# **RE4040-BLR**



Low pressure grade RO element for brackish water

- Low-Energy Consumption
- High Permeate Flow and High Rejection



### SPECIFICATIONS —

#### **General Features**

Permeate Flow Rate 2,100 GPD (7.9 m<sup>3</sup>/day)

Nominal Salt Rejection 99.6% (Minimum 99.5%)

Effective Membrane Area 85ft<sup>2</sup> (7.9 m<sup>2</sup>)

Membrane Type Thin-Film Composite

Membrane Material Polyamide (PA)

**Element Configuration** Spiral-Wound, FRP Wrapping

**Test Conditions:** 1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure; 15% recovery;  $77^{\circ}F(25^{\circ}C)$ ; pH 6.5–7.0; Permeate flow rate for each element may vary but will be no more than -5 %.

### **Dimensions and Weight**

| Model Name | Α                       | В                     | С                      | D/E                    | Part Number     |            |
|------------|-------------------------|-----------------------|------------------------|------------------------|-----------------|------------|
|            |                         |                       |                        |                        | Inter-Connector | Brine Seal |
| RE4040-BLR | 40.0 inch<br>(1,016 mm) | 3.9 inch<br>(99.0 mm) | 0.75 inch<br>(19.1 mm) | 1.05 inch<br>(26.7 mm) | SWA01050        | SWA01046   |

<sup>1.</sup> Each membrane element supplied with one interconnector (coupler) and four O-rings.

<sup>2.</sup> All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

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## **APPLICATION DATA** -

## **Operating Limits**

| Max. Pressure Drop / Element     | 15 psi (0.10 MPa)   |  |  |
|----------------------------------|---------------------|--|--|
| Max. Pressure Drop / 240" Vessel | 60 psi (0.41 MPa)   |  |  |
| Max. Operating Pressure          | 600 psi (4.14 MPa)  |  |  |
| Max. Feed Flow Rate              | 18 gpm (4.09 m³/hr) |  |  |
| Min. Concentrate Flow Rate       | 4 gpm (0.91 m³/hr)  |  |  |
| Max. Operating Temperature       | 113°F (45°C)        |  |  |
| Operating pH Range               | 2.0 – 11.0          |  |  |
| CIP pH Range                     | 1.0 – 13.0          |  |  |
| Max. Turbidity                   | 1.0 NTU             |  |  |
| Max. SDI (15 min)                | 5.0                 |  |  |
| Max. Chlorine Concentration      | < 0.1 mg/L          |  |  |

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight.
- For WET-TYPE, the preservative solution (1% sodium metabisulfite solution) is added to prohibit the growth of micro-organisms.
- Permeate from the first hour of operation should be discarded.
- Stabilized salt rejection is generally achieved within 1~48 hours of continuous use.

- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

