

Higher performance with you in mind.

The COULTER LH 780 Hematology Systems Chemistry
Lab Automation
Information Systems
Molecular Diagnostics
Immunodiagnostics
Centrifugation
Disease Management

Hematology

Hemostasis Flow Cytometry Primary Care





We've tapped the best minds in hematology to design the COULTER LH 780 hematology systems.

No one understands high-volume hematology analyzers better than our customers. So when we asked what you wanted most in your laboratories, we listened carefully. The result is the ground-breaking COULTER LH 780 hematology systems, with one of the world's best-in-class combinations of performance, reliability, service and support.

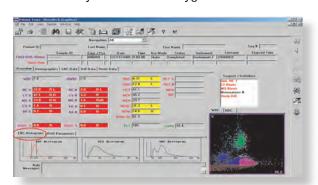
The LH 780 hematology series continues the evolution of advanced technologies, delivering some of the highest sensitivity, specificity and efficiency in WBC differential analysis. To this, we've added a broad spectrum of workflow and functional enhancements in response to your requests.

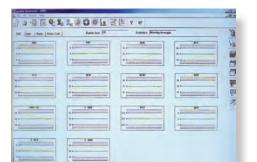
Advanced Barcode Reading

Our customers believe that worry-free bar code reading is essential for smooth, uninterrupted workflow and greater patient safety. Our answer: the innovative, imaging technology of the LH 780 analyzers easily reads most barcode labels – even those with lower print quality. What's more, the system has no moving mechanical parts, to ensure the utmost in reliability.

RDW-SD Parameter Expands Your Insights For RBCs

Standard deviation of the width of the red cell population (RDW-SD) is an indication of size dispersion within the red cell population. One potential application of the RDW-SD parameter is that it may assist in the differentiation of the cause of anemia. Studies have shown that an elevated RDW-SD may indicate iron deficiency, whereas a normal or decreased RDW-SD may indicate heterozygous thalassemia.





Obtain an exponentially weighted moving average (EWMA) of CBC, 5-Part Diff and NRBC, as well as reticulocyte parameters, with the XM QC package.

Extended Quality Control Packages

Consistency and accuracy are paramount concerns of our customers, so LH 780 analyzers empower them with precision tools for quality control.

The XM quality control package provides an exponentially weighted moving average (EWMA) of CBC, 5-Part Diff and NRBC, as well as reticulocyte parameters. Batch sizes are user-configurable for two to 1,000 runs, for up to 20 batches.



Extended QC Rules provide for the verification of random error or imprecision, systematic error or bias, and total error or inaccuracy.

Extended QC
Rules, an
additional
quality control
package,
incorporates
medicallybased
performance
standards
and provides
user-enabled

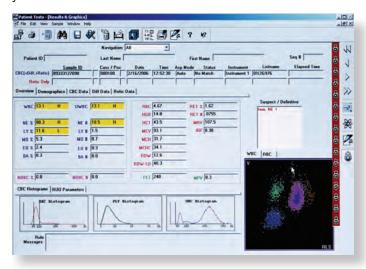
rules for the verification of random error or imprecision, systematic error or bias, and total error or inaccuracy. Plus, you can enhance your ability to manage QC data files with designated QC file filters.

Environmentally-Friendly Consumables

Consumables are an all-important consideration in any laboratory because they can help optimize both workflow and performance. The LH 780 analyzers offer two major advancements in this area. COULTER LH Series Cleaner offers a new, improved formaldehyde-free formulation. COULTER LIN-C Linearity Control significantly extends the reportable range for four pivotal LH 780 series parameters: WBC, RBC, HGB and PLT. Cyanide-free reagents are also available.

Intuitive User Interface

The improved user interface of the LH 780 series is carefully designed to be easy to learn and intuitive to use, yet with more features than ever before. To facilitate



Productivity is optimized by the easy-to-understand user interface, with its robust reporting and enhanced data handling capabilities.

information access and control, key screens have been redesigned and expanded, providing the most frequently used data and information on one screen.

COULTER LH SlideMaker and LH SlideStainer

The LH 780 configured with LH SlideMaker and LH SlideStainer streamlines one of your lab's most time-consuming manual tasks with automated slide preparation. By eliminating complex tracks for specimen delivery, the LH SlideMaker and LH SlideStainer help decrease errors and increase accuracy with simple, no-prep loading. Operators simply insert sample cassettes into the workcell and return later to remove stained blood films with clear slide labeling, stain-resistant labels and optional bar coding.

COULTER LH 780 Hematology Analyzer Specifications

Available Parameters

 WBC
 MO%
 Hgb
 RET #

 NE#
 EO#
 HCT
 RET %

NE# EO# HCT RET % Plt
NE% EO% MCV IRF (Immature Reticulocyte Fraction) MPV (Mean Platelet Volume)
LY# BA# MCH MRV (Mean Reticulocyte Volume)

LY% BA% MCHC MO# RBC RDW

RDW-SD NRBC% NRBC#

LH 780 Throughput

 Mode
 Samples/Hour

 CBC Only
 110

 CBC/Diff
 110

 RET Only
 45

Linearity/Operating Ranges

Hgb 0.0 to 25.0 g/dL 0.0 to 99.9 g/dL

Plt 0 to 3000 x 10³ cells/μL NE#, LY#, 0 to 900 x 10³ cells/μL

MO#, EO#, BA#

RET% 0.0 to 100.0%

RET # $0.0 \text{ to } 999.9 \text{ x } 10^{\circ} \text{ cells/}\mu\text{L}$

Precision

Parameters Limit **Parameters** I imit WBC at 9 to 11 x 103 cells/uL ≤1.7% CV NE% at 50 to 60% 2SD ≤3.0 RBC at 4.5 to 5.5 x 10° cells/µL ≤0.8% CV LY% at 25 to 35% 2SD ≤3.0 2SD ≤2.0 Hgb at 14 to 16 g/dL ≤0.8% CV MO% at 5 to 10% MCV at 80 to 90 fL ≤0.8% CV EO% at 2 to 5% 2SD ≤1.0 RDW at 12 to 14% ≤2.2% CV BA% at 0.5 to 1.5% 2SD ≤1.0 Plt at 280 to 320 x 103 cells/µL ≤3.3% CV RET% at 0.0 to 0.49%

RDW-SD at 33 to 48 fL $$\leq 2.5\%$ CV

NRBC Accuracy Characteristics Comparision to Predicate Analyzer Comparision to Manual Method Parameter: Population Minimum: 0.00 Population Minimum: 0.0 Units: % (NRBC/100 WBC) Population Maximum: 24.11 Population Maximum: 61.50 Mean Difference: 0.08 Mean Difference: -0.02

Width **Dimensions and Weight** Height Depth Weight 101.6 cm 93.2 kg Analyzer/Diluter 88.9 cm 61.0 cm (35.0 in) (40.0 in) (24.0 in) (205.0 lb) Power Supply 59.0 cm 35.5 cm 60.0 cm 56.7 kg (23.3 in) (14.0 in) (24.0 in) (125.0 lb)

COULTER LH 780 with LH SlideMaker and LH SlideStainer

Dimensions and Weight SlideMaker	Height 52.1 cm (20.5 in)	Width 74.9 cm (29.5 in)	Depth 68.6 cm (27.0 in)	Weight 40.9 kg (90.0 lb)
SlideStainer	50.2 cm	60.3 cm	76.2 cm	36.4 kg



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0 to 5000 x 103 cells/μL

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