

SPHERA 202: Built to last

SIZE / WEIGHT	
Height: 49 cm (19.3 in)	Weight: 39 kg (83.8 lbs)
Depth: 60 cm (23.6 in)	
Width: 62 cm (24.4 in)	
POWER SUPPLY	
240 / 100 Vac, 50 / 60 Hz, single phase with ground Independent on-off switch for refrigerated reagent plate Fuse compartment / fuses: 2.5 A @ 250 Vac, 4 Amp @ 115 Vac Power consumption: less than 200 VA (external PC excluded) Ground resistance: less than 0.1 Ohm Leakage current: less than 2.5 mA	
SAMPLING ARM	
1 sampling needle, 110 mm needle stroke Capacitive liquid level detector Needle shock sensor	
DILUTER SYRINGE	
Long life plunger Syringe capacity: 368 µL Syringe resolution: 0.14 µL	
HYDRAULIC SYSTEM	
6 self-priming peristaltic pumps (life 1000 hrs) with replaceable neoprene cassette (life 500 hrs) 2 vacuum pumps Push valve Manifold Containers*: Water, 20L; Cleaning solution, 2L; Waste, 20L * equipped with level sensor and safety connections	
WASH STATION	
Needles: 6 dispensing, 6 aspiration, 1 cleaning (8 step washing sequence for each cuvette)	
REAGENTS TRAY	
Removable rack 30 bottles, 50 mL, or 24 ml (up to 1500 ml total)	
SAMPLES TRAY	
(Sphera standard) Removable tray, 60 numbered positions, tubes of 12 - 13 mm, 5 - 7 mL / cupe of 1 mL (cupe require a metal adapter for level detection) (Optional) Removable tray, 20 + 20 numbered positions, 20 tubes of 12 - 16 mm / 20 cupe (3.5 mL type)	
CUVETTE ROTOR REACTION CELLS	
60 washable BIOND® cuvettes which allow up to 30 000 tests per rotor Optical path: 6 mm, 210 - 300 µL reaction volume 100W heating resistance, temperature sensor, safety thermostat	
OPTICAL GROUP	
1 halogen lamp (8 V, 10 W) with extended UV emission 2 focusing lenses, optical glass 10-position filter disk: 8 positions provided with interference filters of 340, 405, 505, 545, 578, 600, 650, 700 nm wavelengths, 1 free position and 1 solid position for dark reading Direct reading reaction cuvettes, 6mm optical path ±2 nm on peak wavelength, band pass of ±10 nm	
PHOTODIAPHRAGM	
Photodiode detector Signal amplifier Response range, 340 nm to 900 nm Photometric range, 0 to 3 Abs Linearity, ±0.5% (0.1 to 1.5 Abs) Precision: 0.5 CV% (0.100 to 1.500 Abs) Stability: daily reader offset, less than 1% drift per day	
CONTROL	
Real-time multitasking microprocessor based control Easy access to the electronics	
EXTERNAL COMPUTER	
Minimum requirements for Software (v.1.0) CPU: Intel 3 or superior RAM: 4GB I/O: USB 2.0 port Display: minimum resolution 1280x768 OS: Microsoft Windows® 7, 8, 8.1, 10 Framework: .NET framework 4.5	

Operation features	
PIPETTING	
Volume: sample, 2 - 300 µL; reagent, 2-350 µL Precision: 1.5 CV% at 2 µL; 1 CV% at 4 µL Mixing by sample needle upon dispensation	
REACTION	
Reaction volume, 210 - 350 µL	
SAMPLE DILUTION	
In-needle dilution if allowed by method's sample volumes Automatic pre-dilution in a reaction cuvette, up to 1:100	
TEMPERATURE CONTROL	
Reagent refrigeration, circa 12 °C below room temperature Reaction cells, heating unit can be set from room temperature up to 42 °C (±0.2 °C (108 °F ±0.5 °F))	
TYPES OF TESTS	
Endpoint, Bichromatic endpoint, Differential endpoint, Differential endpoint sample blank, Fixed Time, Kinetic	
TEST RUNS	
Random / Urgent	
MEASUREMENT RATES	
125 tests/hour for double reagent run 200 tests/hour in single reagent mode Maximum incubation + reading time: 630 seconds Typical precision, endpoint 2.0 CV% / kinetic 2.0 CV% Carry-over, lower than 1% parts per million	
START UP	
The start-up procedure is run daily: self test, reader offset of optics, wash and check of all cuvettes	
CALIBRATION	
Reagent blank subtraction, 1 to 8 standards per test method Linear, factor, linear, linear regression (standard's repetitions) Non linear (3 interpolation types): cubic-spline, poly-linear and log-log four parameters Five standard / control positions on all the sample plate Results can be recalculated when changing factor or curve	
MAINTENANCE	
Procedures programmed by component life counters	
PRINTING REPORTS	
Single test, complete sample, work sheet, method and QC's Automatic sample reports upon test completion if requested	
NEEDLE WASHING	
Sampling needles washed internally and externally with system solution after every operation	

Connectors	
POWER	
Standard VDE removable power cord	
EXTERNAL PC	
USB port	
HOST / LIS	
Ethernet LAN (samples, work list, results) Standard ASTM A9C31 protocol	

Database	
WORKLIST/ SAMPLES	
For each worklist, unlimited number of samples, unlimited number of tests, up to 99 sheets of tests per worklist Sample patient ID codes	
TEST METHODS	
Unlimited number of methods in PC memory 60 active methods	
QUALITY CONTROL	
Three-level controls per test, one month monitoring Reagent/alibrator control list monitoring Exclusion of failing results from graphic and statistics	
ERROR LOG	
Automatically stored at run-time, can be viewed or printed Powerful on-line monitoring	



SPHERA



Random access efficiency

Edif

Edif

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Founded in 1987



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SPHERA

200
Tests/hour3
YEARS
WARANTY

This compact and fully automated analyzer, is especially suited for medium and small-sized laboratories. With the capability of performing up to 200 tests per hour and its capacity to handle urgencies and the random flow of incoming samples, Sphera is the ideal choice for points of care, clinics, operating rooms and urgency departments..



REF	ES0001
Chassis	METAL DESIGN Aluminum alloy body
COLOR (bottom)	 WHITE
COLOR (top)	 METAL
ARM TYPE	110 mm height for 100mm primary tubes for 50 mL and 20 mL reagents Level and shock sensor
ASSET	1 pipetting arm Footprint 65 cm x 62 cm Reagent positions: 30
SAMPLE TRAY	Sample positions: 60 Type: 75 mm or 100 mm height vacuum tubes
REAGENT REFRIGERATION	-8 / -9 °C from room temperature without temperature control
WASH STATION	8 steps washing of the reaction cuvettes 80 individual BIONEX cuvettes
COVER SENSOR	Magnetic
DEFAULT OPTIONALS	Sample barcode



PDF Datasheet



Product website



SPHERA

