

## Features and Benefits

- ◆ Produces 18 Megohm-cm Type I water
- ◆ Purified water has no RNase/DNase activity
- ◆ Exceeds ASTM, CAP, CLSI & USP Specs
- ◆ Produces pyrogen & endotoxin free water
- ◆ Purified water has less than 5 PPB TOC
- ◆ Accepts 100-240 VAC, 50/60 Hz power
- ◆ System runs on 12 VDC internal power
- ◆ Certified by CSA for the US & Canada
- ◆ CE marked for export to Europe, Etc
- ◆ Can be bench, shelf or wall-mounted
- ◆ Remote dispenser included in price
- ◆ 2-Year warranty - (Most Countries)
- ◆ Meets current USP specifications
- ◆ User installable and serviceable
- ◆ 0.2 micron final filter capsule
- ◆ DI modules can be recycled
- ◆ Complete instrumentation
- ◆ Fully automatic operation

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## Product Availability

**AQUA SOLUTIONS** Type I Ultra-Low TOC Biological Grade DI Systems produce Type I reagent grade water that meets or exceeds ASTM, CAP, CLSI, and USP Specifications.

They are recommended for applications requiring Type I water that is pyrogen/endotoxin free, and/or has no RNase/DNase activity, and/or contains little, if any, TOC (trace organic carbon).



**Biological Applications** include pyrogen/endotoxin sensitive media prep and tissue culture, in vivo and in vitro fertilization, recombinant RNA/DNA, DNA fingerprinting, DNA sequencing, MAB production, organ transplant, and immunological applications sensitive to TOC.

**AQUA SOLUTIONS** Type I DI systems dispense purified water at the rate of 2-Liters/minute. Higher flow rate systems are available.

All Ultra-Low TOC Biological grade systems include a **5,000 molecular weight cutoff ultrafilter** and a **dual-wavelength ultraviolet (UV) oxidizer/sterilizer** to reduce pyrogen, endotoxin, and TOC to the lowest possible levels, and eliminate RNase/DNase activity. The UV includes an LED display and audible alarms to monitor the performance of the UV lamp.

**AQUA SOLUTIONS** Ultra-Low TOC biological grade systems are designed to operate on **ordinary tap water**, or water that has been pretreated via reverse osmosis, distillation, or deionization by a central or point-of-use system.

For those installations where the incoming tap water feed contains more than 170 ppm of TDS (total dissolved solids), and/or the average daily purified water usage exceeds 20 liters/day, reverse osmosis (RO) pretreatment should be considered (see next paragraph).

**AQUA SOLUTIONS** Type I Ultra-Low TOC DI Systems can also be purchased with a **built-in 10 or 20 Liter/hour RO pretreatment system**, all in a single cabinet measuring just 20" (508 mm) wide by 20" (508 mm) high by 12" (305 mm) deep (see page 2)!

**AQUA SOLUTIONS** Type I Ultra-Low TOC Biological Grade Systems offer many features and benefits, and higher capacities not found on many other systems. **And, they are very competitively priced!**

# Type I Ultra-Low TOC Biological Grade DI Systems General Description & Specifications



## Model Number      General Description - Type I DI Systems

**2121BL** ..... Type I *Ultra-Low TOC Biological Grade* DI System for operation on *pretreated water* (water that has been pretreated via reverse osmosis, distillation or deionization by a central or point-of-use pretreatment system, and contains less than 20 ppm of total dissolved solids).

*Requires Purification Kit Number 2613M1L* (not included in system price). Kit includes an activated carbon prefilter capsule, high purity TOC reduction DI module, and final filter capsule.

**2122BL** ..... Type I *Ultra-Low TOC Biological Grade* DI System for operation on either *pretreated water* (water that has been pretreated via reverse osmosis, distillation or deionization by a central or point-of-use pretreatment system, and contains less than 20 ppm of total dissolved solids), or *ordinary tap water* containing up to 170 ppm of TDS (total dissolved solids).

*Requires Purification Kit Number 2613M2L* (not included in system price). Kit includes activated carbon prefilter capsule, two high purity TOC reduction DI modules, and final filter capsule.

**Upgradeability**      The above systems can be field upgraded or modified to become any other Type I system.

## Model Number      General Description - Combination Reverse Osmosis plus Type I DI Systems

**RODI-C-12BL** ..... Combination Reverse Osmosis plus Type I *Ultra-low TOC Biological Grade* DI System.

*Requires Purification Kit Number 2613M1L-A* (not included in system price). Kit includes high purity TOC reduction DI module, and a final filter capsule.

## **More information**

For *Basic Analytical Grade Systems*, request brochure #: T1-A.

For *Biological Grade Systems*, request brochure #: T1-B.

For *Ultra-Low TOC Analytical Grade Systems*, request brochure #: T1-AL.

For *Combination Reverse Osmosis plus Type I DI Systems*, request brochure #: RODI-C.

For *Reverse Osmosis and/or Type II DI Systems*, request brochure #: T2-RO.

## System and Purified Water Specifications

DI capacity 2121BL and RODI-C 12BL .....	*2,000
DI capacity 2122BL/BLU .....	*4,000
*(grains of ion exchange capacity as CaCO <sub>3</sub> )	
Resistivity .....	18.2 Megohm-cm
TOC .....	<5 PPB
Bacteria .....	<1 cfu/ml
Endotoxin (EU/ml) .....	<0.001
RNase (ng/ml) .....	<0.01
DNase (pg/μl) .....	<4
Continuous flow rate .....	2-Liters/minute
Cabinet depth .....	12" (305 mm)
Cabinet width .....	20" (508 mm)
Cabinet height .....	20" (508 mm)
External power supply input .....	100-240 VAC, 50/60 Hz
Internal power .....	12 VDC @ 2.5 Amps from external supply
Minimum inlet pressure .....	35 PSIG (2.3 Bar)
Maximum inlet pressure .....	100 PSIG (6.7 Bar)
Shipping weight .....	40-55 lbs (18-25 kg)
Operating weight .....	55-70 lbs (25-32 kg)
Inlet connection .....	1/4" or 3/8" NPT

