LINEAR
Trust in 25 years of Experience
1994 since

- For professional use only -

qPCR Thermocycler

Maximum Performance for Real Time PCR

NEOS qPCR

NEW

FLEXIBLE. FAST. ACCURATE.

- ✓ Three distinct instrument setups: stand-alone, PC controlled, networked.
- ✓ No optical system maintenance required.

A flexible design for the best performance

- Quantitative Real-Time PCR Systems combining a highly sensitive optical system, potent friendly user software and one of the most stable heating and thermal system.
- Integrated touch screen, intuitive functions rapidly accessible through simple, one-touch commands.
- Wide dynamic range of fluorescence detection through a large number of channels gives a high standard results.
- High Resolution Melt (HRM) assay, provides fast and more precise results.
- Innovative Proportional Integral Derivative (PID) control algorithm, ensures a highly precise and constant temperature control.

- Fast and uniform heating system
- Remote wlan managing
- Powerful data analysis
- User friendly graphical interface

NEOS-96 qPCR

6 detection channels analyzer

Optical scanning for 96 wells in 7 seconds (LED-excitation and PD-detection)

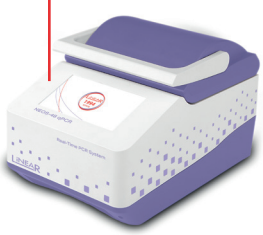
10.4" LCD touch screen

NEOS-48 qPCR

4 detection channels analyzer

Optical scanning for 48 wells in 2 seconds (LED-excitation and PD-detection)

7" LCD touch screen



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QUALITY SYSTEM CERTIFIED ISO 9001 QUALITY SYSTEM CERTIFIED ISO 13485 IVD CE

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Technical Specifications

	NEOS-48 qPCR	NEOS-96 qPCR
Thermal Block		
Sample Capacity (wells)	48	96
Reaction Volume	5-100 µL	0-100 µL
Consumables	0.2mL 8-Strip tubes, 0.2mL single tube (Optical flat cap)	0.2mL 96-well plates (unskirt); 0.2mL 8-strip tubes, 0.2mL PCR single tube (Optical flat cap, clear, frosted, white tube)
Temperature Range	0-100 °C	
Heating/Cooling Method	Peltier	
Max Heating Rate	8.0 °C/s	6.1 °C/s
Average Heating Rate	6.0 °C/s	4.5 °C/s
Max Cooling Rate	5.5 °C/s	5.0 °C/s
Average Cooling Rate	4.0 °C/s	2.8 °C/s
Temperature Accuracy	±0.1 °C	
Temperature Uniformity	±0.1 °C	
Gradient Range	1 °C - 40 °C	
Gradient Block	8 row	12 row
Special Temperature Protocol	Gradient PCR, Long PCR, Touch Down PCR	
Heat Lid		
Temperature Range	Room Temperature - 110 °C	
Optical System		
Excitation Source	4 LEDs (LED for ech channel)	6 LEDs (LED for ech channel)
Detector	Photodiode	
Detection Position	Excitation and scan from lateral	Excitation and scan at top
Detection Method	4 channels scanning at the same time, no edge effect	6 channels scanning at the same time, no edge effect
Detection Time	2 seconds (for 48 wells for all channels)	7 seconds (for 96 wells for all channels)
Range of Excitation/ Emission Wavelengths [nm]	1. 465/510 [nm] : {FAM, SYBR, Green, SYTO9, EvaGreen, LC Green} 2. 527/563 [nm] : {HEX, VIC, TET, JOE} 3. 580/616 [nm] : {ROX, Texas Red} 4. 632/664 [nm] : {Cy5}	1. 465/510 [nm] : {FAM, SYBR, Green, SYTO9, EvaGreen, LC Green} 2. 527/563 [nm] : {HEX, VIC, TET, JOE} 3. 580/616 [nm] : {ROX, Texas Red} 4. 632/664 [nm] : {Cy5} 5. 680/730 [nm] : {Alexa Fluor680} 6. 465/616 [nm] : {FRET}
Probe	Taqman Probe, Molecular Beacons Probe, Scorpion probe	Taqman Probe, Molecular Beacons Probe, Scorpion probe, FRET
Multiplexing	Up to 4 targets	Up to 6 targets
Fluorescence Linearity	r ≥ 0.990	
Fluorescence Dynamic Range	Adjustable	
Performance		
Sample Linearity	/r/ ≥ 0.990	
Sample Repeatability	Ct value CV ≥ 0.5%	
Sample Dynamic Range	1 - 10^{10} copies	
Software		
Data Analysis Modes	Qualitative Analysis, Absolute Quantification, Relative Quantification, Genotyping Analysis, Endpoint Analysisi, Melt Curve Analysis, High Resolution Melting	
Control Modes	1. Touch screen 2. PC Direct Control 3. WLAN control (1 PC can control 10 units)	
Sample Drawer	N/A	Touch screen command
Data Storage	Upload and Download trought USB disk (1000 results capacity)	
Power Failure Protection	Automatically starts running experiments after power supply, no need wait PC software	
Customize Report	Templates reserved, report can be customized	
Administration Management	Administrator can set functions limits for users	
Transport Locker	N/A	Automatically detects transport locker
Fault Management	Fault report and analysis, solution instructions	
LIS Connection	Open port for LIS connection. Output format data: {CSV, Excel, TXT}	
Others		
PC Operating System	Windows 7, Windows 10	
Communication Port	1 Ethernet port and 2 USB ports	1 Ethernet port and 3 USB ports
Footprint (WxDxH)	260x260x400 [mm] (HxWxD)	355x485x480 [mm] (HxWxD)
Weight	11Kg	30Kg
Power Usage	AC 100 to 125 V // 200 to 240 V (50/60 Hz)	
Power Consumption	600 W	900 W
Work Environment	Temperature: 10ºC~30ºC Humidity: 20%~85%	

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