

CS-5100

Exceptional productivity,
true clinical value.



Challenges in haemostasis testing

In haemostasis, test results can point out major clinical issues, some of which can be life-threatening if not dealt with swiftly and accurately. Confidence in the subsequent clinical decision-making is therefore essential. You need equipment that performs reliably and produces results of consistent, high quality at all times.

You need to meet TAT demands and help patients as soon as possible, so the tests have to be performed fast – even with complex samples that require precise pre-analytical treatment. And as the industry evolves, the spectrum of test requests is increasing too. It's a challenging situation.



Quality³

Sysmex haemostasis solutions address these issues by bringing together the power of three best-in-class components – Sysmex analysers, and reagents and application protocols from its highly reputable suppliers Siemens and Hyphen BioMed. The strong technological performance both stabilises the routine and provides high consistency – the essential basis for reliable, accurate results and confident interpretation. This confidence is underpinned with our active support, service and expertise, both onsite and/or online.

You trust your skills – and you can rely on ours.



The Sysmex CS-5100 – our flagship haemostasis analyser

Sysmex CS-series: contemporary coagulation testing

Our CS-series analysers are intended for busy, mid-size to highest workload haemostasis labs with a fair amount of routine and specialty testing. In this sort of lab, you need fast and reliable instruments. CS-series instruments use the latest technology and consolidate and automate a wide range of coagulation tests in a single analyser, with rapid throughput, high-quality results and true clinical significance.

The CS-5100 offers four detection methods, at the same time, on the same platform – clotting, chromogenic, immuno-assay and aggregation. This makes it particularly versatile and suitable for multi-functional laboratories.

The CS-5100 also features cap-piercing technology, which eliminates the need for decapping and recapping samples while improving speed and safety and reducing costs. Thanks to this intelligent technology, the CS-5100 can handle racks with a mixture of open and closed tubes of different sizes and models effortlessly.



Safety first: steps that matter before the analysis starts

Unsuitable samples can be a source of incorrect results. They also need extra time for repeat analysis. To make sure you get accurate results straight away, the CS-5100 checks all sample tubes for over- or under-filling and scans them for any interfering substances, such as with haemolysis, lipaemia or icterus. The multi-wavelength detector scan determines the most suitable measurement wavelength for each sample. Unsuitable samples are flagged and either accepted or skipped – the decision is yours, as you can define and set the criteria.



The CS-5100 is based on SILENT DESIGN®, Sysmex's design concept that contributes to a more enjoyable workplace experience by putting people first and optimising the interaction between the individual and the devices they use day in, day out.

Your advantages

- Extremely high throughput to tackle really large workloads
- Connectivity to TLA systems – sampling directly from a transport system
- Consolidation of routine and specialised testing in one analysis system
- Extra safety by pre-analytic sample checks for interferences and over-/under-filling
- Advanced multi-wavelength technology makes results more reliable
- Rule-based reflex testing: improving result quality for abnormal samples while increasing walk-away time

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Great clinical value

When developing the CS-5100, we focused strongly on clinical value and diagnostic benefits for both labs and clinicians. It delivers superior assay and extended calibration performances and the possibility of specialty testing, including for instance chromogenic factor assays and platelet aggregation testing. Result quality can be assured by multiple patient sample dilutions.

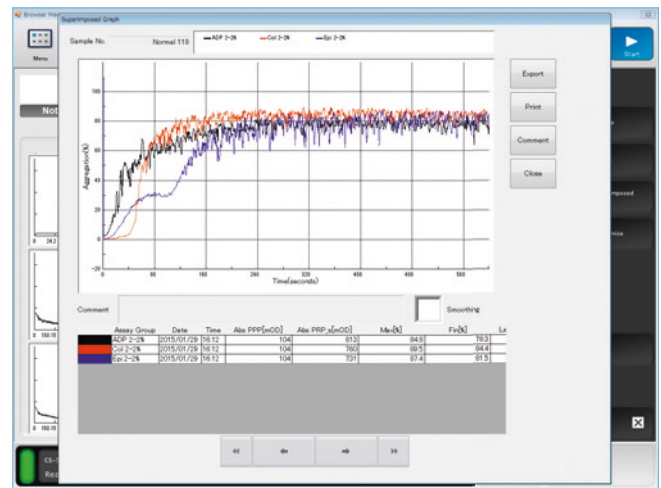
Thanks to advanced photo-optical clot detection, the analyser can measure throughout the clot formation and can display the full clot signature after recording, monitoring and checking the reaction kinetics. This helps identify atypical *in vitro* clot reactions that may occur with sepsis or DIC patients and helps determine the correct coagulation reaction result.

A separate primary sample probe for samples processed in micro mode further reduces the blood volume required. This means more tests can be performed from the sample, which provides greater support to your clinicians.

Automated, rule-based reflex testing increases diagnostic result quality since additional tests required for abnormal samples are triggered and performed automatically. You therefore get all the results you need with no additional intervention.



CS-5100 uses three reagent arms, out of which one arm is dedicated to Thrombin reagent to avoid contamination and minimise the risk of carry-over.



Aggregometry result display with superimposed graphs

Chromogenic factor assays Platelet aggregation testing

Suberb productivity

As an option, the CS-5100 can be connected to an automated laboratory transport system (TLA) for direct sampling without the need for robotic arms. This lets you track samples with greater reliability and lower cost. It will improve your efficiency too, especially in large-volume labs.

The CS-5100 performs a wide spectrum of basic and more specialised testing, automatically and standardised. Thanks to this single instrument's broad capabilities, you can streamline your workflow without the need for other equipment and the extra knowledge and training required to run them.

Advanced reagent management optimises reagent loading. This reduces interruptions in your routine workflow and can increase walk-away time to over 11 hours. It also helps you reduce reagent wastage, and extended on-board reagent stability further reduces costs for your lab. Reagent identification and data input are automatic thanks to two-dimensional *in situ* barcode reading. This improves security and ease of use.

With remote access capabilities, we can help you look after your device proactively. This service means instrument downtimes can be kept as short as possible or even prevented.

Connectivity to TLA systems – sampling directly from a transport system





Key specifications

| | |
|-----------------------------|--|
| Model | CS-5100 |
| Detection principles | multi-wavelength detector for transmitted light at 340, 405, 575, 660 and 800 nm |
| Detection methods | 20 channels for clotting, chromogenic and immunoassays 8 channels for platelet aggregation |
| Parameters | up to 60 parameters can be analysed simultaneously |
| Throughput | up to 400 tests/h |
| Sampling | cap piercing functionality, initial capacity for 10 racks with 10 sample tubes each, continuous loading possibility, separate STAT positions |
| rack type auto sampler | |
| direct sampling (optional) | to connect the CS-5100 via its left side to a lab automation transport |
| Reagent holder | 40 positions cooled at 10 °C 5 positions at room temperature all positions with positive reagent identification |
| Reference curves | multi-lot management with max. 10 curves/reagent lot and max. 10 reagent lots/parameter |
| Quality control | x-bar, Levey-Jennings and Westgard control 750 parameter files with max. 1,200 data points each |
| Data storage | up to 10,000 samples |
| Dimensions/weight | W x H x D [mm] / [kg] |
| main unit* | approx. 1030 x 1280 x 1150 / 278 |
| IPU with cabinet | approx. 500 x 920 x 890 / 67 |

*excluding optional features, such as direct sampling, which will alter the dimensions.

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