mini+
maxi+

Water purification systems for reliable results

DiaSys
Diagnostic Systems

Everything in laboratory starts with a drop of water

CHOOSING QUALITY.

Reliable results – a matter of water

Quality and purity of water is of extreme importance in clinical diagnostics. In analyzers, it is used to wash cuvettes, probes and mixing paddles as well as for dilution of samples and blank measurements of cuvettes. Therefore, it affects test precision. Pure water prevents contamination, cross contamination and carry over.

Furthermore, insufficient water quality may have a negative impact on patient results because remaining particles or ions might influence reagent performance and lead to unreliable results or reruns. This increases costs for calibrators, controls and reagents.

In combination with our analyzers and reagents, water purification systems of DiaSys complete the package for reliable patient results.

DiaSys water purification – decision for quality

It is essential to remove all sources of contamination as ions, organics, particles, colloids and bacteria to obtain pure water. Different processes may be used to obtain pure water, each with its own advantages but also limitations. Therefore, a combination of purification steps is required to produce high quality laboratory water.

DiaSys new water purification systems, O mini⁺ and O maxi⁺ use a combination of four different purification methods in three integrated steps to provide pure water for operation of laboratory equipment and analyzers. The steps are micro- and activated carbon filtration followed by reverse osmosis and finalized with ion exchanges.

DiaSys' water purification system

Methods / Contaminants	STEP 1 Micro-filtration	STEP 1 Activated carbon	STEP 2 Reverse osmosis	STEP 3 Ion exchange	Distillation	Ultra-filtration
Ions	−−	−−	+	++	+	−−
Organics	−−	++	+	−−	+	+
Particles Colloids	++	−	+	−−	+	+
Bacteria	++	−	+	−−	+	+

++ highly efficient
\+ efficient
− inefficient
−− highly inefficient

The combination of these purification procedures results in high quality laboratory water free from particles, bacteria, organics and ions.

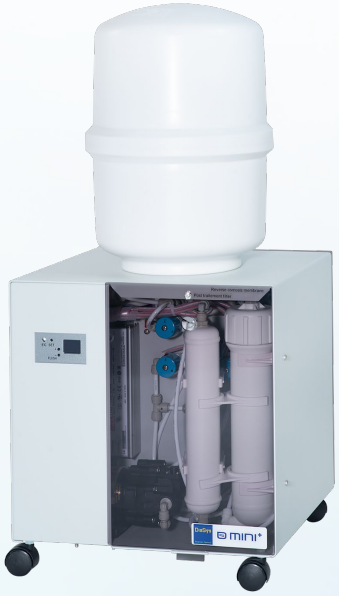
Auto filling for respons®240c system

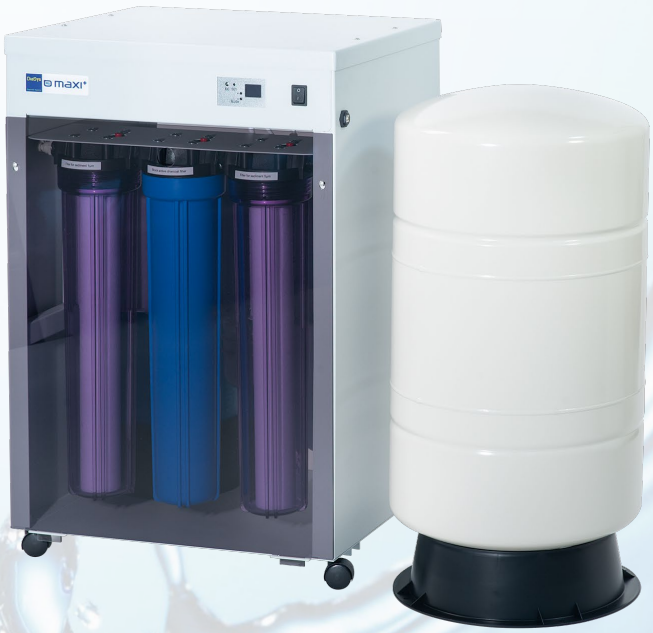
To optimize daily working routine, DiaSys offers an auto filling solution for the deionized-water tank of respons®240c. It prevents the analyzer from being stopped due to lack of water, which possibly leads to loss of patient results. It also eliminates the time needed to control the water level and refill the deionized-water tank and thus makes laboratory work even more efficient.

O mini+

DiaSys O mini+ is adapted for respons®240c

- **Two conductivity and two pressure sensors**
- **LCD display showing conductivity and pressure, external monitoring possible**
- **Closed housing for sensitive areas**
- **Mounted water tank**
- **Mounted rolls for easy handling and moving**





O maxi+

DiaSys O maxi+ is adapted for respons®420c, respons®600c and BioMajesty®JCA-BM6010/C

- **Two conductivity and two pressure sensors**
- **LCD display showing conductivity and pressure, external monitoring possible**
- **Direct water supply for respons®420c, respons®600c and BioMajesty®JCA-BM6010/C analyzer**
- **Integrated resin bottle, compact design**
- **Mounted rolls for easy handling and moving**

Technical specifications

	mini+	maxi+
Power source	230 volts ~ / 50 Hz.	230 volts ~ / 50 Hz.
Reverse osmosis membrane	75 GPD 280 liters per day	300 GPD side stream 1140 liters per day
Production flow at 25°C	15 liters per hour	55 liters per hour
Production flow at 10°C	9 liters per hour	40 liters per hour
Pure water / waste water ratio	34% / 66%	48% / 52%
Resins type	0.75 liters + 0.25 liters mixed bed resin	11 liters mixed bed resin
Maximum supply water temperature	38°C	38°C
Maximum supply water hardness	4 mmol/L	4 mmol/L
Admissible pH	3 - 11	3 - 11
Conductivity	< 1 µS/cm	< 1 µS/cm
Conductivity monitoring	Included	Included
Required supply pressure	2 - 6 bar	2 - 5 bar
Storage tank pressurized	12 liters	75 liters
Dimensions (w x d x h)	39,5 cm x 36 cm x 43 cm	55 cm x 45 cm x 83 cm
Weight	Approx. 23 kg	Approx. 59.5 kg
Accessories included	· Filter spanner · Valves, tubing and fittings for installation	· Filter spanner · Valves, tubing and fittings for installation

Benefits

- Compact and easy to install
- Easy to maintain, low maintenance costs
- Low waste water ratio
- Online conductivity monitoring / measurement
- Automatic and manual flush of reverse osmosis membrane
- Avoid manual refilling with additional DiaSys auto filling for respons®240c analyzer

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