

Thermal Cycler – Techne TC-512



SPECIFICATION

Wide linear gradient

The most linear gradient cycler on the market, with an amazing range of 30°C. Protocols can be optimised in a single experiment.

TouchScreen

The Touchgene Gradient incorporates a large, 115 x 90mm, touch-sensitive screen that provides a unique user-friendly programming interface which is second to none.

Graphical display

The unique 'real-time' graphical display shows the sample temperature profile while the program is running, including the upper and lower limits of the gradient. This pictorial, real-time representation means instant visualisation of your experiment's status. The unique 'real-time' graphical display shows the sample temperature profile while the program is running, including the upper and lower limits of the gradient. This pictorial, real-time representation means instant visualisation of your experiment's status.

Memory cards: SmartMedia memory cards provide an alternative to internal memory storage of your programs, offering security and flexibility.

Gradient calculator: The gradient calculator function displays the temperature of each column of tubes. This ensures replication of the experimental conditions.

4-Fold control: Each block consists of 8 peltier units, controlled by 4 independent temperature thermistors (control sensors) distributed evenly across the block. This ensures that the **TC-512** exhibits the most accurately controlled linear gradient available.

High performance: A maximum heating rate of 3°C/Sec and block uniformity of $\pm 0.4^\circ\text{C}$. With or without a gradient.....no compromise!

Versatile block format: The truly user-friendly interchangeable block system allows blocks to be interchanged in a matter of seconds without the need of any tools (60 x 0.5ml 96 x 0.2 ml, 384¹ well, Insitu Block).

New Design Flexible Heated Lid: Defined pressure, high quality, programmable heated lid to accommodate a variety of consumables

BLOCK TEMPERATURE

Gradient range	20°C to 70°C
Maximum gradient	30°C
Minimum gradient	1°C
Number of temperature probes	4
Block temperature range	4°C to 99°C
Max. ramp rate*	3.0°C/sec
Block uniformity without a gradient*	$<\pm 0.4^\circ\text{C}$
Column uniformity with a 10°C gradient*	$<\pm 0.3^\circ\text{C}$
Temperature accuracy*	$<\pm 0.3^\circ\text{C}$
Gradient accuracy*	$<\pm 0.3^\circ\text{C}$
Temperature set point adjustment	0.1°C

Heated Lid

Selectable heated lid temperature	100°C - 115°C
Heated lid enable/disable	Yes
Warm up time ambient (to 105°C)	4 min
Over temperature cut out	Yes
Regulated lid pressure	Yes
Heated lid only comes on if block is set above 30°	

Programming

Password protection	Yes
Incremental / decremental temperature	Yes
Incremental / decremental temperature segment hold time	Yes
Variable programmable ramp rate steps	$\pm 0.1^\circ\text{C}/\text{sec}$
Programmable ramp rate resolution	0.1°C
Gradient calculator	Yes
Maximum programs internal memory	50 [#]
Maximum programs memory card	500 [#]
Program name capability	Alphanumeric
Programming interface (115x90 mm screen)	Touch Sensitive
Pause facility	Yes
End of program alarm (can be disabled)	Yes
Auto restart on power failure	Yes
Run end time calculation	Yes

Miscellaneous

Dimensions L x W x H (mm)	420 x 220 x 260
Net weight	11.5kg
Serial port RS 232 / RS 485	Yes
Connection to PC control program	Yes
Free software upgrades from website	Yes
Power consumption	620 Watts
Ambient temperature range	5°C to 40°C
Relative humidity tolerance	up to 95%
Frequency	50 - 60 Hz
Voltage	100v or 120v/230v