

Thermal Cycler T-CY

The **T-CY** offers molecular biology scientists a high specification Thermal Cycler at an affordable price. By using the latest developments in solid-state Peltier technology, a Thermal Cycler has been designed providing powerful ramp rates in combination with accurate temperature and block uniformity. The **T-CY** will meet your needs for a reliable, easy-to-use, fast, accurate and programmable Thermal Cycler.



Models

The **T-CY** can be delivered in two different block formats. The 96 position sample block for use with 0.2 ml sample tubes and the 60 position sample block for use with 0.5 ml sample tubes. The 96 sample block has the 0.9 mm spacing micro plate format making the **T-CY** suitable for high throughput laboratories. The individual sample block holes have been designed in such a way to give excellent contact between the block surface and sample tube, ensuring a high degree of temperature consistency within the sample. All models are supplied with an easy to open gas spring supported lid.

Heated Lid

The heated lid has a flush fitting enclosure to ensure a complete seal eliminating airflow across the sample block surface. This means that the temperature control is maintained regardless of environmental conditions. The in-lid surface is spring-mounted to ensure even contact and pressure on all vials regardless of the tube height, ensuring no condensation of water vapor on the tube lids. A specially designed, microprocessor controlled heating element compensates temperature fluctuations along the lid.

Software

The control software installed in the **T-CY** has been designed to allow easy control and programming of the instrument. The control panel comprises a clearly visualized 168 character LCD, upon which navigation through the program menus is simple due to the logical file layering.

The layering of menus allows the operator to quickly select, view and start pre-entered programs. Each program can be displayed in full so that all parameters can be verified before commencing a program run.

All programs can be protected from alteration by the use of a PIN-code. Incremented and decremented temperatures and times can be included to allow changes in cycle parameters, useful in protocols that utilize variable temperature settings.

Peltier temperature control

The temperature control is driven using solid-state Peltier technology giving control and power superior to other methods. The use of high power Peltiers allows temperature ramp rates up to 4 °C per second resulting in faster runs and overall shorter program times. This allows a greater number of runs to be completed in a single day increasing the work capacity of the instrument for laboratories with a high number of samples.

Ordering information

Catalogue Number	Description
0005.400	T-CY with 96 x 0.2ml sample block (230Volts)
0005.401	T-CY with 60 x 0.5ml sample block (230Volts)
0005.402	T-CY with 96 x 0.2ml sample block (115Volts)
0005.403	T-CY with 60 x 0.5ml sample block (115Volts)



T-CY (catalogue number 0005.400)

Voltage	Factory set (See serial number label)
Input Power	230 VAC
Frequency	50/ 60 Hz.
Power	720 VA (watts) max
Fuse -Mains:	230 Vac 5 A T 5 x 20mm 2 fuses required (live and neutral fused).
Dimensions	230 x 250 x 300 mm (W x H x D)
Weight	20 kg
Sample block	1 x 96 x 0.2 ml
Operating temperature	10-27°C
Operating humidity	max. 90% (non-condensing)
Number of programs	99
Max number of steps per program	99
Max number of repeat cycles	99
Max number of steps total	2040
Display	64 *128 pixels graphic LCD
Electrical safety	Class 1
Installation Category	II
EMC Standards	EN 55011:1998 and EN 50081-2:1993 and EN 61326:1997, concerning the emission of radiated electromagnetic disturbances
Timer	Between 1 sec. to 18 hours (step size 1 sec.)
Timer Accuracy	Better than ± 1 % of setting.
Block temperature (Peltier control)	Between 4 and 99 °C (step size 0.1°C)
Block uniformity	Better than ± 0.5 °C
Temperature accuracy	Better than ± 0.5 °C.
Temperature ramp	
Heating	up to 4.0 °C/sec.
Cooling	up to 2.5 °C/sec.
	Programmable between 0.1 and 2.0 °C/sec.
Increase/Decrease cycle	
Temperature	± 9.9 °C (step size 0.1 °C)
Holding time	± 99 seconds (step size 1 sec.)
Selectable Heated lid	Programmable between 100-120 °C
Heated lid enable/disable	Yes
Parallel port for Printer	Yes
Power fail protection	Yes
Battery-backed RAM	Yes
Real-time graphical display	Yes
Optional Password protection	Yes
Pause function	Yes

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