

# Automated Urine Chemistry Analyzer

# Automated Urine Sediment Analyzer

- Up to 240 tests/hour throughput
- Spotting method: sample dosage by pipetting unit
- Cost-effective operation without any special liquid reagents
- Low sample volume; liquid level detection
- Advanced, patented detection technique
- Separate 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



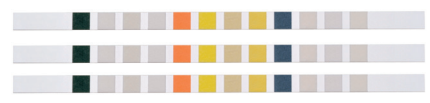
LabUMat 2



UriSed 3

## 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. Besides preserving all its former attractive features, the new version of LabUMat has been significantly improved for an even better performance. 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.



Technical features	
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
Min. sample volume:	2.0 ml (checked by liquid level sensor)
Memory:	max 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, VGA
Printer:	built-in thermal printer
Barcode reader:	built-in barcode reader

### 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 throughout the world 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 superior products and services to the complete satisfaction of its customers.

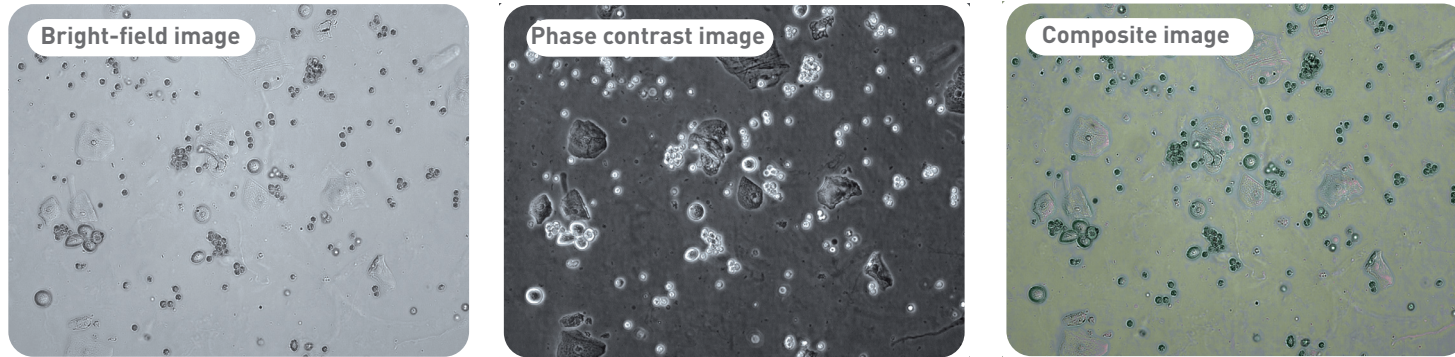
## New PHASE with CONTRAST

- Revolutionary particle visualization and recognition utilizing both bright-field and phase contrast microscopy
- Zoomable LPF-like images
- 3x more investigated sample volume compared to UriSed 2
- Throughput: up to 120 tests/hour
- Fully automated sample preparation requiring only low sample volume
- Manual microscopy mode: Real-time view of any viewfield of the cuvette to see moving microorganisms as well
- No need for liquid reagents or calibrators
- Automated QC analysis and maintenance procedures
- UriSed 3 and LabUMat 2 together make a Complete Urine Laboratory System
- Streamlined documentation by LIS connectivity

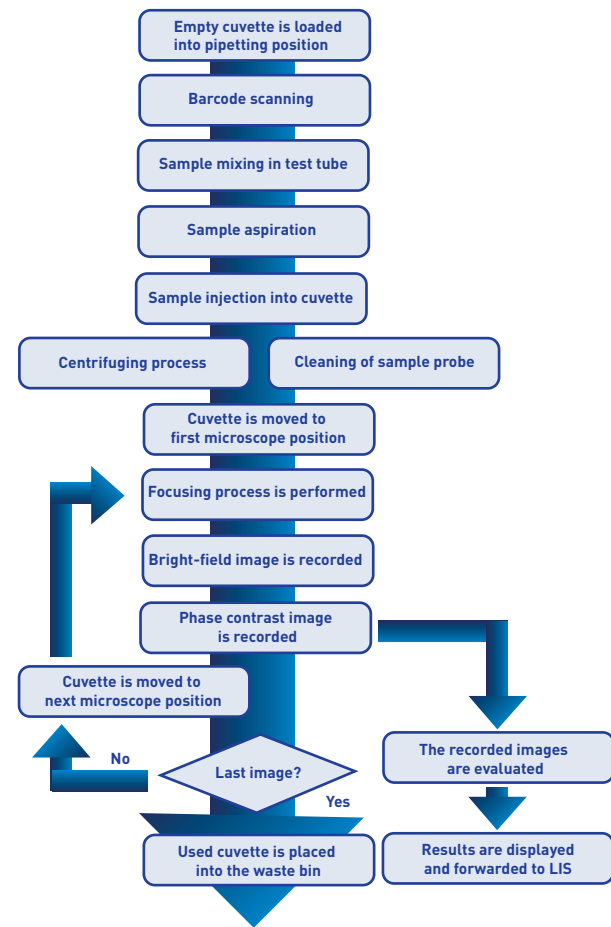
UriSed 3 provides a uniquely advanced visualization and recognition of formed elements in urine sample using a special combination of bright-field and phase contrast microscopy by automating the gold standard method of sediment analysis. It improves differentiation of hyaline casts, red blood cells, crystals, yeast and overall diagnostic performance in central screening laboratories as well as in specialist laboratories.



# Urine particles with never-seen-before definition and clarity



## Patented measurement process



## Technical Specifications

Auto-detected particle classes:  
 Red Blood Cells (RBC); White Blood Cells (WBC); 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).

Further classes for manual sub-classification are also available!

Technology:	Cuvette based automated microscopy and image processing
Memory capacity:	10,000 results (including all images)
Throughput:	Up to 120 tests/hour
Magnification:	Zoomable LPF-like images
Displayed images:	Phase contrast, bright-field and composite
Min. sample volume:	2.0 ml (checked by liquid level sensor)
Batch size:	100 test tubes
Barcode reader:	Built-in
Printer:	Optional, external (connected to operating PC)
Interfaces:	USB, LAN, RS232 serial port
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
Power (operating PC):	100-127V AC / 47-63 Hz / max. 400 W 220-240V AC / 47-63 Hz / max. 400 W

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

Using the phase contrast technology UriSed 3 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).

# LabUMat 2 & UriSed 3

## Complete Urine Laboratory System



## Chemistry and sediment analysis in one system

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

Common operation is enabled with physical and software connections between LabUMat 2 and UriSed 3. The results of both measurements are stored in a common 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 accelerates laboratory throughput and provides the most effective and reliable solution for complete and professional urine analysis.

## All you need for complete urine analysis



LabStripU11 Plus GL test strips for LabUMat 2 (closed system)

Cuvettes for UriSed 3 (closed system)

Normal distilled water

Standard test tubes