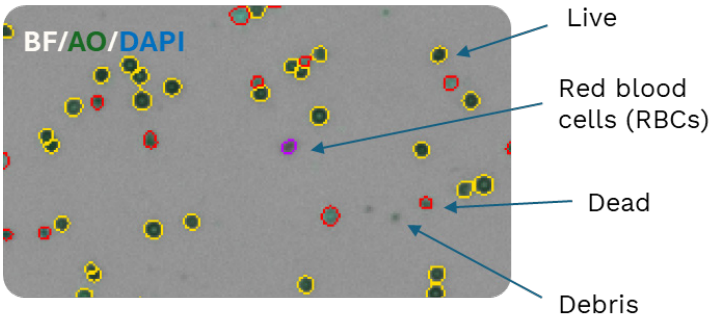
AUTOMATED CELL COUNTING:
TURNING SAMPLES INTO DATA WITH EASE.

A joint solution from ChemoMetec and Tecan.

Bring automated cell counting directly into your workflow.

Accurate cell counting and viability analysis are fundamental to reliable cell-based workflows. As automation becomes standard across research, bioprocessing, and cell therapy laboratories, cell analysis must evolve from a standalone step into a fully integrated part of the workflow. By integrating the XcytoMatic® 30 into the Fluent® Automation Workstation, ChemoMetec and Tecan enable automated, high-throughput cell counting and viability analysis embedded directly within liquid handling workflows.



ChemoMetec cell analysis, enabled by automation.

The joint ChemoMetec–Tecan solution combines:

- Image-based cell counting and viability analysis powered by ChemoMetec technology
- Advanced liquid handling and robotic automation provided by Tecan

Tecan Fluent Automation Workstation.

The Tecan Fluent is a modular automation platform for high-throughput liquid handling and sample preparation, supporting consistent and reproducible lab workflows.

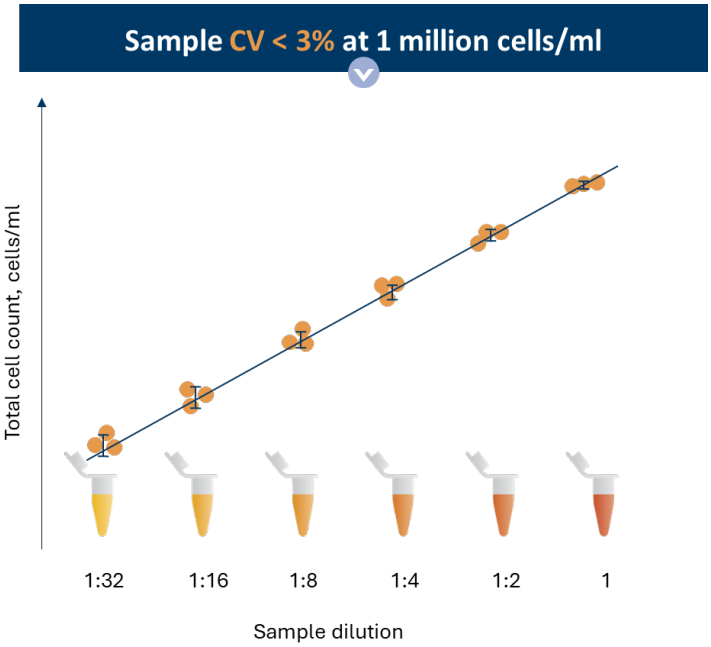
Key technical features:

- Multi-channel pipetting with µl liquid level detection
- Flexible deck layout
- Robotic labware handling and system integration
- Software for workflow design and control

About the XcytoMatic® 30.

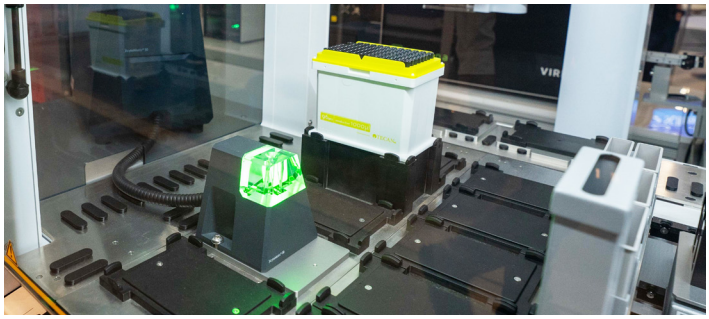
Sample volume	Flexible 60 – 300 µl
Range	5.00E4 – 1.00E8 cells/ml
Speed	< 45 seconds/sample
Imaging	Combined Brightfield and Fluorescence
Viability	DAPI selection marker for non-viable cells
Consumables	By default, more than 1000 samples per consumable pack
Precision	< 3 % CV at 1.00 E6 cells/ml
Parameters	Total Cell Count, Live Cell Count, Dead Cell Count, Viability %, Debris, Red Blood Cells, Diameter, Aggregation %

TECAN.



How the integrated solution works.

Cell suspension is transferred from a culture vessel or plates into the XcytoMatic® 30. The XcytoMatic® 30 performs the sample mixing and count analysis. Measurement data is transferred digitally to FluentControl™. Automated downstream steps such as seeding or normalization are executed. The result is a closed-loop, data-driven workflow with minimal operator intervention.



Key advantages for automated cell analysis.

1. **Reliable results**
   Consistent, image-based counting independent of user technique
2. **Scalable automation**
   Supports batch and high-throughput workflows
3. **Reduced manual handling**
   Lower risk of variability and contamination
4. **Faster workflows**
   Cell counting performed exactly when needed in the process
5. **Seamless data flow**
   Results available instantly for automated decision-making

Applications

- Automated cell culture maintenance and passaging
- Cell seeding with defined concentration and viability
- Cell therapy research and process development
- Bioprocess optimization and scale-down studies
- Preparation of samples for high-throughput screening

Why ChemoMetec + Tecan?

ChemoMetec provides trusted, image-based cell analysis solutions used worldwide in research and bioprocessing laboratories.

Through close collaboration with Tecan, these technologies can now be fully integrated into automated liquid handling workflows - supporting greater consistency, efficiency, and scalability.

Learn more

Find out how automated cell counting with XcytoMatic™ 30 can enhance your automated workflows.

Contact ChemoMetec to discuss your application: contact@chemometec.com

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