ak98
YOUR PATH TO TARGET
THE AK 98 SYSTEM AIMS TO IMPROVE PATIENT CARE AND OPERATIONAL EFFICIENCY WITH EVERY TREATMENT.

The AK 98 system has been designed to help you find the balance between improving patient care and managing operational efficiency. This hemodialysis monitor has numerous features and functions that when integrated with our therapy options allow you to deliver high-quality treatments, consistently and efficiently.

**CONSISTENTLY HIGH TREATMENT QUALITY**
- Diascan quality control tool
- Actual/forecast Kt/V display on main screen
- Conductivity-based and concentrate dosing
- Disinfection log
- BICART cartridge holder
- Syringe pump
- US00 Ultrafilter
- BPM
- Treatment history
- Alarm history
- SoftPac Citrate

**EASE OF USE AND STAFF SATISFACTION**
- Single and double needle mode
- Automatic switch from isolated UF to diffusion
- Decalcification and cleaning with CleanCart disinfectant
- Pre-settable for different CleanCart disinfectants
- Pre-configuration options (start-up values, limits)
- Battery back-up time 30 min.
- SoftPac concentrate
- Remote panel (optional)
- Pre-set disinfection start time (7 day pre-set cycle possible)
- Permanently connected Citric-acid from back intake
- Alarm light bar, 360 degrees visibility
- Infusion pole (higher weight limit, 4 hooks)
- Pre-set audio sound level
- Top tray

**OPERATIONAL EFFICIENCY**
- Automatic self-test
- Stand-by mode
- Profiling modules
- Assisted priming
- Dialysis fluid flow
- Fluid path obstruction alarms during priming
- Automated heat disinfection processes
- Time between treatment 32 min incl. citric heat
- Interactive user-interface
- New functional check without removing concentrates
- IT-Connectivity HL7 based bidirectional communication with data encryption

**DESIGNED FOR SAFETY COMPLIANCE**
- General requirements for basic safety and essential performance
- Electromagnetic disturbances – Requirements and tests
- Usability
- General requirements, tests and guidance for alarm systems
- Medical electrical equipment – Recurrent test and test after repair
- Medical device software – Software life cycle processes
- Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers
- Medical electrical equipment and medical electrical systems used in the home healthcare environment
- Particular requirements for basic safety and essential performance of haemodialysis, haemodiafiltration and haemofiltration equipment
- General requirements for basic safety and essential performance of haemodialysis equipment
- Automated heat disinfection processes
- Fluid path obstruction alarms during priming
- Automated heat disinfection processes
- Time between treatment 32 min incl. citric heat
- Interactive user-interface

**NEW ONSCREEN GRAPHS**
- Treatment supervision can be achieved easily with on screen graphs displaying Venous & Arterial pressure, UF rate and Clearance (Kt/V).

**CONSISTENTLY HIGH TREATMENT QUALITY**
- Conductivity-based and concentrate dosing
- Pre-settable for different disinfectants
- Automated heat disinfection processes
- Time between treatment 32 min incl. citric heat
- Intuitive user-interface
- New functional check without removing concentrates
- IT-Connectivity HL7 based bidirectional communication with data encryption

**ONE FULLY INTEGRATED TREATMENT OPTION**
- Reaching your targets is highly dependent on how well your dialysis monitor integrates with your consumables (dialyzers, blood lines etc.), procedures and other systems in your clinic. By fully integrating your AK 98 system with our portfolio of products you may be able to maximize your treatment potential and maintain operational efficiency.

**BLOOD LINES**
- Biocompatible and ergonomic blood tubing systems
- High-quality blood tubing sets available in different sizes can facilitate simple blood control and help you meet your individual clinic and patient needs both big and small.

**THE BICART CARTRIDGE**
- The multi-purpose bicarbonate cartridge
- BiCart cartridge is designed to provide sufficient bicarbonate for the majority of your in-center treatment needs.

**THE SOFTPAC CITRATE**
- Acetate-free solution
- The SoftPac Citrate is an acid-concentrate dialysis solution giving clinics a closed hygienic system, free from bacterial endotoxin for the AK 98 system.

**HDX THERAPY**
- Enabled by the THERANOVA dialyzer
- HDx ( Expanded hemodialysis therapy) is allowed by the AK 98 system and the THERANOVA dialyzer to give you HDF performance as simple as HD.

*Do not use THERANOVA dialyzers for HDF or UF due to higher permeability of larger molecular weight proteins such as albumin.*

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The AK 98 system aims to improve patient care and operational efficiency with every treatment. The system has been designed to help find the balance between improving patient care and managing operational efficiency. This hemodialysis monitor has numerous features and functions that when integrated with our therapy options allow you to deliver high-quality treatments, consistently and efficiently.
## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
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<tbody>
<tr>
<td><strong>Blood flow control</strong></td>
<td>Flow rate, double needle: 0 and 20 to 500 mL/min</td>
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<tr>
<td></td>
<td>Flow rate, single needle: 0 and 20 to 500 mL/min, pressure-controlled</td>
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<tr>
<td><strong>Blood circuit pressure supervision</strong></td>
<td>Arterial pressure: -700 to +750 mmHg</td>
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<td>Venous pressure*: -700 to +750 mmHg</td>
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<tr>
<td><strong>Air detection</strong></td>
<td>Method: Ultrasonic detector</td>
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<tr>
<td><strong>Heparin syringe pump</strong></td>
<td>Flow rate: 0 to 10 mL/h</td>
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<td></td>
<td>Heparin bolus function</td>
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<td>Bolus volume: 0 to 10 mL</td>
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<td>Programmable stop time, accumulated volume read-out</td>
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<td><strong>Water supply</strong></td>
<td>Inlet pressure: 0.12 to 0.6 MPa (1.2 to 6 bar)</td>
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<td>Inlet water temperature during treatment: 5 to 30 °C</td>
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<td></td>
<td>Inlet water quality: Fluid must comply with appropriate regulations and as minimum ISO 13959</td>
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<tr>
<td><strong>Dialysis fluid preparation and monitoring</strong></td>
<td>Flow rate: 300-700 mL/min (by step of 20 mL/min)</td>
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<td>Bicarbonate range: Na⁺ 130 to 150 mmol/L, HCO₃⁻ 20 to 40 mmol/L</td>
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<td>Profiling (Na⁺, HCO₃⁻, UF)</td>
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<td>Concentrate standby mode</td>
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<td><strong>Ultrafiltration control</strong></td>
<td>±50 mL or ±50 mL/h x passed treatment time (h) or ±2.5 % of the accumulated UF volume, whichever is largest.</td>
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<tr>
<td><strong>Blood leakage detection</strong></td>
<td>Method: Infrared light</td>
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<tr>
<td><strong>Disinfection and cleaning</strong></td>
<td>Automated disinfection process with water treatment systems</td>
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<td></td>
<td>Heat, liquid citric acid or CleanCart disinfectant</td>
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<td></td>
<td>Short heat citric disinfection</td>
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<td>Chemical: Peracetic acid, sodium hypochlorite</td>
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<td>Disinfection log</td>
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<td><strong>Power supply</strong></td>
<td>Mains voltage: 115, 230V</td>
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<td></td>
<td>Frequency: 50 to 60 Hz</td>
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<td>Power consumption: Max 2025 W at 230 V, 1575 W at 115 V</td>
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<tr>
<td><strong>Dimensions and weight</strong></td>
<td>Width: Machine 345 mm, stand 585 mm</td>
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<td>Depth: Machine 600 mm, stand 620 mm</td>
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<td>Height: 1305 mm</td>
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<td>Weight: Approx. 70 kg (without options)</td>
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<td><strong>Operating environment</strong></td>
<td>Ambient temperature: 18 to 35 °C</td>
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<td>Relative humidity: 15 to 85% RH</td>
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<td>Air pressure: Up to approx. 2500 meters above sea level (70 to 106 kpa)</td>
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<td><strong>IT-connectivity</strong></td>
<td>HL7 based bi directional communication with data encryption</td>
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* An event of venous needle disconnection is not guaranteed to be detected by most dialysis machines.

International standards recommend additional venous access monitoring is used to safeguard patient safety.