Anexa 3 la Formularul Specificații tehnice

Lot nr. 3 Analizator biochimic, automat 100 teste

Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificatia tehnica ofertata, model **Selectra ProS,** nr. cat. 6003-542 **(Elitech / Olanda)**
Cod 150200 Descriere: Analizator automat destinat analizelor biochimice. Sistem analitic automat cu calculator integrat sau exterior (procesor, monitor, tastatura + mouse) Tip de lucru continuu Tip sistem randoom acces Capacitatea (teste/oră) ≥ 100 (teste fotometrice, fără modulul ISE) Posibilitatea efectuării analizelor urgente obligatoriu Tipul dispozitivului staționar Tip probă Ser și plasmă urină sânge integru / hemolizat CSF (lichid cefalo-rahidian) Tip diluare automat Sistem de spălare total automat (ac, sistem de dozare) obligatoriu Program control al calității obligatoriu Compartiment reactivi cu răcire Rotor cu cuve pentru reacție cu încălzire cu termostat la 37 °C Rotor cu cuve pentru reacție de tip reutilizabil sau de unică folosință obligatoriu, (indicați ciclurile posibile de reutilizare) Regimuri de măsurare Cinetic Mono și bi-cromatic Imunoturbidimetrc (Turbidity) Controlul cantității de reagent rămas Semnalizare lipsă reagent și probă Sistemul de dozare Reagenții Utilizarea a minim 2 metode: mono și bireagent Volumul reagentului programabil cu pasul 1 µl Sistemul de dozare Cu sensor de obstacol Alimentarea 220 V, 50 Hz. Note:	Descriere: Analizator automat destinat analizelor biochimice. Sistem analitic automat cu calculator integrat (procesor, monitor, tastatura + mouse) – **INTEGRATED PC**, *prospect Selectra ProS, pag. 2* Tip de lucru continuu – **Continue loading samples**, *ProS_User Manual, cap 5.3.3 Loading samples.* Tip sistem randoom acces – **Random access**, *ProS_User Manual, cap. A.1 Performance and technical data;* Capacitatea (teste/oră) 133 (teste fotometrice, fără modulul ISE) - **Up to 133 tests/hour**, *prospect Selectra ProS, pag. 2; ProS_User Manual, cap. A.1 Performance and technical data;* Posibilitatea efectuării analizelor urgente obligatoriu – **STAT sample**, *ProS_User Manual, cap. 5.4* Tipul dispozitivului staționar – **Table-top**, *ProS_User Manual, cap. 1.2 The Selectra ProS analyzer* Tip probă: Ser și plasma – **serum; plasma**, *ProS_User Manual* Urină - **urine**, *ProS_User Manual* sânge integru / hemolizat (necesara dilutia preventiva). CSF (lichid cefalo-rahidian) - **CF**, *ProS_User Manual* Tip diluare automat – *da, ProS_User Manual, prospect pag. 2* Sistem de spălare total automat (ac, sistem de dozare) – da, *ProS_User Manual, cap. 7.1.5 Cleaning system parts.* Program control al calității obligatoriu – *da, Quality Control Prospect, pag 2; ProS_User Manual, cap. A.1 Performance and technical data.* Compartiment reactivi cu răcire – **Cooling unit**, *ProS_User Manual, cap. 1.2.6 Cooling unit.* Rotor cu cuve pentru reacție cu încălzire cu termostat la 37 °C – da, *ProS_User Manual, cap. 1.2.2 Cuvette rotor.* Rotor cu cuve pentru reacție de tip reutilizabil, (10 000 cicluri) – **>10,000 tests per rotor**, *prospect Selectra ProS, pag. 2.*

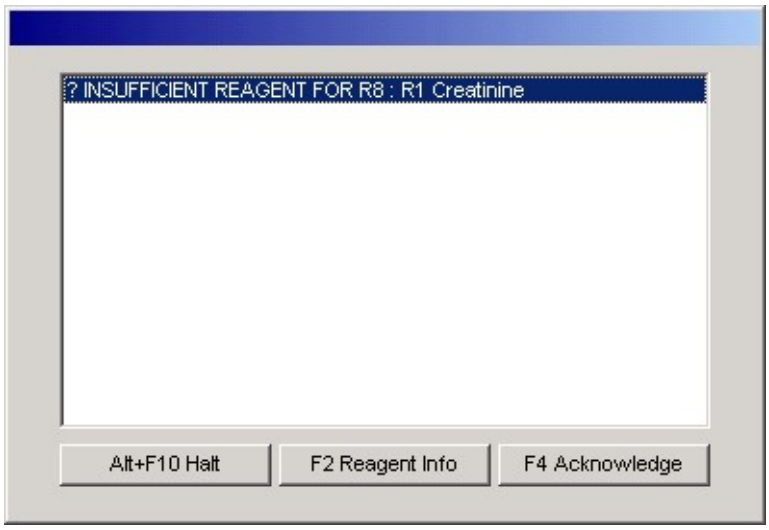
Oferta de preț trebuie să includă reactivii necesari pentru testele indicate, soluțiile QC și calibrare Cantitatea soluțiilor propuse trebuie să asigure efectuarea procedurilor de control al calității și calibrare, ori de câte ori este necesar. Furnizorul va asigura: Transmiterea către spital documentația completă privind conectarea analizatorului la sistemul informatic (H3 SIA AMS/AMP) și să asigure suportul tehnic necesar echipei desemnate de spital sau firmei de software care realizează efectiv conectarea. Instruirea personalului. Mentenanța preventivă și corectivă gratuită pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate (ex. Calculator, UPS, sistem filtrare). Seturile de mentenanță și piesele de schimb gratuite pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate (ex. Calculator, UPS, sistem filtrare apă). Toate consumabilele necesare gratuite pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate (ex. Calculator, UPS, sistem filtrare apă), dacă acestea nu au fost incluse în oferta inițială. Timpul de intervenție în caz de defect: maxim 24 ore de la solicitarea telefonică. Preț pentru reactivi nemodificat pentru toată perioada de 4 ani. Perioada de valabilitate pentru reagenții livrați: La momentul livrării: Minim 6 luni, dar nu mai puțin de 80% din termenul total de valabilitate. Să se indice timpul de stabilitate a reactivilor după deschidere. Termenele mai mari vor fi considerate un avantaj. Operatorul Economic va include în oferta prețul dispozitivului medical și prețurile pentru fiecare test considerând: - Efectuarea controlului calității pentru fiecare test în fiecare zi lucrătoare. - Efectuarea calibrării ori de cate ori va fi necesar (în baza rezultatului controlului calității). - Toate piesele si kiturile de mentenanță necesare bunei funcționării pe întreaga perioada a contractului de 4 ani. - Sistemul de filtrare (stație purificare apa) și toate filtrele necesare pentru funcționarea stației de purificare al apei pe toată perioada contractului de 4 ani.	Regimuri de măsurare Cinetic Mono și bi-cromatic - **Mono and bichromatic end point**, *prospect Selectra ProS, pag. 2.* Imunoturbidimetric (Turbidity) – da. Ex.: CRP, RF, ASLO. Controlul cantității de reagent rămas – da, *ProS_User Manual, cap. 4.2.7 Reagent Info screen.* Semnalizare lipsă reagent și probă - **INSUFFICIENT REAGENT, INSUFFICIENT SAMPLE,** *ProS_User Manual, cap. 5.6.3 Test-related error messages.* Sistemul de dozare Reagenții Utilizarea a 3 metode: mono, bireagent si tri-reagent- da, *ProS_User Manual.* Volumul reagentului programabil cu pasul 1 µl – **Increments of 1 µl,** *ProS_User Manual, cap. A.1 Performance and technical data.* Sistemul de dozare Cu sensor de obstacol – da, este. Alimentarea 100 - 240 Vac; 50/60 Hz, *prospect Selectra ProS, pag. 2.* Note: Oferta de preț include reactivii necesari pentru testele indicate, soluțiile QC și calibrare. Cantitatea soluțiilor propuse asigura efectuarea procedurilor de control al calității și calibrare, ori de câte ori este necesar. Se va asigura: Transmiterea către spital documentația completă privind conectarea analizatorului la sistemul informatic (H3 SIA AMS/AMP) și să asigure suportul tehnic necesar echipei desemnate de spital sau firmei de software care realizează efectiv conectarea. Instruirea personalului. Mentenanța preventivă și corectivă gratuită pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate (UPS). Seturile de mentenanță și piesele de schimb gratuite pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate (UPS). Toate consumabilele necesare gratuite pe toată durata de 4 ani atât pentru analizator cât și pentru dispozitivele auxiliare livrate. Timpul de intervenție în caz de defect: maxim 24 ore de la solicitarea telefonică. Preț pentru reactivi nemodificat pentru toată perioada de 4 ani. Perioada de valabilitate pentru reagenții livrați: La momentul livrării: Minim 6 luni, dar nu mai puțin de 80% din termenul total de valabilitate.

- UPS (Sursa neîntreruptibilă de alimentare) și costurile acumulatoarelor necesare pe toata perioada contractului de 4 ani. - Calculator (PC), monitor, tastatura, mouse cu garanție deplină și înlocuire în caz de defectare. - Toate consumabilele, inclusiv: soluții de spălare, soluții de buffer, electrozi/modul ISE, cuve/rotor pentru reacție, lămpi și tot spectrul de consumabile necesare bunei funcționări pentru efectuarea tuturor testelor solicitate de IMSP. - Toate serviciile de mentenanță preventivă și corectivă necesare bunei funcționări pe perioada de 4 ani Respectiv, se vor lua în calculul toate cheltuielile care ar putea apărea în întreaga perioada de 4 ani	Să se indice timpul de stabilitate a reactivilor după deschidere – conform termenului de valabilitate a reactivului indicat pe eticheta. In oferta prețul dispozitivului medical sunt incluse și prețurile pentru fiecare test considerând: - Efectuarea controlului calității pentru fiecare test în fiecare zi lucrătoare. - Efectuarea calibrării ori de cate ori va fi necesar (în baza rezultatului controlului calității). - Toate piesele si kiturile de mentenanță necesare bunei funcționării pe întreaga perioada a contractului de 4 ani. - UPS (Sursa neîntreruptibilă de alimentare) și costurile acumulatoarelor necesare pe toata perioada contractului de 4 ani. - Toate consumabilele, necesare bunei funcționări pentru efectuarea tuturor testelor solicitate de IMSP sunt incluse. - Toate serviciile de mentenanță preventivă și corectivă necesare bunei funcționări pe perioada de 4 ani Respectiv, se vor lua în calculul toate cheltuielile care ar putea apărea în întreaga perioada de 4 ani.

5.6 Troubleshooting

5.6.1 Handling error messages

If the analyzer detects an error or malfunction, a dialog window is shown on the screen. The window contains buttons that lead to further actions.



Some messages are accompanied by an acoustic signal. Press the spacebar to stop the signal. The sound and duration of the signal are defined in the system parameters. See par. 6.5.1.

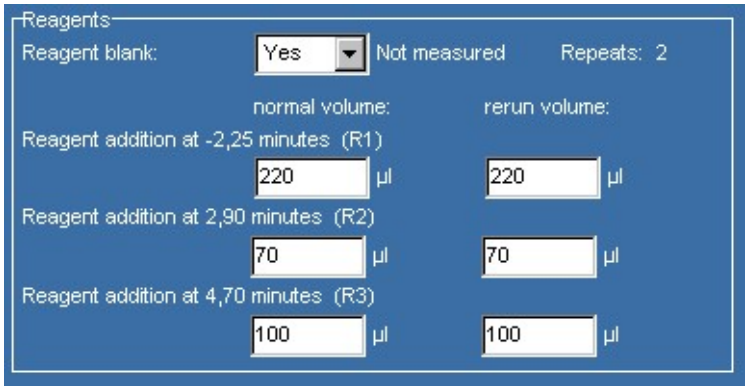
Function keys in the message windows

Note
The error messages are accompanied by different buttons, depending on the error condition. The list below shows all possible buttons and the actions associated with them.

Command	Description
F1 Check Again	Repeat the procedure that led to the error message. This can be used if the importance of the message is unclear.
F2 Reagent Info	Open the ***Reagent Loadlist*** screen. That screen shows which reagents need to be filled. See par. 5.2.2.
F4 Acknowledge	Acknowledge the message and close the window. No further action is taken.
F4 Abort	Abort the action that caused the error message. This option is only shown when aborting the action is possible.
F5 Request calibration	Enter a new request for the required calibration. The calibrator request is added to the worklist and selected. Press ***Enter*** to assign a rotor position.
F5 Hard Reset	Reset a subsystem of the analyzer. If the error condition is cleared by this, the analyzer continues.
F6 Soft Reset	Reset a component of the analyzer. If the error condition is cleared by this, the analyzer continues.
F5 Measure	Measure all pending tests.
F6 Reject	Rejects all pending tests.

Sample blank:	• ***Yes*** - Sample blank measurement is done for all samples. Now the ***Sample blank absorbance limits*** section is shown and the parameters can be set. • ***On request*** - Sample blank measurement can be chosen per sample in the ***Request samples*** screen. The ***Sample blank absorbance limits*** section is shown and the parameters can be set. • ***No*** - Sample blank measurement is not done.
normal volume:	The sample volume used for normal measurements. Enter any value between 2 µl and 30 µl in 0.1 µl steps.
rerun volume:	The sample volume used for rerun measurements. Enter any value between 2 µl and 30 µl in 0.1 µl steps.

14. Set the parameters in the ***Reagents*** section.



Reagent blank:	Select ***Yes*** to switch on reagent blanking.
normal volume: (R1)	The R1 volume used for normal measurements. If no R2 and/ or R3 are used, enter a volume between 220 µl and 399 µl in steps of 1 µl. Otherwise, the minimum volume for R1 can be set to 110 µl.
rerun volume: (R1)	The R1 volume used for rerun measurements.
normal volume: (R2/R3)	The R2 and R3 volumes used for normal measurements. Enter a volume between 0 µl and 289 µl in steps of 1 µl. Entering a value of 0 µl means the reagent is not used.
rerun volume: (R2/R3)	The R2 and R3 volumes used for rerun measurements.

Note
The total volume of the sample and all used reagents must be between 220 µl and 400 µl. Numbers are automatically changed by the analyzer to remain within these limits.

A.1 Performance and technical data

A.1.1 Selectra ProS

Performance

Maximum throughput	133 tests/hour
Accuracy	See par. A.1.6
Precision	See par. A.1.6
Programmable tests	120 per rotor configuration unlimited number of rotor configurations possible
Load test capacity	30 per rotor
Quality control	3 per parameter, 120 controls programmable per rotor configuration
Sample processing	Random access

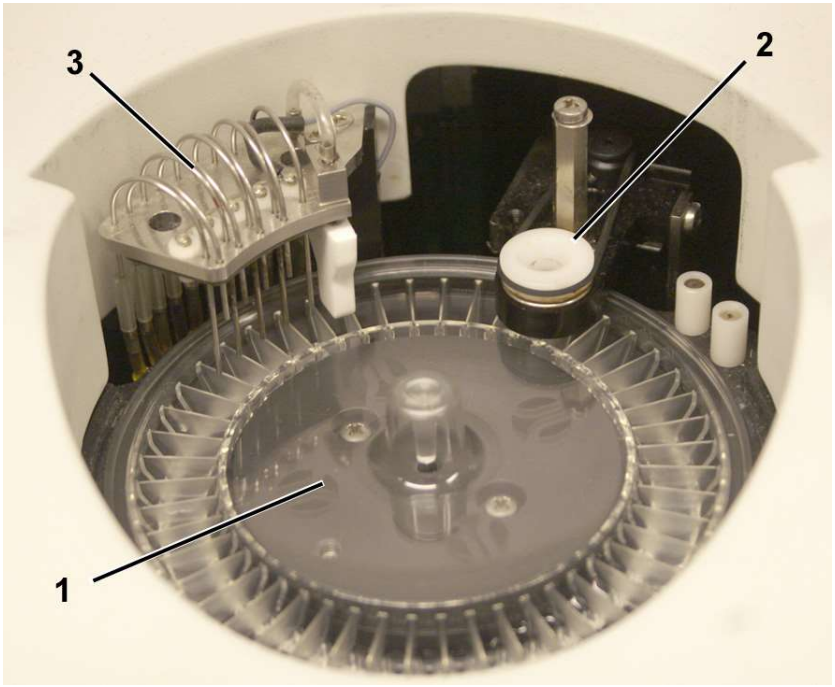
Sample system

Sample positions	25 positions; every position can be used for calibrator, normal, ASAP, STAT, blank and control samples.
Sample tubes	Diameter: 13 mm Height: 75 mm Pediatric tubes: see par. 5.3.1.
Needle	Level detector and integrated stirrer
Pipetting capacity	2-30 µl (increments of 0.1 µl)
Syringe	100 µl

Reagent system

Reagent positions	30 positions: 20 × 25 ml, 10 × 10 ml 12 x 25 ml positions can be used for 6 x 50 ml bottles
Volumes per test	Reagent 1: 110 – 399 µl Reagent 2: 10 – 289 µl Reagent 3: 10 – 289 µl
Refrigeration	8 - 12 °C (Absolute up to 25 °C ambient temperature)
Needle	Pre-heated, with level detector and integrated stirrer
Pipetting capacity	400 µl (increments of 1 µl)
Syringe	1000 µl

1.2.2 Cuvette rotor



The cuvette rotor [1] contains 48 cuvettes. The measuring volume is 220 to 400 µl. The cuvette rotor has a heated cover. The cuvettes are kept at 37°C. The stirrer [2] ensures that the reaction mixture is mixed well before being measured. The pipettor arm is pushed through the excentric hole in the stirrer and into the cuvette. The rotation of the stirrer makes the pipettor needle move around in the mixture.
After the last measurement, the rotor is washed and dried. The reagent needle automatically fills the cuvettes with water to avoid drying-in of the rotor.

ATTENTION
Make sure the cover is closed while the instrument is in operation. Only open the cover when access is needed.

Washing unit

The washing unit [3] aspirates the reaction mixture after analysis and washes the cuvettes with 4 x 500 µl water. The washing unit is equipped with sensors to avoid flooding the system with water.

Clinical Chemistry

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SPECIFICATIONS

THROUGHPUT

- Up to 133 tests/hour
- Up to 333 ISE tests/hour

REAGENT AND SAMPLE HANDLING

One rotor combining both sample and reagent positions. Reagent ID and automated programming of assays, calibrators and controls via barcode.

- Inner rotor ring:
  - 30 refrigerated reagent positions for 10 mL and 25 mL reagent bottles
  - Cooled to 10°C +/-4°C at normal laboratory conditions
  - All reagent positions can be assigned as R1, R2 and R3
- Outer rotor ring:
  - 25 barcode readable positions
  - All positions fit 13x75 mm primary and secondary tubes and pediatric cups
  - All positions can be used for calibrators, controls, normal, pediatric and STAT samples

PIPETTING SYSTEM

- 1000 µL reagent syringe:
  - R 1 volume 110 - 399 µL
  - R 2 volume 10 - 289 µL
  - R 3 volume 10 - 289 µL
  - Programmable in 1 µL steps
- 100 µL sample syringe:
  - Sample volume 1 - 30 µL
  - Programmable in 0.1 µL steps
- Programmable dilution ratios: 1 : 5 up to 1 : 200 in one step increments with 3 possible diluents
- Pre-heated probe with level detection, collision protection and integrated mixer

CUVETTE ROTOR

- Cost effective, semi-disposable cuvette rotor with 48 cuvettes, path length 7 mm
- >10,000 tests per rotor
- Minimum measuring volume 220 µL
- Measuring temperature 37°C, controlled by Peltier elements

LIGHT SOURCE

- Quartz-iodine lamp 12V-20W

WAVELENGTH RANGE

- 340 - 800 nm
- Optical unit with 8 position filter wheel
- Automatic wavelength selection
- 340, 405, 505, 546, 578, 620, 660, 700 nm standard installed
- Other wavelengths available on request

PHOTOMETRIC RANGE

- -0.1 to 3.0 Absorbance
- Resolution 0.001 Abs

ANALYTICAL MODES (SINGLE, DUAL AND TRIPLE REAGENT SYSTEM)

- Kinetic measurement with linearity check
- Mono and bichromatic end point measurement with or without bichromatic reagent blank and/or sample blank correction
- Two point measurement; with or without slope blank
- Graphic plot of all measuring points
- Predilution, post-dilution and automatic reflex dilution as needed
- Non-linear calibration curves
- Prozone check for immunology tests
- Cut-off declaration
- Calculated tests

QUALITY CONTROL

- Up to 15 different controls can be defined, 3 per test
- Westgard rules
- Levey-Jennings plots
- Quality control statistics

WATER CONSUMPTION

- ~950 mL per hour max, continuous operation

STANDARDS AND REGULATIONS

- CE-IVDR
- USA FDA 510(k)
- CB
- UL

DIMENSIONS & WEIGHT

- 83cm (33in) x 59 cm (23in) x 61 cm (24in) excl. monitor and panel PC (WxHxD)
- 75 kg (165 lbs)

INTERFACE

- State of the art Host-Query interface available
- Host: RS232 or Ethernet (TCP/IP) through LIS-2A protocol
- Hand held CCD barcode reader used for reagent identification and automated programming of assays, controls and calibrators

INSTALLATION CONDITIONS

- Temperature: 15 - 32 °C (59 - 90°F)
- Humidity: 15 - 85% RH
- Altitude: up to 2000 m
- Plumbing: no dedicated system water or drain required
- Electrical: Voltage: 100 - 240 Vac; Frequency: 50/60 Hz; Power (max): 400 VA

INTEGRATED PC

- Touch screen navigation
- Operating System: MS Windows 10 IoT

OPTIONS

ISE MODULE

- Patented Solid State Dry Electrode Technology
- Indirect measurement
- Dilution 1:14
- Measures Sodium, Potassium, Chloride and Bicarbonate

POSITIVE SAMPLE IDENTIFICATION

- Positive Sample Identification (PSID) via integrated barcode reader
- Reads all popular formats including Codes 39, 128, 11, 93, CODABAR and Interleaved 2/5

PRINTER

- Printer supported by MS Windows™

PROACTIVE MAINTENANCE KIT

- Complete parts kit for annual preventive maintenance

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5.6.3 Test-related error messages

Note
All possible test-related error messages are listed below, with their probable causes and remedies. If you are in doubt about the actions to take, contact your superior.

INSUFFICIENT REAGENT

- The reagent bottle is empty or missing.
  Fill the reagent bottle.

INSUFFICIENT SAMPLE

- The sample tube is empty or missing.
  Prepare and position a new sample.

REAGENT NOT TAKEN FOR ..

- The fill level of the reagent is too high.
  Remove some reagent. The level should be below the neck of the bottle.
- Foam is formed in the bottle. If foam is present, then remove it carefully using a disposable pipette.
  Remove reagent and refill the bottle.

Test sending stopped

- The reagent needle could not be cleaned. Pipetting was stopped.
  Make sure acid solution (HCL solution) is installed on the rotor. Check the fill level.

LAMP OVERRANGE ERROR

- A counter overrange is detected.
  Look up ***E13 LAMP FAILURE*** in the hardware-related error messages. See par. 7.2.2.

LAMP UNDERRANGE ERROR

- A counter underrange is detected.
  Look up ***E13 LAMP FAILURE*** in the hardware-related error messages. See par. 7.2.2.

LAMP REFERENCE OVERRANGE ERROR

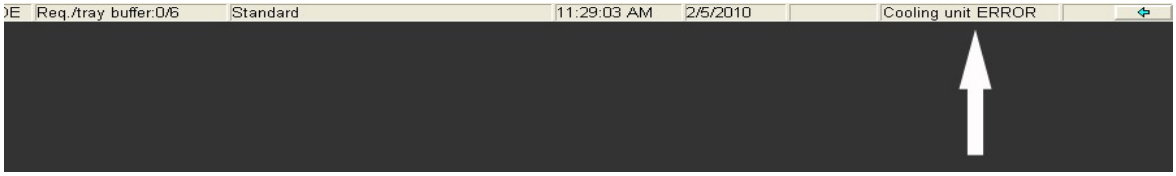
- A counter overrange is detected for the reference detector.
  Look up ***E13 LAMP FAILURE*** in the hardware-related error messages. See par. 7.2.2.

LAMP REFERENCE UNDERRANGE ERROR

- A counter underrange is detected for the reference detector.
  Look up ***E13 LAMP FAILURE*** in the hardware-related error messages. See par. 7.2.2.

1.2.6 Cooling unit

The Selectra ProS is fitted with an internal cooling unit. The cooling unit provides a constant temperature of the reagents, keeping them fresh (as required). The cooling unit guarantees absolute cooling (8 - 12 °C) up to an ambient temperature of 25 °C. Above 25 °C the temperature of the reagent cooling starts to increase relative to ambient temperature.
The cooling unit is located below the reagent rotor. A pump circulates the coolant. The cooling unit is fitted with a sight glass. This is used to check the liquid level in the cooling system. It also serves to fill liquid when required.
The sight glass is located behind the watercontainer and can be accessed after removing the water container.
The user cannot change the temperature setting of the cooling unit. If the cooling temperature is not ok, this is shown in the status bar on the screen.



Note
If the cooling temperature is not ok, even after the Selectra ProS has been running for an hour, contact your supplier for technical support.

7.1.5 Cleaning system parts

These procedures are normally done as part of regular maintenance. Before the procedures are started, all measurements must be finished. Make sure the water container is filled.

Cleaning the cuvette rotor

In this procedure, all cuvettes are filled with water and emptied four times. The procedure takes about 7 minutes.

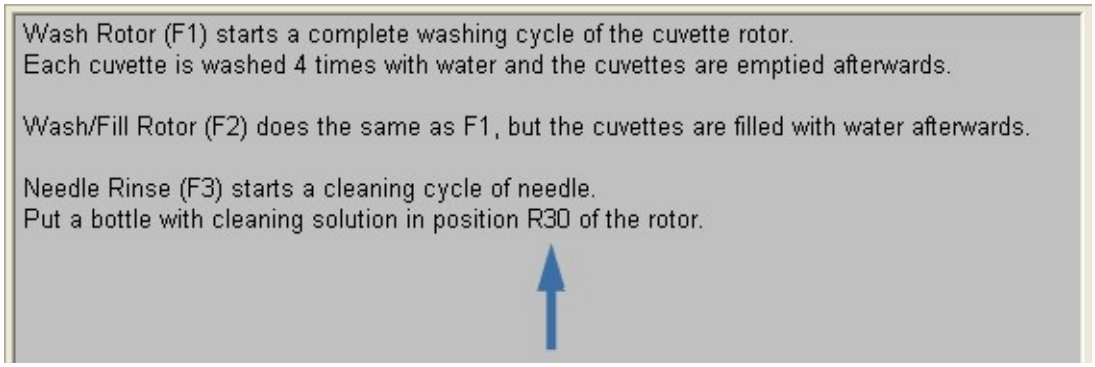
1. Open the ***Rotor/System*** screen. This screen is listed in the menu tree.
2. Click ***Rotor/Needle rinse*** in the menu to the left.
3. Click ***F1 Wash Rotor***. The analyzer performs the washing procedure. When the procedure is finished, the analyzer switches to ***Stand-by***.

Note
Click ***F2 Wash/Fill Rotor*** to let the analyzer fill the cuvettes with water after finishing the cleaning cycle.

Cleaning the needle

In this procedure, the needle of the analyzer is washed with diluted system cleaning solution. See par. A.1.4.

1. Open the ***Rotor/System*** screen. This screen is listed in the menu tree.
2. Click ***Rotor/Needle rinse*** in the menu to the left.
3. Place a 50 ml bottle with at least 30 ml of diluted system cleaning solution (1/10) in the reagent rotor (a hypochlorite solution is recommended). The position for the system cleaning solution is indicated in the text on the screen.



Note
If the position xx is shown, you must first set the rotor position for the system cleaning solution. This is done in the ***Reagent positions*** screen. See par. 6.3.1.

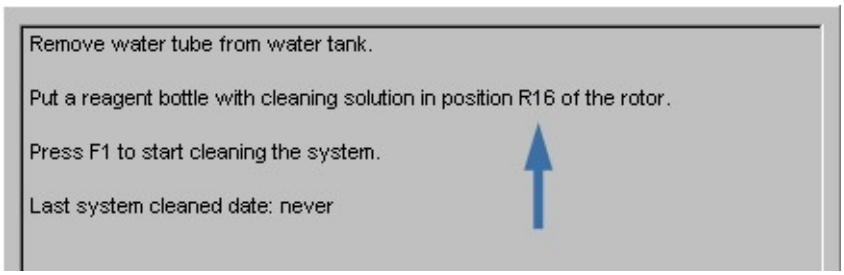
4. Click ***Needle Rinse***. The analyzer performs the needle rinsing procedure. When the procedure is finished, the analyzer switches to ***Stand-by***.

Cleaning the system

In this procedure, the entire system is washed with undiluted system cleaning solution. See par. A.1.4. After this, the system is flushed with water a couple of times. The procedure takes about 45 minutes.

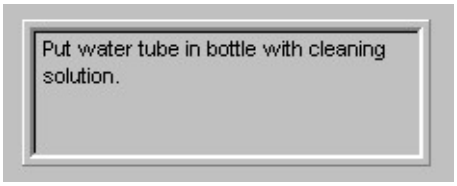
Note
Your assistance is needed during the entire procedure. The analyzer waits for confirmation at each step.

1. Open the ***Rotor/System*** screen. This screen is listed in the menu tree.
2. Click ***Clean system*** in the menu to the left.
3. Remove the tube from the water container.
4. Place the system cleaning solution in the rotor. The position for the system cleaning solution is indicated in the text on the screen.



Note
If the position xx is shown, you must first set the rotor position for the system cleaning solution. This is done in the ***Reagent positions*** screen. See par. 6.3.1.

5. Click ***F1 Clean System***. The analyzer starts the system cleaning procedure.
6. The following message is shown on the screen.



Follow the instruction on the screen. Click ***F1 Ok*** or ***F1 Continue*** after each step.

7. When the cleaning procedure is finished, the analyzer switches to ***Stand-by***.

Note
At the end of the procedure, the first screen is shown again. The ***Last system cleaned date: %s*** now shows the current date.

After this procedure you have to run all programmed tests on a control serum. If the results are out of limits, do the ***Fill/Empty system*** procedure to remove the remaining cleaning solution.

5.4 Performing special measurements

5.4.1 Running priority (*STAT*) tests during a measurement run

1. Open the ***Request samples*** screen.
2. Enter the sample data and test requests.
3. Click ***F2 STAT***. The test request is marked as an emergency sample. This is shown by the letter “e” in the worklist.
4. Click ***F8 New Sample*** to save the request. The sample is marked with the letter “e” in the worklist. The sample identification fields and test requests are emptied for the next sample.
5. (Optional) Repeat the previous 3 steps for all emergency samples to be measured.
6. Open the ***Sample Handling*** screen.
7. Click ***F3 Load/Unload Request***.
   The analyzer finishes pipetting and then interrupts the work. The current analyzer state (in the top left of the screen) shows a timer counting down. Once the timer has reached zero, the analyzer state changes to ***Loadable***.
8. Open the cover.

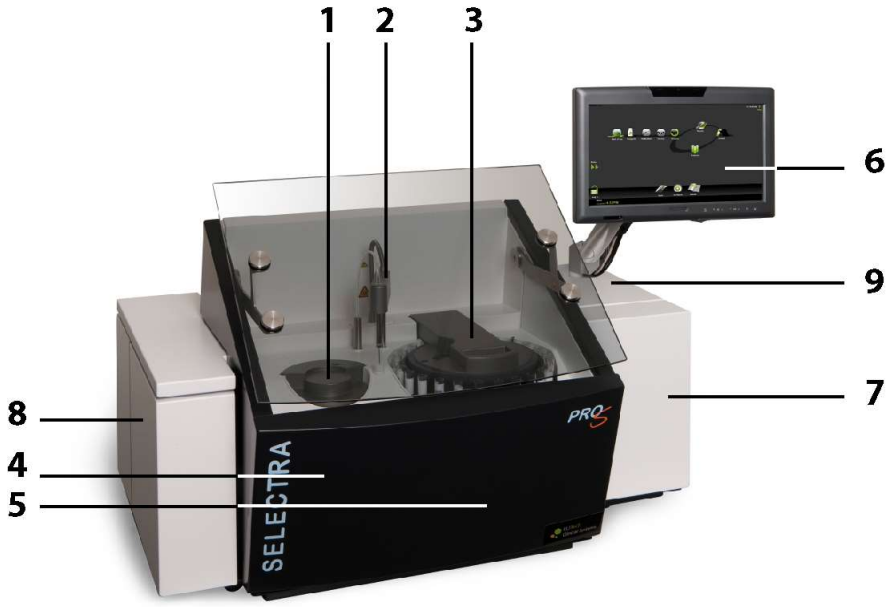
   ATTENTION
   When the cover is opened before the analyzer state is ***Loadable***, a warning message is shown on screen to stay out of reach of moving parts.

9. Click on the emergency sample in the worklist.
10. Press ***Enter*** or double-click with the mouse to position the sample. The sample is allocated a position.
11. Place the sample in the allocated position on the sample rotor.
12. (Optional) Repeat the previous 3 steps for all emergency samples in the worklist.
13. Close the cover.
14. Click ***F3 Continue Measurement*** to resume measurements.

1.2 The Selectra ProS analyzer

1.2.1 Overview

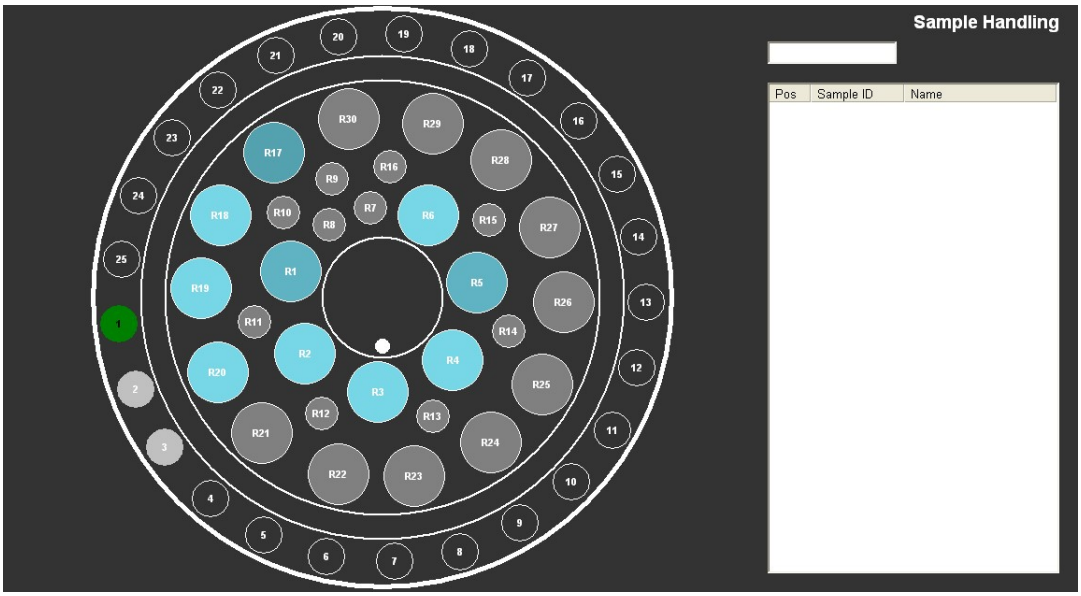
The Selectra ProS is an automated chemistry analyzer, used in combination with reagents for in vitro diagnostic measurement of analytes in samples of serum, plasma, urine and aqueous standard solutions. The Selectra ProS is designed as a table-top system with all standard and optional components fitted in one unit. A detailed description is given in the subsections below.



Nr	Description	See:
1	Cuvette rotor	par. 1.2.2
2	Pipettor arm	par. 1.2.3
3	Combined sample and reagent rotor	par. 1.2.4
4	Lamp unit (inside cabinet)	par. 1.2.5
5	Cooling unit (inside cabinet)	par. 1.2.6
6	Touch panel PC running the analyzer software (not included)	par. 4.1.1
7	Water container (inside cabinet). Waste container not included.	par. 1.2.7
8	Dry ISE module (inside cabinet) not included	
9	Syringes (inside cabinet)	par. 1.2.3

5.3.3 Loading samples

1. Open the ***Sample Handling*** screen. The screen shows the combined reagent and sample rotor of the Selectra ProS. The list to the right shows the loadlist. The samples with a white background color are not yet loaded in the rotor.



2. Select the sample in the worklist. There are various ways to do this:
   A Click on the sample in the list.
   B Click in the empty field above the list. Enter the ***Sample ID:*** via the keyboard. The sample with matching ID is selected in the list.
   C Scan the label on the sample tube. The sample with matching ID is selected in the list.
3. Select a position for the selected sample in the rotor. There are various ways to do this:
   A Press the ***Enter*** key. The first available rotor position is selected for the sample.
   B Right-click on the selected sample. A small dialog window opens. Enter the desired rotor position. Click ***OK*** to assign the position to the sample.

Note
When a rotor position is assigned to the sample, the next sample in the worklist is automatically selected.

4. Place the sample tube in the assigned rotor position.

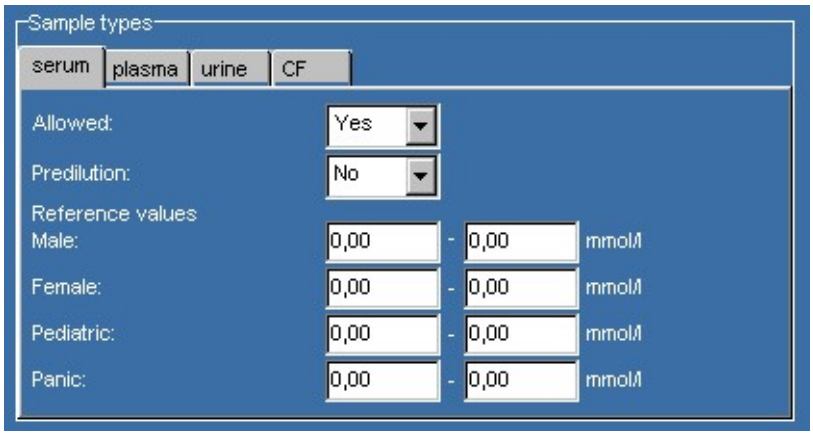
ATTENTION
Once a sample is identified and its rotor position is selected, it should be placed in that position immediately. This avoids mistakes that would lead to mix-ups in the test results.

Note
Make sure no foam is formed on top of the samples. If foam is present, then remove it carefully using a disposable pipette.

5. Continue loading samples until all samples in the worklist are loaded, or until there are no more empty rotor positions.

Calibrator name:	Calibrator used for this test. Click on the button next to the calibrator name. The screen with calibrator settings opens. Set the calibration parameters for this test. See par. 6.2.5.
Prozone check:	Select one of the options from the list. See par. 3.3.1.
Minimum ratio:	This field only shows when a minimum prozone check method was chosen. Enter the minimum deviation percentage.
Maximum ratio:	This field only shows when a maximum prozone check method was chosen. Enter the maximum deviation percentage.

8. Set the parameters in the ***Sample types*** section.



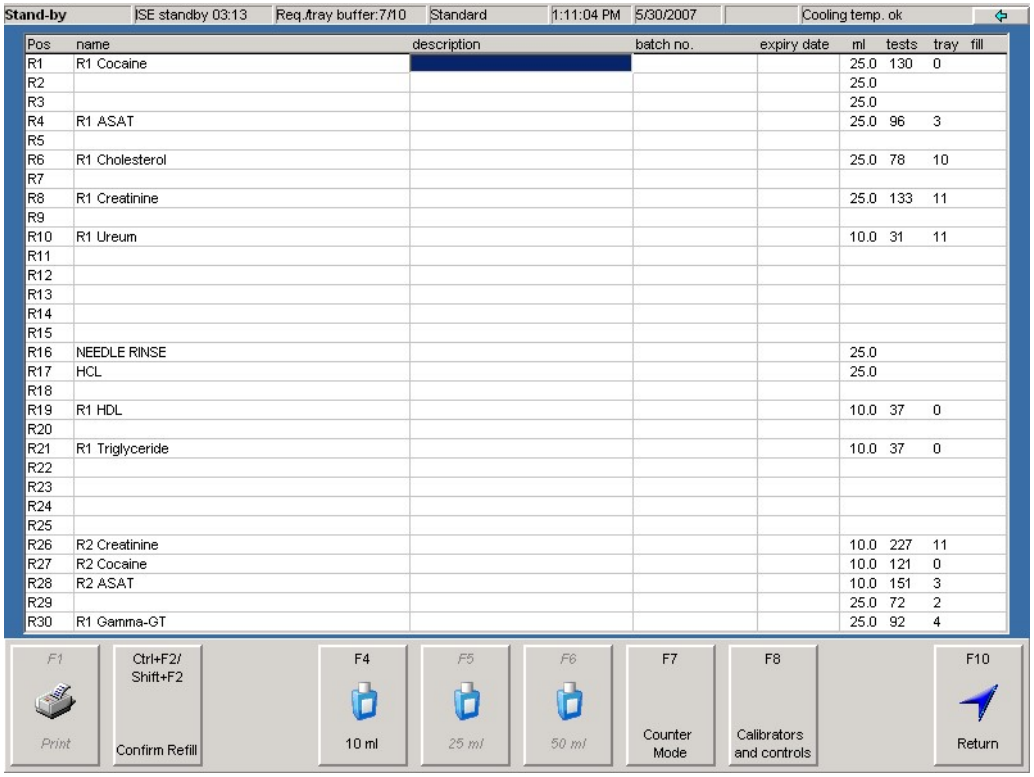
Sample types can be defined for your analyzer. This is done in the ***System configuration***. See par. 6.5.2. For each sample type, separate settings can be defined here. Click on the tab for the required sample type to see and change the parameters.

Allowed:	Select ***Yes*** to allow this test for the sample type. When this sample type is chosen in the ***Request samples*** screen, the test is included in the selection list.
Predilution:	Select ***Yes*** to switch on predilution for this sample type in this test. For details on predilution, see par. 3.3.4.
Male:	Limits to be used for samples of male patients.
Female:	Limits to be used for samples of female patients.
Pediatric:	Limits to be used for samples of pediatric patients.
Panic:	Limits to be used as absolute limits for all samples.

Note

The ***Sex:*** field in the sample data determines the reference values that are used to check the measurement results. If the results exceed the applicable limits, the appropriate error flag is set for the result. Results that exceed the ***Panic:*** limits are always flagged.

4.2.7 *Reagent Info* screen



This screen shows the loaded reagents with their batch numbers, expiry dates and estimated remaining volumes. See par. 5.2.2 for detailed procedures.

Note
In counter mode, the four columns to the right are replaced with one column showing the total number of tests performed since the last time the counters were reset.

Function keys

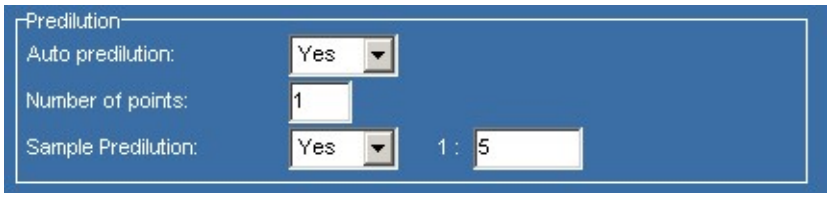
Keys	Description	See also:
F1	Print the list with reagent information.	
Ctrl + F2	Confirm that the selected reagent is filled.	
Shift + F2	Confirm that all reagents are filled.	
Alt + F3	Set all values in the ***total test count*** column to zero.	
F3	Pause measurements for loading or unloading of samples. Wait until the state of the analyzer is ***Loadable***. Do not open the cover before the ***Loadable*** state has been reached.	
F4	Set the bottle size of the selected reagent to 10 ml.	
F5	Set the bottle size of the selected reagent to 25 ml.	
F6	Set the bottle size of the selected reagent to 50 ml. *	par. 6.3.1
F7	Switch between ***Counter Mode*** and ***Normal Mode***.	
F8	Open the ***Request samples*** screen.	par. 4.2.3
F9	Open the ***Sample Handling*** screen.	par. 4.2.4

Algorithm Select one of the available curvefit algorithms from the list. For a description of the algorithms, see section 3.2.

Auto accept calibration:
- ***Yes*** - The analyzer automatically accepts results from calibrator measurements.
- ***No*** - After a calibrator measurement the results are shown on the screen and the operator must accept or decline the calibration.

Last measured: Date and time of the last calibrator measurement.

10. Set the parameters in the ***Predilution*** section.



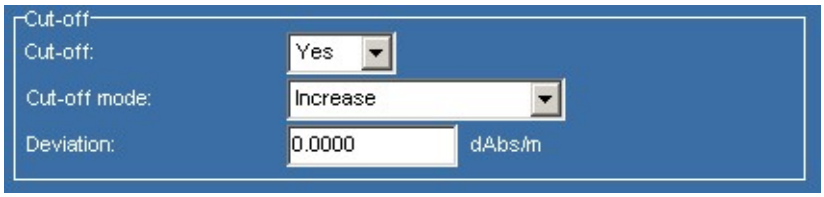
Auto predilution: *
- ***Yes*** - Automatic predilution is used. Two extra parameters appear when this option is chosen.
- ***No*** - Automatic predilution is not used.

Number of points: * Number of points to be used for the auto predilution.

Sample Predilution: *
- ***Yes*** - Sample predilution is used.
- ***No*** - Sample predilution is not used.

* An explanation of sample and calibrator predilution is available in par. 3.3.4.

11. Set the parameters in the ***Cut-off*** section.



Cut-off:
- ***Yes*** - Define a cut-off value for the calibrator.
- ***No*** - Do not use a cut-off value for the calibrator.

Cut-off mode:
- ***Increase*** - When the measured result is higher than the cut-off value, a positive result is returned; otherwise a negative result is returned.
- ***Decrease*** - When the measured result is lower than the cut-off value, a positive result is returned; otherwise a negative result is returned.

Deviation: Range around the cut-off value. When the measured result is within this range of the cut-off value, an E flag is shown with the result.