URISED smart & LABUMAT smart
Fully Automated Urine Laboratory System

Urine sediment and chemistry analysis in one system: up to 100 tests per hour

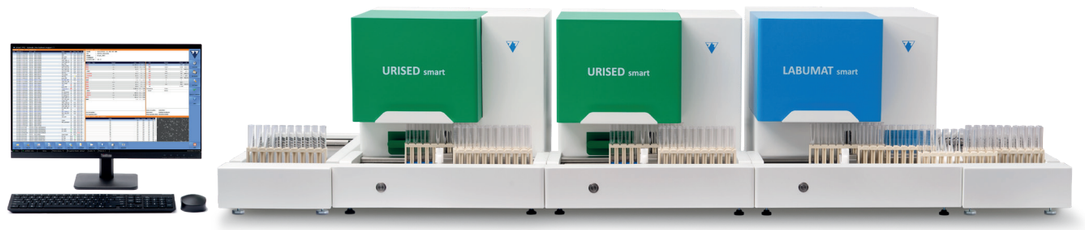


URISED smart microscopy urine sediment analyzer and **LABUMAT smart** urine chemistry analyzer connected together enable laboratories to have a completely automated urinalysis system. This integrated system provides an affordable, effective and reliable solution for urine analysis. It handles the steps of sample forwarding, sample preparation, measurement process, result analysis, reporting and result review including microscopic images. The results of urine sediment and chemistry analysis are stored in a unified database.

Smart. Complete. Affordable.

Higher throughput with modular, scalable configuration: up to 150 tests per hour

Smart scalable configuration enables the use of two URISED smart devices with LABUMAT smart thereby providing an ideal solution for higher throughput laboratories with up to 150 tests/hour.



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URISED smart - LABUMAT smart

URISED® TECHNOLOGY



See the Full Picture in Urinalysis
with Gold Standard Precision

URISED smart



Features & functions

- Based on patented URISED Technology
- Whole field of view microscopic images of urine sediment
- Automatic identification of urine particles by Artificial Intelligence-based Evaluation Module (AIEM)
- Body fluid measurement mode (for research use only)
- Fully automated sample preparation requiring only low sample volume
- Affordable for small and medium capacity laboratories as well
- Cost-effective operation without any liquid reagents or calibrators
- Only consumable is URISED Cuvette
- Possibility of scaling up and connection to urine chemistry analyzer
- RFID-based traceability and protection of cuvettes
- RFID-based rack identification
- Throughput: 100 tests/hour
- Bright-field microscopy
- Automated QC analysis and maintenance procedures

Automated Urine Sediment Analyzer

URISED® TECHNOLOGY

Detected particle classes:

RBC (Red Blood Cells); **WBC** (White Blood Cells); **WBCc** (WBC Clumps); **HYA** (Hyaline Casts); **PAT** (Pathological Casts); **EPI** (Squamous Epithelial Cells); **NEC** (Non-Squamous Epithelial Cells); **BAC** (Bacteria); **BACc** (Bacteria Cocci); **BACr** (Bacteria Rods); **YEA** (Yeast); **CRY** (Crystals); **CaOxm** (Calcium-oxalate monohydrate); **CaOxd** (Calcium-oxalate dihydrate); **URI** (Uric acid); **TRI** (Triple phosphate); **MUC** (Mucus); **SPRM** (Sperm).

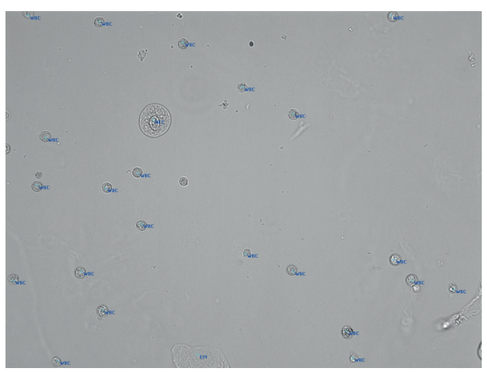
Further classes for manual subclassification are also available.

Body fluids available (for research use only):

Cerebrospinal fluid (Liquor), Ascitic fluid, Pleural fluid, Pericardial fluid, Continuous ambulatory peritoneal dialysis (CAPD)

Affordability Meets Gold Standard Precision

URISED smart is a fully automated urine sediment analyzer which follows the traditional gold standard method by producing whole field of view microscopic images of urine sediment. The particles are automatically classified and counted.



Technical Specifications

Technology:	URISED Technology: cuvette-based automated microscopy and image processing
Consumables:	URISED Cuvette
Throughput:	100 tests/hour
Batch size:	50 test tubes - can be extended with additional 200 test tubes if optional input/output buffers are connected
Cuvette capacity:	50 cuvettes
Enhanced sedimentation:	✓
Built-in microscope:	✓
Images:	15 HPF-like images
Min. sample volume	
normal mode:	2.0 mL, connected 3.0 mL
low volume mode:	1.0 mL, connected 2.0 mL
Memory:	10,000 results
Display:	24" monitor
Size:	516x581x466 mm (WxDxH) including rack handler
Instrument weight:	41 kg
Input:	100 - 250V AC / 50-60 Hz
Interfaces:	USB, Type-C USB, RS232 serial port, PS2, DisplayPort, HDMI and DVI-D connection
Barcode reader:	built-in barcode reader
LIS connectivity:	LIS2-A2 or HL7

LABUMAT smart



Features & functions

- Fully automated sample preparation requiring only low sample volume
- Affordable for small and medium capacity laboratories as well
- Cost-effective operation without any liquid reagents or calibrators
- Available test strip types are LabStrip U11 Plus GL and U12 mALB/CREA
- LABUMAT smart can be used only in connected mode together with URISED smart
- RFID-based rack identification
- Throughput: 150 tests/hour
- Automated QC analysis and maintenance procedures

Automated Urine Chemistry Analyzer

Urine test strips for LABUMAT smart	Chemical parameters												Calculated		Physical parameters		
	BIL	URO	KET	ASC	GLU	PRO	BLD	CREA	pH	NIT	mALB	LEU	ACR	PCR	Specific gravity	Color	Turbidity
LabStrip U11 Plus GL	■	■	■	■	■	■	■		■	■		■			■	■	■
LabStrip U12 mALB/CREA	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Proficiency and efficiency in urinalysis

LABUMAT smart is a fully automated urine chemistry analyzer evaluating up to 12 chemical parameters with the available LabStrip urine test strips and 3 physical parameters. **LABUMAT smart** is a high quality and reliable instrument meeting the requirements of modern automated laboratories and providing walk-away operation. Easy, user friendly operation, automatic handling of test strips and samples – including precise sample dosing for each test pad by the pipetting unit – advanced detection technique and intelligent data management provide maximum efficiency while making urinalysis simple.



LabStrip U11 Plus GL

For detection of essential parameters



LabStrip U12 mALB/CREA

For early detection of kidney disease and diabetes

Technical Specifications

Technology:	reflectance photometer, 4 discrete wavelengths
Consumables:	LabStrip U11 Plus GL; LabStrip U12 mALB/CREA
Throughput:	150 tests / hour
Batch size:	50 test tubes - can be extended with additional 200 test tubes if optional input/output buffers are connected
Test strip capacity:	300 test strips
Min. sample volume	
normal mode:	2.0 mL, connected 3.0 mL
low volume mode:	1.0 mL, connected 2.0 mL
Memory:	10,000 results
Display:	shared with URISED smart, 24" monitor
Size:	516x660x466 mm (WxDxH) including rack handler
Instrument weight:	45 kg
Input:	100 - 250V AC / 50-60 Hz
Interfaces:	USB for connecting to URISED smart All external connections are realized by URISED smart
Barcode reader:	built-in barcode reader