ABX Pentra XL80 Haematology Analyzer

26 Parameters
Autoloader
Integrated Validation Station
ABX Pentra XL80
Delivering the performance you need from a haematology analyzer

Cytology Platform Performance

- 80 tests per hour
- Large capacity auto-loader (100 tubes)
- Stat sampling on open or closed tubes
- 26 parameters: CBC (12), DIFF (14)
- Micro-sampling on whole blood:
  - 30 µL in CBC mode and 53 µL in CBC+DIFF mode
- Customized Dilution Ratio (CDR)
- Automatic Sample Re-run
- Integrated Validation Station
- Compatible with ABX Pentra ML (Multilink System)
  to centralize haematology operations
Easy Access to Information

Single screen to view data (1)
- ID number, name, age, profile...
- Patient information: department, requesting clinician, remarks...
- Type of test (CBC or CBC+DIFF)
- Customized Dilution Ratio (CDR)
- Test Results: 26 parameters, histograms, colour matrix, flags and remarks.

On-screen location of test samples (2)
Virtual mapping of cassette location including tube position, rack number and type of analysis (CBC or CBC+DIFF) for optimal traceability and post-analysis tube placement

Real-time Status Overview (3)
Onboard view of reagent levels, testing progress and rate of flagged samples

Ergonomic, Comfort and User Safety
- Easy-to-use touch screen with practical user interface
- Flexible connectivity: uni-directional, bi-directional or autonomous
- Internal and external barcode readers
- Space saving: compact with integrated PC
- Reduced noise volume: less than 60 dBA
- Only 4 reagents and 1 diluent
- No daily maintenance
Serving the Patient with the Best Technologies

Precise, reliable results from DHSS and MDSS technologies ***:

**Micro-sampling MDSS (Multi-Distribution Sampling System):**
Micro-sampling and complete homogenization of blood samples with reagents.
Precise aliquot volumes with patented control valve system.
Only 30 µL in CBC mode and 53 µL in CBC+DIFF mode are extracted.

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

- **Cytochemistry**
  Produces excellent cell differentiation by regulating the temperature during the cytological staining of internal cellular components using Chlorazol Black.
  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).

**Efficiency with Customized Dilution Ratio CDR:**
Enables an automatic extension of linearity in case of out-of-range samples. Samples are automatically flagged, re-sampled, then diluted to benefit a result within an extended linearity line.

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*** HORIBA Medical Patents
Onboard Data Management with a Focus on Traceability

System memory stores up to 10,000 patient results (1)

- Precise patient reports showing test results, demographics, graphs, flags, specific dilution ratios (in CDR**mode) and remarks
- User-friendly classification into validated reports, invalidated reports and reports awaiting examination
- Data storage management with the option to export archival data to floppy discs

Quality assurance (2) and (3)

- 3 active control levels identified by bar-code scanner
- Control results displayed in charts and Levey-Jennings graphs
- XB results and graphs available from 100 files (20 results per file)
- Repeatability test management
- Access to all information logs concerning instrument status (calibration, quality control, settings, maintenance, laboratory information system, patients...)
- Compliant with accreditation standards

Process and Manage Results Securely and Easily

Validate results with confidence using the Integrated Validation Station

- Automatic and customizable validation to meet your laboratory requirements
- Focus on abnormal results
- Programmable Delta check flags for accurate patient follow-up
- Automatic calculation of Wintrobe constants according to manually input data

Automatic Sample Re-run Mode to Confirm Results

Out of range results may be instantly confirmed with additional analyses automatically performed with user-defined criteria. This mode is fully programmable according to haematology criteria, Delta check, flags and limits.

Sample Identification

In order to insure reliable identification of results, sample tubes are identified with external barcode scanners or internal barcode scanners which allows the identification of both the tubes and the racks in which they are placed.

** CDR: Customized Dilution Ratio
ABX Pentra XL80
Haematology analyzer

PHYSICAL SPECIFICATIONS

Dimensions & Weight:
- Height: 21.5 in (54 cm)
- Width: 32.3 in (82 cm)
- Depth: 22.4 in (57 cm)
- Weight: 122 lb (55 kg)

Printer:
- Laser

Throughput:
- Up to 80 samples/hour in automatic mode
- Up to 80 samples/hour in stat mode

Sound Pressure Level:
- < 60 dBa

Dimensions & Weight:
- Height: 54 cm
- Width: 82 cm
- Depth: 57 cm
- Weight: 55 kg

Printer:
- Laser

Throughput:
- Up to 80 samples/hour in automatic mode
- Up to 80 samples/hour in stat mode

Sound Pressure Level:
- < 60 dBa

SOFTWARE SPECIFICATIONS

Data Processing:
- Colour LCD touch screen: 12 in
- Capacity: 10,000 results + graphs

Industrial PC board Windows XP

Celeron 586 MHz

RAM (256 Mo), Hard disk (10 Go min)
Floppy disk & CD ROM reader

RG 232C, TCP/IP, 2 X USB

User defined flagging limits

Transmit patient files & QC to LIS

Uni-directional & bi-directional connections

ASTM protocol inside

Quality Control Management:
- 24 selectable QC files
- XLI: 100 operator selectable files with statistics (20 results per file)
- With-in run Levey-Jennings graphs

Logs:
- Reagents, quality controls, calibration, blank cycle, maintenance, data handling, settings, communication, errors, by date

Patient reports management:
- Delta check
- Anteriority (Matrix, curves, data)
- Manual input

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METHODS & TECHNOLOGIES

Multi Distribution Sampling System (MDSS)

RBC & PLT Detection Principles
- Method: Impedance
- Aperture diameter: 50 µm
- Counting depression: 200 mVb
- Counting duration: 2x6 seconds
- Dilution ratio: 1/10 000
- Reaction temperature: 35°C (95°F)

HGB Measurement
- Method: Photometry
- Wavelength: 550 nm
- Dilation ratio: 1/200
- Reaction temperature: 30°C (95°F)

HCT Measurement
- Method: Numerical integration

WBC & BASO Detection Principles
- Method: Impedance
- Aperture diameter: 80 µm
- Counting depression: 200 mVb
- Counting duration: 2x6 seconds
- Dilution ratio: 1/200
- Reaction temperature: 35°C (95°F)

Dilution ratio: 1/50

MCV, MCH, MCHC, RDW, PCT*, PDW*

Calculation

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CERTIFICATION

EN 61326-1
EN 61326-2-6
IEC 61000-3-2
IEC 61000-3-3
IEC 61010-1
IEC 61010-2-81
IEC 61010-2-101

* RUO parameters (Research Use Only)

** CDR: Customized Dilution Ratio

Valid for version 1.9.0 of ABX Pentra XL80

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