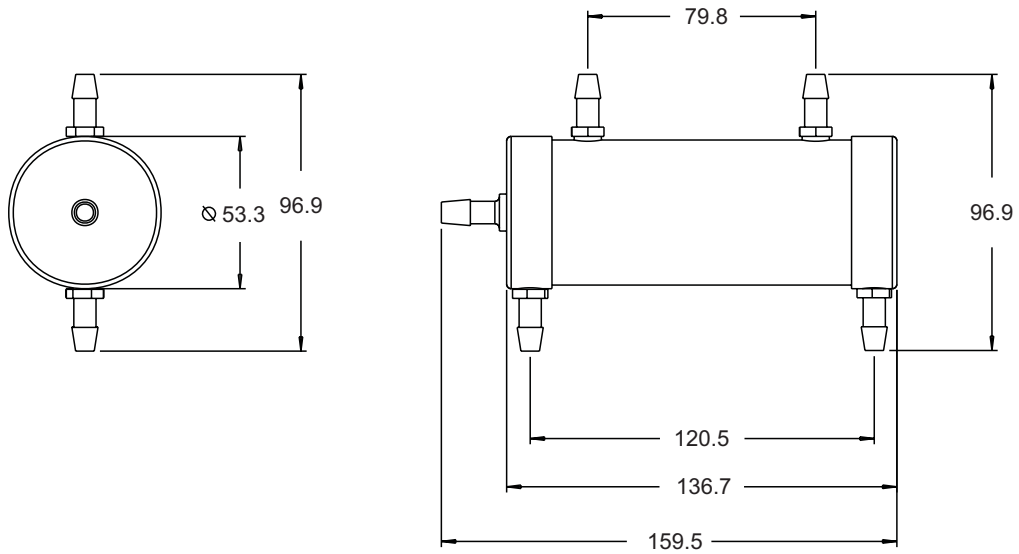


OPERATING LIMITS (WITH WATER)¹	
Maximum Tube Side Pressure at 25°C	300 kPa (45 psi)
Maximum (Shell – Tube) Side Pressure at 25°C ²	100 kPa (15 psi)
¹ Five minute test conditions with water only. Users should determine safe operating limits for other fluids.	
² Shell pressure should not exceed tube pressure by more than 100 kPa (15 psia).	
COMPONENT DIMENSIONS/MEASUREMENTS (APPROXIMATE)	
Nominal Membrane Surface Area (m ²)	1.0
Hollow Fiber Size OD x ID (µm)	237 x 167
Hollow Fiber Wall Thickness (µm)	35
Lumen (Tube) Side Priming Volume (ml)	65
Shell Side Priming Volume (ml)	60
All Port Sizes	6.35 mm (¼ in) Barbed Connector
Number of Hollow Fibers	16,128
Weight (g)	175
MODULE MATERIALS	
Potting Material	Polyurethane
Housing/Fittings Material	Polycarbonate
Membrane Material	Silicone (Polydimethyl siloxane-PDMS)
Warp Material (knitting yarn)	Polypropylene
Bundle Core Material	Polypropylene
Bonding Resins	Acrylic
Residual Trace Materials	Polyvinyl alcohol (PVOH)

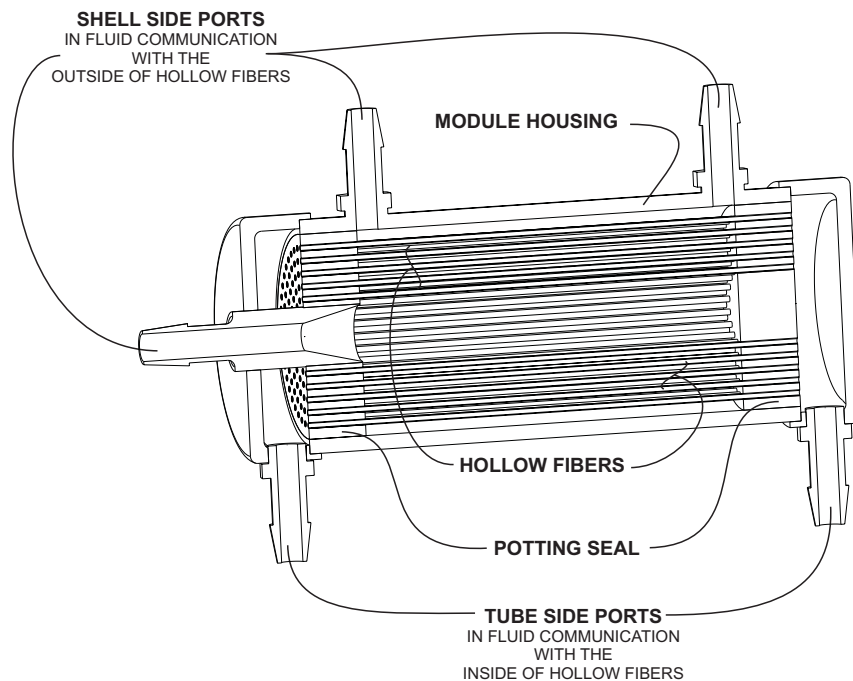
This product is to be used only by persons familiar with its use. It is the responsibility of the user to determine the suitability of PermSelect® membrane modules in its specific application. Membrane modules can fail, permitting fluid discharge into the environment and mixing of shell and tube side fluids. **Users must take all precautions to ensure safety to people and property in case of module failure.** 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 our web site to verify the latest update. To the best of our knowledge the information contained herein is accurate. However, neither MedArray, Inc. 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 with PermSelect® membrane modules 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.

PermSelect® is a registered trademark of MedArray, Inc., 3915 Research Park Dr., Ste. A-4, Ann Arbor, MI 48108; +1 (734) 769-1066; www.permselect.com. PermSelect® membranes and membrane modules are protected by US and international patents.

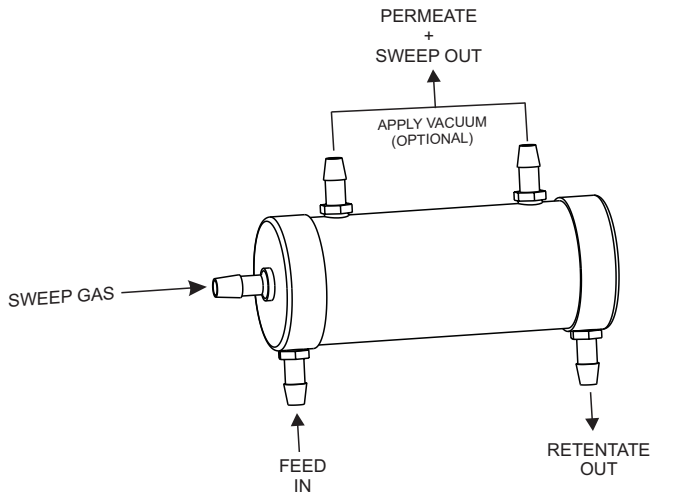
MEMBRANE MODULE DIMENSIONS (mm)



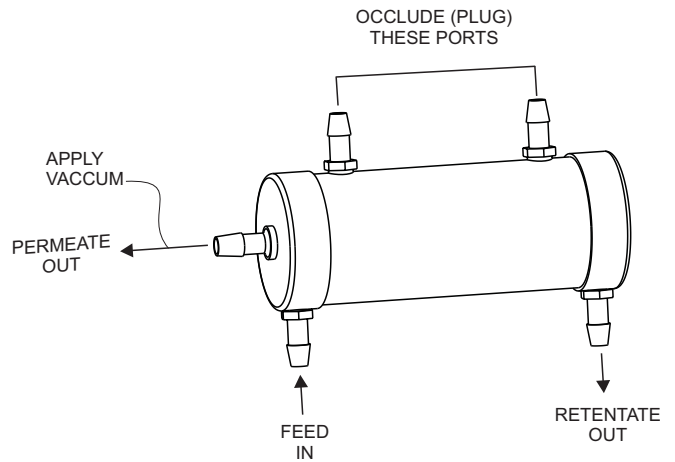
MEMBRANE MODULE SCHEMATIC



OPERATING GUIDELINES FOR GAS SEPARATION

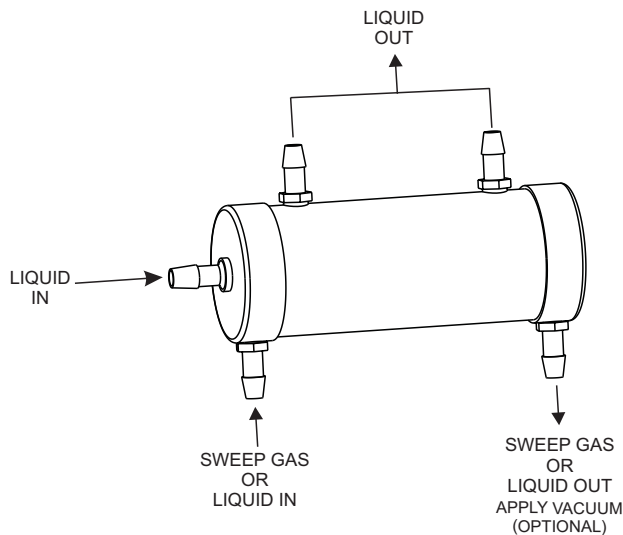


GAS SEPARATION WITH SWEEP GAS AND OPTIONAL VACUUM

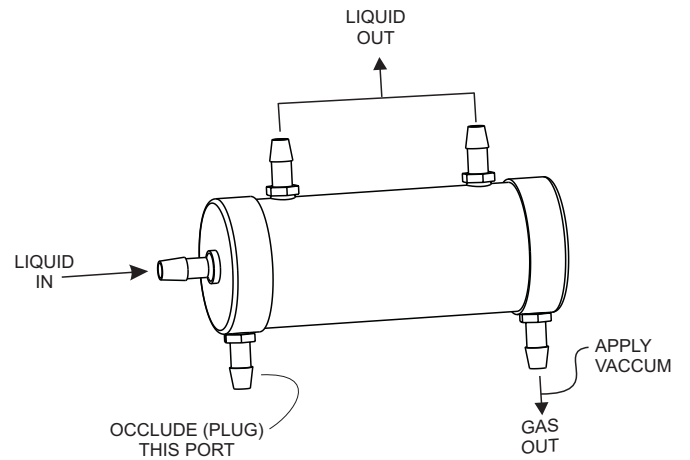


GAS SEPARATION WITH VACUUM

OPERATING GUIDELINES FOR LIQUID CONTACTING



LIQUID CONTACTING WITH SWEEP GAS OR LIQUID AND OPTIONAL VACUUM



LIQUID CONTACTING WITH VACUUM (DEGASSING AND EVAPORATING)

