

Thermo Scientific Dionex IC Pure Water Purification System

Direct feed ultrapure water for
Dionex Reagent-Free Ion
Chromatography Systems

Thermo Scientific™ Dionex™ IC Pure™ water purification system is engineered to remove impurities that affect your results so you can focus on what is important – the sensitivity and resolution of your ion chromatography analysis.

The Dionex IC Pure system is an ideal solution for feeding ultrapure water directly to Thermo Scientific™ Dionex™ Reagent-Free™ Ion Chromatography with eluent generation (RFIC™-EG) systems and suppressor regeneration in external water mode. The 20 L automatic refilling station uses either tap or pretreated laboratory water for the production of ultrapure water online without the need for operator intervention.

Features

- Increases productivity by allowing long term uninterrupted operation and reducing operator attention
- Improves signal-to-noise ratio by lowering background noise
- Enhances performance of trace ($\mu\text{g/L}$) and ultra-trace (ng/L) analysis
- Achieves superior method detection limits by reducing background conductance
- Increases system uptimes by simplifying system troubleshooting and lowering levels of system contaminating microorganisms



Dionex IC Pure Water
Purification System

Feed Water Requirements

Model	System with Pretreatment Cartridge	System without Pretreatment Cartridge
Source	Potable tap water	Pretreated water (ASTM Type II)
Silt Density Index (SDI)	<3	(Not applicable)
Conductivity (Reference Temperature +25 °C)	1200 µS/cm (0.0008 MΩ·cm)	<1 µS/cm or >1 MΩ·cm
Maximum Free Chlorine	0.1 ppb (µg/L)	0.05 ppb (µg/L)
Maximum Manganese Content	0.05 ppm (mg/L)	(Not applicable)
Maximum Iron Content	0.05 ppm (mg/L)	(Not applicable)
pH Range	4–11	4–11
TOC Value	<2000 ppb (µg/L)	Max. 50 ppb (µg/L)
Bacteria Count	<100 CFU/mL	<100 CFU/mL
Turbidity	<1.0 NTU	<1.0 NTU
Maximum Carbon Dioxide (CO ₂)	30 ppm (mg/L)	30 ppm (mg/L)
Maximum Silicate	30 ppm (mg/L)	3 ppm (mg/L)
Temperature	2–35 °C (35.6–95 °F)	2–35 °C (35.6–95 °F)
Pressure for Automatic Filling	10–600 kPa (1.45–87 psi)*	(Not applicable)

Product Water Quality

Conductivity (Reference Temperature 25 °C)	0.055 µS/cm
Resistance	Up to 18.2 MΩ·cm
Maximum Total Organic Carbon Value	5 ppb (µg/L)
RNase	<3 ppt (ng/L)
DNase	<0.4 ppb (µg/L)
Bacteria	<1 CFU/mL
Bacteria Endotoxins	0.001 EU/mL
Particles > 0.2 µm per mL	<1
Flow Rate without Pretreatment Cartridge at Manually Operated Point of Use (POU)	0.6 ± 0.2 L/min
Flow Rate with Pretreatment Cartridge at Manually Operated POU	0.2 ± 0.1 L/min

Specifications

Dionex IC Pure System with Ultrapure Cartridge

Dimensions (h x w x d)	55.0 cm x 30.6 cm x 38.5 cm (21.65 in. x 12.05 in. x 15.16 in.)
Base Area (h x w)	27.7 cm x 37.2 cm (10.91 in. x 14.65 in.)
Weight Including Ultrapure Cartridge	26 kg (57.2 lb)
Weight with Full Tank	32 kg (70.55 lb)

External 20 L Tank with Level Control

Dimensions (h x w x d)	49.0 cm x 19.0 cm x 48.5 cm (19.29 in. x 7.48 in. x 19.09 in.)
Base Area (h x w)	34.0 cm x 48.3 cm (13.39 in. x 19.01 in.)
Weight	7 kg (15.43 lb)
Weight with Full Tank	27 kg (59.52 lb)

Electrical Connections for the Dionex IC Pure System and External 20 L Tank

Input Voltage	100–240 VAC, 50–60 Hz, 5–3.8 A
Output Voltage	DC 24 V, 3.8 A
System Connection	DC 24 V, 80 W
Protection Class	Class II (external SMPS certified as Class I)

* A pressure reducer must be installed on the upstream of the unit if pressure exceeds 600 kPa (87 psi).

In the U.S., call (800) 346-6390 or contact the Thermo Fisher Scientific Regional Office nearest you. Outside the U.S., order through your local Thermo Fisher Scientific office or distributor. Refer to the following part numbers.

Ordering Information

Description	Part Number
Dionex IC Pure Water Purification System	50132810
External 20 L Tank	50146376
External 20 L Tank with Level Control	50146378
Pretreatment Cartridge for Removing Ionic Impurities	09.2012
Optional Wall Mounting Bracket	09.2212
5 µm Filter with Hardness Stabilizer Cartridge	09.4001



Dionex IC Pure Water Purification System with Thermo Scientific Dionex ICS-5000+ System

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