Industrial filtration

Thermo Scientific™ Liqui-Cel™ EXF-14×40 Membrane Contactors

Thermo Scientific™ Liqui-Cel™ Membrane Contactors provide high-performance dissolved gas control in a compact design. Utilizing hollow fiber membrane technology, Thermo Scientific Membrane Contactors remove dissolved gases from or added gases to compatible liquid streams in-line and without chemicals to help facilities around the world improve operating efficiency and protect product quality in many industrial processes.

Typical properties

Membrane characteristics	
Cartridge configuration	Extra-flow with center baffle
Liquid flow guidelines	70 - 550 gpm (16 - 125 m^3)
Membrane/potting material	Polypropylene/epoxy
Membrane type	X40 fiber
	X40 fiber recommended for O_2 removal from compatible liquid streams
Priming volume (approximate)	X40
Shell side	13.1 gal (49.7 L)
Lumen side	7.3 gal (27.8 L)

Operating parameters	
Pressure guidelines*	X40 fiber
Maximum shell side LIQUID working temperature/pressure limit	
41 - 77°F (5 - 25°C)	120 psig (8.3 barg)
122°F (50°C)	45 psig (3.1 barg)
Maximum lumen side GAS operating temperature/pressure limit	
77°F (25°C)	36 psig (2.5 barg)

*Note: Liquid pressure should always exceed gas pressure in operation.

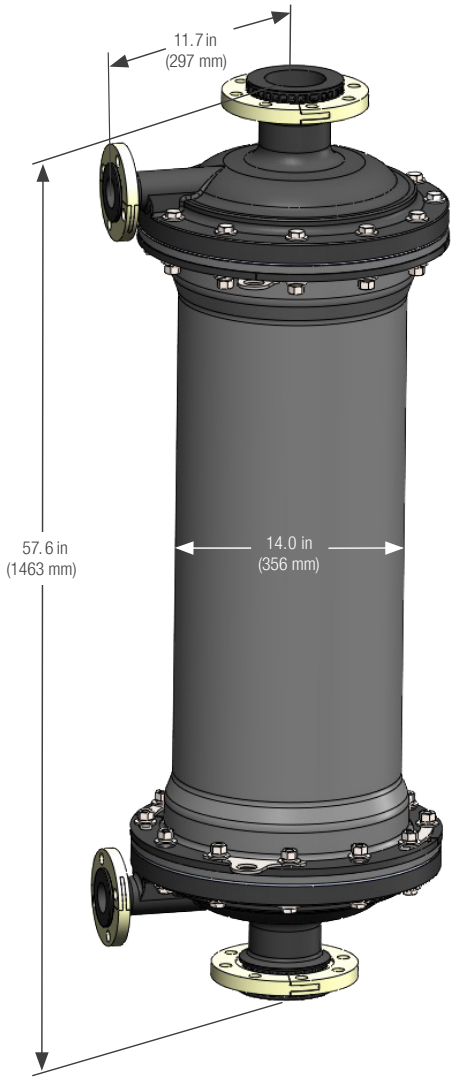
Housing characteristics	
Material	PVC vessel with engineered thermoplastic end caps

Flange connections	
Shell side (liquid inlet/outlet)	• 4 inch class 150 raised face flange per ANSI B16.5 • 100A 10K raised face flange per JIS B2238
Lumen side (inlet/outlet)	• 2 inch class 150 raised face flange per ANSI B16.5 • 50A 10K flat face flange per JIS B2238
Flange backing rings	SMC (sheet molded compound)

Seal material options for shell side wetted parts
EPDM

Mounting kit
Contains 2 cradles and 2 straps sold separately and will hold the contactor horizontally or vertically.

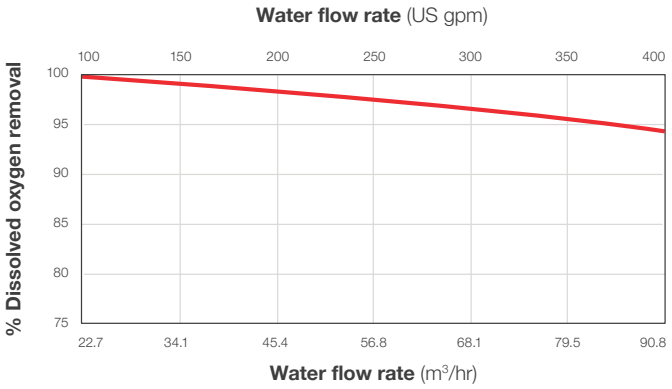
Weight (approximate)	
Dry	149 lbs (68 kg)
Water-filled (Shell side)	258 lbs (117 kg)

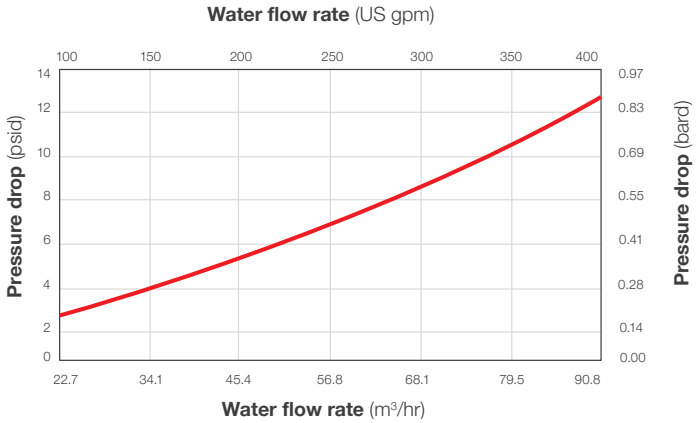


Note: All dimensions are nominal values for contactors with PVC housing with engineered thermoplastic end caps. See housing drawings for additional dimensional details.

Not for consumer sale or use.

Typical properties





Notes

- Performance can be improved by adjusting the sweep rate.
- Curves represent nominal values using water at 68ºF (20ºC). Characteristics may change under different operating conditions.
- Test condition O_2 removal with X40 membrane: N_2-vacuum combo mode: 50 torr vacuum, N_2 sweep 0.8 SCFM.
- These charts should not be used to design systems.

Certain Thermo Scientific™ Liqui-Cel™ EXF-14x40 Membrane Contactors have been tested and certified against NSF/ANSI/CAN 61. Contact your Thermo Fisher Scientific Inc. representative for additional information.

Intended Use and Product Selection: Thermo Scientific™ Liqui-Cel™ Membrane Contactors are intended to remove dissolved gases and bubbles from liquids or to add gases to a liquid stream. Liqui-Cel products are for use in industrial separation applications of industrial fluids only, in accordance with the applicable product instructions, specifications, and where materials of construction are compatible. Liqui-Cel membrane contactors may further be used in the production of water for various pharmaceutical products upstream of the final water sterilization step.

Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the Thermo Scientific product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the Thermo Scientific product in user's application.

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Liqui-Cel EXF-14x40 products are not for use in food contact applications.

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