

Thermoshaker TS-100C Smart With Cooling

Description

The TS-100C Smart is an innovative thermoshaker that offers intensive mixing combined with precise temperature control. It shakes samples in microtest tubes or PCR plates and offers a wide range of compatible blocks.

Applications

- Genetic analysis - in extraction of DNA, RNA and further sample preparation;
- Biochemical study of enzymatic reactions and processes;
- Extraction of metabolites from cellular material.

Specifications

Features of TS-100C Smart meet the highest expectations of users according to many parameters:

- Fast reaching of specified mixing speed and maintenance of equal amplitude of rotation throughout the Thermo-Shaker block;
- Stability of maintaining the preset temperature in a wide range throughout the Thermoshaker's block surface;
- Functions of heating and mixing can be performed both simultaneously and independently;
- LCD display indicates preset and current values of temperature, speed and time of operation;
- Quiet motor operation, compact size, prolonged service life.

Control

With the new TS-100C Smart model, the thermoshaker can be controlled in the following modes:

- Manually via the user interface.
- Via a computer program with a Bluetooth® connection.

Block Variants

There are 13 heating and cooling blocks available, including a block with a plastic lid for the PCR-plates. All blocks are mutually interchangeable and can be easily installed on Thermoshaker (see page 3-4).



TS-100C Smart Thermoschüttler mit Kühlfunktion
Abbildung mit Block VP-CS-24C

Temperature Kalibration

With the help of the temperature calibration function the user can calibrate the unit approx. $\pm 6\%$ of the selected temperature to compensate differences in the thermal behaviour of tubes from different manufacturers.

Software Features

- Wireless connection to PC
- Connect up to seven devices to a single PC
- Remote control of speed, temperature, time, and audible signal
- Creation of profiling programs
- Visualization of graphs (temperature vs. time, speed vs. time)
- Data export to Excel and CSV formats
- Error messages/error diagnostics

Thermoshaker TS-100C Smart



Technical Data

Order No. TS-100-C Smart Please order blocks separately!	104.1805 (Basic unit without block)
Temperature control range	+4°C to +100°C
Temperature range	15°C below ambient temperatur to +100°C
Temperature setting resolution	0.1°C
Temperature stability	±0.1°C
Temperature accuracy at +37°C	±0.5°C
Average heating speed from +25°C to +100°C	5°C/min
Average cooling speed from +100°C to +25C	5°C/min
Average cooling speed from +25°C to +4C	1.8°C/min
Temperature uniformity over the block	at +4°C ±0.6°C at +37°C ±0.1°C at +100°C ±0.3°C
Temperature calibration coefficient range	0.936...1.063 (± 0.063)
Speed control range	250 – 1400 rpm
Orbit	2 mm
Display	LCD, 16 x 2 signs
Digital time setting	1 min – 96 h / non-stop (increment 1 min)
Timer sound signal	Yes
Microprocessor controlled temperature, mixing speed and operation time	Yes
Maximum continuous operation time	max. 168 h
PC system requirements	Intel/AMD Processor, 1 GB RAM, Windows 10/11, USB, Bluetooth
Overall dimensions (W x D x H)	220 x 240 x 90 mm
Weight	3.7 kg
Input current/power consumption	12 V, 4.9 A / 60 W
External power supply	Input AC 100 - 240 V 50/60 Hz, Output DC 12 V

Thermoshaker TS-100C Smart

Blocks

All blocks are interchangeable and can be replaced by the user.



Block SC-18C

Capacity:
20 x 0.5 ml
+ 12 x 1.5 ml
microtubes
Max. speed:
1400 rpm
Max. temperature:
100°C



Block SC-96AC

Capacity:
96 well unskirted or
semi-skirted mikroplates,
12 x 8 strip-tubes (0.2 ml)
or 96 x 0.2 ml tubes.
Max. speed:
1400 rpm
Max. temperature:
100°C



Block SC-18/02C

Capacity:
20 x 0,2 ml
+ 12 x 1,5 ml
microtubes
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-8/5C

Capacity:
8 x 5 ml
conical tubes
Max. speed:
1200 rpm
Max. temperature:
100°C



Block SC-24NC

Capacity:
24 x 1,5 ml
microtubes
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-4C

Capacity:
4 x 50 ml
conical tubes
Ø 29.5 mm
Depth: 76.5 mm
Max. speed:
1000 rpm
Max. temperature:
80°C



Block SC-24C

Capacity:
24 x 2 ml
microtubes
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-8/15C

Capacity:
8 x 15 ml
conical tubes
Ø 17 mm
Depth: 80 mm
Max. speed:
1100 rpm
Max. temperature:
80°C

Thermoshaker TS-100C Smart



Blocks

All blocks are interchangeable and can be replaced by the user.



Block VP-32C

Capacity:
32 x 0,5 ml
microtubes
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-CS-24C

Capacity:
24 x 1 – 1,8 ml
cryotubes
Ø 12,5 mm
Depth: 20 mm
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-CV-20C

Capacity:
20 x 10 mm
cuvettes
Ø 12,5 x 12,5 mm
Depth: 31 mm
Max. speed:
1100 rpm
Max. temperature:
80°C



Block VP-20C

Capacity:
20 x Ø 12 mm
tubes with round
bottom
Ø 12 mm
Depth: 50 mm
Max. speed:
1400 rpm
Max. temperature:
100°C



Block VP-CL-24C

Capacity:
24 x 3,6 – 4,5 ml
cryotubes
Ø 12,5 mm
Depth: 30 mm
Max. speed:
1300 rpm
Max. temperature:
100°C