

## INSTRUMENT SPECIFICATIONS

# AU5800 CLINICAL CHEMISTRY SYSTEMS



### CONTINUOUS OPERATION AND POWERFUL THROUGHPUT FOR THE LABORATORY >

The AU5800 chemistry systems are designed to meet a full spectrum of processing throughputs for various laboratory environments. From high-volume hospitals to ultra high-volume reference laboratories, the AU5800 completes the full performance range offered by the AU family of chemistry analyzers.

- » Multiple configurations, ranging from one to four analyzer units
  - Each unit can be programmed with a maximum of 54 onboard assays
  - Software can be programmed for a maximum of 120 different assays
- » Choice of single or dual ISE flow cell(s)
- » Intuitive graphical user interface
  - Sample tracking
  - Reagent inventory data by day of week
  - Patient results displayed in “real time”
  - User-defined, customized menu
  - Color alerts to highlight system operating alerts
- » Precision micro sampling
- » High capacity rack trays holding a total of 400 samples to maximize walk-away capability
- » Three lanes to transport racks – including bypass lane with true STAT interrupt capability
- » AU proven reliability with quick and easy 3&60 parts replacement: no more than 3 steps and not longer than 60 seconds
- » Designed for connectivity to laboratory automation

## Analytical System

Fully automated, random-access clinical chemistry system with STAT capability

1 atitikimų punktas  
Pilnai automatizuotas, laisvosios prieigos klinikinės chemijos sistema su STAT galimybe.

## Analytical Principles

Spectrophotometry and potentiometry

## Assay Types

Endpoint, rate, fixed point and indirect ISE

1 atitikimų punktas  
Netiesioginis ISE

## Analytical Methods

Colorimetry, turbidimetry, latex agglutination, homogeneous EIA, indirect ISE

## Onboard Parameters: 120

## Number of Simultaneous Analytes

AU5810 one-unit (including ISE): 57  
AU5820 two-unit (including ISE): 111  
AU5830 three-unit (including ISE): 120  
AU5840 four-unit (including ISE): 120

## Throughput

AU5810 up to 2,000 photometric tests/hr  
AU5820 up to 4,000 photometric tests/hr  
AU5830 up to 6,000 photometric tests/hr  
AU5840 up to 8,000 photometric tests/hr

2 atitikimų punktas  
Našumas  
AU5810 iki 2000 fotometrinių tyrimų per valandą

## ISE (Optional)

Single flow cell: up to 900 tests/hr  
Double flow cell: up to 1,800 tests/hr

1 atitikimų punktas  
ISE tyrimai  
Vieno kanalo celė iki 900 tyrimų/val.

## Sample Types

Serum, plasma, urine and/or other fluids

## Sampler Capacity

400 samples (2 x 20 rack set)  
10 samples per rack (bar-codes on primary tubes and on racks)  
STAT loading via emergency rack using STAT port

2, 7 atitikimų punktas  
400 mėginių (2x20 stovo kompleksas). Rack'nis mėginių emiklis - 10 mėginių iš vienos rack'o. STAT karuselė, mėginiai gali būti įdedami vienu metu.

## Sample Tubes

Primary and secondary tubes: inner diameter between 9 and 15 mm height between 55 and 102 mm; Nested micro cups

## Sample Volume

1.0 – 17µL in 0.1µL increments

6 atitikimų punktas  
Mėginio tūris  
1,0–17 µL su 0,1 µl intervalais

## Sample Quality Analysis

Lipemia, Hemolysis, Icterus Indices  
Clot detection and probe crash protection

9 atitikimų punktas  
Pirminiai ir antriniai mėgintuvėliai, kurių skersmuo nuo 9 iki 15 mm, aukštis nuo 55 iki 102 mm. Lizdiniai mikro indėliai.

## Sample Barcode Formats

Mixed barcodes: NW7 (Codabar), Code 39, Code 128, 2 of 5 interleaved, ISBT code 128

8 atitikimų punktas  
Lipemijos, hemolizės, geltos indeksai. Krešulių aptikimas ir zondo apsauga nuo suduzimo

## Reagent Supply

54 positions for R1; 54 positions for R2 per unit refrigerated 4°C – 12°C

## Reagent Volume

Dispensing volume from 10 µL–170 µL (1µL increments)

12 atitikimų punktas  
Mėginių brūkšnių kodų formatai NW7, KODAS 39, KODAS 128, ISBT-128, 2 iš 5 standartinis.

## Total Reaction Volume

80–287µL

3 atitikimų punktas  
54 pozicijų - R1, 54 - R2 (šaldomos 4–12 °C)

## Reaction Cuvette

Permanent glass cuvettes

5 atitikimų punktas  
Reagentų kiuvetės  
Nuolatinės stiklinės kiuvetės

## Reaction Time

Up to 8 minutes, 39 seconds

## Reaction Temperature

37°C (+/- 0.3°C)

## Reaction Method

Dry Bath

## Wavelength

13 different wavelengths between 340–800 nm  
Monochromatic and bichromatic

## Calibration

Straight line, polygonal line, approximate curve, spline-function  
Auto and advanced calibration  
200 calibrators can be programmed, up to 7 points per curve  
History of graphical calibration data stored

## Quality Control

Westgard rules, Twin Plot and Levey Jennings graphs 100 controls can be programmed  
10 levels per test

## Reflex Testing

User defined

4 atitikimų punktas  
Pakartoja mėginį padidinant arba sumažinant mėginio tūrį arba atlieka skiedimą (3, 5, 10, 15, 20, 25, 50, 75, 100 kartų)

## Automated Sample Pre-Dilution

Repeat run with increased or decreased sample volume or sample pre-dilution (3 to 100 times)

## Online

Full uni- and bi-directional host query communications possible

## Operating System

Windows® XP Professional

13 atitikimų punktas  
Prijungimas  
Galimybė jungti analizatorių į HIS/LIS.  
Vienkryptės ir dvikryptės pagrindinio kompiuterio užklauskų komunikacija.

## Data Storage

Hard drive up to 100,000 samples  
Reaction monitor 400,000 tests

External Storage USB

## Power Supply

200V, 208V, 220V, 230V, 240V (within +/- 10%)

Frequency: 50Hz, 60Hz +/- 3%

Maximum rate supply 1 unit 6 kVA, 2 unit 8 kVA, 3 unit 10 kVA, 4 unit 12 kVA

## Water Supply Information

Mean water consumption: (50/60Hz)

AU5810: 62 L/hr, AU5820: 124 L/hr, AU5830: 186 L/hr, AU5840: 248 L/hr, ISE: 2.0L/hr/unit

Water Type: Deionized CAP Type II, Bacteria Free, Continuous Flow Supply  
Conductivity: 2.0 uS/cm or less filtered with a 0.5 um filter

## Temperature & Humidity

18 to 32°C, 20% to 80% RH (no condensation)

## Drain Requirements

Built in waste pump

Drain required: maximum height from the floor <1.5 m (< ~ 59 in)

## Installation Requirements

	Dimensions W x D x H (in)	Dimensions W x D x H (mm)	Weight (lbs)	Weight (kg)
AU5810*	85×62×63	2,150×1,580×1,600	2,028	920
AU5820*	126×62×63	3,210×1,580×1,600	3,351	1,520
AU5830*	168×62×63	4,270×1,580×1,600	4,674	2,120
AU5840*	210×62×63	5,330×1,580×1,600	5,997	2,720
AU5810 w/ISE*	102×62×63	2,600×1,580×1,600	2,359	1,070
AU5820 w/ISE*	144×62×63	3,660×1,580×1,600	3,682	1,670
AU5830 w/ISE*	186×62×63	4,720×1,580×1,600	5,005	2,270
AU5840 w/ISE*	228×62×63	5,780×1,580×1,600	6,327	2,870
Analyzer unit only	42×62×50	1,060×1,580×1,260	1,323	600
Sampler (w/monitor arm)	43×59×63	1,090×1,500×1,600	705	320
ISE	18×45×48	450×1,140×1,210	331	150

\* Includes Sampler.

Not available in all geographies.

Windows is a registered trademark of Microsoft Corporation.

Beckman Coulter, the stylized logo and AU are trademarks of Beckman Coulter, Inc., and are registered with the USPTO.

For Beckman Coulter's worldwide office locations and phone numbers, please visit [www.beckmancoulter.com/contact](http://www.beckmancoulter.com/contact)