Pure water system RO beta 500 - 1100

The pure water system RO beta fulfils highest industry standards for a reliable supply of pure water and maximum operational safety. Everything on a compact frame. Available up to 1100 l/h.

The pure water system RO beta has been developed to economically produce high quality pure water that is required by laboratories, laboratory complexes, central sterilisation in clinics and the pharmaceutical and other industries. The modern TFT touchscreen displays and controls all operating and performance parameters. The pure water that RO beta systems produce complies with appropriate standards such as ASTM, CLSI and DIN EN 285 & 15883.

* The picture might show optional accessories

Scope of delivery

- ✓ Solid and compact frame to accommodate all components
- ✓ Pre-treatment unit: Activated carbon with 5µm prefilter against free chlorine and particles in the feed water
- ✓ Reverse osmosis unit: Retains salts and organic and inorganic impurities
- ✓ EDI module: As a final polisher to achieve highly purified water
- ✓ TFT screen: Displays and controls all operation and performance parameters through touch panel
- ✓ Permeate circulation: Lengthen the lifetime of the EDI and increase the pure water quality
- ✓ Concentrate recycling: Reduce waste water

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Reverse osmosis unit

- Concentrate recycling for minimum wastewater
- Measuring cell for determination of permeate conductivity
- Selectable piping material made of PE, PP or stainless-steel
- Solenoid valves for raw water and quality rinse
- Safety pressure switch for switch-off when the feed water pressure is too low
- Permeate circulation for optimal performance and permeate quality
- High pressure pump for generation of the operating pressure with dry-run protection
- Reverse osmosis membranes with pressure tube and all necessary fittings
- Operating and feed water pressure gauge for system monitoring and fault diagnosis
- Flow meters for monitoring and adjusting the permeate and concentrate flow
- Regulating valves for setting the operating pressure and the WCF rate (proportional production rate)

EDI module

- Low-energy, integrated EDI module for the final demineralization
- Measuring cell for determination of pure water conductivity
- Digital current and voltage measurement
- Reliable high-purity water supply without regeneration or other interruptions. No chemicals.
- Flow meters for monitoring and adjusting the pure water, electrolyte and concentrate flow
- Pure water pressure gauge for system monitoring and fault diagnosis

TFT screen: Touch panel

- Choice of languages (German, English, French and Russian)
- Graphic TFT display (800×480, touch panel) with easy-to-use menu
- Security of program information against supply failure
- Option: 6 Recorder outputs 0(4)-20mA for recording measurements
- Option: Feed water conductivity measurement
- Option: Relay card with 4 powered outputs and 3 potential free outputs
- Option: RS232 and RS485 communication for log data
- Option: Ethernet communication for web server, e-mail function and remote control

Feed water requirements

Feed water quality	Softened (<0.1°dH) drinking water acc. to DIN 2000
Conductivity at 25°C	< 2000µS/cm
Chlorine	< 0.01 mg/l
Iron and manganese	each < 0.05 mg/l
CO_2	max. 15 mg/l
SiO_2	max. 0.4 mg/l
pH value	4 to 11

Pure water specifications

Performance at 10°C	500, 800 or 1100 l/h
Retention rate	> 99 % ions, germs and bacteria
Residual conductivity EDI	0.06 - 1 µS/cm typ. 0.1 µS/cm
TOC value	< 30ppb
Silicate reduction	> 99 %
Proportional production rate	> 65 %

Technical data

Ambient and water temperature	+2 to 35°C
Raw water pressure	2 – 6 bar
Operating pressure RO	max. 14 bar
Connected load	2,3 kW
Supply voltage	3~230 Volt / 50 Hz
Connections	R1“
Dimensions	W 1300 x D 600 x H 1600 mm
Weight	approx. 250 kg