

2280

Fully automated 22 parameter CBC system



Features Performance Screens

Intended Use :

Top of the range Cell Counter for medium-sized laboratories

Features :

- 22 parameters, 2 scattergrams and 2 histograms
- Short sample detection
- Proprietary laser technology, 5 part WBC differential
- Impedance technology for cell counting
- State of the art patented platelet counting technique
- 80 samples per hour
- Sample size flexibility satisfies a wide range of end user requirements

Parameters :

WBC, Lymp#, Neut#, Mono#, Eos#, Baso#, Lymp%, Neut%, Mono%, Eos%, Baso%,
RBC, Hgb, Hct, MCV, MCH, MCHC, RDW,
Plt, MPV, Pct*, PDW*

(* - USA : for research only)

The system also displays :

2 x WBC scattergrams, Plt histogram, RBC histogram

Operation :

Scientific Principle :

Multi-dimensional optical scattering using stable laser diode light source to optimize the measurement of WBC differential

Electrical resistance for counting (WBC, RBC, Plt) and sizing (Plt,RBC)

Optical absorbance of cyanmethemoglobin for hemoglobin measurement (there is also an optional cyanide-free reagent).

Full CBC with 5 part differential in under one minute.

Sample Volumes :

Blood samples must be collected in EDTA tubes. Depending on how the 2280 is operated, the system requires :

Direct mode	180 μ L whole blood
Sample saver mode	80 μ L whole blood
Automatic sampler**	180 μ L whole blood

An optional 30 position autosampler is available.

The Autosampler mixes, reads the barcode, pierces the tube cap and automatically aspirates the sample.

Dilution system :

High precision ceramic shear valve and computer controlled diluent dispenser. Automatic rinse inside and outside of the sample probe prevents carryover and reduces risk of transmission of blood borne pathogen to operators.

Sensors :

Laser diode illuminated flow cytometer with three, solid state sensors and one PMT tube for WBC differential.

WBC aperture 100 µm dia x 75 µm length

RBC/Plt aperture 78 µm dia x 55 µm length

The Plt/RBC channel features the patented "von Behrens" silencer that eliminates RBC recirculation which interferes with low Plt counts in conventional aperture designs.

System Software :

The 2280's easy to use software gives rapid access to all patient information including full blood counts, demographics and patient history. QC, calibration and reporting routines are all a few key strokes away.

Microsoft Windows XP™

Patient identification : Sample ID, PID (12 digits), name, first name, sex, DoB, comments

Patient data storage : 100,000 results with scattergrams & histograms

Report format : User selectable

Transfer protocols : ASTM or proprietary

Calibration : Automatic or manual

Selectable units : MKS, SI, SI modified, Chinese

Patient normal range : For up to 8 age ranges and user defined.

Patient action limits : user defined

Quality Control : A comprehensive onboard QC package allows optimal monitoring of system performance. 12 QC lots with 3 levels each. QC values can be loaded via keyboard or disk. QC data log with automatic calculation of mean, SD, CV and XB can be viewed or printed. Monthly Levey-Jennings plot. For comparison with other systems, QC results can be transferred for peer to peer analysis via floppy disk. Bull's moving average.

Operation alerts : Full range of diagnostic alerts.

Maintenance: Programmable automatic startup and shutdown procedures. Maintenance log records routine maintenance operations such as startup, shutdown, reagent replacement and calibration.

Multi-language capability