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Meril

Diagnostics

Excelus Works, You relax...

AutoQuant 200 Excelus™

ri More to Life

AutoQuant 200 Excelus™

Meril Diagnostics endeavor to manufacture most of the products in-house witnesses the launch of AutoQuant 200 Excelus™ bench top fully automated analyzer with a throughput of 200 tests per hour. Its unique compact model with inbuilt laundry and cooling facility for Reagents makes it ideal for a medium size laboratory for routine tests, and as a backup for bigger laboratories. Its unique software, feature of user defined reflex action and many other features makes it user friendly Fully Auto Analyzer.

Reagent & Sample Tray

- 30 refrigerated reagent positions & 30 sampling positions concentrically arranged
- Reagent & Sample positions are bar code enabled
- Detachable Reagent Tray
- Peltier based cooling system to maintain temperature between 8^0C to 12^{o}C
- 20 ml Reagent bottles
- Primary tubes & samples cups can be used
- Continuous loading
- STAT/controls/calibrators can be placed at any position

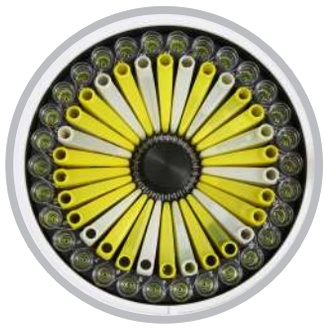

Figure. 1

Sample probe, Reagent probe & Stirrer

- Hydrophobic probes which prevents cross contamination
- Internal & external prob washing
- Probe carry over < 3%
- Capacitive level detection
- Vertical and horizontal obstruction detection facility to prevent probe crash
- Long life pipetting system with plunger driven by precised stepper motor
- Single Teflon coated stirrer

Figure. 2

Reaction & Optical System Unit

- 60 discrete, dismountable, easily replaceable and reusable cuvettes with 6 mm optical path
- Cuvette material which ensures high transmittance
- 7-step on board washing
- Hot Water wash of cuvettes, carry over < 1%
- Continuous cuvette blank checking, if blank exceeds the limit, cuvette is skipped

Software

- User friendly software
- Online curve for all types of chemistries
- User defined reflex action ensures time management
- Pre-dilution & Auto-dilution facility
- Real Time online monitoring for running status of
  -Sample tray
  -Reagent tray
  -Reaction cuvette
  -Reagent Inventory

Cooling System for Peltier

- Water based cooling system for peltier
- Prolongs the life of peltier
- Ensures high onboard stability of Reagents
- Reduces the internal heat dissipation of instrument

Excelus Works, You relax...

- **Accuracy:**
  On board cooling and On board laundry system
  Option of three different wash for forbidden pairs to minimize the carry over
- **High Precision:**
  Meril cutting edge technology for volume measurement by ceramic block piston
- **Convenience:**
  Intuitive software of reflex testing and dedicated system packs
- **Flexibility:**
  Processing of emergency samples can be dealt on priority with STAT function
- **Ease of operation:**
  Windows based software, compact design

AutoQuant System Reagents

Mat Code	Material Description	Pack Size
ALBAQ1-01	ALBUMIN	6 x 20 ml
AMYAQ1-01	AMYLASE	4 x 20 ml
ALPAQ1-01	ALKALINE PHOSPHATASE	4 x 15 ml
GPTAQ1-01	ALAT (GPT)	6 x 20 / 6 x 5 ml
GOTAQ1-01	ASAT(GOT)	6 x 20 / 6 x 5 ml
BITAQ1-01	BILIRUBIN TOTAL	5 x 15 / 5 x 5 ml
BIDAQ1-01	BILIRUBIN DIRECT	5 x 15 / 5 x 5 ml
CAAAQ1-01	CALCIUM (A)	4 x 20 ml
CREAQ1-02	CREATININE	5 x 15 / 5 x 15 ml
CKNAQ1-01	CREATINE KINASE NAC	2 x 20 / 2 x 5 ml
CKMAQ1-01	CREATINE KINASE MB	2 x 20 / 2 x 5 ml
CHOAQ1-01	CHOLESTEROL	6 x 20 ml
HDLAQ1-01	HDL CHOLESTEROL (Direct)	2 x 18 / 2 x 6 ml
LDLAQ1-01	LDL CHOLESTEROL (Direct)	1 x 18 / 1 x 6 ml
CHDAQ1-01	CHLORIDE	4 x 20 ml
GGTAQ1-01	g-GLUTAMYL TRANSFERASE	1 x 20 / 1 x 5 ml
GLUAQ1-01	GLUCOSE	10 x 20 ml
LDHAQ1-01	LACTATEDEHYDROGENASE	1 x 20 / 1 x 5 ml
MAGAQ1-01	MAGNESIUM	4 x 20 ml
PHOAQ1-01	PHOSPHORUS	4 x 20 ml
TPRAQ1-01	TOTAL PROTEIN	6 x 15 ml
MTPAQ1-01	MICROPROTEIN	4 x 20 ml
TRGAQ1-01	TRIGLYCERIDE	6 x 20 ml
URCAQ1-01	URIC ACID	4 x 15 ml
UREAQ1-01	UREA	6 x 20 / 6 x 5 ml
MALAQ2-01	MICRO ALBUMIN	2 x 20 /2 x 5ml
CRPAQ2-01	CRP	2 x 20 /2 x 5ml
LIPAQ2-01	LIPASE	1 x 20 / 1 x 12 ml
HBAAQ2-01	HbA1c	2x15/2x5.5/1x75/4x0.5 ml

Controls & Calibrators:

CRNCNC-01	BioNorm	1 x 5 ml
CRPCNC-01	BioPath	1 x 5 ml
CALCNC-01	Bio Cal	4 x 3 ml

Technical Specifications

Throughput	Double Reagent : Max 200 Tests / hour Single Reagent : Max 240 Tests / hour ISE Optional

System Functions

Analysis method	End Point, Fixed Time (2-point), Kinetic Rate-A, Kinetic Rate-B
Assay modes	Colorimetry, Turbidimetry, Single and Double reagent, Multi standard, Mono and Bi – Chromatic

Sample / Reagent proccesing

Sample position	30
Sample volume	2 - 50 µl 0.1 µl step
Sample dilution	2 to 40 times
Reagent position	30 for R1 and R2
Reagent volume	Reagent 1: 180-350 µl (Adjustable in 1 µl step) Reagent 2: 0 or 10-350 µl (Adjustable in 1 µl step)

Reaction System

Reaction cuvette	60 (semi-disposable)
Cuvette washing	On board laundry with 7 step washing system
Water consumption	5 - 6 litres / hour
Optical length of cuvette	6 mm
Reaction volume	180 - 550 µl
Reaction time	30 to 600 sec (Depending on the designated cycle time & number of reagents)
Reaction temperature	37°C ± 0.2° C

Optical System

Measurement principle	Photometry
Light source	Halogen Tungsten lamp with fiber optics
Wavelength	Total 9 filters (340, 405, 450, 510, 546, 578, 620, 670, 700 nm)
Detector	Silicon photodiode
Absorbance range	0 - 3.0 Abs
Resolution	0.0001 Abs

Calibration	K-Factor, Linear (one, two and multi point), Logit-log, Spline, Exponential, Polynomial (second, third and fourth order)
Calibration points	Multipoint curves for up to 6 points execution by repeat run list or auto execution
Auto re-run	Auto execution according to abnormal marking or range over
Data Storage	Test results: Unlimited tests Reaction curve: Unlimited tests Profiles: 20 per sample type Within day as well as day-to-day X and X-R control diagram (L-J Graph)
Quality Control	Real time quality control based on Multi-rule method mean, SD, %CV, R is calculated for all parameters for sample replicates

Working Conditions

Power supply	110/220 VAC, 50/60 Hz (Max. Power 250 W)
Temperature	10° C - 30° C
Humidity	40% - 80% free from water dew formation

Operation System	Windows XP, Windows 7, Windows 8, Windows 10 or Winfix
Input and Output	RS 232 interface/computer
Input	Multiformat printout
Output	
Dimensions	550 mm (W) x 420 mm (D) x 380 mm (H)
Weight	Approx. 23 kgs

AQ 200.EX/1117/ V.01/ IND