heated microplate shaker with four position platform

Heated microplate shaker is a laboratory equipment that integrates constant temperature incubation and oscillating mixing, designed for standard microplates such as 96-well enzyme labeled plates, 384-well plates and deep-well plates.

Heated Microplate Shaker

Features

1. Intuitive control interface: Clear, real-time man-machine operating system displays status, parameters, and data for easy operation and monitoring.
2. High throughput design: Simultaneously processes up to 4 microplates for batch experiments and increased lab capacity.
3. Hot cover heating function: Top hot cover technology prevents sample evaporation, ensuring consistent well temperature.
4. Intelligent preheating: Automatic preheating to target temperature eliminates manual waiting and boosts prep efficiency.
5. Power failure recovery: Automatically restores last running state after power outage, protecting experimental continuity and data.

6. Temperature calibration: Built-in system enables fine temperature adjustments for accurate control.
7. Multiple security protection: Hardware and software over-temperature protection ensure safe operation for samples and equipment.
8. High-performance DC brushless motor: Stable, low-noise, maintenance-free operation for continuous use.

Advantages

1. High precision temperature control, fast response, uniform heating.
2. Heating and oscillation integrated in one instrument, efficient and space-saving.
3. Compatible with various standard microplates for flexible, universal use.
4. Easy operation, safe and reliable—ideal for scientific research and clinical laboratories.
5. Optimized process reduces reaction time, increases repeatability and consistency.

Working Principle

1. Uniform bottom heating via integrated thin-film electric heating element, with constant temperature difference maintained by top heat cover to prevent condensation.
2. PID control algorithm automatically adjusts heating intensity for minimal temperature error.
3. Eccentric wheel mechanism drives horizontal reciprocating tray motion, ensuring thorough mixing without affecting temperature distribution.

Application Fields

1. Molecular biology: Sample incubation for PCR/qPCR, DNA/RNA extraction pretreatment.
2. Immunology: ELISA reactions and mixing at constant temperature.
3. Drug screening: Incubation and stable mixing of drug reaction systems in microplates.
4. Cell experiments: Cytokine incubation, small volume cell reactions requiring constant temperature oscillation.
5. Clinical diagnosis/testing: Automated, standardized sample processing for improved diagnostic efficiency and accuracy.

Summary

The heated microplate shaker provides precise temperature control, high-throughput processing, and intelligent operation—making experiments more efficient, safer, and more reliable.

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Model	**P10K**	**P10H**	**P10HK**
Speed range	200rpm to 1500rpm	no	200rpm to 1350rpm
Orbit	3mm	no	3mm
Temperature range	no	ambient+5°C to 80°C	
Temperature resolution	no	0.1°C	
Temperature accuracy	no	≤±0.5°C, at 37°C	
Temperature uniformity	no	≤±0.5°C, at 37°C	
Temperature rise time	no	≤15 minutes, 25°C to 80°C	
Timer	1 minute to 99 hours 59 minutes or continuous		
Sample capacity	four microplates or deep well plates		
Power supply	220Vac, 50-60Hz or 110Vac, 50-60Hz		
Power	45W	260W	300W

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Model	**P10K**	**P10H**	**P10HK**
External dimensions	280x270x140mm	340x320x200mm	
Weight	4kg	6.5kg	9.5kg