

iCycler™ Thermal Cycler

Selected Instrument Features

- Graphical representation of protocols, menu-driven software, and ready-made templates for ease in viewing, editing, and running
- Direct modular upgrade to quantitative PCR capability
- Thermal Gradient function promotes rapid optimization
- Interchangeable sample blocks
- Maximum sample flexibility accommodates 0.2 ml tubes, strips, and plates, 0.5 ml tubes
- Temperature can be monitored and controlled by instrument algorithm, in-sample probe, or sample block modes
- Optional security for protection of folders and protocols
- Wide range of personal preferences may be identified for convenience
- Alphanumeric naming for maximum flexibility in storing protocols, naming folders, and identifying users
- Storage of detailed validation and run reports as well as hundreds of protocols
- Conversion guidelines for existing protocols on other devices
- NIST-traceable temperature performance

Operational Specifications

Heating rate	3°/sec
Cooling rate	2°/sec
Method of heating/cooling	Peltier and Joule
Modes of temperature monitoring	Block, in-sample probe, algorithm
Temperature	
Range	4–100°C
Accuracy	±0.3°C
Uniformity	±0.4°C
Overshoot maximum	<0.5°C
Heated lid	Up to 105°C
Thermal Gradient	
Range	1–25°C
Accuracy	±0.4°C
Uniformity	±0.4°C
Temperature range	40–99°C

Descriptive Specifications

Footprint (H x W x D)	23 x 26.4 x 54.6 cm 9 x 10.4 x 21.5"
Weight	10 kg (22 lb)
Sample capacity/sample size	1 x 96-well (0.2 ml) sample block 1 x 60-well (0.5 ml) sample block
Display	Quarter VGA screen
Licensed for PCR*	Yes
Operating temperature	5–32°C ambient
Operating humidity	20–80%
Communications	Serial and parallel ports
Electrical approvals	IEC, CE



Programming Specifications

Maximum number of programs	255 on board
Cycles per protocol	Up to 9
Segments per cycle	Up to 9
Repeats per cycle	Up to 99
Segment time range	00:01–99:59 min
Pause	Yes
Battery-backed RAM	Yes
On-board software	Menu driven, real-time graphical display of thermal protocol, intuitive PCR language programming, automatic validation reporting, customizable auditory signals for pause and end of run
Key programming features	Onboard protocol templates include cycle sequencing, touchdown, RT-PCR, nested PCR, long PCR

Related Literature

Bulletin #	Description
2448	The New iCycler Thermal Cycler with Optical Module (Brochure)
2499	The New iCycler Thermal Cycler with Optical Module Information Sheet
2500	iCycler Thermal Cycler Information Sheet
2574	iCycler iQ Real-Time PCR Detection System Specification Sheet
2594	iCycler Gradient Information Sheet
2567	Real-Time PCR using the iCycler iQ Detection System and Intercalation Dyes (Tech Note)
2568	iCycler iQ Detection System for TaqMan Assays (Tech Note)

- * Practice of the patented polymerase chain reaction (PCR) process requires a license. The iCycler thermal cycler is licensed and may be used with PCR licenses available from PE Corporation. Its use with authorized reagents also provides a limited PCR license in accordance with the label rights accompanying such reagents. Some applications may require licenses from other parties.



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