

ABX **Micros ES** 60   
Process efficiency in Hematology



# ABX Micros ES 60

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

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



#### ◀ **Integrated barcode reader\***

Secured identification (patient, QC and reagent lot numbers)

\*Available in closed tube version (optional external barcode reader for open tube version)



#### ◀ **Integrated ticket printer**

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

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



#### ◀ **USB connection**

. Archiving patients and QC results  
. Downloading QC target values



#### ◀ **Unique pack system**

. Innovative ABX patent  
. Ready to use  
. Optimized packaging  
. Simplify your lab organisation

(optional bottle version)

## 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

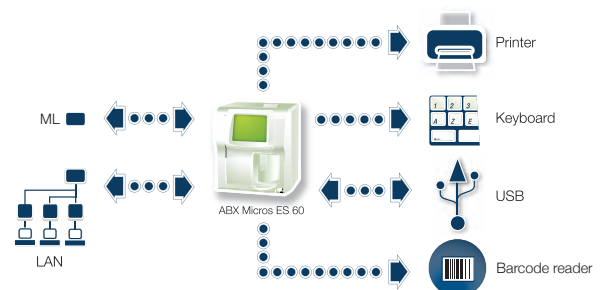
## ▶ Automatic system monitoring

- 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**



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## 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\*:

OT: 60 samples/hour  
CT: 50 samples/hour

\* Throughput performance is reachable in optimized conditions with an admitted 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 Minipack LMG
- ABX Minicil 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
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### • 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
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### • 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 <sup>9</sup> /mm <sup>3</sup>	100 - 150 x 10 <sup>9</sup> /mm <sup>3</sup>
RBC	0.0 - 8 x 10 <sup>6</sup> /mm <sup>3</sup>	8 - 18 x 10 <sup>6</sup> /mm <sup>3</sup>
HGB	0.0 - 24 g/dL	26 - 30 g/dL
HCT	0.0 - 70 %	80 - 90%
PLT (Whole blood)	0 - 2200 x 10 <sup>3</sup> /mm <sup>3</sup>	2200 - 6000 x 10 <sup>3</sup> /mm <sup>3</sup>

### • Precision:

Parameters	%CV	Range
WBC	<2.5	4-10.0 x 10 <sup>9</sup> /µL
RBC	<2.0	4-7 x 10 <sup>6</sup> /µL
HGB	<1.5	12-18 g/dl
HCT	<2.0	36-54%
PLT	<5.0	200-500 x 10 <sup>3</sup> /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



Operating IMS

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