Automated Urine Chemistry Analyzer

- / Throughput: up to 240 tests/hour
- / Evaluates 10 chemical and 3 physical parameters
- / Cost-effective operation without any special liquid reagents
- / Low sample volume; liquid level detection
- / Advanced, patented detection technique
- / Increased test strip capactiy: up to 300 test strips
- / Increased on-board stability: up to 2 weeks

- / Built-in PMC module for measuring physical parameters
- / User friendly and flexible software; easy operation via color touch screen
- / Streamlined documentation by LIS connectivity
- / Automated QC analysis and self-check
- / Software and language upgrades via USB stick
- / RFID based rack identification



Automated Urine Sediment Analyzer



LabUMat 2

Proficiency and efficiency in urinalysis

The LabUMat 2 is a fully automated urine chemistry analyzer evaluating 10 chemical parameters of LabStrip U11 Plus GL test strips and 3 physical parameters. Continuing its predecessor's mission, LabUMat 2 is a high quality and reliable instrument meeting the requirements of modern automated laboratories and providing walk-away operation. Easy operation via touch screen, automatic handling of test strips and test tubes – including sample mixing and precise dosing for each test pad by the pipetting unit – advanced detection technique and intelligent data management provide maximum efficiency while making urinalysis simple.

About 77 Elektronika

77 Elektronika Kft. is a major global developer, manufacturer and supplier of in vitro diagnostic medical devices, mainly urine analyzers, rapid test readers, blood glucose meters and their consumables. The products are supplied worldwide under the 77 Elektronika brand and as OEM products for market-leading multinational companies. 77 Elektronika was established in 1986 and is headquartered in Budapest, Hungary (EU). The company is committed to providing premium products and services to the complete satisfaction of its customers.





On-board stability kit

LabStrip U11 Plus GL

Technical Specifications

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Methodology:	reflectance photometer, 4 discrete wavelengths	
Evaluated parameters:	Bilirubin, Urobilinogen, Ketones, Ascorbic acid, Glucose, Protein, Blood, pH, Nitrite, Leucocytes via LabStrip U11 Plus GL urine test strip	
	Specific gravity, Color, Turbidity via PMC (Physical Measurement Cell) module	
Max. throughput:	up to 240 tests / hour	
Batch size:	100 test tubes	
Test strip capacity:	up to 300 test strips	
On-board stability of strips:	up to 2 weeks (with optional kit)	
Min. sample volume:	2.0 ml	
	(checked by liquid level sensor)	
Memory:	last 10,000 results	
Display:	800x600 TFT	
Size:	600x650x635 mm (LxDxH)	
Weight:	55 kg	
Input:	100-250V AC / 50-60 Hz	
Power consumption:	max 200 W	
Interfaces:	USB, RS232 serial port, PS2, DisplayPort and DVI-D connection	

New PHASE with CONTRAST

- / Revolutionary optical system combining bright-field and phase contrast microscopy
- / The only consumable is the UriSed cuvette
- / No need for liquid reagents or calibrators
- / Throughput: up to 150 tests/hour
- / Dual-view for both bright-field and phase contrast images
- / Zoomable HPF-like images
- / Improved consumable traceability: RFID based cuvette and rack identification

- / Fully automated sample preparation requiring only low sample volume
- / Live view mode: Real-time view of any viewfield of the cuvette to see moving microorganisms as well
- / Automated QC analysis and maintenance procedures
- / UriSed 3 PRO and LabUMat 2 together make a Complete Urine Laboratory System
- / Streamlined documentation by LIS connectivity



UriSed cuvette

UriSed 3 PRO provides a uniquely advanced visualization and recognition of formed elements in urine sample using a special, patented combination of bright-field and phase contrast microscopy by automating the gold standard method of sediment analysis

It improves differentiation of hyaline casts, red blood cells, crystals, yeast and overall diagnostic performance in central screening laboratories as well as in specialist laboratories.



UriSed instruments are based on the UriSed technology, which represents a premium category solution for sediment analysis, providing high resolution, whole view field microscopic images in an automatic and reproducible way. The goal of UriSed Technology is to make the urinary sediment analysis faster, more reliable, more operator independent and independent of the manual microscopy.





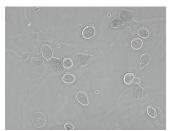




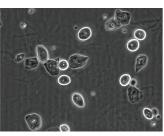
Urine particles with never-seen-before definition and clarity

LabUMat 2 & UriSed 3 PRO Complete Urine Laboratory System





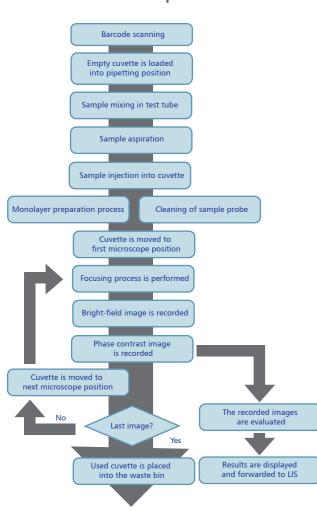
Phase contrast image



Composite image



Measurement process



Technical Specifications

o-detected	Red Blood Cells (RBC); White Blood Cells (WBC
ticle classes:	WBC Clumps (WBCc); Hyaline Casts (HYA);
	Pathological Casts (PAT); Squamous Epithelial
	Cells (EPI); Non-Squamous Epithelial Cells (NEC
	Bacteria Cocci (BACc); Bacteria Rods (BACr);
	Yeast (YEA); Mucus (MUC); Sperm (SPRM);
	Crystals (CRY): Calcium-oxalate monohydrate
	(CaOxm), Calcium-oxalate dihydrate (CaOxd),
	Uric acid (URI), Triple phosphate (TRI),
	Amorphous material (AMO), RBC ghost and

Further classes for manual sub-classification are also available!

RBC-Aca flags.

	Technology:	Cuvette based automated microscopy and image processing
	Consumable:	UriSed cuvette
	Consumable traceability:	with RFID tag
	Memory capacity:	10,000 results (including all images)
	Throughput:	Up to 150 tests/hour
	Magnification:	Zoomable HPF-like images
	Displayed images:	Phase contrast, bright-field and composite
	Min. sample volume:	2.0 ml (checked by liquid level sensor)
1	Batch size:	100 test tubes
	Barcode reader:	Built-in
	Printer:	Optional, external (connected to operating PC)
)	Interfaces:	USB, LAN, RS232 serial port
J	LIS connectivity:	LIS2-A2 or HL7
	Size:	600 x 640 x 635 mm (W x D x H, without PC)
	Weight:	63 kg (without operating PC)
	Power (measuring unit):	100-240V AC / 50-60 Hz / max. 200 W

The operation of the instrument is based on the patented UriSed Technology. Working without any special liquid reagents, UriSed 3 PRO performs sample preparation, produces whole viewfield microscopic images and evaluates them using the Artificial Intelligence-based Evaluation Module (AIEM), a high-quality image processing software.

Using the phase contrast technology UriSed 3 PRO provides improved performance. It has outstanding visualization and recognition capabilities for every particle type even the ones that conventional bright-field microscopy cannot easily detect (such as casts and ghost red blood cells). The RFID based identification process ensures easy registration of cuvettes as consumables on the instrument and allows traceability between measurement results and consumable lots. UriSed 2 and UriSed 3 can also be upgraded with RFID based consumable traceability.







Chemistry and sediment analysis in one system

The efficiency of LabUMat 2 test strip analyzer and UriSed 3 PRO microscopic sediment analyzer – both manufactured by 77 Elektronika – can be maximized by using the two instruments together as one system.

Combined operation is enabled with physical and software connections between LabUMat 2 and UriSed 3 PRO. The results of both measurements are stored in a unified database and reported as a common report.

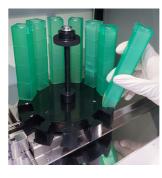
Since all necessary measurements which have to be done on urine samples are completed by this integrated system in one process, the combination of LabUMat 2 and UriSed 3 PRO accelerates laboratory throughput and provides the most effective and reliable solution for complete and professional urine analysis.

The UriSed Cascade configuration creates a physical and data link connection between one LabUMat 2 analyzer and two UriSed 3 PRO analyzers thereby providing an ideal solution for high-throughput laboratories with up to 200 tests/hour.

All you need for complete urine analysis



LabStripU11 Plus GL test strips for LabUMat 2



Cuvettes for UriSed 3 PRO



Normal distilled water



Standard test tubes



