

Chem 200

LAB TEST MATTERS
DO YOUR SMART CHOICE WITH Gesan

Technical Specifications

- Power Supply:** 240 / 100 Vac, 50 / 60 Hz, single phase with ground On-off switch for Instrument. Independent on-off switch for refrigerated reagent plate. Power consumption: less than 200 VA (external PC excluded)
- 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, 0.2 µl
- Hydraulic System:** 8 self-priming peristaltic pumps (life 1000 hrs) with replaceable neoprene cassette (life 500 hrs)
2 vacuum pumps, Pinch valve, Manifold Container: Water, 20 l;
Cleaning solution, 2 l; Waste, 20 l
equipped with level sensor and safety connections
- Wash Station:** Needles: 6 dispensating, 6 aspiration, 1 clearing (8 step washing sequence for each cuvette)
- Reagents Tray:** Refrigerate and removable rack, 30 bottles
- Samples Tray:** (Chem 200 standard) Removable tray, 60 numbered positions, tubes of 12-13 mm, 5-7 ml / cups of 0.5-1.5 ml
(Optional) Removable tray, 20 + 20 numbered positions, 20 tubes of 12-16 mm / 20 cups (Hitachi type)

- Cuvette Rotor Reaction Cells:** 80 washable BIONEX® cuvettes which allow approximately 20000 tests for a fully loaded rotor
Optic path 6 mm, 220 - 400 µl reaction volume
100W heating resistance, temperature sensor, safety thermostat
- Optical Group:** 1 halogen lamp (6 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, 546, 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
- Photoamplifier:** Photoelectric detector, Signal amplifier:
Response range, 340 nm to 700 nm
Photometric range, 0 to 3.0 Abs ±0.003 Abs
Linearity, ±0.5% full scale
Precision: 1 CV% (0.050 to 1.500 Abs)
Stability: daily reader offset, less than 1% drift for day
- Control:** Real-time multitasking microprocessor based control
Easy access to the electronics
- External Computer:** (Minimum requirements) Intel Celeron (Core 2 / Thread 2) with 2 GHz, 20 Gb HD, 2 Gb ram, CD/R, 17" monitor, 1280 x 1024 resolution. Keyboard and mouse, RS232 standard COM1 serial port, Windows® 10 with NET framework 2.0

Operation features

- 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, about -15 °C below room temperature. 0 to 100% heat setting
Reaction cells, heating unit can be set from room temperature up to 42 °C ±0.2 °C (108 °F ±0.5 °F)
- Type of Tests:** Endpoint, Bichromatic endpoint, Differential endpoint, Differential endpoint sample blank, Fixed Time, Kinetic, Composed
- Test Runs:** Urgent / random
- Measurement Rates:** 200 tests/hour in single reagent mode.
Single reagent mode: one reading every 18 sec;
double reagent mode: one reading every 29 sec.
Typical precision, endpoint 2.5 CV% / kinetic 2.5 CV%
Carry-over, lower than 15 parts per million
- Start-up:** The start-up procedure can be scheduled automatically or once switched-on. It performs 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 logit-log four parameters.
Free standard / control positions on all the sample plate. Result can be recalculated when changing factor or curve
- Maintenance:** Procedures programmed by component life counters
- Printing Report:** Single test, complete sample, work sheet, method and QCs
Automatic sample reports upon test completion if requested
- Needle Washing:** Sampling needle washed internally and externally with Systemic solution after every operation

SMALL, MEDIUM LABORATORY - SPECIAL ROUTINE
BACK-UP IN BIG LABORATORY - EMERGENCY DEPARTMENT



gesan Chem 200

Clinical chemistry autoanalyzer



INNOVATIVE SOFTWARE



WITH DEDICATED REAGENTS



SAMPLES TRAY:
removable, 60 or 40 positions tube or cups



SAMPLING ARM:
needle stroke, capacitive level detector

REAGENTS TRAY:
removable rack, refrigerated, 30 bottles



WASH STATION:
6 needles for dispensating, 6 for aspiration, 1 for cleaning, 8 steps washing sequence for each cuvette

CUVETTE ROTOR REACTION CELLS:

80 washable BIONEX® can be replaced ONE BY ONE, long life use (20.000 tests before changing it)



1 Precise diluter syringe

VERY SIMPLE MAINTENANCE

8 peristaltic pumps with replaceable neoprene cassette (life 500 hrs), 2 vacuum pumps, 1 pinch valve



Touchscreen technology

operating system: working functions easy to use

ONLINE TECHNICAL SUPPORT **REMOTE SUPPORT**

MONITOR

Provides information for each method programmed: scheduled tests, reagents liquid level available and number of tests available, status of calibration, calibrator, quality control



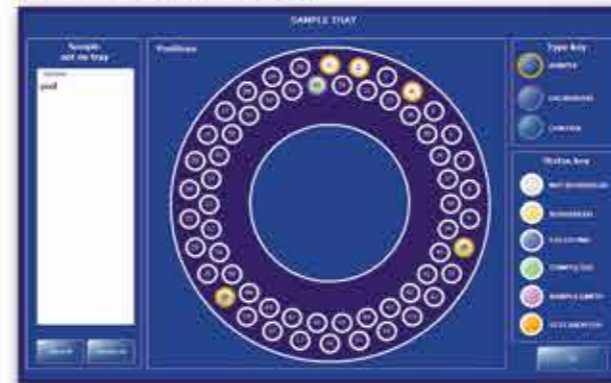
REAGENTS PANEL

• Clear displayed of reagents position and liquid level



SAMPLES

Display sample status
Continuous add, remove, modify samples, calibrators or controls.



SAMPLES TRAY

Exact position on the tray assigned to all samples, calibrators and controls with color coded status of each

WORKLIST

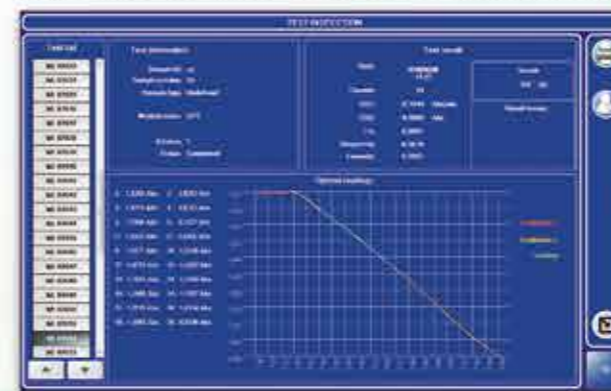
Unlimited worklist can be managed simultaneously

- Add or remove test
- Automatic rerun for test with error
- Inspect test
- Add calibration test, blank and Q.C.



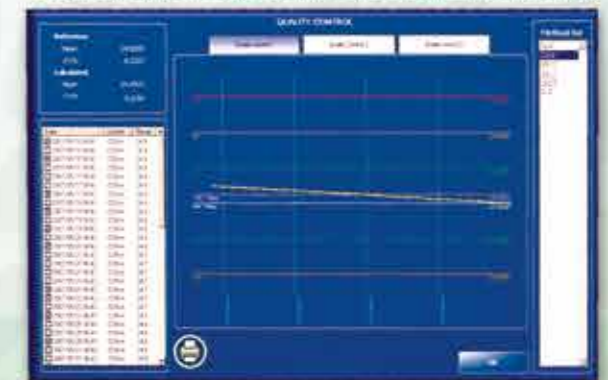
SAMPLE INSPECTION

Accurate information on a sample, data and graphic display showing sample volume remaining



TEST INSPECTION

- Data on test selected, result in abs with a graphic representation
- Automatic test recalculation result using the latest calibration



QUALITY CONTROL

- Provide a Levey-Jennings graphic of all QC results, Mean and CV%, Westgard rules

Automatic shut-down and start-up