MICRONIX™

# EDI

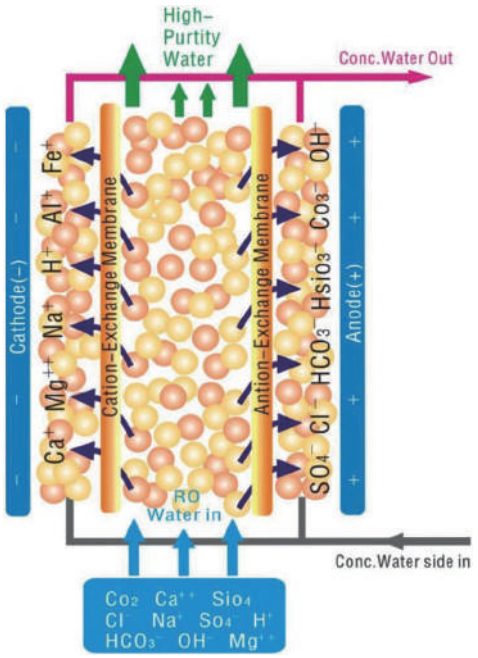
## Ultrapure Water Technologies


## RELIABLE TECHNOLOGY for ULTRAPURE WATER PRODUCTION

EDI, electrodeionisation, uses electrical current to ionize molecules and separate dissolved ions from RO permeate.

Based on our references all over Asia in the water treatment business, we have presented solutions to the industries that need highest-purity water: semiconductor industry, LED industry, electronics industry, power plants, and many other different applications.

EDI technology eliminates the needs to regenerate chemicals and the services to exchange tanks. It is a simple and eco-green method to produce consistent ultrapure water with resistivity up to 18MΩ, which create a milestone in water treatment industry.




## ADVANTAGES of MICRONIX EDI TECHNOLOGY

### Stable performance and quality ultrapure water

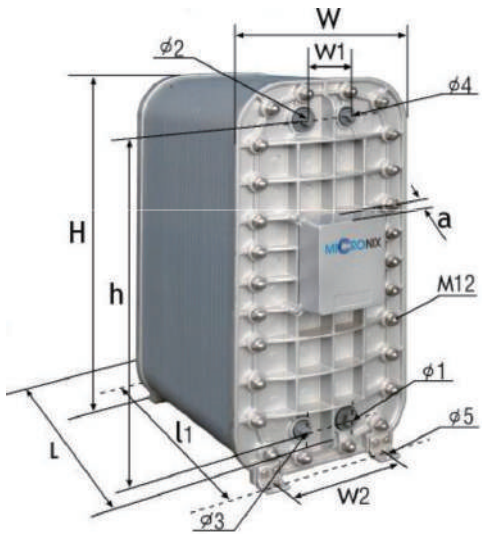
- Reliable product water with high resistivity up to 18MΩ · cm
- Wide range of water flow options satisfy different demands

### More resin capacity

- The extended module's height creates larger space for resin capacit
- Enlarger polishing area to ensure the quality of the product water

### Low power consumption

- Patented power-saving design lowers power consumption
- 30% power consumption of the competitior's stack




## MODULE DIMENSION

| Model | L | W | H | h | l1 | w1 | w2 | Ø1 | Ø2 | Ø3 | Ø4 | Ø5 | M | a |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MX-25 | 260 | 310 | 680 | 535 | 135 | 80 | 200 | | | | | | | |
| MX-50 | 310 | 310 | 680 | 535 | 188 | 80 | 200 | | | | | | | |
| MX-100 | 439 | 310 | 680 | 535 | 280 | 80 | 200 | DN25 | DN25 | DN15 | DN15 | | | |
| MX-200 | 580 | 310 | 680 | 535 | 465 | 80 | 200 | (1") | (1") | (1/2") | (1/2") | 10.5x20 | M12 | 50 |
| MX-300 | 705 | 310 | 680 | 535 | 585 | 80 | 200 | | | | | | | |
| MX-500 | 910 | 310 | 680 | 535 | 790 | 80 | 200 | | | | | | | |
| MX-650 | 910 | 310 | 680 | 535 | 790 | 80 | 200 | DN40 | DN40 | DN25 | DN25 | | | |

## OPERATING FEEDWATER CONDITION

| | |
|---|---|
| Feedwarer Source | 2 pass RO water |
| Conductivity Equivalent | ≤ 20 μS/cm |
| pH | 7.5 to 9 |
| Total Hardness | < 1.0ppm(recommendation: < 0.5ppm) |
| Total $CO_2$ | < 3.0ppm |
| Temperature | 5°C to 38°C |
| Inlet Water Pressure | 0.15 to 0.45 MPa |
| Particles | < 1 μm |
| Organics | TOC < 0.5ppm(Undetectable recommended) |
| Oxidizers | $Cl_2$ < 0.05ppm; $O_3$ <0.02ppm(Undetectable recommended) |
| Metals | Fe, Mn, and transition metals < 0.01ppm |
| Silica | < 0.5ppm (as $SiO_2$) |

## EDI MODULE SPECIFICATION

| Model | MX-650 | MX-500 | MX-300 | MX-200 | MX-100 | MX-50 | MX-25 |
|---|---|---|---|---|---|---|---|
| Resin for Concentrate Chamber | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Operating Voltage (DCV) | 90-170 | 90-170 | 90-170 | 50-150 | 20-120 | 15-60 | 8-40 |
| Design Voltage (DCV) | 0-330 | 0-330 | 0-330 | 0-330 | 0-330 | 0-220 | 0-220 |
| Operating Current (DCA) | ≤3.5 | ≤3.5 | ≤3.5 | ≤3.5 | ≤3.5 | ≤3.5 | ≤3.5 |
| Design Current (DCA) | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Product Flow Range ($m^3/h$) | 5.5-7.5 | 4-6 | 2.5-4.4 | 1.5-2.4 | 0.8-1.4 | 0.3~0.75 | 0.15-0.3 |
| Max. Product Flow ($m^3/h$) | 7.5 | 6 | 4.4 | 2.4 | 1.4 | 0.75 | 0.3 |
| Recovery Rate (%) | 90-95 | 90-95 | 90-95 | 90-95 | 90-95 | 80-95 | 75-85 |
| Product Resistivity (MΩ▪cm) | 15-18 | 15-18 | 15-18 | 15-18 | 15-18 | 15-18 | 15-18 |
| Feed Pressure (MPa) | 0.15-0.45 | 0.15-0.45 | 0.15-0.45 | 0.15-0.45 | 0.15-0.45 | 0.15-0.45 | 0.15-0.45 |
| Max. Pressure (MPa) | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Feed / Product Water Pioing | DN40 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 |
| Inlet / Outlet Concentrate Piping | DN25 | DN15 | DN15 | DN15 | DN15 | DN15 | DN15 |

## EDI SYSTEM REFERENCE

The generated high purity deionized product water can be used in the industries that need ultrapure water with resistivity up to 18MΩ, including semiconductor industry, electronic industry, power plant ... etc.

Semiconductor Industry - Product Water: 100 $m^3$/ h ≥ 16MΩ•cm

Semiconductor Industry - Product Water: 600 $m^3$/ h ≥ 16MΩ•cm

Power Plant - Product Water: 3x108 $m^3$/ h

Please contact for more information

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