

# CHEM-7

## Semiautomatic Biochemistry Analyzer



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### OPEN SYSTEM

- Measure principle:  
colorimetry, turbidimetry, immunoassays

### OPTICAL MODULE

- Static photometer
- 8 interference filters:  
340, 405, 450, 505, 546, 578, 600 and 670 nm
- Silicon photodiode detectors
- Photometric range from 0 to 3.0 OD
- Quartz halogen lamp – 12V, 20W

### MEASURING MODULE

- Unique triple cuvette system
  - 18 µl flow cell (33 µl optional)
  - 10 mm square cuvette
  - 6 mm round glass tube with adapter for coagulation tests
- Peltier temperature control:  
20–40°C ± 0.1°C
- Peristaltic pump
- Aspiration volume programmable  
from 100 µl to 2997 µl

### MEMORY

- 5 000 test results

### RESULTS RECALL

- Collated reports by date, ID or both

### PRINTER AND KEYBOARD

- 41 fixed and 6 dynamic keys

### 10 OPERATION MODES

- 1-point linear
- 2-point linear
- 1-point non-linear
- 2-point non-linear
- Rate A linear
- Rate A non-linear
- 1-point sample blank linear
- 1-point sample blank non-linear
- Absorbance
- Coagulation

**COMPACT.**

**HIGH PERFORMANCE.**

**32-BIT MICRO CONTROLLER BASED.**



## QC

- Levy – Jennings chart available for three controls per test
- Daily and monthly QC

## DISPLAY

- High resolution graphic LCD 320 × 240 with backlight
- View area 120 × 92 mm

## INTERFACES

- USB B type port for host computer
- USB A type port for external USB DeskJet printer
- External PC/AT keyboard

## MAINS SUPPLY

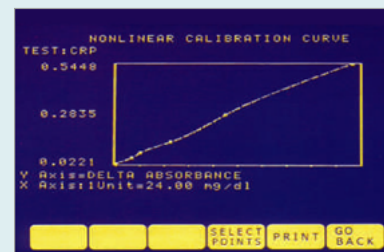
- 115/230V AC ( $\pm 10\%$ ), 50/60 Hz  
(input for power adapter)
- External universal SMPS adapter  
(18/19.5V; 65/90W)

## SIZE AND WEIGHT

- Size (mm): 410 (l) × 292 (w) × 195 (h)
- Weight: approx. 7 kg

## OPTIONAL ACCESSORIES

- External 16 position dry block incubator
- External battery back-up



*Multistandard calibration*



*16 cell thermostat*



*Battery*



*Connection of the keyboard*



*Printout of reports with external printer*

# TECHNICAL SPECIFICATIONS

## SYSTEM TYPE

Automatic clinical chemistry analyzer – random access system  
STAT samples processing

## THROUGHPUT

400 photometric tests/hour  
640 tests/hour with ISE

## ON-BOARD PARAMETERS

Up to 45 photometric tests + 4 ISE

## SAMPLE TYPE

Serum, plasma, blood, urine, CSF, other biological fluids

## NO. OF PROGRAMMABLE PARAMETERS

96 photometric tests, 40 calculated tests and 4 ISE parameters

## ASSAY METHODS

End-point, kinetics,  
ISE (direct potentiometry)

## CALIBRATION TYPE

Linear (one point, multi point),  
exponential, polynomial, factor, cubic  
spline, Logit-Log 4P, Logit-Log 5P

## OPTICAL SYSTEM

Halogen lamp, 12 wavelengths:  
340, 376, 415, 450, 480, 505, 546, 570,  
600, 660, 700 and 750 nm (diffraction  
grating)

## REAGENT TRAY

56 refrigerated positions (8–12 °C)  
5, 20, 50 ml reagent containers

## SAMPLE TRAY

80 positions:  
Outer ring – 50 position for samples  
Inner ring – 30 positions for blanks,  
standards, calibrators, controls and ISE  
solutions

## REAGENT DISPENSING

2 independent dispensing probes with  
liquid-level sensor  
Dispensed volumes:  
R1 50–300 µl with 1 µl step  
R2 10–300 µl with 1 µl step

## MINIMAL REACTION VOLUME

180 µl

## REACTION TRAY

72 reusable hard glass cuvettes, optical  
path length 5 mm

## MIXING SYSTEM

2 independent stirrers,  
3 mixing speeds

## QC

Levey-Jennigs charts,  
Westgard rules

## BARCODE READER

Built-in barcode reader

## WATER CONSUMPTION

Maximum 13 litres/hour

## PC REQUIREMENTS

Operating system:  
Up to Win 10, Pentium 4, RAM 512 MB,  
HDD 200 GB, resolution 1024 × 768

## POWER SUPPLY

220 V ± 10 %, 50 Hz ± 5 %, 600 VA

## DIMENSIONS

910 mm (w) × 780 mm (d) × 1160 mm (h)

## BACKUP

Complete or selected data

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