Sys 480

Unlock the Power of Precision

Diversity | Perfection | Resilient

Elevating Lab Standards.

DiaSys
Diagnostic Systems

CHOOSING QUALITY.

The Sys 480 analyzer is a state-of-the-art laboratory instrument designed to streamline and enhance the process of biochemical analysis.

This innovative device combines advanced technology with user-friendly features to deliver precise, reliable, and efficient results in various laboratory settings, including clinical, research, and industrial laboratories. Below is an overview of the Sys 480 analyzer, covering its key features, benefits, and applications.

Key Features

High Throughput and Efficiency

- Processes multiple samples and reagents simultaneously for high-volume efficiency
- Continuous sample loading reduces downtime and maximizes productivity
- Rapid processing delivers timely results for critical applications

Efficient Washing System

- Comprehensive cleaning with pre-warmed deionized water and detergent to prevent contamination

Data Management and Connectivity

- Advanced data management integrates with laboratory information systems (LIS) and electronic medical records (EMR) systems
- Flexible export options for easy data sharing and analysis

Intelligent Mixing System

- Stepper motors with speed monitoring ensure thorough and consistent mixing

Precise Pipetting System

- Advanced technology handles minimum sample volumes of 1.5 µL with high accuracy
- Efficient washing reduces carry-over to less than 0.05% for precise results

Reliable Heating System

- Maintenance-free solid heating technology maintains a stable 37°C reaction temperature
- 24-hour refrigeration keeps reagents at optimal temperatures of 2°C to 8°C

Streamlined HbA1c Processing

The Sys 480 chemistry analyzer utilizes HbA1c smart-sampling technology for onboard automatic hemolysate preparation of whole blood samples, resulting in shorter turnaround times (TAT) and eliminating biohazardous risks or errors from manual operation.

Onboard Whole Blood Centrifugation

One Hemoglobin A1c (One HbA1c) is a glycated hemoglobin formed by non-enzymatic reaction of glucose with native hemoglobin. This process runs at a slow but constant rate during life span of erythrocytes. The glycation rate is directly proportional to the glucose level in blood.

High Precision and Specificity

The immunoturbidimetric method offers high precision and specificity, avoiding interference from hemoglobin variants and providing better performance.

Traceability to Reference Methods

The assays are traceable to IFCC/NGSP reference methods, ensuring reliable and standardized results.

Test Menu of Clinical Chemistry

A wide and specialized test menu in clinical chemistry is vital for accurate and comprehensive diagnosis, allowing for detailed patient assessments. It enhances operational efficiency by consolidating tests in one place, reduces outsourcing, and provides a competitive edge by addressing diverse diagnostic needs.

Liver Function test (LFT)

- Albumin FS
- Alkaline Phosphatase FS IFCC
- ALAT (SGPT) FS IFCC
- ASAT (SGOT) FS IFCC
- **Ammonia**
- Bilirubin Auto Direct FS
- Bilirubin Auto Total FS
- Cholinesterase FS
- Gamma GT FS (Szaaz method)
- LDH 21 FS IFCC
- Total protein FS
- **Total Bile Acids 21 FS**

Renal Function

- **Albumin in urine/CSF FS (Microalbumin)**
- Calcium P FS
- Calcium AS FS
- Creatinine Jaffe FS
- **Creatinine PAP FS**
- **Cystatin C FS**
- Glucose Hexokinase FS
- Magnesium XL FS
- One HbA1c FS
- Phosphate FS
- Total Protein UC FS (Urine & CSF)
- Uric Acid FS TBHBA
- Urea

Diabetes

- **Albumin in urine/CSF FS (Microalbumin)**
- **ß-Hydroxybutyrate 21 FS**
- Glucose Hexokinase FS
- Glucose GOD FS
- **Non-esterified fatty acids (NEFA) FS**
- One HbA1c FS

Metal Profile

- Calcium FS
- **Copper FS**
- Magnesium XL FS
- **Zinc FS**

Lipids (Arteriosclerotic risk)

- **Apolipoprotein A1 FS**
- **Apolipoprotein B FS**
- Cholesterol FS
- CRP U-hs FS
- **Homocysteine**
- HDL-C Direct FS
- LDL-C Direct FS
- Lp(a) 21 FS
- **Lp-PLA2 FS**
- **Non-esterified fatty acids (NEFA) FS**
- Triglycerides FS

Cardiac

- **Angiotensin Converting Enzyme (ACE)**
- **Apolipoprotein A1 FS**
- **Apolipoprotein B FS**
- CK-NAC FS
- CK-MB FS
- CRP U-hs FS
- **Homocysteine**
- Lp(a) 21 FS
- **Lp-PLA2 FS**
- Myoglobin

Pancreas

- Alpha-Amylase CC FS
- Lipase DC FS
- Pancreatic amylase FS

Bones, Osteoporosis

- Alkaline Phosphatase FS IFCC
- Calcium FS
- Phosphate FS
- **Vitamin D**
- Rheumatoid Factor FS

Pulmonary Profile

- **Adenosine Deaminase (ADA)**
- **Angiotensin Converting Enzyme (ACE)**

Thrombosis

- D-Dimer

Iron metabolism, Anemia

- Ferritin FS
- Iron FS Ferene
- Transferrin FS
- UIBC FS
- **Glucose-6-phosphate dehydrogenase (G6PDH)**

Metabolic parameters

- Bicarbonate FS
- Chloride 21 FS
- Lactate FS
- Potassium FS
- Sodium FS

Infection Panel

- Immunoglobulin A FS
- **Immunoglobulin E FS**
- Immunoglobulin G FS
- Immunoglobulin M FS
- Antistreptolysin O (ASO)

Inflammation

- CRP FS
- CRP U-hs FS
- **Procalcitonin (PCT) FS**
- Rheumatoid Factor FS
- Complement C3cFS
- Complement C4FS

Nutrition

- Albumin FS
- Magnesium XL FS
- Prealbumin FS
- Total protein FS
- Uric Acid FS TBHBA

Electrolyte

- Chloride 21 FS
- Potassium FS
- Sodium FS

SYS 480

Technical Specifications	
Analytical System	Fully Automated, Discrete, random-access clinical chemistry System with STAT capability
Analytical Principle	Absorbance Photometry,Turbidimetry, Ion selective electrode technology (Optional)
Assay Type	End Point, Fixed Time, Kinetic, ISE (Optional)
Test Menu Applications	Photometric Tests, Serum Indices(LIH), HbA1c and ISE (Opitional)
Throughput	Constant 420 Photometric Tests/Hour; up to 626 Test/Hour with ISE (Optional)
Sample Types	Serum, Plasma, Urine, Whole Blood & Other fluids
Sample Capacity	102 positions for samples, continuous loading
Sample Volume	1.5 µL -45µL with step by 0.1 µL
Reagent/Sample Probe	LLD, Horizontal & Vertical collision protection, Inventory checking, Reagent Pre-warming, Clot Detection
Sample Barcode Format	Codabar, ITF, Code 128, Code 39, UPC/EAN,Code 93
Reagent Capacity	92 Positions for (R1+R2, Detergent position) refrigerated 2°C-12°C Bottle Size - 40 mL; 20 mL
Reagent Volume	10 µL - 200 µL with step by 0.5 µL
Total Reaction Volume	100µL – 360 µL
Reaction Cuvettes	93 Reusable Cuvettes
Reaction Temperature	37°C ± 0.1 °C
Photometric Range	0-3.5 Abs with resolution 0.0001 Abs
Wavelengths	12 Wavelengths, 340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm, 800nm
Calibration	K-Factor, Linear (Two Points and multipoint),Logit-Log 4P, Logit-Log 5P, Spline, Exponential, Polynomial, Parabola, Logit-Log 3P, Broken Line
Quality Control	Westgard multi-rule, Levey Jennings, Cumulative sum check, Twin plot
Online	Uni & Bi-Directional host query communications
Installation Requirements Dimensions (mm) & Weight (Kg)	1050mm (length) x 720mm (depth) x 1150mm (height); 200 Kg
Power Supply	200-240V, 50/60Hz, ≤ 1300VA
Water Supply Information	≤ 20 L/H

Order Information

Item Code	Analyzer
4000004016	SYS 480