cel[™] SP-2.5×8 Series Membrane Contactors with FFKM (K-UPW) or FFKM (K-EXT) seals <u>are not</u> constructed of FDA Title 21 CFR parts 177-190 compliant materials.



Test condition O₂ Removal: Vacuum mode with water at 20°C. Characteristics may change under different operating conditions.

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