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TS-100C Pro, Programmable Thermo-Shaker with Heating and Cooling

Premium Product Class

DESCRIPTION



The **TS-100C Pro** is a programmable laboratory thermo-shaker that combines precise heating and cooling, intensive mixing and interchangeable thermoblocks in one compact instrument.
Designed for repeatable sample-preparation workflows, it allows users to create and save multi-step programs directly on the touchscreen. This reduces repeated manual parameter changes and the need to transfer samples between separate heating, cooling and mixing instruments.

KEY BENEFITS

- **Heating, cooling and mixing** in one instrument for efficient temperature-controlled sample preparation.
- **Mixing speeds up to 2500 rpm** support intensive mixing, bead resuspension, extraction and lysis workflows.
- **Automatic thermoblock recognition** identifies the installed block and limits the maximum mixing speed accordingly.
- **Quick thermoblock exchange** without external tools or separate cable connections reduces setup time between applications.
- **Advanced on-screen programming** with up to 20 saved programs and up to 20 steps per program, including holds, repetitions and parameter transitions.
- **Clear touchscreen interface** displays set and actual temperature, speed, time and program status at a glance.
- **Quick Mix function** starts a short mixing cycle using the selected parameters without creating a complete program.
- **Optional heated lid** helps minimise condensation during temperature-controlled workflows. The instrument recognises the lid automatically, while lid heating can be switched on or off as required.
- **Five configurable user profiles and screen lock** help protect established methods and prevent unintended changes in shared laboratories.
- **Integrated system and maintenance information** provides access to the serial number, firmware version, operating hours, calibration status, service reminders and diagnostics. The operating manual can be accessed using an on-screen QR code.

APPLICATIONS

The TS-100C Pro is suitable for **DNA and RNA extraction, NGS library preparation, magnetic-bead cleanup and resuspension, cell lysis, protein extraction, enzymatic reactions, incubation, hybridisation and analytical sample preparation.**
A range of interchangeable thermoblocks allows the instrument to be configured for different compatible tubes, strips and plate formats.

TS-100C Pro thermoblock selection guide

*Maximum mixing speed depends on the installed thermoblock.

CAT. NUMBER

BS-010178-A01	230VAC 50/60Hz Euro plug
BS-010178-A02	230VAC 50/60Hz UK plug
BS-010178-A4	230VAC 50/60Hz AU plug
BS-010178-A3	100VAC 50/60Hz US plug, 120VAC 60Hz US plug

SPECIFICATIONS

Temperature setting range	+4°C ... +100°C
Temperature control range	15°C below ambient ... +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	8°C/min
Average cooling speed from +100°C to +25°C	5°C/min
Average cooling speed from +25°C to +4°C	1.8°C/min
Temperature uniformity over the block at +4°C	±0.6°C
Temperature uniformity over the block at +37°C	±0.1°C
Temperature uniformity over the block at +100°C	±0.3°C
Temperature calibration coefficient range	0.936...1.063 (± 0.063)
Speed control range	250–2500 rpm
Digital time setting	1 min–168 hrs / non–stop (increment 1 min)
Orbit	2 mm
Display	3.5" TFT, 320x480 px
Maximum continuous operation time	168 h
PC connection	USB-C
Overall dimensions (W×D×H)	220x250x115 mm (without block)
Weight	5.1 kg
Input current/power consumption	12 V DC, 11.5 A / 138 W
External power supply	Input AC 100–240 V; 50–60 Hz; Output DC 12 V

ACCESSORIES



TSP-20/RB12
BS-010178-AK
block

20 × ø12 mm round bottom tubes



TSP-24/1.5
BS-010178-KK
block

24 x 1.5 ml microtubes



TSP-24/2.0
BS-010178-JK
block

24 × 2 ml microtubes



TSP-96/PCR
BS-010178-HK
block

96-well unskirted or semi-skirted microplate (0.2 ml) for PCR or 12 × 8 - 0.2ml strips or 96 tubes of 0.2 ml.



TSP-20/0.5+12/1.5
BS-010178-MK
block

20 × 0.5 ml + 12 × 1.5 ml microtubes



TSP-20/0.2+12/1.5
BS-010178-LK
block

20 × 0.2 ml + 12 × 1.5 ml microtubes



TSP-32/0.5
BS-010178-EK
block

32 × 0.5 ml microtubes



TSP-8/5
BS-010178-IK
block

8 × 5 ml conical tubes



TSP-8/15
BS-010178-FK
block

8 × 15 ml conical tubes



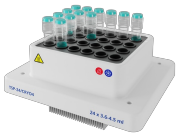
TSP-4/50
BS-010178-GK
block

4 × 50 ml conical tubes



TSP-20/CV10
BS-010178-DK
block

20 × 10mm cuvettes



TSP-24/CRYO4
BS-010178-CK
block

24 × 3.6–4.5 ml cryotubes



TSP-24/CRYO1.8
BS-010178-BK
block

24 × 1–1.8 ml cryotubes



Heated lid for TS-100C Pro
BS-010178-NK

Detachable independent heated cover, for thermal and condensation control.

Compatible with blocks:

1. TSP-20/0.5+12/1.5
2. TSP-20/0.2+12/1.5
3. TSP-32/0.5
4. TSP-24/1.5
5. TSP-24/2.0
6. TSP-20/CV10
7. TSP-96/PCR