

# Aquaporin Inside® DWRO™ 4040 & 4040XL

Drinking Water Reverse Osmosis



**Revolutionary high water flow for efficient water treatment**



**High rejection of harmful pollutants ensures safe and healthy drinking water**



**Biomimetic product incorporating nature's water channels**

## PRODUCT TYPE

The Aquaporin Inside® Drinking Water Reverse Osmosis (DWRO™) membrane elements are biomimetic products that get their unique properties from their embedded aquaporin proteins, nature's water channels.

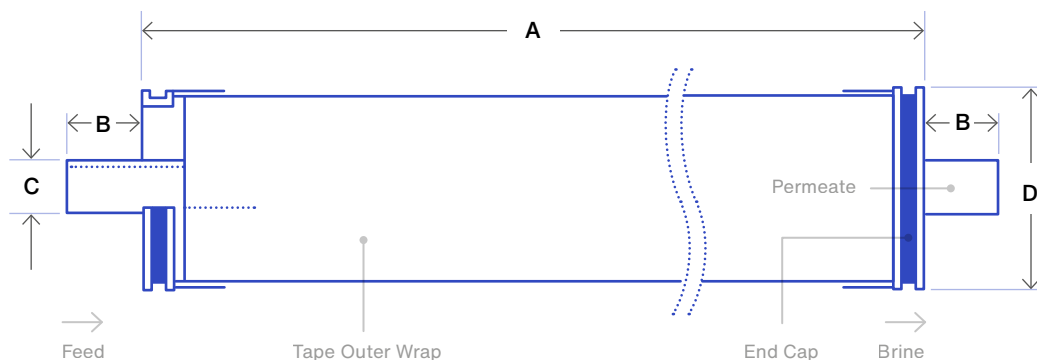
The Aquaporin Inside® DWRO™ membranes are available in standard configurations and can easily fit into any conventional point-of-use residential or commercial RO system.

## PRODUCT SPECIFICATIONS

Product name	Item no.	Element type	Product performance			Test conditions	
			Permeate flow rate	Typical rejection	Minimum rejection	Feed water	Pressure
Aquaporin Inside® DWRO™ 4040	40035	Tape wrap, dry	2,800 GPD	98.0%	97.0%	500 ppm NaCl	100 psi (6.9 bar)
Aquaporin Inside® DWRO™ 4040XL	40053	Tape wrap, dry	3,300 GPD	98.0%	97.0%	500 ppm NaCl	100 psi (6.9 bar)

The stated product performances are tested at 25°C (77°F), 15% recovery, pH 7-8. Permeate flow rate and rejections are stated after 24 hours of operation. Individual element permeate flow rate may vary ± 15%.

**ELEMENT DIMENSIONS**



Dimensions (inches / millimeters)

Product name	A	B	C	D
Aquaporin Inside® DWRO™ 4040 series	40.0 / 1016.0	1.05 / 26.7	0.75 / 19.1	3.95 / 100.3

Aquaporin A/S reserves the right to change specifications without prior notice. The DWRO™ 4040 element series fits standard 4 inch inner diameter pressure vessels.

**OPERATING SPECIFICATIONS**

Maximum operating pressure	20.7 bar (300 psi)	Maximum feed water turbidity	1 NTU
Maximum feed flow rate	3.6 m³/h (16 gpm)	pH range (operation)	3-10
Maximum operating temperature	45°C (113°F)	pH range (short-term cleaning, 25°C / 77°F)	1-12
Maximum pressure drop	0.7 bar (10 psi)	Free chlorine tolerance	< 0.1 ppm
Maximum feed water SDI	5 (15 min)		

**ADDITIONAL INFORMATION**

- ✓ Permeate from the first hour of operation should be discarded. Do not use this initial permeate for consumption.
- ✓ To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution. Rinse out the preservative solution before use.
- ✓ Elements contained in the boxes must be kept dry at room temperature (5-35°C / 41-95°F) and should not be stored in direct sunlight.
- ✓ Keep elements moist at all times after initial wetting.
- ✓ The presence of free chlorine and other oxidizing agents can cause premature membrane failure. Since oxidation damage is not covered under warranty, Aquaporin A/S recommends removing residual free chlorine by pretreatment prior to membrane exposure.
- ✓ The information provided in this document is for informative purposes only. It is the responsibility of the user to ensure appropriate usage of this product. Aquaporin A/S assumes no obligation, liability, or damages incurred for the misuse of the product. This document does not express or implies any warranty as to the merchantability or fitness of the products.

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**Aquaporin Inside®**