

CASY® Cell Counter + Analyser System

Model TTC



The TQC standard for the quality control of cell cultures.

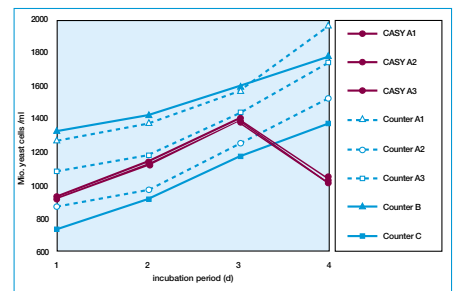
Performance starts here

CASY® Model TTC – The ideal device for control of your cell cultures with full GLP/GMP-conformity.

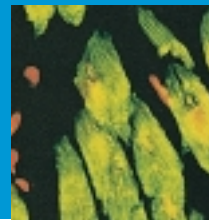
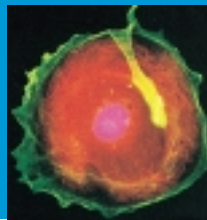
Across the world, the elite of life sciences and the bio-pharmaceutical industry are already using CASY® Technology from Schärfe System. The CASY® Cell Counter + Analyser System Model TTC is an indispensable instrument for quality control and long-term monitoring of biological processes as well as for optimising methods. The high-resolution size distribution provides all parameters required for the effective control of cell cultures. Automated quality assurance functions, an "embedded control unit" and the "embedded" Windows™ CE operating system guarantee absolute conformity with all GLP / GMP and 21 CFR 11 regulations – one of the few products on the market to offer this. This makes validation of your cell culture procedures extremely simple and quick to execute.

Factory-certified calibration

All CASY® Technology devices are equipped with a permanent calibration for biological media, stable for the long-term – certified by Schärfe System. No modifications or interventions are possible. The calibration is the same for all devices and is stable for the entire service life. This guarantees that the measurement results are reproducible as well as comparable from lab to lab. All data acquired on a CASY® Cell Counter + Analyser System Model TTC is directly comparable with data from all others and can be processed easily. CASY® Technology therefore protects more than your measurements: your investment also is put on a stable database.



Parallel tests with Cell Counters of different producers



Measurement results

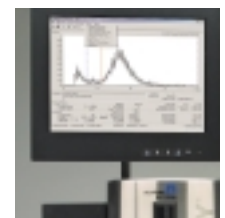
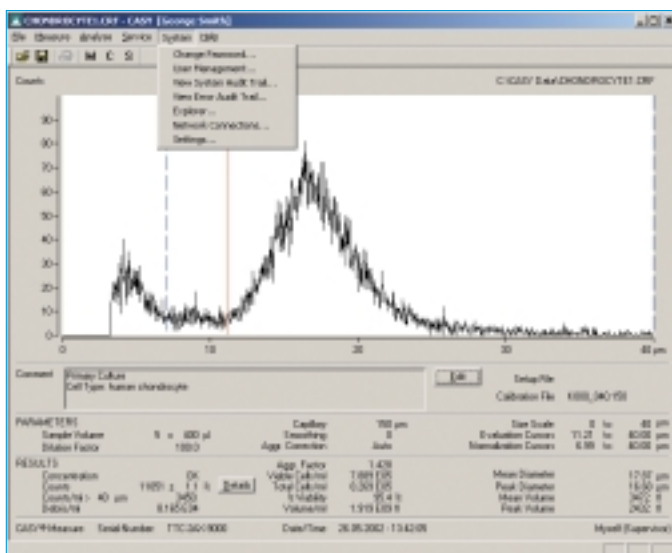
With the CASY® Cell Counter + Analyser System Model TTC you can determine cell debris, viable cells, dead cells and cell aggregates simultaneously with one measurement. In addition to the cell and particle concentration, all information on the diameter and the volume of the analysed sample is provided. Percentage evaluations simplify the interpretation of the measurement results. Cytotoxic effects, stimulation, aggregation, osmotic stress – all factors relevant to the quality of cell cultures can be reliably quantified and analysed at a volume resolution of 0,02 femtolitres and 1,024 size channels.

Electronic pulse area analysis

The Cell Counter + Analyser Model TTC works in combination with the electronic pulse area analysis of Schärfe System. Measurements based on 512,000 size channels guarantee a virtually unlimited measurement dynamic. The size distribution of the sample is displayed graphically using 1,024 size channels: The entire raw data is acquired regardless of the selected device setting and remains available for further evaluation.

Application-specific analytical setups

CASY® Cell Counter + Analyser System Model TTC provides the optimum analysis option for every cell type and for every application. All device settings developed for a specific task can be saved in setup files. Besides definition of the measurement parameters and the two freely positionable cursor pairs, this also includes all display options. The access control with three defined security levels guarantees that setups are only created and changed by authorised persons. Standardised result logs guarantee the long-term comparability of the data. Once an application-specific setup has been created, it can be activated easily using the mouse.





▶ Continuation of page 4

Guideline Competence

CASY® Cell Counter + Analyser System Model TTC meets all requirements for the validation of cell culture processes. Thanks to the documenting of all device settings and cell-specific evaluation parameters, logged system self-test, automatic detection of operating and system errors, etc., the device conforms to the full range of guidelines for GLP / GMP. In accordance with FDA regulations 21 CFR Part 11 for closed systems, it also has features such as differentiated access control, electronic signature, audit trails, etc.

Menu-led operation

Model TTC is operated via a self-explanatory menu control system under the embedded Windows™ CE operating system. The clear user interface on a large colour display allows all users to start using CASY® quickly.

User-friendly design

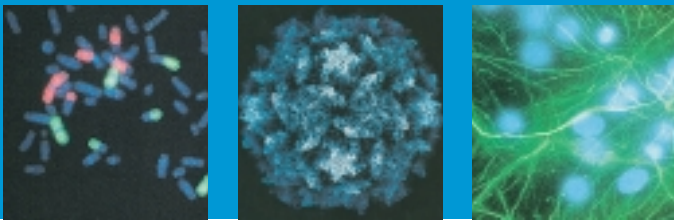
The TTC model was designed to meet the highest demands of lab technology. Not just in the field of technology and user-friendliness, but also in terms of design: its compact design unites the different technical elements clearly on the smallest possible area.



Any queries? Speak to one of our expert advisors.
Or schedule a date for a practical test straight away.

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Displayed measurement results:

No. of cells ▶ absolute and as percentage ▶ debris ▶ living cells ▶ dead cells ▶ aggregates ▶ total no. of cells

Cell vitality ▶ absolute and as percentage

Cell aggregates ▶ aggregation factor ▶ aggregation correction (no. of cells in the aggregate)

Cell volume ▶ individual volume ▶ average volume ▶ total volume (biomass)

And many derived values, such as deviations from standard values, etc.

CASY® Cell Counter + Analyser System Model TTC. Technical data:

Measurement principle	Pulse area analysis of Schärfe System	
Dynamics of the measurement*	in volume > 1:70,000	in diameter > 1:40
Measured size channels	512,000	
Display size channels	1,024	
Measurement range	0.7 – 160 µm	
Resolution	1 in 512,000	
Typical analysis time	10 s	
Sample volume	200 µl - 40 ml	
Interfaces	RS 232 (DB9), TC/IP (RJ45), USB, PS/2, PCMCIA port for Flash memory cards	
Printer output	PCL (HP-compatible printers)	
Data export	ASCII format	
Dimensions (HxWxD)	37 cm x 45 cm x 39 cm – excluding keyboard	
Weight	approx. 21 kg – incl. keyboard and mouse	

* Ratio between the smallest and the largest particle analysed simultaneously.

Subject to technical modification.
 CASY® is a registered trademark of Schärfe System GmbH. Windows™ is a registered trademark of the Microsoft Corporation.



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▶ Put us to the test.