HORIBA
Medical

ABX **Micros ES** 60

Process efficiency in Hematology

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Hematology analyzer

A new generation hematology analyzer based on the Micros concept, universally recognized for its reliability, robustness and high quality results

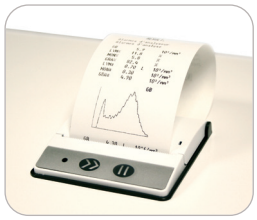
Closed tube version

- **50 samples per hour (CT Version)**
- **CBC + 3 DIFF (16 parameters)**
- **Large color touch screen**
- **Comprehensive quality control program**

*Available in closed tube version

Integrated barcode reader*

- Secured identification (patient, QC and reagent lot numbers)



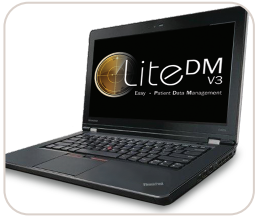
(optional external printer in closed tube and open tube versions)

Integrated ticket printer

- Full data print-out
- PLT, RBC, and WBC curves

USB connection

- Archiving patients and QC results
- Downloading QC target values



Optional Lite^{DM}

- Provides Comprehensive Patient & QC Data Management
- Up to four instrument connections
- Connects 3rd party analyzers (Ex: Chemistry, IA, urinalysis)
- Ability to add manual test results

ABX Micros Concept

"Zero maintenance" system

> **ABX Micro-sampling**
Only 10µl of whole blood per analysis

> **ABX Liquid valves**
Precise volume and reliability

> **ABX stepper motor vacuum pump**
Noiseless running (no-compressor)

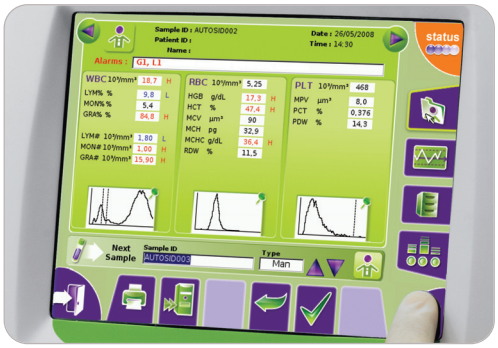
More Powerful, More Intuitive, More Secured, More Connectivity...

The perfect combination of intuitive use and innovative technologies

- **User friendly interface with rapid access to all menus and virtual keyboard**
- **User profile management with different access levels**
- **Flexible data exchange for patient results and quality control**
- **Multi-connection capability (network and peripherals)**

Easy interpretation

Control all the parameters from the main screen
Access to detailed results (normal ranges and curves)
1000 patient results capacity
Unlimited patient report archiving (external viewer)
Customized reporting format



Comprehensive quality control program

3 simultaneous activated blood control levels
Levey-Jennings graphics
XB management
Upload / Download control information

Automatic system monitoring

Real-time instrument status with help messages
Automatic reagent test count down
Automatic daily maintenance and operational alerts
Complete traceability in compliance with accreditation standards
(users, reagents, controls, maintenance...)

Full Connectivity

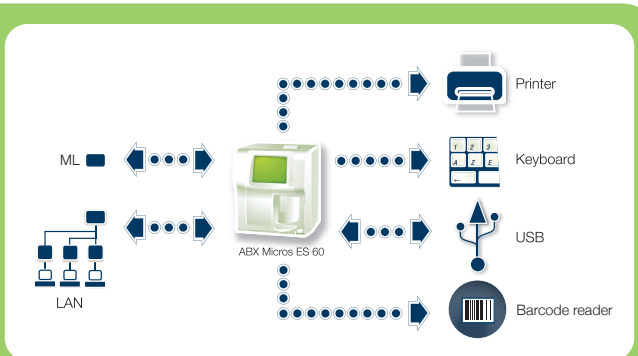
Integrated Technologies

> **Software**
Java™ ,Linux Operating System, HTML

> **Hardware: 7 connections ports**
RS232 (2), USB (3), PS2 (1), RJ45 (1)

> **ABX and ASTM protocols available**

> **HL7 Protocol for EMR**



ABX Micros ES 60

Process efficiency in Hematology

PHYSICAL SPECIFICATIONS

- **Dimensions & Weight:**

Height	Width	Depth	Weight
16.9 in	14.2 in	14.2 in	30.9 lb
43 cm	36 cm	36 cm	16 kg

- **Throughput*:**
  CT: 50 samples/hour
  * Throughput performance is reachable in optimized conditions with an admittted margin for variation of 10%.

- **Sound Pressure Level:**
  < 60 dBa

- **Operating Temperature & Humidity:**
  16 to 30°C (61 to 86°F) room temperature.
  Maximum relative humidity 85% for temperature up to 30°C (86°F)

- **Specimen Volume:**
  CBC + 3 part DIFF 10 µL

- **Power Requirements:**

Power supply	from 100 V to 240 V (± 10%) 50 Hz to 60 Hz
Power consumption	Maximum 110 VA

- **Reagents:**
  - ABX Minidil LMG
  - ABX Minilyse LMG
  - ABX Miniclean
  - ABX Alphalyse 360 (0,36L)

METHODS & TECHNOLOGIES

- **RBC/PLT Detection Principles**

Method	Impedance
Ruby diameter	50 µm
Depression of count	200 mb
Duration of count	2 (or 3) x 6 seconds
Dilution ratio	1/15 000

- **HGB Measurement**

Method	Photometry
Wavelength	550 nm
Dilution ratio	1/250

- **HCT Measurement**

Method	Numeric integration

- **WBC Measurement**

Method	Impedance
Ruby diameter	80 µm
Depression of count	200 mb
Duration of count	2 (or 3) x 6 seconds
Dilution ratio	1/260

- **3 Part Differentiation**

Method	Impedance + specific lyse action

- **MCV, MCH, MCHC, RDW**
  Calculation

SOFTWARE SPECIFICATIONS

8.4" LCD screen
256,000 colors, 640 x 480 pixel resolution
Inverter card for LCD screen
Touch screen technology
Secure digital memory card: 512 Mo
58mm thermal printer with rapid paper loading
Linux Operating System

PARAMETERS & PERFORMANCE DATA

- **16 Parameters:**

WBC	RBC	MCH	PLT
LYM# & LYM%	HGB	MCHC	MPV
MON# & MON%	HCT	RDW	
GRA# & GRA%	MCV		

- **Linearity:**

Parameter	Linearity Limit	Visible Range
WBC	0.0 - 100 x 10^3/mm^3	100 - 150 x 10^3/mm^3
RBC	0.0 - 8 x 10^6/mm^3	8 - 18 x 10^6/mm^3
HGB	0.0 - 24 g/dL	26 - 30 g/dL
HCT	0.0 - 70 %	80 - 90%
PLT (Whole blood)	0 - 2200 x 10^3/mm^3	2200 - 6000 x 10^3/mm^3

- **Precision:**

Parameters	%CV	Range
WBC	<2.5	4-10.0 x 10^3/µL
RBC	<2.0	4-7 x 10^6/µL
HGB	<1.5	12-18 g/dl
HCT	<2.0	36-54%
PLT	<5.0	200-500 x 10^3/µL

- **Carry-over:**

WBC	<1%
RBC	<1%
HGB	<1%
PLT	<1%

CERTIFICATIONS

EN 61326: 2001
EN 61326-2-6: 2006
IEC 61010-1: 2001
IEC 61010-2-81: 2001 / A1: 2003
IEC 61010-2-101: 2002
UL61010-1: 2004
C22.2 N°61010-1: 2004
In Vitro Diagnostics Directive: 98/79/EC
cTUVus mark

Subject to technical modifications USA Version MED-ADV-10843

HORIBA Medical

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