Multispecies Hematology Analyzers

XN-V Series™

Accelerate your Multispecies Research Laboratory

XN-V IS FOR ANIMAL USE ONLY

www.sysmex.com/us
Optimize your laboratory

Lighting the way with diagnostics

Advanced hematology analyzers to improve your multispecies lab

NEXT GENERATION DIAGNOSTICS
Continuing to pioneer the future of multispecies hematology performance

ADVANCED TOOLS & TECHNOLOGIES
Proprietary tools that drive greater insight into your lab and your research facility

PROCESS OPTIMIZATION
Moving beyond standalone analyzers to a fully automated environment

HARMONIZED SUPPORT
Combining truly personalized service with a revolutionary technology platform

Together, these elements have helped to make Sysmex® XN-Series Automated Hematology Analyzers a leading hematology analyzer in the clinical healthcare environment, and this same technology and reliability is now available for your multispecies laboratory.

BeyondCare℠

BeyondCare from Sysmex changes the definition of service for today’s advanced hematology laboratories. Unlike other programs in the market that are directed at getting your system back up after it breaks down, BeyondCare is strategically focused on preventing problems before they ever occur.

It is a truly holistic approach to maximizing system performance, designed to bring new levels of insight, efficiency and agility to your lab. This includes Comprehensive Continuing Education, Evidence-based Managed Calibration and Insight™ Interlaboratory Quality Assurance Program (IQAP). Make sure to ask your Sysmex representative about these programs for your XN-V analyzer.
Achieve high performance and flexibility

Achieve more in your lab
The XN-V Series brings state-of-art hematology technology to the scientific research community.

- Proven system
- Exceptional reliability
- Specialized software
- High accuracy data
- 35 whole blood parameters including NRBC and PLT-F
- Body fluid analysis

Testing for a broad range of species
Pre-defined profiles are provided for multiple animal types:

- Species: Mouse, Rat, Dog, Non-Human Primates (NHP), Rabbit, Cat, Horse, Cattle, Pig, Mini Pig, Guinea Pig, Gerbil, Ferret, Marmoset, Sheep, Goat, Camel, Hamster, Dolphin, Bird*
- Sub-species: Mouse, Rat, Dog, NHP, Rabbit, Pig, Other 1-99*

Additional customized species can be added by using manual gating feature.

*The availability of the species on your solution depends on your active software.

*XN-V is for animal use only
Advanced, user-friendly software

The XN-V’s powerful and intuitive software offers the flexibility in data analysis that enables your laboratory with the advantage to explore new testing protocols, which may lead to undiscovered scientific breakthroughs.

- Customizable software developed specifically for multispecies analysis.
- New gating can be created without changing results.
- Reanalysis feature allows samples to be repeated without need of additional sample.
- Rerun and reflex capability based on rules and flagging.

Featuring advanced analysis channels used in leading scientific research

The XN-V Series Hematology Systems are advancing multispecies hematology technology with the same cell analysis channels that are used in today’s leading medical institutions and laboratories. A robust system of new cell-specific lyses and fluorescent dyes helps evaluate cells more thoroughly than ever before. Give your laboratory the leading edge with Sysmex’s advanced technology.

WNR (White Count and Nucleated Red Blood Cells) Channel

In the WNR Channel, the analyzer measures side fluorescence and forward scatter. Side fluorescence measures the nucleic acid content to identify NRBCs in the same channel in which white cells are counted. Forward scatter measures cell size.

WNR Scattergram

Technology:
Fluorescent flow cytometry with polymethine dye for nucleic acids, cell-specific lyse

Parameters reported:
WBC count, Baso#, Baso%, NRBC#, NRBC%

Reagents:
Lysercell™ WNR and Fluorocell™ WNR

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**WDF (White Cell Differential Channel by Fluorescence) Channel**

Sysmex has improved the sensitivity and specificity of the differential by developing a new method for discriminating monocytes, lymphocytes, atypical lymphocytes and blasts. Sysmex Adaptive FLagging Algorithm incorporates Shape-recognition (SAFLAS), based on linear discrimination of cell clusters in the WDF scattergram, using shape and positioning of different mononuclear cell populations.

![WDF Scattergram](image)

**Technology:**
Fluorescent Flow Cytometry, SAFLAS

**Parameters reported:**
Neut%, Neut#, Lymph%, Lymph#, Mono%, Mono#, EO%, EO#

**Reagents:**
Lysercell WDF and Fluorocell WDF

**Platelet-F Channel**

In addition to the robust impedance count, platelets are identified and counted using a platelet-specific fluorescent dye, oxazine, which stains the rough-surface endoplasmic reticulum and mitochondria. This allows for a sensitive and specific Platelet (PLT) measurement that you need for your research laboratory. Just as we can analyze reticulocytes and other immature cells, the XN-V Series brings similar capabilities to platelet analysis. The Immature Platelet Fraction (IPF) is a direct cellular measurement of thrombopoiesis and it is available on every sample that is run in the Platelet-F channel. Your lab can gain added information regarding low platelet counts without any additional sample.

![PLT-F Scattergram](image)

**Technology:**
Fluorescent Flow Cytometry with platelet-specific dyes

**Parameters reported:**
Platelet-F Count and Immature Platelet Fraction (IPF)

**Benefits:**
Comprehensive Platelet diagnostics to aide in scientific breakthroughs

**Reagents:**
CELLPACK™ DFL, Fluorocell PLT

*XN-V is for animal use only*
Reticulocyte Channel

The Reticulocyte Channel provides complete cellular assessment of erythropoiesis. These measurements are performed automatically on the XN-V Series with no offline sample preparation. Featuring both quantitative (reticulocyte count) and qualitative (RET-He) information, they provide a direct cellular measurement for erythropoiesis and help manage anemia. Additionally, this channel also provides users the ability to analyze a third PLT enumeration methodology if desired, the PLT-O.

![RET Scattergram]

**Technology:**
Forward Scatter and Side Fluorescence

**Parameters reported:**
RET#, RET%, IRF (Immature Reticulocyte Fraction), RET-He (Reticulocyte Hemoglobin), and Platelet-O Count

**Reagents:**
CELLPACK DFL, Fluorocell RET

Body Fluids

It’s never been easier or faster to analyze body fluids than on the XN-Series. We’ve even eliminated most offline sample preparation and the need for additional reagents. Your lab gains a wealth of information without any special sample handling or pretreatment. Reportable parameters include RBC-BF, WBC-BF, PMN#, PMN%, MN#, MN% and TC-BF#.

![WDF Scattergram]

**Technology:**
Forward Scatter and Side Fluorescence

**Parameters reported:**
TC-BF, WBC-BF, RBC-BF PMN#, PMN%, MN#, MN%

**Reagents:**
Lysercell WDF and Fluorocell WDF

Low Aspiration Mode

For low volume samples (only 50 µL), this mode provides all of the same advanced results of the standard mode minus the Platelet-F analysis. For low volume samples – big results.

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Specifications

Multispecies
Mouse, Rat, Dog, NHP, Rabbit, Cat, Horse, Cattle, Pig, Mini Pig, Guinea Pig, Gerbil, Ferret, Marmoset, Sheep, Goat, Camel, Hamster, Dolphin, Bird*

Additional customized species can be added by using manual gating feature.
*The availability of the species on your solution depends on your active software.

Sub-Species Availability
Mouse, Rat, Dog, NHP, Rabbit, Pig, Other 1-99*
*The availability of the sub-species on your solution depends on your active software.

Principles and Technologies
Fluorescent flow cytometry using a semi-conductor laser and hydrodynamic focusing in dedicated channels. Along with direct current sheath flow and cyanide-free SLS methodology.

Parameters
Whole Blood:
- WBC; RBC; HGB; HCT; MCV; MCH; MCHC; PLT (PLT-I, PLT-F, PLT-O); NEUT#, NEUT%; LYMPH#, LYMPH%; MONO#, MONO%; EO#, EO%; BASO#, BASO%; NRBC#, NRBC%; RDW-SD; RDW-CV; MPV; RET#, RET%; IRF, RET-He; IPF#, IPF%

Body Fluid:
- TC-BF, WBC-BF, RBC-BF PMN#, PMN%, MN#, MN%

Linearity
- WBC: 0.00 – 440.00 X 10^3/μL
- RBC: 0.00 – 8.60 X 10^6/μL
- PLT: 0 – 5,000 X 10^3/μL
- WBC-BF: 0.000 – 10,000 X 10^3/μL
- RBC-BF: 0.000 – 5,000 X 10^6/μL

Throughput
- Whole Blood Mode: up to 100 CBC+DIFF samples/hour per module
- Body Fluid Mode: up to 40 samples/hour per module
- Slide Preparation Unit: Up to 75 smears/hour

Sample Aspiration Volume
- Whole Blood Mode: 88 μL
- Low WBC Mode: 88 μL
- Pre-dilute Mode: 70 μL
- Low Aspiration Mode: 50μL
- Body Fluid Mode: 88 μL
- Slide Preparation: 70 μL

Quality Control
- XN CHECK: complete tri-level QC product for all CBC, Diff, PLT, and RET parameters
- XN CHECK BF: bi-level QC product for Body Fluid channel
- Comprehensive QC files including current and new lot feature
- 99 total files including 5 XbarM files
- Insight IQAP

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## Specifications

<table>
<thead>
<tr>
<th>Analyzer Dimensions</th>
<th>XN-1000V Benchtop</th>
<th>XN-2000V Benchtop</th>
<th>XN-3100V Benchtop</th>
<th>XN-3100V with Di-60 Benchtop</th>
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<tbody>
<tr>
<td></td>
<td>25.4” (W) x 29.7” (D) x 33.7” (H); 172 LBS</td>
<td>37” (W) x 29.7” (D) x 33.7” (H); 325 LBS</td>
<td>78.3” (W) x 45” (D) x 36.3” (H); 765.5 LBS</td>
<td>162” (W) x 45” (D) x 36.3” (H); 1068 LBS</td>
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<td>25.4” (W) x 36.6” (D) x 61.2” (H); 350 LBS</td>
<td>41.2” (W) x 38” (D) x 61.2” (H); 656 LBS</td>
<td>78.3” (W) x 40” (D) x 64” (H); 1187 LBS</td>
<td>157” (W) x 45” (D) x 64” (H); 1644 LBS</td>
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