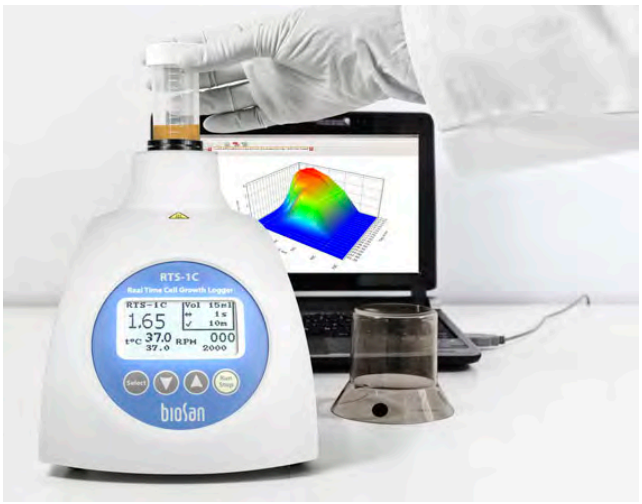
Bioreactor RTS-1C



Description

RTS-1C is a personal bioreactor which provides “Reverse-Spin” type of agitation and logging of microbial growth in 50 ml tubes in real time.

Specification

- Innovative mixing due to reverse spinning of the sample around its own axis
- Due to innovative mixing technology it is possible to measure optical density of the probe in real time
- Software has been developed to store, display and analyse the data in real time
- RTS-1C is compact device with low profile and small footprint for personal application
- Temperature control allows to use RTS-1C as an incubator, e.g. for cell growth
- RTS-1C has a function of active cooling and temperature profiling via software
- The ability to change parameters such as temperature, RPM and “Reverse-Spin” frequency, allows to achieve consistency and reproducibility of results
- Programmable Cycling/profiling of cultivation parameters such as temperature, RPM, “Reverse-Spin” frequency
- The ability to remotely monitor the process of cultivation while home or using a mobile phone

Software Features

- Real–Time cell growth logging
- 3D graphical representation of OD or growth rate over time over unit
- Pause option
- Save/Load option
- Report option: PDF and Excel
- Connect up to 12 units simultaneously
- Remote monitoring option (requires internet connection)
- Cycling/Profiling options
- User calibration options for any microorganism

Model	RTS-1C
Measurement range	0–10 OD at 10–20ml volume (0–19 OD λ600 nm equivalent) 0–8 OD at 20–30ml volume (0–15.2 OD λ600 nm equivalent)
Light source	NIR Light diode
Measurement wavelength (λ)	850 nm
Measurement Precision	±0.3 OD
Measurement periodicity per hour	1 – 60
Cultural media volume	5 – 30
Type of tube for aerobic cultivation	50 ml tube with membrane filter (TubeSpin TPP)
Type of tube for anaerobic cultivation	50 ml tube with membrane filter (TubeSpin TPP)
Temperature setting range	+4°C bis +70°C
Temperature control range	15°C below ambient … +70°C
Temperature stability	±0.1°C
Speed control range	50 – 2.000 rpm
Max. number of units connected to the software	12
Display	LCD
Minimum PC requirements	Intel/AMD Processor, 1 GB RAM Windows XP*/Vista/7/8/8.1, USB 2.0 port
Optimal PC requirements	Intel/AMD Processor, 3 GB RAM Windows XP*/Vista/7/8/8.1, USB 2.0 port * not guaranteed because OS not supported by producer
Overall dimensions (W×D×H)	130 x 212 x 200 mm
Weight	2.2 kg
Input current/power consumption	12 V DC, 3.3 A / 40 W
External power supply	Input AC 240 V 50/60 Hz, Output DC 12 V

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