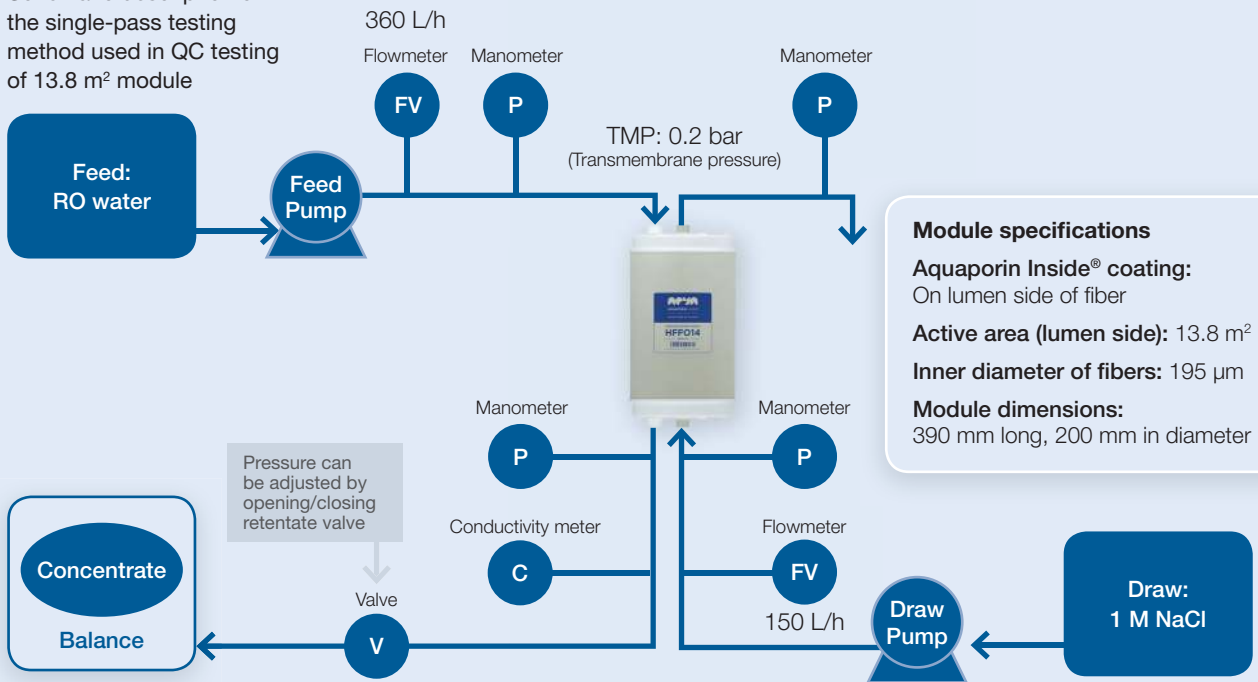


Aquaporin Inside® HFFO14 Standard Test Setup

Schematic description of the single-pass testing method used in QC testing of 13.8 m² module



Flow rate of the concentrate was measured on the balance and abstracted from flow rate of the feed in order to calculate water flux through the membrane according to Eq. 1.

$$J_w = \frac{\dot{Q}_{Feed} - \dot{Q}_{Concentrate}}{A} \quad (1)$$

where:

- J_w is water flux (L/m²h)
- \dot{Q}_{Feed} is flow rate of feed (L/h)
- $\dot{Q}_{Concentrate}$ is flow rate of concentrate (L/h)
- A is membrane area (m²)

* In order to maintain water flux and reverse salt flux between experiments, it is strongly recommend to flush FO module with DI water after use. We propose to flush the module with DI water for 5 min from the feed and draw side at 150 L/h and subsequently for 30 min only from the feed side at 150 L/h.

Conductivity of the concentrate is measured in order to calculate reverse salt flux according to the Eq. 2.

$$J_s = \frac{\dot{Q}_{Concentrate}}{A} \kappa B \quad (2)$$

where:

- J_s is reverse salt flux (g/m²h)
- $\dot{Q}_{Concentrate}$ is flow rate of concentrate (L/h)
- A is membrane area (m²)
- κ is conductivity (μS/cm)
- B is proportionality coefficient (0,5362 μS/cm per 1 mg/L of NaCl)

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