The newest Software makes it possible to take usability a step further

- **The renewal of user friendly software**
  New convenient functions are available, such as check for inappropriate calibration results by flag indication compared to the previous results, and capability of using multiple bottles of the same reagent item on the same tray, etc.

- **Friendly user-interface**
  Real-time display of analysis process, reagent residual volume and so on.

- **Sharp reduction of reaction volume**
  Improvements to the optical measurement system have reduced reaction volume by maximum 30% compared to the former model, BIOLIS 24i.

- **Sample volume reduction**
  Analyzer can test small volume samples (around 50 μL), effectively, such as those obtained from the elderly or infants.

- **Night shift mode operation**
  Night shift mode enables simpler test.

- **Simple reagent management**
  Automatic reagent residual volume calculation system allows display of real-time residual volume percent.

- **LAN connection**
  Can be connected to an electronic chart of hospital LAN. (Option)

- **Low noise**
  Operation noise is reduced by around 20% compared to BIOLIS 24i.
**LABORATORY SOLUTION**

**BIOLIS 24i Premium**

Improved ease of operation and better test efficiency, and provides the optimal solution for routine operations, STAT operation and a broad range of clinical analysis requirements.

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<th>Feature</th>
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**Main unit arrangement**
- Cuvette washing system
- Reaction tray
- Reagent probe
- Sample tray
- Washing station

**Accuracy features**
- Individual probes are used for 1st and 2nd reagents to avoid carry-over.
- Sample pre-dilution ratio and auto-re-run dilution ratio can be set in advance.
- Carry-over protection program for reaction cuvettes and probes.
- Detecting function for contaminated reaction cuvettes are available.
- Reagent cooling is available.
- Reaction cuvette washing with heated water and 2 kinds of washing solution (alkaline and acidic) and heated water washing for all probes.

**Operation features**
- Sample cup and primary tube (5, 7, 10 ml) can be used.
- Auto-gain function when lamp is replaced.
- Reaction waste is stored in a dedicated tank.
- Test result data are compatible with BIOLIS 24i.
- Sampling-stop function using END barcode is available.
- Data base control function is available.
- Improved error list is displayed (compared to BIOLIS 24).
- Liquid level alarm for water reservoir and waste liquid reservoir is available.

**Main unit arrangement**

**Air pressure mixing system**
- Our original system for mixing the sample and reagent using air pressure alone.

**Advantages of Air Pressure Mixing**
- No carry-over because a stirrer is not used
- No water consumption for stirrer washing
- No dilution of the reaction solution by washing water from the stirrer

**ISE module (OPTION)**

**[A]** ISE is Direct Method
- Throughput is 400 tests/hour including ISE.
- ISE module is equipped with BIOLIS 24i Premium.
- It makes easy to replace the electrode.

**[B]** Consumables of the ISE module as follows
- Calibrator
- Cleaning solution
- Electrode (Na, K, Cl, Ref)
**Main unit arrangement**

- Cuvette washing system
- Reaction tray
- Sample probe
- ISE sample inlet
- Washing station

**Reagent tray (36-sector tray)**

- 24-sector tray available as an option

**Sample tray**

- Up to 40 patient samples on board.
- Both sample cup and primary tube can be used.

**Reagent probe**

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**Specifications**

### Analysis

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<tr>
<th>System type</th>
<th>Discrete single line random access multi-test analysis</th>
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<tbody>
<tr>
<td>Number of test items on board</td>
<td>36+3 (ISE) or 24+3 (ISE)</td>
</tr>
<tr>
<td>Throughput</td>
<td>240 tests/hour, 400 tests/hour including ISE</td>
</tr>
<tr>
<td>Analysis method</td>
<td>End point assay, rate assay, ISE (option)</td>
</tr>
<tr>
<td>Calibration curve</td>
<td>9 kinds (linear, spline, etc)</td>
</tr>
</tbody>
</table>

### Sample

<table>
<thead>
<tr>
<th>Sample kind</th>
<th>Serum, plasma, urine, CSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample container</td>
<td>Sample cup, primary tube (5, 7, 10 ml)</td>
</tr>
<tr>
<td>Number of sample on board</td>
<td>Maximum 55/tray</td>
</tr>
<tr>
<td>Number of sample tray</td>
<td>Maximum 10</td>
</tr>
<tr>
<td>Sample dispense volume</td>
<td>2.0-30.0 μl (0.1 μl step)</td>
</tr>
<tr>
<td>Dilution ratio</td>
<td>6, 10, 100</td>
</tr>
<tr>
<td>STAT sample</td>
<td>Available</td>
</tr>
<tr>
<td>Sample barcode</td>
<td>Barcode reader supplied as an option</td>
</tr>
</tbody>
</table>

### Reagent

| Number of bottles on board | 72 (36 items) or 48 (24 items) |
| Bottle volume             | 13, 25, 40 ml or 20, 40, 60 ml |
| Reagent dispense volume   | 20-330 μl (1 μl step) |
| Residual volume           | Level sensing or count down calculation |
| Reagent tray              | 36-sectors or 24-sectors (Removable) |
| Reagent barcode           | Barcode reader supplied as an option |

### Reaction

| Cuvette material        | Plastics (Semi-disposable) |
| Reaction volume         | Minimum 140 μl, maximum 400 μl |
| Reaction time           | 10 min. (1st reaction 5 min., 2nd reaction 5 min.) |
| Reaction temperature    | 37.0 ± 0.1°C |
| Optical measurement     | 12 fixed wavelengths (340-800 nm) |
| Optical source          | Tungsten halogen lamp (Long-life type) |
| Optical range           | OD 0-2.5 |
| Cuvette washing         | Auto washing with heated water and 2 kinds of washing solution |
| Reaction waste collection | Reaction waste to be stored in a dedicated tank |
| Pure water consumption  | Maximum 3.5 l/hour |

### User interface

| Run monitor             | Analyzer operation status display |
| Reaction curve monitor  | Optical absorbance graphic display |
| QC                     | Based on Westgard’s algorithm, etc. |
| Voice message          | Available |
| Test results storage   | 10,000 samples maximum |
| Printer                | Internal, External (option) |
| Power supply           | AC 100/115/230 volt (50/60 Hz) |
| Environmental conditions | Ambient temperature 15-30°C, Humidity 30-80% (No condensation) |
| Dimension              | 800 mm (w) x 670 mm (d) x 520 mm (h) |
| Weight                 | Approx. 95kg |

### Option

| ISE module             | Sample barcode reader, Reagent barcode reader |
| Water purification system | Water purification system |
| External printer       | |

*Specification may change without notice due to modification*
**Friendly User-interface**

**Renewal of User-interface**
- Readily understandable screen and ease of operation

**New functions**
- Automatic reagent residual volume calculation,
- Current QC screen, Simple operation mode,
- Soft sample tray mode, etc.

**Specification**

**Analysis**
- System type: Discrete single line random access multi-test analysis
- Number of test items on board: 36+3 (ISE) or 24+3 (ISE)
- Throughput: 240 tests/hour, 400 tests/hour including ISE
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- Calibration curve: 9 kinds (linear, spline, etc)

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- Sample kind: Serum, plasma, urine, CSF
- Sample container: Sample cup, primary tube (5, 7, 10 mL)
- Number of sample on board: Maximum 55/tray
- Number of sample tray: Maximum 10
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- STAT sample: Available
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