

# ABX Micros ES 60

Process efficiency in Hematology



**HORIBA**  
Medical

## 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 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
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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>9</sup> /mm <sup>3</sup>	2200 - 6000 x 10 <sup>9</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>9</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

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MED-ADV-1788 V1.0

Micros ES60\_HAN704BEN\_HD\_US\_REV\_2

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FRANCE +33 (0)4 67 14 15 15 - BENELUX +32 (0)3 281 49 08 - ITALY +39 / 06 51 59 22 1 - SPAIN +34 / 91- 353 30 10 - PORTUGAL +351 / 2 14 72 17 70  
UK +44 (0) 1604 542650 - POLAND +48 / 22 6732022 - USA +1 / 949 453 0500 - BRAZIL +55 / 11 5545 1500 - THAILAND +66 / 2 861 59 95  
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# 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

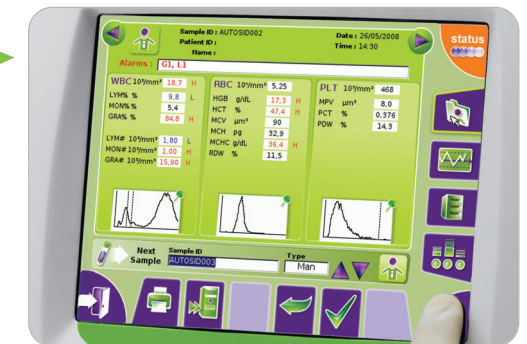
## More Powerful, More Intuitive, More Secured, More Connectivity...

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



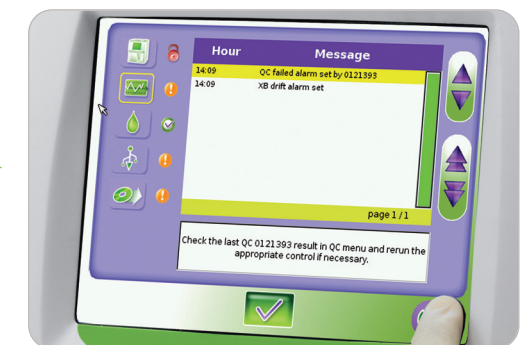
### Comprehensive quality control program

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



### Automatic system monitoring

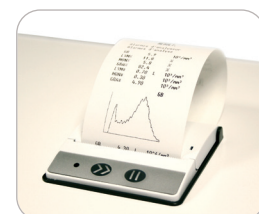
Real-time instrument status with help messages  
 Automatic reagent test count down  
 Automatic daily maintenance and operational alerts  
 Complete traceability in compliance with accreditation standards (users, reagents, controls, maintenance...)



### 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)

## 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**

