

cobas® pro integrated solutions Simplicity meets Excellence





Introducing cobas® pro integrated solutions

Simplicity meets Excellence





01 Sample supply unit

Up to **1,000** samples per hour processing capacity Up to **300** samples direct loading Up to **300** samples direct unloading or bi-directional connectivity to lab automation

02 ISE analytical unit

Up to 900 tests per hour

- 03 cobas c 503 analytical unit Up to 1,000 tests per hour 60 reagent positions
- 04 cobas e 801 analytical unitUp to 300 tests per hour48 reagent positions

Your time is precious *We help you use it wisely*

Get answers fast with short and predictable turnaround times

Boost your efficiency with fast analytical units, intelligent sample routing, and short assay incubation times. Empower your physicians to take action faster, with best-in-class 9 minutes STAT and 18 minutes routine immunochemistry assays^{1.2}.







Free up staff time with reduced maintenance efforts

With **cobas**[®] **pro** integrated solutions, every effort has been made to reduce maintenance tasks to a minimum. The new and smart concept of self-operating maintenance executes maintenance tasks automatically in the background and reduces the manual burden of daily maintenance to zero for **cobas c** 503 analytical unit, and to only five minutes for **cobas e** 801 analytical unit.

Ensure non-stop operation with continuous loading

Save time and costs with cobas AutoCal

The all-new **cobas** AutoCal is a revolution in calibration. With **cobas** AutoCal, new reagent lots are calibrated automatically, without the need for manual calibration.

Your space is limited *We help you make the best of it*

Use your space intelligently with cobas® green packs

More tests per pack

Up to 3 300 tests per **cobas c** pack green allow for long walk-away times and less loading, ordering and handling events for reagents.

Our best reagent carriers ever in clinical chemistry and immunochemistry

Closed onboard, more tests per pack. Preparation-free. From the fridge to the analyzer, without any preparation. This is as easy as it can get.



Best-in-class onboard stability³

With up to 6 months of onboard stability for the all-new **cobas**[®] **c** pack green, and up to 4 months of onboard stability for the **cobas e** pack green.

- Consolidate low- and high-throughput testing
- Bring low volume send out testing in-house
- · Minimize reagent waste

Maximize reagent utilization with industry's longest onboard stability²

Increase revenue through expanded testing services

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Your team is pushed to their limits *We help them focus on the tasks that matter*



Reduce tedious manual work with ready to use reagents



Enable error-free handling with RFID*-tagged reagents and consumables Enhance sample integrity with cobas[®] SonicWash

Unprecedented cleanliness of the sample probe with cobas[®] SonicWash.

SonicWash cleans the sample probe with ultrasound technology so thoroughly that only a few parts per billion are detectable⁴. In addition, SonicWash eliminates the daily maintenance of the sample probe and reduces clot events.

*Radio-frequency identification.



Ensure peace of mind for your team with reliable and safe solutions

cobas® pro integrated solutions is designed to achieve more than 300 days between unplanned repair visits. This means less unplanned interruptions and smooth workflows. Every day. Reduce tedious manual work through integration into lab automation

Your future is unpredictable We help you succeed through continuous access to innovations



Partner with a company that has a proven track record of pioneering lab solutions and sustainable development



Standardize your operations with cobas[®] integrated solutions



Make a difference when every drop of blood counts with industry's smallest sample volumes³

Support better outcomes by delivering greater medical value

cobas® pro integrated solutions *General technical specifications*

| Dimensions and weights | Width | Depth | Height | Units | Weight |
|--------------------------------------|-------|-------|--------|-------|---------|
| Sample unit (SSU), including monitor | 1320 | 1185 | 1430 | mm | 250 kg |
| | 52,0 | 46,7 | 56,3 | inch | 551 lb |
| ISE | 450 | 1150 | 1160 | mm | 170 kg |
| | 17,7 | 45,3 | 45,7 | inch | 375 lb |
| cobas c 503 (incl. SB and SBL) | 1500 | 1140 | 1355 | mm | 790 kg |
| | 59,1 | 44,9 | 53,3 | inch | 1742 lb |
| cobas e 801 (incl. SB and SBL) | 1500 | 1140 | 1350 | mm | 780 kg |
| | 59,1 | 44,9 | 53,3 | inch | 1610 lb |

 Specifications of the electrical power supply
 cobas® pro integrated solutions

 Distance to the instrument
 ≤ 5 m

 ≤ 16 feet

 Distance to the instrument
 2 0 1

 S 1 m
 < 16 feet</td>

 Output
 200 / 208 / 220 / 230 / 240 V

 50 / 60 Hz
 50 / 60 Hz

 Max. power fluctuation
 < 10 %</td>

 Power consumption
 Whole System: < 5.5 kVA</td>

 Sample Supply Unit and Sample Buffers: < 0.8 kVA | ISE: < 0.4 kVA | cobas c 503: < 2.4 kVA | cobas e 801: < 2.4 kVA</td>

 Single Phase
 cobas c 503

| List of concentrated liquid waste volumes | cobas c 503 | cobas e 801 |
|---|---|---|
| Max. liquid waste volumes | Concentrated liquid waste volume: < 2 L/h Normal liquid waste volume: < 30 L/h | Concentrated liquid waste volume: < 7 L/h Normal liquid waste volume: < 22 L/h |

| Max. liquid waste volumes | cobas c 503 | cobas e 801 |
|---------------------------------------|---------------------------------|---------------------------------|
| Distance to instrument | ≤ 5 m ≤ 16 feet | ≤ 5 m ≤ 16 feet |
| Conductivity | ≤ 1.0 μS/cm | ≤ 1.0 µS/cm |
| Water pressure | 50 to 340 kPa 0.5 to 3.4 bar | 50 to 340 kPa 0.5 to 3.4 bar |
| Water temperature | > 12°C > 53.6 °F | > 12°C > 53.6 °F |
| Deionized water consumption (average) | approx. 32 L/h ISE: < 2 L/h | < 30 L/h |

List of environmental conditions

| cobas c 503 | cobas e 801 |
|--|---|
| 2,000 m | 2,000 m |
| \leq 0.5 % inclination Load bearing: 175 kg or more per adjust foot installation surface | \leq 0.5 % inclination Load bearing: 175 kg or more per adjust foot installation surface |
| 18-32°C (during operation) | 18-32°C (during operation) |
| ≤ 2°C/hour (≤ 3.6 °F/h) | ≤ 2°C/hour (≤ 3.6 °F/h) |
| 30–85% (non-condensing) | 30–85% (non-condensing) |
| < 65 dBA in operation < 56 dBA in standby | < 65 dBA in operation < 56 dBA in standby |
| | cobas c 5032,000 m $\leq 0.5 \%$ inclination Load bearing: 175 kg or more per adjust foot installation surface18-32°C (during operation) $\leq 2°C/hour (\leq 3.6 °F/h)$ 30-85% (non-condensing) < 65 dBA in operation < 56 dBA in standby |

ISE analytical unit

| Applications | Na+: Sodium K+: Potassium CI-: Chloride |
|-------------------------------|--|
| Sample types | Serum, urine Ion-selective electrodes: 3 (Na+, K+ and Cl-) Reference electrode 1 |
| Max. throughput | 900 tests/hour (300 samples/hour) |
| Max. liquid waste volumes | Concentrated liquid waste volume: < 2,8 L/h |
| Sampling cycle time | 12 seconds |
| Electrode handling | 2D barcode placed on the electrode package |
| Sample Liquid level detection | Available |
| Sample clot detection | Available |
| Sample foam detection | Available |
| Number of applications | ISE: max. 60 (20 sample types available) |
| Sample pipetting volums | 15 μl (Default) Selectable from 10 μl |
| Reagent volumes per sample | DIL: 450 μl (330 μL/sample: dilution vessel washing in case of discontinous measurement, 600 μl DIL is used before IS measurement IS: Total 720 μl (220 μl Dilution vessel washing, 500 μl: IS measurement) REF: 130 μl |
| Measuring range | Na+: Sodium 10-250 mml/L (technical measuring range) 450 µl Diluent 15 µl Sample volume (default) 20-375 mml/L (technical measuring range) 450 µl Diluent 10 µl Sample volume K+: Potassium 1-100 mml/L (technical measuring range) 450 µl Diluent 15 µl Sample volume (default) 1-150 mml/L (technical measuring range) 450 µl Diluent 10 µl Sample volume Cl-: Chloride 10-250 mml/L (technical measuring range) 450 µl Diluent 15 µl Sample volume (default) 20-375 mml/L (technical measuring range) 450 µl Diluent 15 µl Sample volume (default) 20-375 mml/L (technical measuring range) 450 µl Diluent 10 µl Sample volume |

The all-new cobas® c 503 analytical unit

Excellent performance, simple to use and beautifully designed. The all-new **cobas c** 503 analytical unit brings all that it takes to set new standards in reliability, maintenance and efficiency. 1,000 tests per hour. 60 reagent channels onboard.

| Reagent pack type | cobas c pack green |
|-------------------------------|--|
| Reagent loading/unloading | Automatic |
| Reagent identification | RFID |
| Capacity of reagent manager | 5 reagent packs |
| Capacity of reagent disk | 60 packes Inner ring: 24 (1-24 position) Outer ring: 36 (25-60 position) |
| Reagent storage temperature | 5-15 °C |
| Number of applications | 680 |
| Max. throughput | Photometric: 1,000 tests/h HbA1c: 500 samples/h |
| Number of reaction cells | 221 |
| No. of reaction cell segments | 13 (17 cells/segment) |
| Reaction volume | 75-185 μl |
| Incubation bath temperature | 37 ± 0.1 °C (98.6 ± 0.1 °F) |
| Reaction time | 3-10 min |
| Mixer | Ultrasonic |

cobas e 801 analytical unit

Launched in 2016, the **cobas e** 801 analytical unit combines excellence in results with the speed and efficiency that is required to fulfil the highest expectations, especially during peak hours. 300 tests per hour. 48 reagent channels onboard.

| Reagent pack type(s) | cobas e pack green |
|---------------------------------|------------------------------------|
| Reagent loading/unloading | Automatic |
| Cap pre-opener | Yes |
| Reagent identification | RFID |
| Capacity of reagent disk | 48 reagents packs |
| Reagent storage temperature | 5-10 °C |
| Incubator temperature | 37 °C ± 0.3 °C 98.6 °F ± 0.5 °F |
| Reaction times for tests | 9/18/27 min |
| Measuring cell | ECL measuring cell |
| Number of measuring cells | 2 |
| Cycle time per channel | 24 seconds |
| Overall cycle time (2 channels) | 12 seconds |
| Max. throughput | 300 tests/h |

References

- 1. Internal market research of immunoassay vendors (Roche, Siemens, Abbott). Data on file.
- 2. Roche cobas e 801 Immunoassay Method Sheets.
- 3. Method sheets cobas c 503, cobas e 801, Beckman Unicel Dxl/DxC, Abbott ARCHITECT c/i, Abbott Alinity c/i, Siemens Atellica CH/IM, Siemens Vista, Siemens Centaur.
- 4 Based on R&D report. Data on file.

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