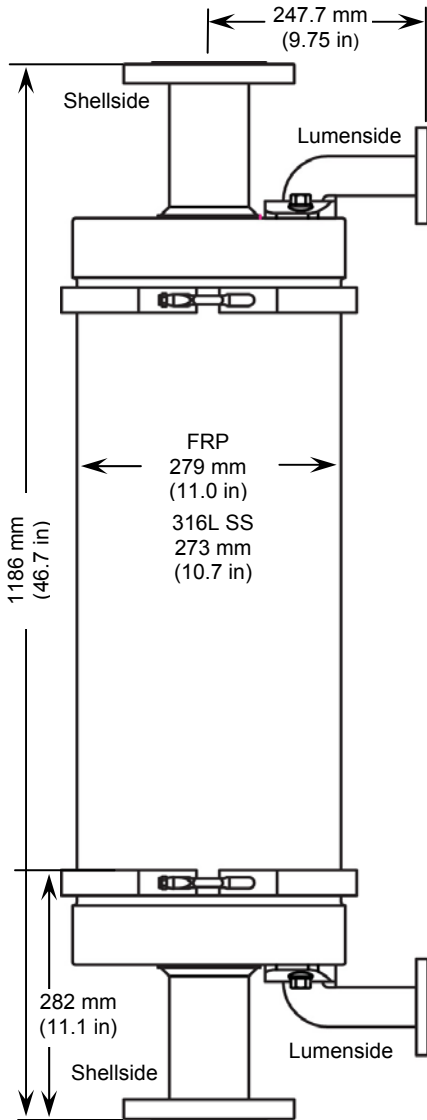
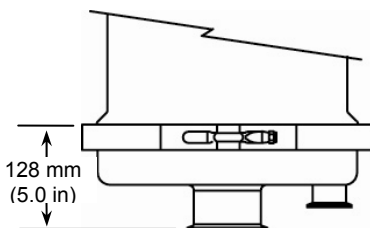


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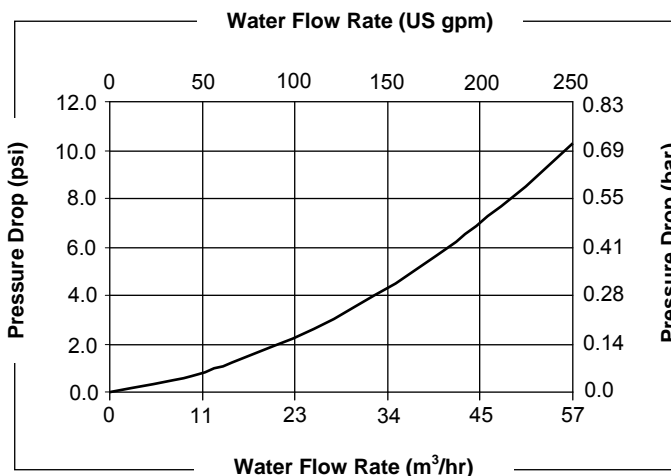
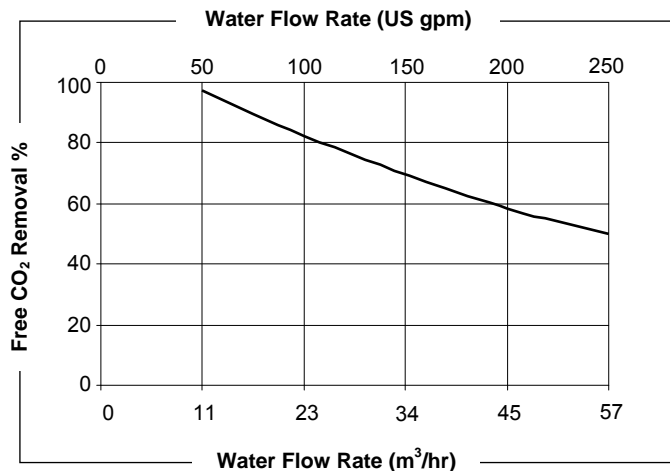
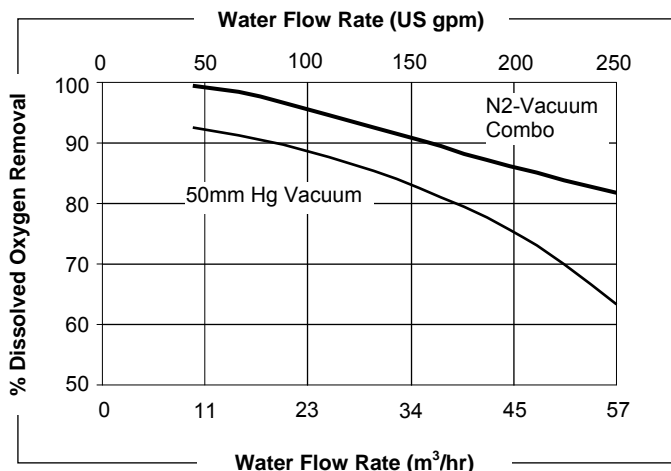
Complete drawing with sanitary connections available on web site.  
Note: Overall length changes



All dimensions are nominal values

Membrane Characteristics			
<b>Cartridge Configuration</b>		Extra-Flow with Center Baffle	
<b>Liquid Flow Guidelines</b>		X50: 10 – 48 m <sup>3</sup> /hr (44 – 210 gpm) X40: 10 – 57 m <sup>3</sup> /hr (44 – 250 gpm)	
<b>Membrane Type</b>		<b>X50 Fiber</b>	<b>X40 Fiber</b>
		Recommended for CO <sub>2</sub> removal from liquid and other gas transfer applications	Recommended for O <sub>2</sub> removal from liquid and other gas transfer applications
<b>Membrane/Potting Material</b>		Polypropylene / Epoxy	
<b>Typical Membrane Surface Area</b>		130m <sup>2</sup> (1400 ft <sup>2</sup> )	
<b>Priming Volume (approximate)</b>		<b>X50 Fiber FRP Housing</b>	<b>X40 Fiber FRP Housing</b>
	Shellside	26.1 L (6.9 gal)	26.3 L (7.0 gal)
	Lumenside	10.6 L (2.8 gal)	9.5 L (2.5 gal)
		<b>X40 Fiber 316 SS Sanitary/316 SS ANSI</b>	
	Shellside	24.5/32.2 L (6.5/8.5 gal)	
	Lumenside	6.4/4.5 L (1.7/1.2 gal)	
Pressure Guidelines*			
		<b>X50 Fiber</b>	<b>X40 Fiber</b>
<b>Maximum Shellside LIQUID Working Temperature/ Pressure</b>		5-50° C, 7.2 bar (41-122° F, 105 psig) 70° C, 2.1 bar (158° F, 30 psig)	5-25° C, 9.3 bar (41-77° F, 135 psig) 50° C, 7.2 bar (77-122° F, 105 psig) 70° C, 2.1 bar (158° F, 30 psig)
If no vacuum is used, 1.05 bar (15 psig) can be added to pressures above.			
<b>Maximum Applied Gas Pressure</b>		<b>FRP</b>	<b>316 SS</b>
		6.2 bar (90 psig)	9.0 bar (130 psig)
Max applied gas pressure is for integrity testing at ambient temperatures. Normal operating pressures are typically lower.			
*Pressures are based on non-dangerous liquids and gasses per the European Union Pressure Equipment Directive /97/23/EC. See Operating Guide for pressure limits in the European Union with dangerous liquids and gasses. Also, see Operating Guide for complete temp/pressure limits for housings and membrane. Note: Liquid pressure should always exceed gas pressure.			
Housing Options and Characteristics			
<b>Material</b>	Fiber Reinforced Plastic (FRP) with PVDF for all wetted surfaces and FRP flanges		316L SS Vessel/CF3M SS End Caps. ≤ 32RA on schedule 10S pipe per ASTM A312. 0.8µm SI.
<b>Flange Connections</b>			
Shellside (Liquid Inlet/Outlet)	<ul style="list-style-type: none"> <li>• 3 inch class 150 raised face flange per ANSI B16.5</li> <li>• 80A at 10K flat face flange per JIS B2238</li> <li>• 3 inch sanitary flange available on 316L SS fine finish</li> </ul>		
Lumenside	<ul style="list-style-type: none"> <li>• 1 inch class 150 raised face flange per ANSI B16.5</li> <li>• 50A at 10K flat face flange per JIS B2238</li> <li>• 1.5 inch sanitary flange available on 316L SS fine finish</li> </ul>		
<b>Mounting Kit</b>			
A Mounting Kit with 2 cradles and 2 straps is available and sold separately. It will hold the contactor horizontally or vertically.			
Seal Options			
<b>Material</b>	<b>Applications</b>		
EPDM (ANSI / NSF 61, FDA CFR title 21 Compliant) <sup>†</sup>	All Purpose		
HP1 Viton	High Purity/Electronics		
Weight			
	<b>FRP Housing</b>	<b>Stainless Steel Housing</b>	
	<b>ANSI/JIS</b>	<b>ANSI /JIS</b>	<b>Sanitary</b>
Dry	33 kg. (73 lbs.)	93 kg. (204 lbs.)	81 kg. (177 lbs.)
Liquid Full (shellside)	57 kg. (126 lbs.)	115 kg. (253 lbs.)	107 kg. (235 lbs.)
Cartridge only – dry	10 kg. (23 lbs.)	10 kg. (23 lbs.)	10 kg. (23 lbs.)
Shipping weight (max)	44 kg. (98 lbs.)	150 kg. (330 lbs.)	138 kg. (303 lbs.)
Regulatory			
Meets RoHS threshold limits. Complies with the PED 97/23/EC. NSF Certified to NSF/ANSI 61 with EPDM o-rings. CFR Title 21 compliant. For FDA compliance on the FRP PVDF lined vessel 20,000 gallons of liquid should be flushed through the contactor prior to use.			

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Cartridge Specifications		
Characteristics	Test Conditions	Specifications
Performance O <sub>2</sub> Removal	Shellside water flow: 160 gpm, 20°C (68°F)	X40 : 83.2% minimum
	Lumenside N <sub>2</sub> Flow: 3.5 ft <sup>3</sup> /min, 1.0 atm at 20°C	X50 : 81.3% minimum
Pressure Drop	Shellside water flow: 160 gpm, 20°C (68°F)	X40: 6.0 psi maximum
		X50: 6.9 psi maximum

Curves represent nominal values using water. Characteristics may change under different operating conditions.

Test condition O<sub>2</sub> Removal with X40 membrane 20°C: N<sub>2</sub>-vacuum combo mode, vacuum: 50 mm Hg N<sub>2</sub> sweep flow 0.25 scfm.

Test condition CO<sub>2</sub> Removal with X50 membrane 25°C: Air-vacuum combo mode, vacuum 75 mm Hg, air sweep flow 1 scfm.

**NOTE:** All dimensions on the front of this data sheet are nominal values.

This product is to be used only by persons familiar with its use. It must be maintained within the stated limitations. All sales are subject to Seller's terms and conditions. Purchaser assumes all responsibility for the suitability and fitness for use as well as for the protection of the environment and for health and safety involving this product. Seller reserves the right to modify this document without prior notice. Check with your representative to verify the latest update. To the best of our knowledge the information contained herein is accurate. However, neither Seller nor any of its affiliates assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material and whether there is any infringement of patents, trademarks, or copyrights is the sole responsibility of the user. Users of any substance should satisfy themselves by independent investigation that the material can be used safely. We may have described certain hazards, but we cannot guarantee that these are the only hazards that exist.

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