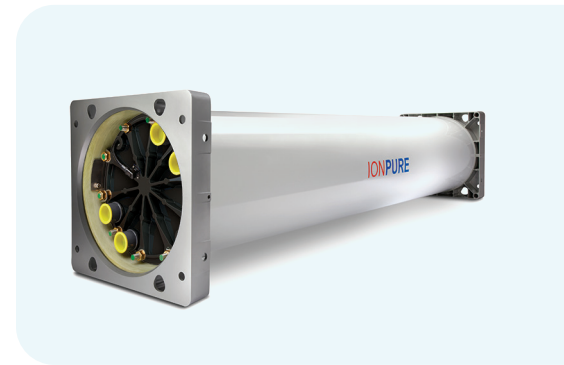


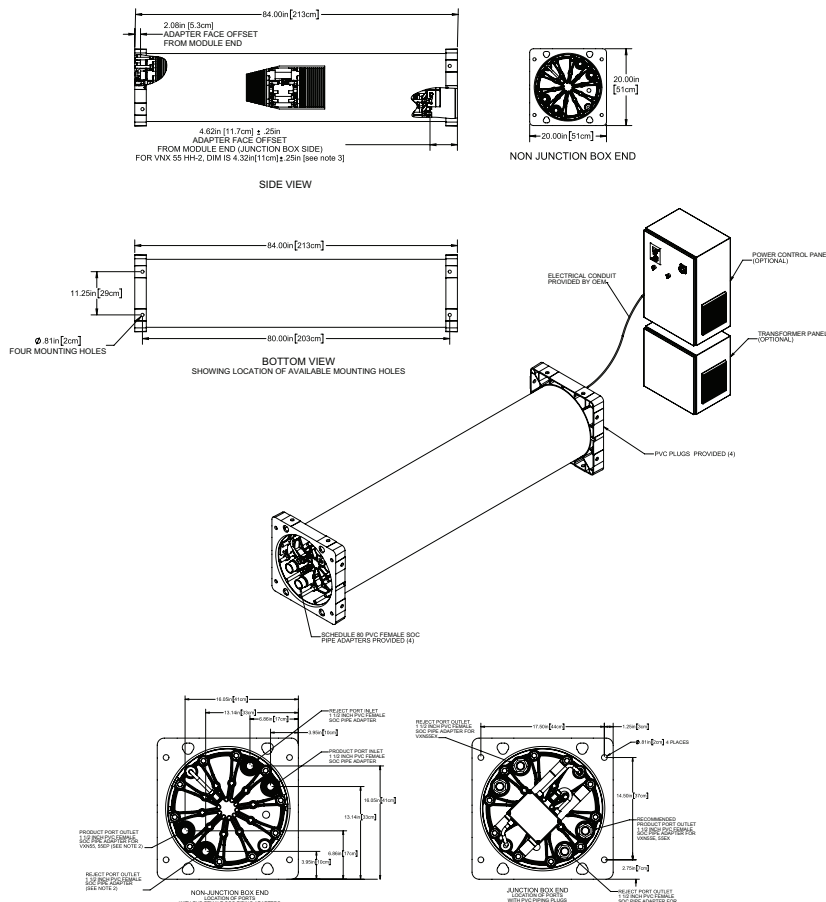
Ionpure® VNX55-ULTRA High Flow Continuous Electrodeionization (CEDI) Modules



IONPURE® VNX ULTRA MODULE

The VNX55-ULTRA high flow module is designed with proven Ionpure® continuous electrodeionization (CEDI) technology to produce ultra high purity water. Performance has been optimized for high boron removal and critical high quality demands of the microelectronics industry.

Each VNX55-ULTRA industrial module has a nominal flow rate of 55 gpm (12.5 m³/hr). Multiple 55 gpm modules provide a simplified system design with flow rates up to, and greater than, 1,000 gpm.



VNX55-ULTRA SERIES FEATURES

- Silica and Boron removal of $\geq 99.8\%$
- Guaranteed 18 M Ω -cm product resistivity, optimized for microelectronics and UPW systems*
- Sodium and chloride removal $\geq 99.9\%$
- 95–97.5% recovery for makeup usage and high water savings
- No need for acid/caustic, neutralization systems or tank exchanges
- Significantly lowers operating costs compared to conventional ion exchange
- Robust leak-free sealing with through-port gasket
- High flow module reduces system costs and simplifies skid design
- Connection fittings are included
- On-board NEMA 4X, IP67 junction box for DC power connections
- 50 mm butt weld natural polypropylene connection kits and drawings available

* Applies to DI feeds - consult performance projections for specific performance expectations.

OPERATING ENVIRONMENT

Installation should be indoors with no direct sunlight and should have a maximum ambient temperature of 113°F (45°C).

MATERIAL CONSTRUCTION

- Wetted components of the VNX module consist of: PVC (adapters), nylon/ABS, polypropylene, silicone rubber, ion-selective membranes, ion exchange resins and thermoplastic elastomer.
- Housing is fiberglass reinforced plastic (FRP). Standard color is white with a glossy finish. Custom colors and labeling are available.
- The proprietary Flexmount™ bracket/end-block assembly is an epoxy painted aluminum casting suitable for securing modules to the frame and/or each other in Ionpure® system approved configurations.

QUALITY ASSURANCE STANDARDS

CE marked. Each module is factory tested to meet strict industry standards and is manufactured in an ISO 9001 and ISO 14000 quality and environmental management system.

ORDERING INFORMATION

- Use part number W3T537068, model number IP-VNX55ULTRA-2, when ordering for vertical or horizontal installation.
- Each VNX module has four process connections; feed, concentrate feed, product and reject. PVC adapters (with dust covers) and plugs are provided with the module. High purity 50 mm polypropylene adapters are also available.
- High purity 50 mm butt weld connection kits adapter (4)/plug (4): Natural polypropylene—Part number W3T17348, Model IP-VNX-CK-PP-2
- Standard 1.5" female socket connection kits (4)/plug (4): PVC—Part number W3T17350, Model IP-VNX-CK-PVC-2
- Module electrical power connections are made through an on-board junction box.

MAXIMUM FEED WATER SPECIFICATIONS

Feed water Conductivity Equivalent, including CO ₂ and Silica	< 10 µS/cm
Feed water source	RO permeate (2 pass) or DI water
Temperature	68–113°F (20–45°C)
Inlet pressure	30–100 psi (2.1–7 bar)
Maximum total chlorine (as Cl ₂)	< 0.02 ppm
Iron (Fe)	< 0.01 ppm
Manganese (Mn)	< 0.01 ppm
Sulfide (H ₂ S)	< 0.01 ppm
pH	4–11
Total hardness (as CaCO ₃)	< 0.1 ppm
Dissolved organics (TOC as C)	< 0.5 ppm
Silica (SiO ₂)	< 0.5 ppm

TYPICAL MODULE PERFORMANCE

Operating Parameters	
Recovery	95–97.5%
Flow rate: minimum	42 gpm (9.5 m ³ /hr)
Flow rate: nominal	55 gpm (12.5 m ³ /hr)
Flow rate: maximum	66 gpm (15 m ³ /hr)
DC voltage	0–600
DC amperage	1–10

Product Water Quality

Product resistivity 2-pass RO Permeate	> 17.5 Ω-cm*
Product Resistivity—DI water	> 18 Ω-cm*
Silica (SiO ₂) removal	≥ 99.8%
Boron (B) removal	≥ 99.8%
Sodium (Na) removal	≥ 99.9%
Chloride (Cl) removal	≥ 99.9%

* Actual performance projections available from Ionpure®.

PHYSICAL SPECIFICATIONS

Diameter	17.5" (44.45 cm)
Width	20.0" (50.8 cm)
Height	20.0" (50.8 cm)
Length	84.0" (213.3 cm)
Shipping Weight	610 lbs (276.7 kg)
Operating Weight	825 lbs (374.2 kg)