Yumizen H550

PHYSICAL SPECIFICATIONS

Dimensions & Weight:

	Height	Width	Depth	Weight
Analyzer	62 cm 24 in	53 cm 20 in	67 cm 26 in	36 kg 77 lbs

Printer (optional):
Compatible models with Linux drivers

Throughput:
43 samples/hour

Sample Management:
Autonomy of 40 tubes in 1 hour
Continuous Loading
STAT Mode
Rack Automatic Mixing
Tubes Positive Identification

Sound Level:
54 dBa

Operating Temperature & Humidity:
+15°C (+59°F) to + 30°C (+86°F)
Relative humidity of 30%-80% maximum, without condensation

Specimen Volume:
CBC mode: 20µL
DIF mode: 20µL

Power Requirements:
Power supply: 100 V to 240 V (+ /- 10%), 50 Hz to 60 Hz
Power consumption: 165 VA
Heat output: 403 KJ/h (382 BTU/h)

Reagents:
2 reagents for analysis :
ABX Diluent (10L or 20L)
Whitediff 1L (cyanide free)

1 reagent for daily shutdown :
ABX Cleaner 1L

MEASUREMENT PRINCIPLES

WBC & Differential
Methods:
Cytometry : Double Hydrodynamic Sequential System DHSS
Optical Reading : Absorbance
Impedance Variation

HGB Measurement
Method:
Spectrophotometry

RBC & PLT Detection
Methods:
Impedance Variation
Analogic Digital Conversion

HCT Measurement
Method: analogical integration

SOFTWARE SPECIFICATIONS

Data Processing
Color LCD touch screen: 12,1 in.
Operating System: Linux
Connection: RS232, Ethernet, USB
Communication: ASTM & HL7 protocols
Capacity: 10 000 results + graphs
Options: keyboard, mouse and bar code reader

Quality Control
3 controls levels (low, normal, high)
Target values download (USB)
QC results compatible with HORIBA Medical Quality Control Program (QCP)
Levey-Jennings graphs
Radar graphs
XB on 3 or 9 parameters
Overlapping QC (6 active QC files)

PARAMETERS & PERFORMANCE DATA

27 Parameters:

WBC	RBC	PLT
NEU# & NEU%	HGB	MPV
LYM# & LYM%	HCT	PCT*
MON# & MON%	MCV	PDW*
EOS# & EOS%	MCH	P-LCC*
BAS# & BAS%	MCHC	P-LCR*
LIC# & LIC%*	RDW-CV	RDW-SD*

Linearity:	Linearity Limits	Visible Range	Unit
WBC	0 - 300	300 - 999	10^3/L
RBC	0 - 8	8 - 18	10^{12}/L
HGB	0 - 240	240 - 300	g/L
HCT	0 - 0.67	0.67 - 0.80	L/L
PLT	0 - 2500	2500 - 4000	10^3/L
PLT (concentrate)	0 - 4000	4000 - 5000	10^3/L

Precision (Repeatability):

Parameters	CV (%)	Range	Unit
WBC	<3.0	4 100	10^3/L
RBC	<2.0	3,6 6.2	10^{12}/L
HGB	<1.5	120 180	g/L
HCT	<2.0	0.36 0.54	L/L
PLT	<5.0	180 500	10^3/L

* RUO parameters (Research Use Only)

CERTIFICATION

98/79/EC (IVD)
EN ISO 13485
EN ISO9001
IEC 61010-1
IEC 61010-2-081
IEC 61010-2-101
EN 61326-1
EN 61326-2-6
IEC 61000-3-2
IEC 61000-3-3
UL 61010-1
CAN/CSA-C22.2 61010-1

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HORIBA Medical

«Hematology **Everywhere** and **Beyond**»

The New ***Yumizen***
Solution for infection screening !

Yumizen H550

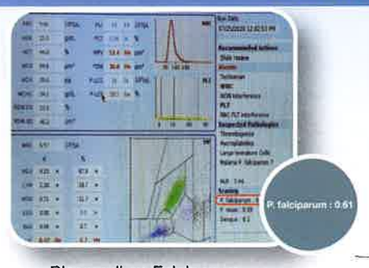
Solutions for Laboratories

Explore the future Automotive I Process & Environmental I Medical I Semiconductor I Scientific HORIBA

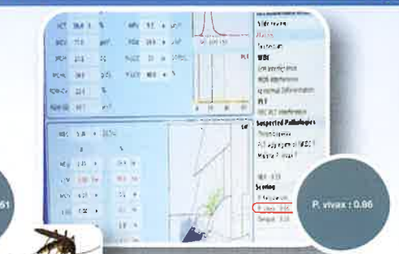
Infectious Flagging System : An Innovative Methodolgy

The HORIBA Medical infectious screening flags have been developed through contemporary techniques of data mining, pattern recognition and machine learning to improve decision making.

Malaria



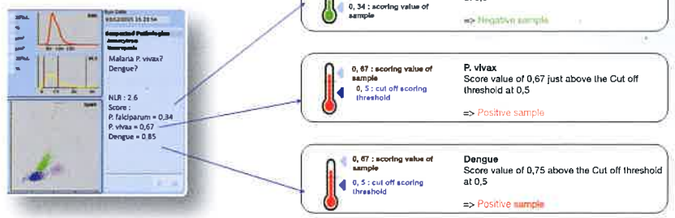
Plasmodium Falciparum



Plasmodium Vivax

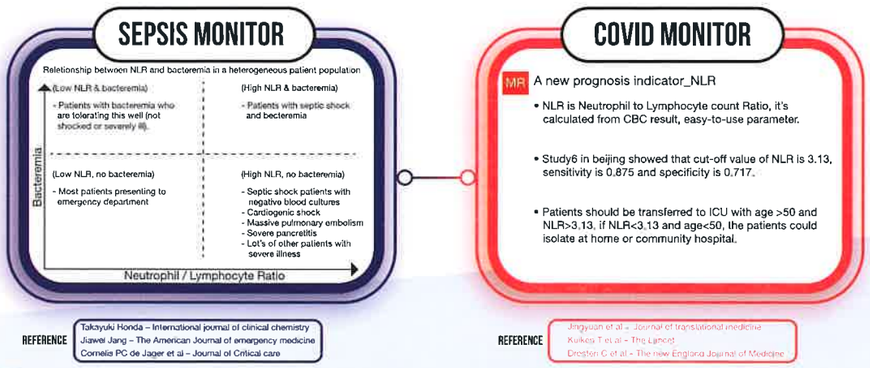
Dengue

Dengue



NLR- Neutrophil to Lymphocyte Ratio

Prognostic value in cardiovascular diseases, infections, inflammatory



Corrected WBC

The WBC count is automatically recounted and do not need to remove potential cellular interferences from manual count

Hematology **Everywhere,** and **Beyond**»

Providing Walk-away Capability

The Yumizen H550 is designed to provide rapid testing and full hematology diagnosis

The Yumizen H550 is a **compact** hematology system with integrated **sample rack auto loading.**

It provides the operator with a **full walk-away capacity of 40 tubes with continuous loading.**

Based on **proven and innovative technologies,** the Yumizen H550 answers the need for a robust analyzer and requires **no user maintenance.**

Sample Management

In order to ensure a reliable process, the Yumizen H550 allows:
- **Automatic rack mixing,**
- **Positive identification** of tubes.

The 10-tube racks are compatible with Yumizen H1500/2500.

Ensuring Safe Diagnosis

Reliable Analysis

The new Yumizen H550 technologies provide added value advantages:

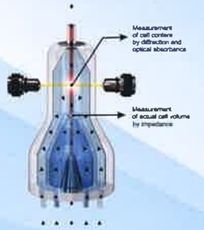
- **Only 3 reagents** : Diluent, Cleaner and Whitediff®
- **Low consumption** and **ergonomic reagent management,**
- Unique **Whitediff®** is a cyanide free lysis reagent for HGB measurement and WBC counting & differential.

Based on micro-sampling of **20 µL of whole blood,** the Yumizen H550 can run any type of blood sample including pediatrics.

27 parameters with full **WBC 6 Differential** : LYM%#, MON %#, NEU %#, BAS %#, EOS#% and LIC%# (Large Immature Cells).

Specific parameters for Iron Deficiency Anemias diagnosis & PLT disorders: **RDW-CV**, **RDW-SD**, **P-LCC**, **P-LCR**.

Technologies VCF & DHSS

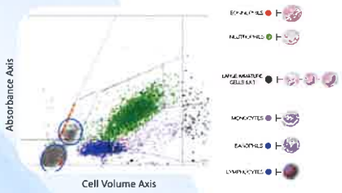


- Volume
- Cytochemistry
- Flow Cytometry
- DHSS® Double Hydrodynamic Sequential System

DHSS (Double Hydrodynamic Sequential System) **for Cytochemistry and Flow Cytometry:**

Cytochemistry
- Temperature controlled reagent cytochemistry produces excellent cell differentiation
- 48 hours post-draw stability

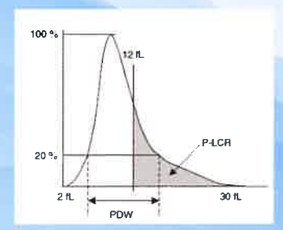
Flow Cytometry
- Precise cellular identification by injecting the prepared sample into a double hydrofocusing cytometer: impedance (cell volume measurement) & optical (analysis of the internal cellular structure by measuring light absorbency).



Extended Platelet Indices

▶ **P-LCC (#) :** Count of Large Platelets with a Volume >12 fL.

▶ **P-LCR (%) =** P-LCC/PLT



Quality Control

Automatic **reagents management.**
Logs archiving.
Levey Jennings & radar graphs.
Overlapping QC : 6 active control levels.
Accreditation support tools.
Online **Quality Control Program** QCP

Uni-dimensional time progressive graph

Bi-dimensional multi-variable quantitative graph