

## 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 ( $\text{ng/L}$ ) 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 <sub>2</sub> )	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
Pretreatment Cartridge for Removing Ionic Impurities (Required for Tap Water Feed)	09.2012
5 µm Filter with Hardness Stabilizer Cartridge (Recommended for Tap Water Feed)	09.4001
External 20 L Tank with Level Control	50146378
External 20 L Tank	50146376
Optional Wall Mounting Bracket	09.2212



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

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