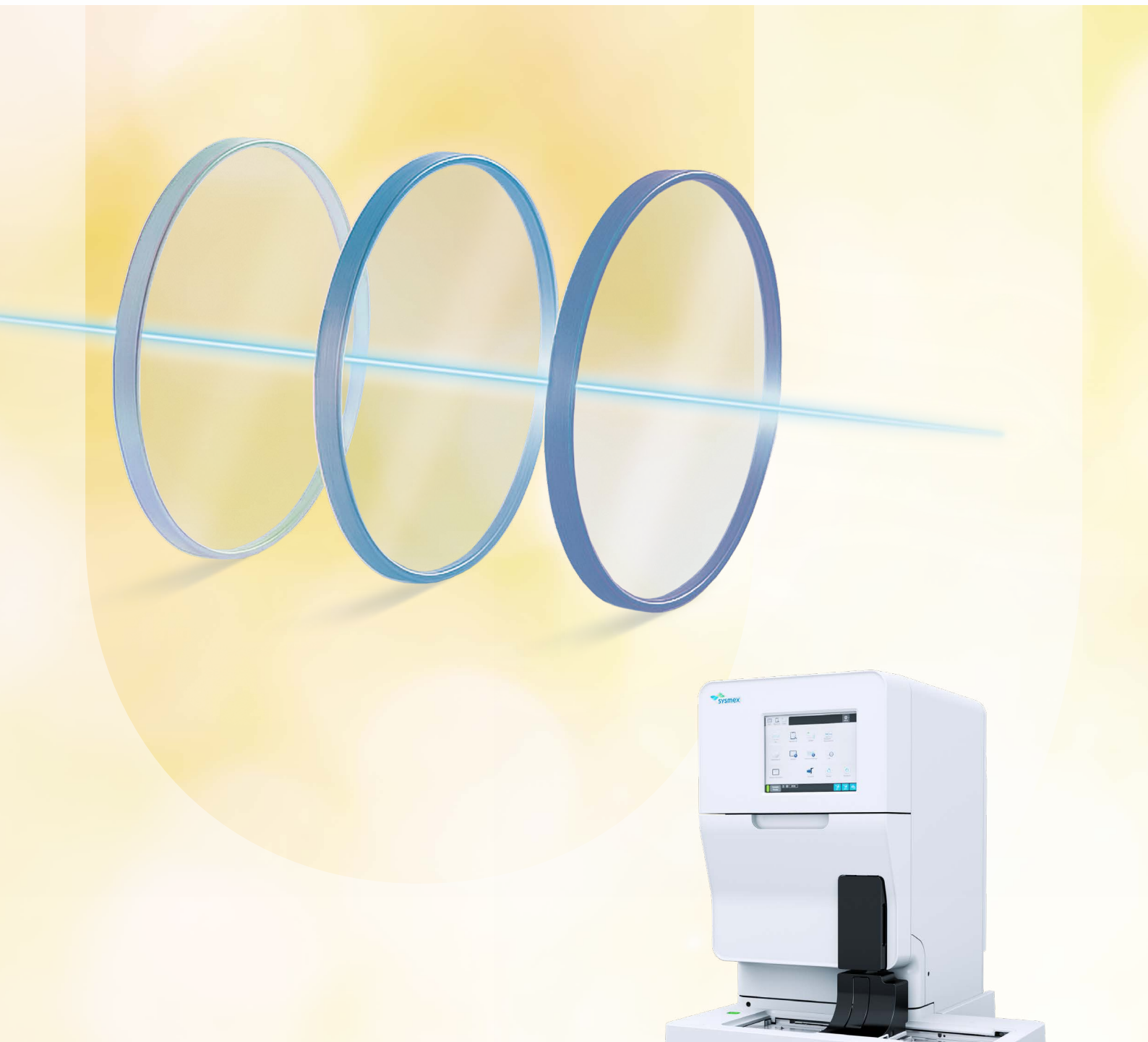


Fully automated urine particle analyser

UF-5000



Together for a better
healthcare journey

Technology that allows you to see more

The UF-5000 uses advanced fluorescence flow cytometry to provide unparalleled visibility into urinary particles. By combining multiple detection channels with powerful laser optics, it reveals details that conventional methods might miss, giving laboratories deeper insight, greater accuracy, and a higher diagnostic standard.



Integrated body fluid analysis

Always ready for body fluid testing, the UF-5000 extends diagnostic capability beyond urine. From bacterial determination to white blood cell differentiation, it provides immediate results without pre-treatment.

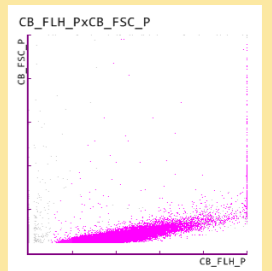


Built around UF

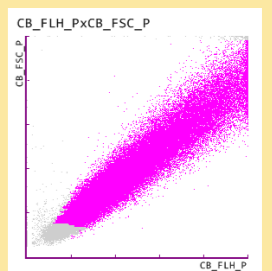
The UF-5000 is the core of the Sysmex urinalysis portfolio – the analyser around which the UN-Series is built. Stand-alone or combined with the UC-3500 and UD-10, all connected through U-WAM, it drives comprehensive workflows, high throughput, and intelligent data management – making it the true centrepiece of modern urinalysis.

Ruling out UTI in less than a minute

The UF-5000 delivers rapid, quantitative bacterial counts with Gram differentiation – enabling fast confirmation of bacteriuria or exclusion of urinary tract infections (REF1/2). By accelerating decision-making and supporting targeted treatment and targeted follow-up diagnostics (REF4), it helps reduce unnecessary antibiotic use (REF1/2) and contributes to the global fight against antimicrobial resistance (AMR) and the concept of diagnostic stewardship (REF4).



Gram negative?



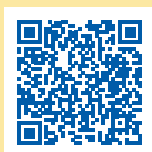
Gram positive?

Specifications

Technologies	Fluorescence flow cytometry with blue semi-conductor laser and hydrodynamic focussing in two different channels Conductometry
Parameters	
Urine	RBC, NL RBC, WBC, WBC Clumps, EC, Squa.EC, Non SEC, Tran.EC, RTEC, CAST, Hy.CAST, Path.CAST, BACT, X'TAL, YLC, SPERM, MUCUS, Lysed RBC, Atypical cells, DEBRIS, conductivity, osmolality, and more Flags: RBC-Info, BACT-Info, UTI-Info
Body fluid	RBC, WBC, MN#, MN%, PMN#, PMN%, EC, TNC, BACT
Throughput	Urine: max. 105 samples/hour Body fluid: max. 20 samples/hour
Sampling volume	Sampler mode (urine): 2 mL STAT mode (urine/body fluid): 0.6 mL
Aspiration volume	450 µL in all modes
Sampler unit capacity	Integrated stand-alone sampler: 50 samples/loading area; 70 samples/exit area Modular sampler: 80 samples/each area
Data management	U-WAM (Urinalysis Work Area Information Management System)
Options	Connection of UC-3500 and/or UF-4000/UF-5000 and/or UD-10 Wagon(s), rack entry and rack exit units, TH-11
Dimensions/weight W × H × D [mm/kg]	Main unit incl. integrated stand-alone sampler: Approx. 760 × 855 × 754/90

References

- [1] **Korsten K, de Gier A, Leenders A, Wever PC, Kolwijck E.** Using the Sysmex UF-4000 urine flow cytometer for rapid diagnosis of urinary tract infection in the clinical microbiological laboratory. *J Clin Lab Anal.* 2024 Mar;38(5):e25004. doi: 10.1002/jcla.25004. Epub 2024 Mar 7. PMID: 38454622; PMCID: PMC10959182.
- [2] **Gilboe HM, Reiakvam OM, Aasen L, Tjade T, Bjerner J, Ranheim TE, Gaustad P.** Rapid diagnosis and reduced workload for urinary tract infection using flowcytometry combined with direct antibiotic susceptibility testing. *PLoS One.* 2021 Jul 6;16(7):e0254064. doi: 10.1371/journal.pone.0254064. PMID: 34228764; PMCID: PMC8259986.
- [3] **Sender V, White JK, Bolinder L, Amilon K, Hägg M, Bhattarai KH, Björkström NK, Saedi B.** Flow cytometry for screening and prioritisation of urine samples: a retrospective comparison with culture. *BMC Infect Dis.* 2025 Jul 30;25(1):960. doi: 10.1186/s12879-025-11374-8. PMID: 40739551; PMCID: PMC12312330.
- [4] **Flores E, Martínez-Racaj L, Blasco Á, Diaz E, Esteban P, López-Garrigós M, Salinas M.** A step forward in the diagnosis of urinary tract infections: from machine learning to clinical practice. *Comput Struct Biotechnol J.* 2024 Jul 25;24:533-541. doi: 10.1016/j.csbj.2024.07.018. PMID: 39220685; PMCID: PMC11362637.



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