

 **mini⁺**

 **maxi⁺**

**Water purification systems
for reliable results**



DiaSys

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 the precision of the test. 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 can 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 | STEP 1 | | STEP 2 | STEP 3 | Distillation | Ultra-filtration | |
| | Micro-filtration | Activated carbon | Reverse osmosis | Ion exchange | | | |
| Contaminants | | | | | | | |
| Ions | -- | -- | + | ++ | + | -- | ++ highly efficient |
| Organics | -- | ++ | + | -- | + | + | + efficient |
| Particles Colloids | ++ | - | + | -- | + | + | - inefficient |
| Bacteria | ++ | - | + | -- | + | + | -- 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[®]920 or respons[®]940 system

To optimize daily working routine DiaSys offers an auto filling solution for the deionized-water tank of respons[®]920 or respons[®]940. 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.

mini⁺

DiaSys O mini⁺ is adapted for respons[®]910 and respons[®]920

- 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





maxi⁺

DiaSys O maxi⁺ is adapted for respons[®]940 and BioMajesty[®]JCA-BM6010/C

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



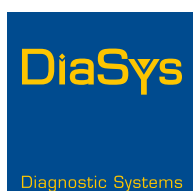
| Technical specifications | | |
|---|--|--|
| |  mini⁺ |  maxi⁺ |
| Power source | 230 volts ~ / 50 Hz. | 230 volts ~ / 50 Hz. |
| Reverse osmosis membrane | 75 GPD 280 liters per day | 300 GPD side stream 1140 liters per day |
| Production flow at 25°C | 15 liters per hour | 55 liters per hour |
| 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 | <ul style="list-style-type: none"> • Filter spanner • Valves, tubing and fittings for installation | <ul style="list-style-type: none"> • Filter spanner • Valves, tubing and fittings for installation |

| Benefits |
|--|
| <ul style="list-style-type: none"> • 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 respos® analyzer |

Handed over by:



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