

Advanced technology. Peltier effect.

APPLICATIONS

It is used in molecular biology to amplify DNA via a method based in the polymerase chain reaction process.

BASIC PRINCIPLE

The equipment performs a certain quantity of thermal cycles depending on the method used and repeat them many times for a while, and at the end, the initial DNA fragment Fiber have been replicated thousands times.

For a better process output, changes between temperature levels must be made with minimum time. With thermocycler K96, the cycle temperature can be reached in seconds, even if beginning from remote positions of the last set point. These changes take place by keeping a perfect uniformity between different block points.

The system can also be programmed to produce a linear gradient of temperature widthways the block. This achieves that the highest level of productivity points of the process is optimized and located.

FEATURES

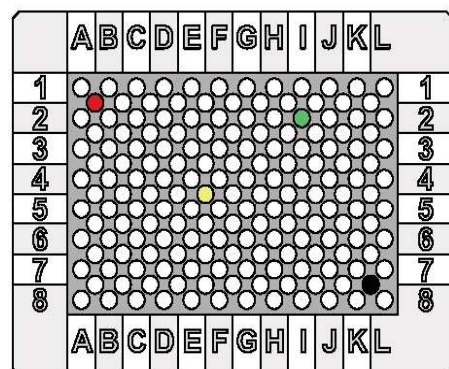
The thermocycler is composed of an inner lid system with heater and with adjustable height in order to perfectly adapt to the samples size. This prevents condensations in the upper side of the samples.

The equipment is based on a heat bomb controlled by continuous electric current and composed by several thermo electrical modules of Peltier effect, a low thermal resistance radiator and a fan convention system.

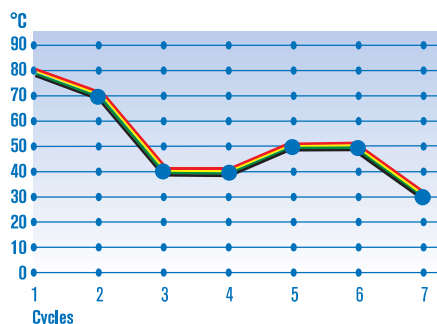
As it is integrated in the same block, this system allows increasing the process output and also fast transferring and extracting the block's temperature, going from the highest temperature level to the lowest in a minimum time.

The powerful control microprocessor allows monitoring the point where the process is at any moment, and showing it on the screen with real-time graphic images.

There is a useful elaborated software for processes organization, accessible by means of the keyboard and a high resolution LCD screen.



384 wells block, with red, yellow, green and black identification in different positions.



Graphic detail that shows temperature perfect uniformity in the different block wells, distinguished by different colours: red, yellow, green, black. It also shows how uniformity is maintained during all the thermal cycle periods, previously programmed in the display.



NEW
DESIGN

RS232

USB

INTERCHANGEABLE BLOCKS

Each block incorporates a connector that identifies it and allows the thermocycler to recognize it. There's also an extractor handle which makes easy the block support use.



TECHNICAL SPECIFICATIONS

Temperature range: 0°C to 99°C.

Durability: 99min. 99sec.

Warming-up speed: 4°C/sec.

Cooling down speed: 4°C/sec.

Uniformity: At 95°C $\pm 0.4^\circ\text{C}$.

From 20°C to 75°C $\pm 0.2^\circ\text{C}$.

Precision: $\pm 0.2^\circ\text{C}$.

Programmed gradient: From 2°C to 30°C according to the program.

Temperature range gradient: 30-99 °C.

Heater lid: From 70 to 115°C according

to the program.

Max. cycles number: 299.

Stored programs: Up to 1000.

Graphic display of 14.5cm, 320x240 pixels.

USB 2.0, LAN and RS232 output.

CONTROL PANEL

START switch.

Interactive graphic display.

Numeric and functions keyboard.

Height levelling control of the inner lid.

MODEL

Part No.	Height / Width / Depth (exterior) cm			Power supply	Power W	Weight Kg
5109000	25	27	38	220V/50-60Hz	780	7,8

ACCESSORIES

Interchangeable modules:

A. 96 vials of 0,2 ml. Code: **5109001**

B. 54 vials of 0,5 ml. Code: **5109002**

C. 96 vials of 0,2 ml + 77 vials of 0,5 ml. Code: **5109003**

D. 384 wells Code: **5109004**