CASY® TECHNOLOGY

CASY® Cell Counter + Analyser System

Model TT

The electronic cell sizer for determining cell count, cell volume, aggregation and viability.

Performance starts here

SCHÄRFE SYSTEM

CASY® Model TT – The ideal device for full control of your cell cultures.

Cell sizers are essential for professional work with cell cultures. And across the world, a model from the CASY® Technology series of Schärfe System is increasingly becoming the device of choice: this is because the Cell Counter + Analyser System Model TT determines the cell number and size distribution in a sample quickly and reliably. The viability of the cells is measured directly. The aggregation level of the cells is determined and automatically included in the calculation of the cell concentration.

Factory-certified calibration

All CASY® Technology devices are equipped with a permanent calibration for biological media that is 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. CASY® Technology therefore protects more than your measurements: your investment also is put on a stable database.

Electronic pulse area analysis

The Cell Counter + Analyser Model TT works in combination with the electronic pulse area analysis of Schärfe System. At an internal volume resolution with 512,000 measuring channels even minimal changes to a cell are reliably detected. With the outstanding dynamic of over 1 : 70,000 in volume, you record the whole size range in a cell sample from the smallest debris particles up to large cell aggregates. The evaluation of the size distribution is specified by two freely positionable cursor pairs. Changes in the evaluation parameters can be made at any time as the raw data remains available during the entire analysis.

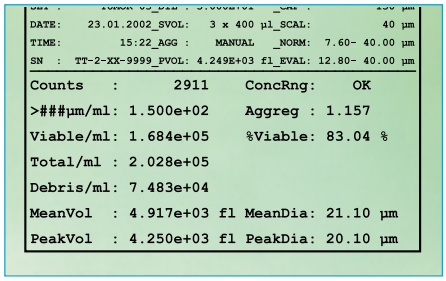
Integrated aggregation correction

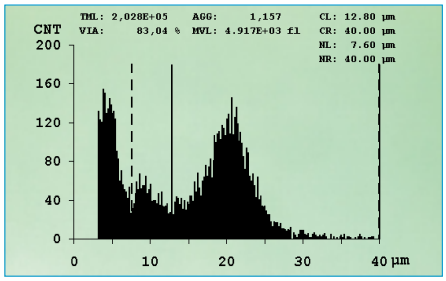
For all standard methods of cell counting, cell aggregates represent a significant problem. The cell concentration often is clearly underestimated. Incorrect results are the consequence. With CASY® Model TT aggregates are correctly evaluated, even with heavily aggregated cultures it always gives the correct cell concentration.

Measurement results

With the CASY® Cell Counter + Analyser System Model TT you can determine cell debris, viable cells, dead cells and cell aggregates simultaneously with one measurement.

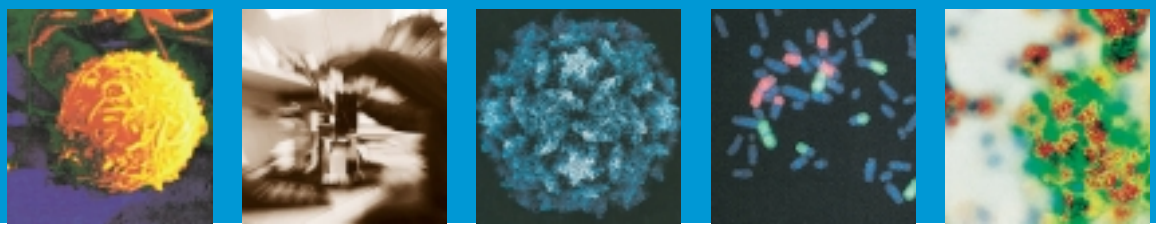
Cytotoxic effects, stimulation, aggregation, osmotic stress – all factors relevant to the quality of cell cultures are precisely quantified and analysed based on a high resolution size distribution (400 size channels displayed). Cumulative multiple measurements ensure statistical reliability of results. Cell numbers below 100 are also recorded reliably.





Results Display CASY TT

The measurement results are given as absolute values in micrometers or femtolitres. Your four most important parameters can be displayed at the top of the size distribution.



20 cell-specific setups per measuring capillary

Regardless of the type of cells you are working with – bacteria, algae, yeasts, blood, tissue cells - CASY® Cell Counter + Analyser Model TT provides 20 nameable setups per measuring capillary. Using the two freely positionable cursor pairs, the analysis ranges are adapted according to the characteristics of the cell type being analysed. Once measuring capillary, measurement volume, cursor positions, dilution factor, etc., are defined for a specific cell type, these measurement and evaluation parameters can be saved as a cell-specific setup. Your standard operating procedure (SOP) for every cell type is therefore documented and backed up. Setups are activated simply by pressing a button on the control panel.

Measuring log conforming to G(X)P

The CASY® Technology devices work using measuring logs conforming to G(X)P: In addition to the measuring results, all device settings that have led to the result are logged. The measurement logs can be printed directly, annotated and signed, or transferred into MS-Excel™ using CASY®excell.

Integrated quality control

CASY® Technology has a "self-control device" which protects securely against device-related incorrect measurements using warning messages and error messages. All important system functions are checked before each measurement. To document the correct function of the system electronics from the sensor to the data output, a standardised "test pattern" can be created at any time. Integrated service functions can be used to determine and rectify errors quickly.

Self-explanatory operation - clear, simple and fast

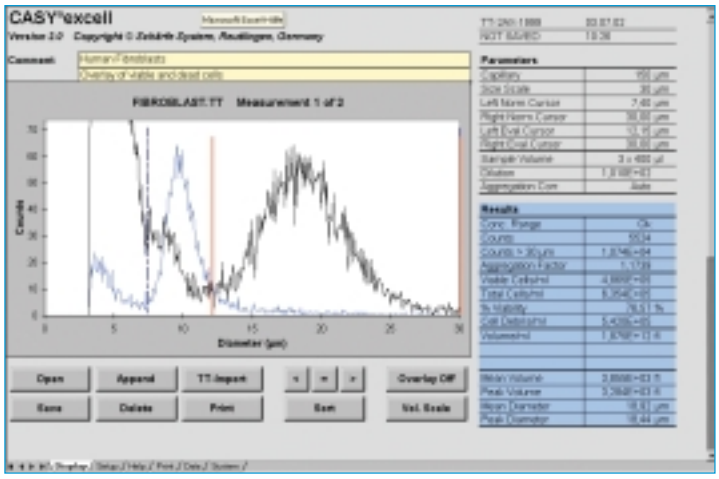
All measurement and evaluation parameters of the CASY® Cell Counter + Analyser Model TT are entered into a single mask. The self-explanatory menu-controlled operation also allows beginners to use the device correctly in just a short time. You can start your cell analysis straight away.

CASY®excell

For archiving and displaying data on a PC, Schärfe System has developed the program CASY®excell for the Cell Sizer Model TT: the measurement results are imported into MS-Excel™ fully automatically. All settings made on the measuring instrument are transferred. In addition, the size distribution can be displayed as a count or volume distribution. Using the integrated overlay function, you can compare two size distributions visually, e.g. a treated sample with the relevant control. The measurement log can be printed following the data transfer. The data is saved automatically. Entire series of measurements can be combined in a file.

User-friendly design

The TT model was designed to meet the highest demands of lab technology. Not just in the field of technology, but also in terms of design: its compact design unites the different technical elements on the smallest possible area. The control panel can be freely positioned – another benefit with limited space options.



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

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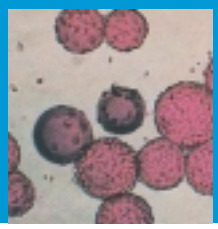

Displayed measurement results:

No. of cells: absolute and as percentage ▸ debris ▸ viable cells ▸ dead cells ▸ aggregates ▸ total no. of cells

Cell viability: absolute and as percentage

Cell aggregates: aggregation factor ▸ automatic aggregation correction

Cell volume: individual volume ▸ average volume ▸ total volume (biomass)

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

Measurement principle	Electronic pulse area analysis of Schärfe System
Dynamics of the measurement*	in volume > 1:70,000 in diameter > 1:40
Measured size channels	512,000
Displayed size channels	400
Measurement range	0.7-120 µm
Resolution	1 in 512,000
Typical analysis time	10 seconds
Sample volume	200 µl - 4 ml
Interfaces	RS 232 (DB9), parallel (DB25)
Printer output	PCL (HP-compatible printers)
Data export	ASCII format
Dimensions (HxWxD)	39 cm x 31 cm x 39 cm – excluding control panel
Weight	approx. 14,5 kg – incl. control panel

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

Subject to technical modification.
CASY® is a registered trademark of Schärfe System GmbH.

Put us to the test.

SCHÄRFE SYSTEM

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