specifications

bulletin 6092

S1000™ Thermal Cycler

Bio-Rad's S1000 thermal cycler offers premium thermal performance, whether operated as a stand-alone instrument or connected to a C1000 Touch™ thermal cycler as part of a larger multi-bay configuration.

- Innovative engineering delivers exceptional performance and flexibility
- Choice of interchangeable reaction modules includes gradient-enabled dual 48/48-well fast, gradient-enabled 96-well fast, gradient-enabled 96–deep well, and gradient-enabled 384-well reaction modules
- Patented O-ring hermetic seal* and reduced-mass sample block** design provide quick time-to-target temperature for fast protocol run times
- Fully adjustable heated lid accommodates a broad range of vessels
- Optional PC control and networking capability for up to 32 systems enable the ultimate in high throughput

Specifications

Thermal Cycler			
Input power	Up to 700 W, maximum	Temperature control modes	Calculated and block
Frequency	50–60 Hz, single phase	PCR license	Yes
Display	LCD	Programming options	Text based
Ports	4 USB A, 1 USB B	PC compatibility	Windows XP or higher with C1000™ or C1000 Touch thermal cycler
Fuses	Two 10 A, 250 V, 5 x 20 mm		
Memory	>1,000 typical programs onboard	Instant incubation	Yes
Dimensions (W x D x H)	33 x 46 x 20 cm (13 x 18 x 8")		
Weight	10 kg (23 lb)		

Reaction Modules	**96-Well Fast**	**96–Deep Well**	**Dual 48/48 Fast**	**384-Well**
Sample capacity	96 x 0.2 ml tubes or 1 x 96-well plate	96 x 0.2 ml tubes, 48 x 0.5 ml tubes, or 1 x 96-well plate	2 x 48 x 0.2 ml tubes or 2 x 48-well plates	1 x 384-well plate
Maximum ramp rate	5°C/sec	2.5°C/sec	4°C/sec	2.5°C/sec
Average ramp rate	3.3°C/sec	2°C/sec	3°C/sec	2°C/sec
Temperature range	0–100°C	0–100°C	0–100°C	0–100°C
Temperature accuracy	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C
Temperature uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C
Gradient capability	Yes	Yes	Yes	Yes

Gradient	
Gradient range	30–100°C
Temperature differential range	1–24°C

* U.S. patent 7,051,536.
** U.S. patent 7,632,464.

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