

Hematology Analyzer Z50

(An evolved 5-diff hematology analyzer)



Hematology

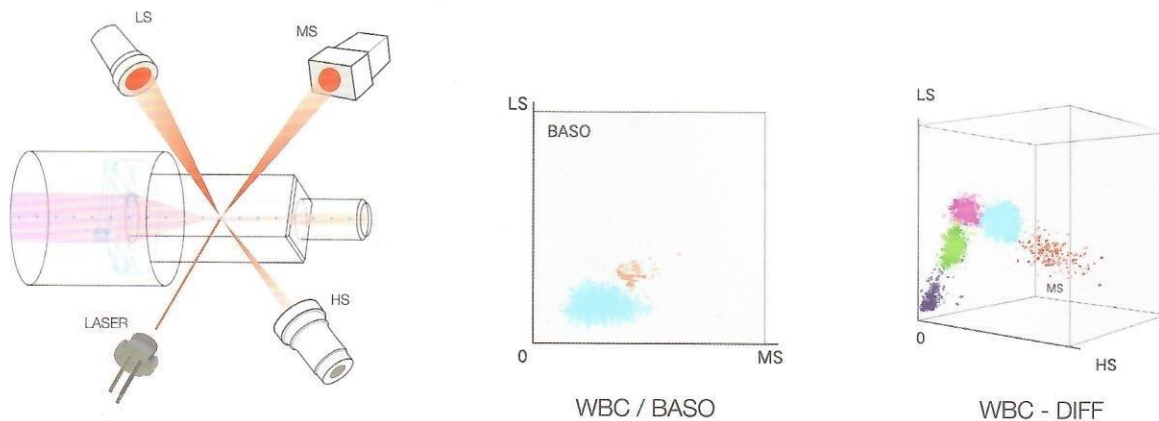


Hematology Analyzer Z50

Z50 is an evolved 5-diff hematology analyzer with compact design that eclipses traditional 5-diff hematology analyzer in the market. It is designed for upgrading your blood analysis solutions, which could provide 29 parameters, 5 scatter-grams and 3 histograms by advanced semiconductor laser scattering technology, flow cytometry and impedance method. This Z50 brings you unpromising performance in medium and satellite laboratory via advanced tri-angle scattering technology, optimal hydraulic system and streamlined operation procedure.

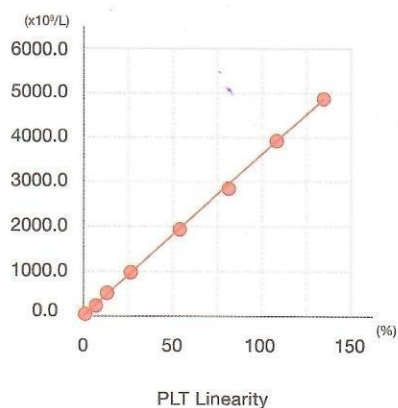
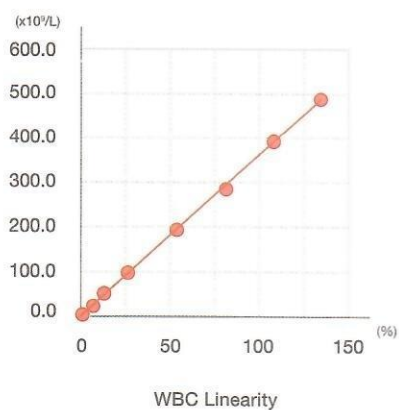


Eclipse traditional 5-diff hematology analyzers



LS shows cellular volume • MS shows cellular complexity • HS shows cellular granularity

- Bring you better 5 differentiations of WBC via distinctive tri-angle laser scatter, advanced flow cytometry and chemical dye, even on high eosinophilic samples.
- Compared with WBC impedance counting channel, WBC/ BASO optical channel can deliver more confident results for basophil measurement.



- Expanded WBC and PLT linearity range, bring you more accurate result for WBC and PLT result, especially for low values.

Enable all possibilities beyond your expectation

- CBC+ 5 DIFF with 25 reportable parameters and 4 research parameters
- 3 histograms for WBC, RBC and PLT, 3 2D- scattergram and 1 3D-scatter gram for WBC differentiation, and 1 2D- scatter-gram for WBC/BASO counting.
- Only 18 μ L sample volume is required for venous and capillary whole blood test.
- Only three reagents for CBC + DIFF mode test with optimized liquid handling system, help reduce reagent consumption.
- Only 1 or 2 clicks to access main work-flow interface with intuitive software navigation menu and HD touch screen.

Enlighten small laboratories

- Innovative reaction system, optimized liquid handling systems, small semi-conductor laser source and two lyses built-in, all lead Z50 to a compact device, fit in small-and-middle labs and clinics.
- Support over 30 + intelligent flags to indicate abnormal blood cell differentiation and morphology.
- One press to shutdown and aspirate probe cleanser for deeply cleaning.

Expanded clinical performance

Performance					
Parameter	Background	Precision		Carry-over	Linearity range
		Detection Range	CV		
WBC($\times 10^9/L$)	≤ 0.2	(3.50~6.90)	$\leq 2.5\%$	$\leq 0.5\%$	(0~500.00)
		(7.00~15.00)	$\leq 2.0\%$		
RBC($\times 10^{12}/L$)	≤ 0.02	(3.50~6.00)	$\leq 1.5\%$	$\leq 0.5\%$	(0~8.00)
HGB(g/dL)	≤ 0.1	(11~18)	$\leq 1.5\%$	$\leq 0.5\%$	(0~25)
HCT(%)/MCV(fL)	HCT ≤ 0.5	MCV:(70~120)	$\leq 0.5\%$	/	HCT:(0~67)
PLT($\times 10^9/L$)	≤ 5	(100~149)	$\leq 6.0\%$	$\leq 1.0\%$	(0~5000)
		(150~500)	$\leq 4.0\%$		

Technical Specification

Specification

Principle	Flow cytometry + tri-angle laser scatter+ chemical dye method for WBC 5-diff differential analysis and WBC counting
	Impedance method for RBC and PLT counting
	Cyanide free reagent for HGB measurment
Mode	CBC, CBC+DIFF
Throughput	60 samples per hour
Parameters	25 reportable parameters: WBC, Lym%, Mono%, Neu%, Bas%, Eos%, Lym#, Mono#, Neu#, Bas#, Eos#, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, MPV, PCT, PDW, PLCC, PLCR,
	4 research parameters: ALY%, ALY#, LIC%, LIC#
Graph	3-D DIFF scatter gram
	3 2-D DIFF scatter gram
	2-D BASO scatter gram
	3 histograms for WBC, RBC and PLT
Sample Mode	Venous whole blood, Capillary whole blood, Pre-diluted
Sample Volume	Venous/Capillary whole blood: 18 μ L
Reagent	Z5 LD Lyse, Z5 LB Lyse, Z5 DN Diluent, Probe cleanser
Calibration	Manual calibration
	Auto calibration: Fresh blood, calibrator
QC Rule	L-J, X-B
Screen	8.4-inch touch screen
Interface	4 USB port for external printer, external barcode scanner, mouse, keyboard, etc.
	1 network port, HL7 protocol, support LIS.
Storage Capacity	$\geq$ 50,000 results including numeric and graphical information
Power Supply	(100-240) V~, 50/ 60Hz, 200 VA
Operation environment	Temperature: (10-30) $^{\circ}$ C
	Humidity: (20-85) %
	Atmospheric Pressure: (70-106) kPa
Weight	28.5 Kg
Dimension (mm)	230(W)* 455(D)*435 (H)