

HORIBA
Medical



500
H

Yumizen Range
Solution for Laboratories



«Hematology for **Everyone**»

Safe

The Yumizen H500 is designed to provide a timely and full hematology diagnosis, so clinicians are able to deliver safe patient care.

The Yumizen H500 is a cost effective hematology solution tailored for different environments: routine laboratories, satellite labs, emergency care, physician's offices,...

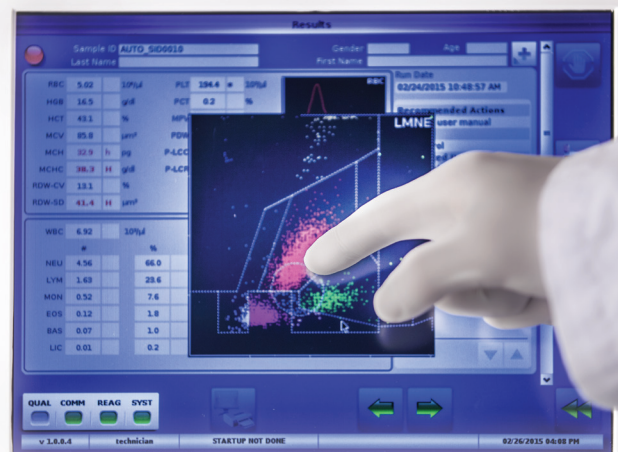


Easy

With minimal user training, the Yumizen H500 is easy to operate in different environments.

Thanks to a LCD colour touch screen, the Yumizen H500 is very easy to use.

The software is highly intuitive via comprehensive menus and the flagging interpretation system allows clinicians to validate hematology results with confidence.



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/ Everywhere,

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Yumizen
H500

Accurate

The Yumizen H500 is a compact hematology system and provides 27 hematology parameters, including a full WBC Differential with 6 WBC populations.

The Yumizen H500 technology requires the use of only 3 reagents : Diluent, Cleaner and the new dedicated Whitediff®.

Based on micro-sampling of 20 µL of whole blood, the Yumizen H500 can run any type of blood sample including pediatric tubes through one single sampling mode.

Reliable

Based on ABX proven technologies and innovation, the Yumizen H500 answers the needs for a robust analyzer.

The secured bar-coding of the Yumizen H500 reagent management system will help users to meet quality accreditation and traceability requirements.

With integrated data management and multi connection capability the Yumizen H500 ensures user-friendly and secure data transfer.





PHYSICAL SPECIFICATIONS

Dimensions & Weight:

	Height	Width	Depth	Weight
Analyzer	48 cm 16 in	40 cm 19 in	48 cm 19 in	23 kg 51 lbs

Printer (optional):

Compatible models with Linux drivers

Throughput:

50 samples/hour

Sound Level:

53 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

DIFF mode: 20µL

Power Requirements:

Power supply: 100 V to 240 V (+/- 10%), 50 Hz to 60 Hz

Power consumption: 165 VA

Heat output: 348 kJ/h (330 BTU/h)

Reagents:

2 onboard reagents and 1 external Diluent for routine analysis:

ABX Diluent (10L or 20L)

ABX Cleaner 1L

Whitediff 1L

1 onboard reagent for cleaning maintenance:

ABX Minoclaire 1L

MEASUREMENT PRINCIPLES

WBC & Differential

First Dilution: 1/51 with ABX Diluent

Second Dilution: 1/121 with Whitediff

Incubation: 22 sec at 37°C

Methods:

- Cytometry : Double Hydrodynamic Sequential System 'DHSS'

- Optical Reading : Absorbance

- Impedance Variation

Aperture Diameter: 60µm

Counting: 11 x 1 sec

HGB Measurement

First Dilution: 1/51 with ABX Diluent

Second Dilution: 1/121 with Whitediff 1L

Incubation: 12,5 sec at 37°C

Method:

- Spectrophotometry : at a wavelength of 555 nm

Measurement: 10 x 0,3 sec

RBC & PLT Detection

First Dilution: 1/51 with ABX Diluent

Second Dilution: 1/121 with Whitediff

Incubation: 22 sec at 37°C

Method:

- Cytometry : Double Hydrodynamic Sequential System 'DHSS'

- Optical Reading : Absorbance

- Impedance Variation

Aperture Diameter: 60µm

Counting: 11 x 1 sec

HCT Measurement

Method: analogical integration

Calculation: MCV, MCH, MCHC, RDW-CV, RDW-SD*, PCT*, PDW*, P-LCC*, P-LCR*

SOFTWARE SPECIFICATIONS

• Data Processing

Color LCD touch screen: 12,1 in.

Operating System: Linux™

Connection: RS232, Ethernet, USB

Communication: ASTM protocol

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, mean value of 20 runs

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	0.5 - 300	300 - 600	10 ⁹ /L
RBC	0.5 - 8	8 - 18	10 ¹² /L
HGB	0.1 - 2.4	2.4 - 3	g/L
HCT	2 - 67	67 - 80	L/L
PLT	20-3000	3000 - 5000	10 ⁹ /L
PLT (concentrate)	20-5000	5000 - 6000	10 ⁹ /L

Precision (Repeatability):

Parameters	CV (%)	Range	Unit
WBC	<3	4 - 100	10 ⁹ /L
RBC	<2	3.6 - 6.2	10 ¹² /L
HGB	<1.5	1.2 - 1.8	g/L
HCT	<2	36 - 54	L/L
PLT	<5	150 - 500	10 ⁹ /L

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

* RUO parameters (Research Use Only)

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Operating IMS



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