



EXIAS
MEDICAL



ELECTROLYTE MODULE

EXCELLENCE IN
ANALYTICAL SYSTEMS

© 2023 EXIAS Medical GmbH
All rights reserved

Kratkystraße 2
8020 Graz, Austria

info@exias-medical.com
www.exias-medical.com

Dilution free

400 tests/hour

Maintenance free

TECHNICAL SPECIFICATIONS

OPERATIONAL CHARACTERISTICS

Parameter	Na ⁺ , K ⁺ , Cl ⁻ (basic panel) Ca ²⁺ , pH (calculated: nCa ²⁺) (extended panel on request)
Sample volume	20 µL (max. 35 µL)
Sample type	Plasma, serum, urine, aqueous standard solutions
Throughput	400 tests/hr (basic panel)
Turnaround Time (TAT)	27 sec/sample (= 3-5 tests)

SENSOR CASSETTE

Number of tests	6000 tests (up to 9000 tests)
Wet-up time	30 min (new sensor)
On-board stability	42 days
Shelf-life sensor cassette	9 months (further increase planned)
Storage conditions	Room temperature

FLUID PACK

Number of tests	12000 tests (up to 18000 tests)
On-board stability	84 days
Shelf-life fluid pack	9 months (further increase planned)
Storage conditions	Room temperature

CALIBRATION

Duration	30 sec
Interval	auto. 4, 8, 12 h (configurable) (30 min within first 6 hr after wet-up)

ADDITIONAL INFORMATION

Frontend module dimensions (mm)	90 x 140 x 65 (W x H x D)
Fluid pack dimensions (mm)	223 x 223 x 75 (W x H x D) includes operating solution, calibrant and waste (optional)
Connectivity	Ethernet, USB, RS232 (others on request)
Power supply	24V/2A



Full connectivity

- Export of data to USB flash drive
- Communication with CC-Analyzer via Ethernet or RS232

MEASURED PARAMETERS

(extended ranges on request)

Parameter	Sample Type	Range	CV in %*
Na ⁺	S/P/A	85 – 200 mmol/l	< 0.5
	U	5.0 – 300 mmol/l	< 1.0
K ⁺	S/P/A	1.0 – 15.0 mmol/l	< 0.5
	U	5.0 – 120 mmol/l	< 1.0
Cl ⁻	S/P/A	60 – 150 mmol/l	< 0.5
	U	5.0 - 300 mmol/l	< 1.0

*Repeatability (within-run precision)

Legend

- S Serum
- P Plasma
- A Aqueous standard solutions
- U Urine (undiluted)

Ease of integration

Built-in sample cup
Single snap-in **m|1 Multi Sensor Cassette**
Intuitive and tool-free consumable replacement

EXIAS m|1 ELECTROLYTE MODULE

The **m|1 Electrolyte Module** is developed for easy integration into clinical chemistry systems. It measures Na⁺, K⁺ and Cl⁻ in serum, plasma and undiluted urine.

Direct measurement of undiluted samples allows independent workflows for ISE and photometry. Autonomous ISE calibration leads to minimal involvement of the main carousel. Innovative thick-film technology directly measures ionic activity, reducing risk of Pseudohyponatremia.

The **m|1 Electrolyte Module** offers the smallest sample volume and highest throughput in the dilution-free ISE segment. It is the future of ISE in clinical chemistry, combining ease of use, truly maintenance free operation and outstanding performance.



Compact and clever design

Maintenance free

Cleaning and conditioning free
No liquid reference junction
(no salt deposits, no downtime)
Autonomous calibration

Dilution free

No additional dilution steps
No cuvettes on the analyzer blocked
Decoupled from clinical chemistry analyzer

