



3M™ Liqui-Cel™ EXF-14×40 Series Membrane Contactor

Typical Properties

| Membrane Characteristics | | |
|------------------------------|--|--|
| Cartridge Configuration | Extra-Flow with Center Baffle | |
| Liquid Flow Guidelines | 16 – 125 m ³ /hr (70 – 550 gpm) | |
| Membrane Type | X40 Fiber | |
| | Recommended for O ₂ removal from liquid and other gas transfer applications | |
| Membrane/Potting Material | Polypropylene / Epoxy | |
| Priming Volume (approximate) | | |
| | With Nylon End Caps | With Engineered Thermoplastic End Caps |
| Shellside | 51.3 L (13.5 gal) | 53.2 L (14.1 gal) |
| Lumenside | 23.8 L (6.3 gal) | 25.9 L (6.9 gal) |

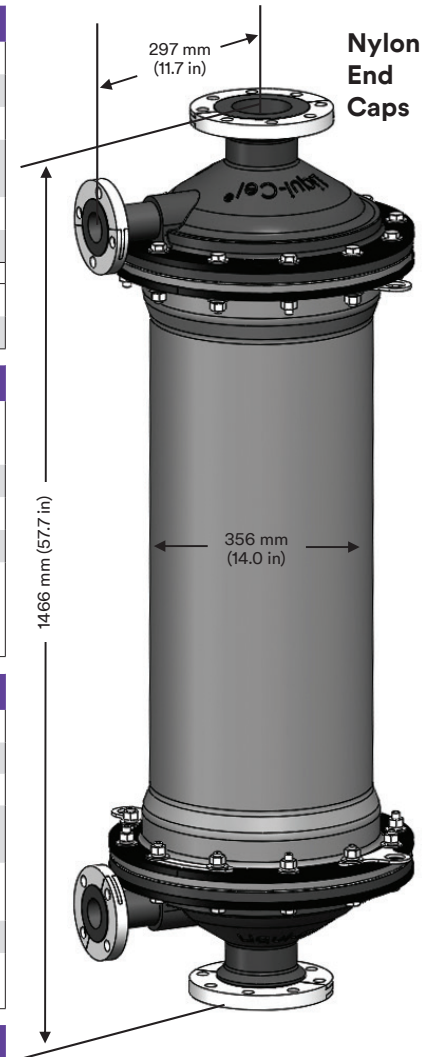
| Pressure Guidelines* | |
|---|---|
| Maximum Shellside LIQUID Working Temperature/ Pressure | 5-25°C, 7.2 barg (41-77°F, 105 psig) 50°C, 2.1 barg (122°F, 30 psig) |
| If no vacuum is used, 1.0 barg (15 psig) can be added to pressures above. | |
| Maximum Applied Gas Pressure | 4.1 barg at 25°C (60 psig at 77°F) |
| Maximum applied gas pressure is for integrity testing at ambient temperatures. Normal operating pressures are typically lower. | |
| *Pressures are based on fluid group 2 (other) liquids and gases per the European Union Pressure Equipment Directive 2014/68/EU. See Operating Guide for pressure limits in the European Union with fluid group 1 (hazardous) liquids and gases. Also, see Operating Guide for complete temp/pressure limits for housings and membrane. Note: Liquid pressure should always exceed gas pressure. | |

| Housing Characteristics | |
|---------------------------------|---|
| Housing Material | PVC Vessel with Engineered Thermoplastic or Nylon End Caps |
| Flange Backing Rings | SMC (Sheet Molding Compound) |
| Flange Connections | |
| Shellside (Liquid Inlet/Outlet) | 4 inch class 150 raised face flange per ANSI B16.5 100A at 10K raised face flange per JIS B2238 |
| Lumenside | 2 inch class 150 raised face flange per ANSI B16.5 50A at 10K flat face flange per JIS B2238 |
| Mounting Kit | A Mounting Kit with 2 cradles and 2 straps is available and sold separately. It will hold the contactor horizontally or vertically. |

| Seal Options | |
|----------------------|-----------------|
| Material | Applications |
| EPDM (ANSI / NSF 61) | General Purpose |

| Weight (approximate) | | |
|----------------------|---------------------|--|
| | With Nylon End Caps | With Engineered Thermoplastic End Caps |
| Dry | 72 kg (160 lbs) | 64 kg (141 lbs) |
| Water-filled | 124 kg (273 lbs) | 116 kg (256 lbs) |

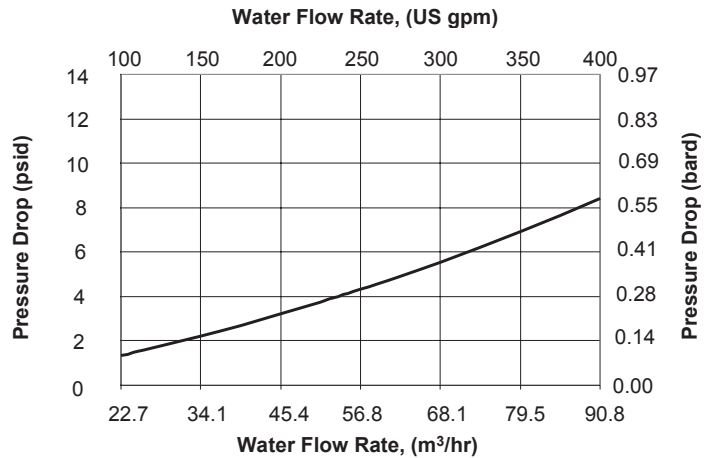
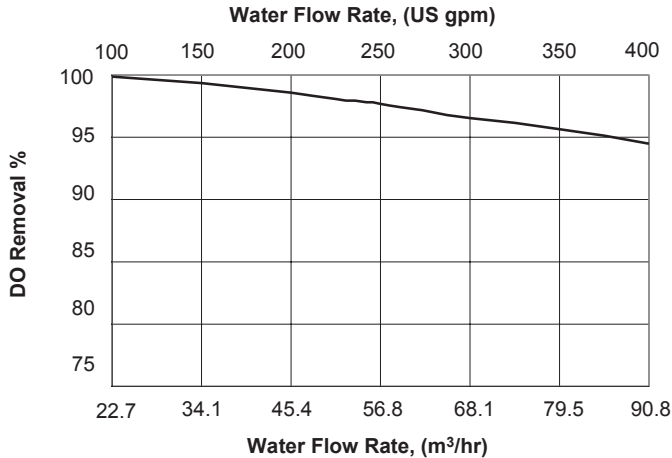
| Regulatory |
|--|
| Complies with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC. |



NOTE: Overall length with engineered thermoplastic end caps is 1466 mm (57.7 in). All dimensions are nominal values. See full housing drawings on 3M.com/Liqui-Cel for additional details.

Not for consumer sale or use.

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Curves represent nominal values, generated using water at 20°C.
 Test condition O₂ Removal: X40 membrane, N₂-vacuum combo mode, Vacuum: 50 torr, N₂: 0.8 scfm.
 Characteristics may change under different operating conditions.

| Product Selection and Use |
|---|
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3M™ Liqui-Cel™ Membrane Contactors are tested and certified by WQA against NSF/ANSI 61.



ISO 9001



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