Reflotron® Plus system
Tailor made solution to support your decisions
The proven clinical chemistry system for reliable, easy and efficient testing

A Point-of-Care system that benefits both You and the patient

The Reflotron Plus system is a single test clinical chemistry system which allows the measurement of 17 parameters from whole blood, plasma or serum – including liver and pancreas enzymes, metabolites, blood lipids, hemoglobin and potassium.

Immediate and reliable test results ensure a quick performance and verification of the diagnosis without delay. The parameters that can be measured on the Reflotron Plus system cover the most important indications in primary care, such as diabetes, lipid disorders, kidney diseases, muscle diseases, anemia, liver diseases.

The system is suitable for primary care settings, as back-up system in hospitals and private labs, at screening sites and for health check-ups.

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Cost and workflow efficiency
• Single strip technology allows the testing of the specific parameter needed
• Short warm-up time, fast start from standby mode
• No sample or reagent preparation required
• Immediate automated documentation of results available as a printout or online

Ease of use and convenience
• High flexibility due to wide range of parameters and sample materials
• Test results available within two to three minutes
• Easy and quick operation, user guidance via display
• Increased convenience as most tests can be stored at room temperature

Safe and reliable results
• Reliable test results, correlating well to standardized laboratory methods and validated in a number of clinical studies*
• Quality assurance
• Barcode reader and/or keyboard for patient and sample ID input
• IT connectivity (cobas IT 1000 application)

* Data available on request

Target groups
Private laboratories
Physician office laboratories
Hospital laboratories
Pharmacies
Dedicated testing laboratories

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Private laboratories
Physician office laboratories
Hospital laboratories
Pharmacies
Dedicated testing laboratories
Range of parameter
Covering a wide range of daily routine and emergency testing

Muscle diseases
- CK

Liver diseases
- GOT, GPT, GGT
- Bilirubin

Renal diseases
- Urea
- Creatinine
- Hemoglobin
- Uric acid
- K

Lipid metabolism disorders
- Cholesterol
- Triglycerides
- HDL cholesterol
- Glucose
- LDL cholesterol (calculated using the Friedwald equation)

Pancreatitis
- Pancre. amylase
- Amylase

Bone diseases
- Alk. phosphatase

Gout
- Uric acid
- Urea
- Creatinine
- Glucose
- Cholesterol
- Triglycerides

Anemia
- Hemoglobin
- Bilirubin
## Measuring principle
Reflectance photometry

## Light source
LED

## Wavelengths
567 nm; 642 nm; 951 nm

## Light detectors
Photodiodes (2)

## Tests available
17 individual tests for clinical chemistry, and UA

## Storage temperature
- Room temperature, except for CK test: 2 - 8°C

## Sample type
- Capillary or venous whole blood, plasma, serum, EDTA or heparin for most parameters*

## Sample volume
30 μl

## Measuring time
2 - 3 minutes depending on test

## Test temperature
37°C

## Calibration
Automatic lot specific, encoded lot information on backside of strip

## Operating conditions
- Temperature: 15° – 34°C
- Relative humidity max. 95%

## Hematocrit range
Up to 55%

## Display
Alphanumeric: 2 lines of 24 characters, liquid crystal display

## User guidance
Easy-to-follow on-screen text messages various language options**

## Process control
On-screen text messages provide user guidance. Over 50 function controls ensure the working safety of the instrument

## Memory
60 results with date, time, ID

## Analytic tools
Framingham, Creatine clearance

## Printer
Integrated matrix printer for printing of IDs, results etc.

## Clock
Battery-buffered real-time clock

## Data interface
RS 232 C serial, keyboard interface, barcode scanner

## Dimensions
30 x 35 x 21 cm

## Weight
5.3 kg

## Power supply
- 115 - 230 V AC, car battery optional: 16 - 30 V AC
- 9.6W during operation, 1.7W stand-by
- < 44 dBA

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* See individual packaging inserts
** See Reflotron operator’s manual
<table>
<thead>
<tr>
<th>Test</th>
<th>Reference level¹ (adults)</th>
<th>Stability and sample material</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conventional</td>
<td>International</td>
<td>Serum</td>
</tr>
<tr>
<td>Bilirubin</td>
<td>&lt; 1.2 mg/dL</td>
<td>&lt; 21 μmol/L</td>
<td>2 h</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>&lt; 200 mg/dL</td>
<td>&lt; 5.2 mmol/L</td>
<td>4 h³</td>
</tr>
<tr>
<td>Creatinine</td>
<td>&lt; 1.1 mg/dL</td>
<td>&lt; 107 μmol/L</td>
<td>24 h</td>
</tr>
<tr>
<td>Glucose</td>
<td>60 - 109 mg/dL</td>
<td>3.3 - 6.05 mmol/L</td>
<td>2 h</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>&lt; 14 - 17.5 g/dL</td>
<td>&lt; 8.7 - 10.9 mmol/L</td>
<td>X</td>
</tr>
<tr>
<td>HDLP HDL Cholesterol</td>
<td>&lt; 40 mg/dL or &lt; 1.04 mmol/L low HDL Cholesterol (high risk for CHD)</td>
<td>≥ 60 mg/dL or ≥ 1.56 mmol/L high HDL Cholesterol (high risk for CHD)</td>
<td>X</td>
</tr>
<tr>
<td>K⁺ (Potassium)</td>
<td>3.6 - 5.0 mmol/L</td>
<td>3.5 - 4.6 mmol/L</td>
<td>&gt; 7 d</td>
</tr>
<tr>
<td>TG Triglycerides</td>
<td>≤ 200 mg/dL</td>
<td>≤ 2.30 mmol/L</td>
<td>8 h²</td>
</tr>
<tr>
<td>UA Uric Acid</td>
<td>3.4 - 7.0 mg/dL</td>
<td>240 - 420 μmol/L</td>
<td>3 d³</td>
</tr>
<tr>
<td>Urea</td>
<td>&lt; 83Y &lt; 50 mg/dL</td>
<td>&lt; 11.9 mmol/L</td>
<td>7 d</td>
</tr>
<tr>
<td>ALP Alkaline Phosphates</td>
<td>106 - 265 U/L</td>
<td>1.77 - 4.42 μkat/L</td>
<td>3 d</td>
</tr>
<tr>
<td>AMYL Amylase</td>
<td>&lt; 100 U/L</td>
<td>&lt; 1.65 μkat/L</td>
<td>7 d²</td>
</tr>
<tr>
<td>P-AM Pancreatic Amylase</td>
<td>&lt; 53 U/L</td>
<td>Random Urine 325 U/L or 5.42 μkat/L</td>
<td>7 d</td>
</tr>
<tr>
<td>CK</td>
<td>24 - 195 U/L</td>
<td>0.4 - 3.25 μkat/L</td>
<td>24 h²</td>
</tr>
<tr>
<td>GOT (AST)</td>
<td>10 - 71 U/L</td>
<td>0.17 - 1.19 μkat/L</td>
<td>7 d</td>
</tr>
<tr>
<td>GPT (ALT)</td>
<td>&lt; 40 U/L</td>
<td>&lt; 0.67 μkat/L</td>
<td>4 d³</td>
</tr>
</tbody>
</table>

¹ testing Temperature 37°C  ² kept in closed container at +20 - 25°C  ³ kept in closed container at +4 - 8°C  ⁴ plasma separation to be done immediately
Apply sample
Apply the 30 μL of the sample material (capillary blood, venous blood, plasma or serum) to the test strip. There is no need to prepare reagents or to calibrate the instrument.

Insert test strip
Insert the test strip into the measuring chamber, close the flap and wait for your results. A test specific magnetic code recognizes the parameter of interest.

Read off the result
When the measurement is complete after 2 to 3 minutes, values are displayed, documented via the integrated printer and are also stored to the internal memory for further processing.