



Common Specifications

Item	Specification
System	Discrete type, multiple-item simultaneous analyzer
Number of analyzable tests	100 test max. (86 assay tests, 3 ISE tests, 8 calculation tests, 3 serum indexes)
Analytical methods	1-point assay, 2-point end assay, 2-point rate assay, rate A assay
Calibration methods	Linear, Non-linear
Calculation functions	Test-to-test calculation, data correction, reproducibility
Monitor functions	Reaction process monitor, data review, calibration trace, working curve, etc
Accuracy control	Real-time accuracy control, daily accuracy control, cumulative accuracy control
Kinds of accuracy control reagent	100 maximum
Rerun function	Provided (automatic rerun, manual rerun)
Output ledgers	Analysis results (monitoring format and reporting format), reaction process monitor (control), worksheet, calibration trace, screen hardcopy, etc.
Maximum data storage	Sample data (routine, STAT): 10,000 samples Reaction process data (routine, STAT): 10,000 tests Accuracy control reagents (daily): 100 kinds, 2,500 points Accuracy control reagents (cumulative): 100 kinds, 500 points/test
System interface	RS-232C
Line voltage	208/230 V AC $\pm 10\%$
Power frequency	50/60 Hz
Power consumption	Analytical unit: 1.5 kVA Control unit: 0.5 kVA
Grounding	Electrical installation technical standard class C
Ambient temperature	15-32°C [59.0-89.6°F] ($\pm 2^\circ\text{C}$ [$\pm 3.6^\circ\text{F}$] during Analysis)
Ambient humidity	30-85%RH (no condensation)
External dimensions	1325 (W) \times 859 (D) \times 1262 (H) (mm)
Weight	Analytical unit: Approx. 250kg Control unit: Approx. 20kg
Water consumption	Appr. 12L/h
Water quality	1 $\mu\text{S/cm}$ Reagent grade type I NCCLS
Heat capacity	Analytical unit: 1.5 kW Control unit: 0.5 kW

Photometric Analyzer

Item	Specification
Throughput	300tests/hr max.
Number of simultaneous simultaneous analysis tests	42 max.
Sample pipetting volume	1.5-35 µl (in 0.1 µl steps) (1.0-35 µl for rerun)
Reagent pipetting volume	5-180 µl (in 1 µl steps)
Reagent pipetting timing	Up to 3 (R1-R3)
Reagent cooling	All-reagent cooling (5-15°C)
Number of installable reagent cassettes	42
Reagent cassette configuration	3 bottles/cassette max.
Reagent remaining volume check	Test countdown
Reaction solution volume	100-250 µl (necessary volume for photometric assay)
Reaction disk	Turntable type, 66 reaction cells (reaction cell direct photometric assay system)
Number of installed samples	Inner track: 55 positions Outer track: 55 positions
Sample container	Hitachi standard sample cup Hitachi small-amount sample cup Blood collection tube: 16 mm dia. x 75 mm long 16 mm dia. x 100 mm long 13 mm dia. x 75 mm long 13 mm dia. x 100 mm long Blood collection tube + Hitachi standard sample cup (Hitachi standard sample cup installed on blood collection tube): 16 mm dia. x 75 mm long 16 mm dia. x 100 mm long Blood collection tube + Hitachi small-amount sample cup (Hitachi small-amount sample cup installed on blood collection tube): 16 mm dia. x 75 mm long 16 mm dia. x 100 mm long
Reaction container	Plastic (11-row molded cells)

Reaction container washing	Automatic washing with acid, alkaline detergent, deionized water
Optical path length	5.6 mm
Reaction time	10 minutes (settable in 1-minute units from 3 to 10 minutes)
Mixing	Non-contact mixing using ultrasonic waves, mixing strength: 3 levels selectable
Photometer	Concave diffraction grating photometer with 12 wavelengths of 340, 376, 415, 450, 480, 505, 546, 570, 600, 660, 700, and 800 nm
Photometric system	2-wavelength or 1-wavelength photometric assay, 0-3 Abs
Reaction temperature	37±0.1°C, using thermostatic water circulation system
Sample probe clogging detection *	Provided (pressure variation detection system)

* When sample is pipetted, the change in pressure inside the probe is detected: If the probe is completely clogged, alarm will occur. If the probe is only partly clogged, or a foreign object less than probe inner diameter has entered, no alarm may occur. The object clogging the probe may not always be fibrin.

ISE Analyzer

Item	Specification
Application	Measurement of Na ⁺ , K ⁺ , Cl ⁻ in serum or urine
Detection system	Ion selective electrode method
Sample pipetting volume	9.7 µl (6.5 µl during rerun)/sample
Reagent pipetting volume	<ul style="list-style-type: none"> Diluent: 291 µl/sample (31 times dilution) (during operation) Internal solution: 450 µl/sample (during operation) *² Reference electrode solution: 130 µl/sample (during operation)
Measurement ranges	Serum: Na ⁺ 80 - 180 mmol / L K ⁺ 1.5 - 10.0 mmol / L Cl ⁻ 60 - 140 mmol / L Urine: Na ⁺ 10 - 250 mmol / L K ⁺ 1 - 100 mmol / L Cl ⁻ 10 - 250 mmol / L
Throughput	150 samples/hr max.
Mixing	Non-contact mixing using ultrasonic waves
Sample probe clogging detection * ¹	Provided (pressure variation detection system)

* **1:** When sample is pipetted, the change in pressure inside the probe is detected: If the probe is completely clogged, alarm will occur. If the probe is only partly clogged or a foreign object less than probe inner diameter has entered, no alarm may occur. The object clogging the probe may not always be fibrin.

* **2:** 450 µl is pipetted at a time. The calculation is based on the IS potential before and after for measurement: When measurement is not continuous, 450 x 2 = 900 µl is discharged into cell for one sample.