

Perfect Cycling



peqSTAR Thermocycler

peqlab
a VWR company

Creating the future together.

The peqSTAR Thermocycler Family

Latest technology in 2 x 48, 96, 384 and *in situ* formats

The latest generation of the peqSTAR thermocycler family, packed with pioneering cycler engineering and now available in a wide range of block formats.



New thermocycler technology!

Outstanding performance

A newly engineered thermo plate with impressive thermal characteristics, powerful Peltier elements with Long Life Technology, a revolutionary heat sink and cooling fans with magnetic bearing enabling rapid temperature change control of up to 5 °C/s.

Reliable reproducible results

Novel Peltier elements control the temperature row by row enabling an outstanding block homogeneity of ± 0.2 °C and the choice of absolute linear gradients and independent lane control.

German quality manufacturing

Engineered and manufactured in Germany according to ISO 9001, calibrated and maintained according to NIST standards and backed with more than 20 years of cycler expertise and experience.

All so very simple

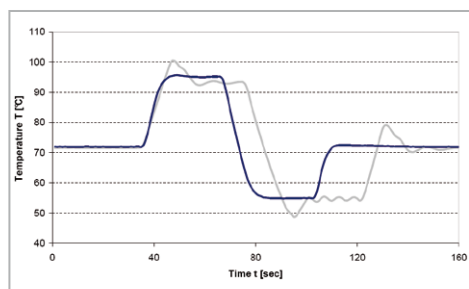
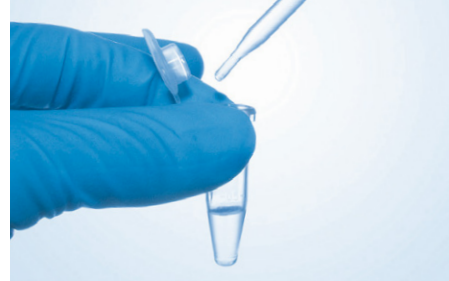
With a sharp, clear TFT display and intuitive 'press screen' commands, just switch on the peqSTAR and you'll be ready to run.

A new suite of laboratory control

4 x USB, 1 x Ethernet (MS Windows®, Linux), remote control and monitoring of instruments via PC software, MP3 signal tones, user calls via email, master/slave control with optional wireless control.

Quality

Flexibility



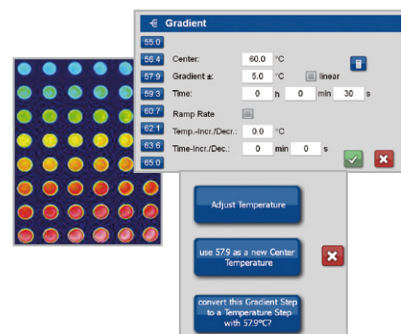
Fastest ramping up to 5 °C/s without overshoots

through the combination of the newly developed thermo plate, high performance Peltier elements and a sophisticated control mechanism.

Figure shows temperature measurement executed using calibrated, external thermal probes.

Blue: peqSTAR 2X

Grey: other leading system with silver block



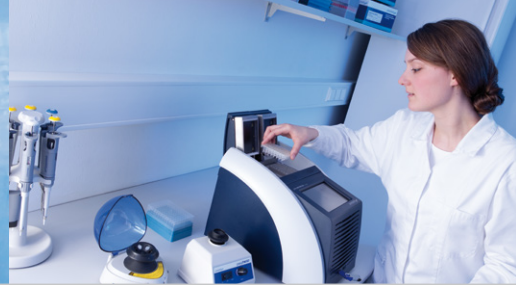
Up to date data management

Cavernous 500,000 program memory, 4 USB ports for simple and quick data transfer. Network integration for central program administration for total cyclor control.



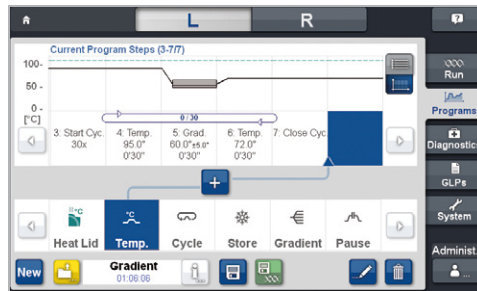
Simple to use PC software 'peqSTAR Manager'

for remote control and monitoring of instruments plus creating PCR protocols on the PC. Wireless remote control via ZigBee® Module is available optionally.



FlexGradient™ Technology

With the temperature of the 8 rows each individually controlled, select between a perfectly linear temperature gradient – ideal for PCR optimization, or independent lane control – ideal for the use of different primer pairs in the same run.



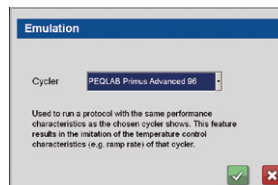
New system tools

All a touch of a button: graphical or tabular programming, 'Global Program Ramp', 'Gradient Control', 'Tube Control', Emulation mode, Online help, 'Quickstart' function and 'Power Fail Denaturation' for auto-restart after power failure



High specification remote control

Packed with state of the art technology, control your peqSTAR with wireless ZigBee®, receive notifications via email or just make use of the systems MP3 player.



Emulation mode

The simplest way to transfer and optimise protocols from your old cycler, just pick the system from the drop down for immediate protocol emulation.

Technology



Technical Data

System characteristics

- 2 x 8 or 16 powerful Peltier elements with Long Life Technology
- 2 x 8 or 16 control circuits with PT 1000 thermal probes
- Max. heating and cooling rate: 5 °C/s
- Block uniformity (at 72 °C): ± 0.2 °C
- Temperature range thermo block: 4 to 105 °C
- Regulating accuracy thermo block: ± 0.1 °C
- Adjustable ramping: 0.1 to 3.0 °C/s
(Single steps or 'Global Program Ramp' for the whole protocol)
- Increment/decrement time: 0:01 to 9:59 minutes
- Increment/decrement temperature: 0.1 to 9.9 °C
- Temperature range heated lid: 40 to 120 °C
- Programmable lid locking
- 4 x USB, 1 x Ethernet port (MS Windows®, Linux)
- Various blocks (2 x 48 well, 96 well, 384 well, *in situ*) available, see 'Ordering Information' for further details
- Standard lid with automatic height adjustment, High Pressure Lid (HPL) with programmable pressure from 100 to 250 N

Gradient feature (optional)

- Maximum gradient over 8 resp. 16 rows: 30 °C (± 15 °C)
- Temperature range gradient: 35 to 105 °C
- Gradient accuracy: ± 0.1 °C
- Gradient upgradability on-the-spot
- FlexGradient™ Technology: Ideal, linear gradient or independent lane control
- 'Gradient Control': synchronized plateau times or ramp rates

User interface/Functions

- Touch-sensitive TFT display (800 x 480 px, 16:9, 65536 colours) control via USB mouse possible
- Internal memory for 500,000 typical PCR protocols in unlimited, self-created directories/subfolders
- Unlimited number of programs via network PC or using USB memory sticks
- PC software for convenient remote control/monitoring of runs and creation of PCR programs in the office
- Master/Slave control of instruments
- Wireless remote control via ZigBee® Module (optionally)
- Password protected user accounts with flexible access rights
- Auto-restart after power failure
- Display for creating or running programs both graphical and tabular available
- GLP reports for the continuous recording of all runs
- MP3 signal tones
- User call via email
- Emulation mode for easier transfer of PCR protocols

Innovation

Our Service Pledge

- Personal and professional support through our application hotline and local field representatives
- Product demonstrations, installation and on-the-spot instruction
- Rapid delivery times



Ordering Information		
Item	Description	Product Code
peqSTAR 96X Universal	with 96 well universal block and standard lid for 96 x 0.2 ml tubes, 96 well PCR plates or 48 x 0.5 ml tubes with flat caps	95-05002
peqSTAR 96X Universal Gradient	with 96 well universal gradient block and standard lid for 96 x 0.2 ml tubes, 96 well PCR plates or 48 x 0.5 ml tubes with flat caps	95-06002
peqSTAR 96X HPL	with 96 well block and High Pressure Lid for 96 x 0.2 ml tubes or 96 well PCR plates	95-05002-HPL
peqSTAR 96X HPL Gradient	with 96 well gradient block and High Pressure Lid for 96 x 0.2 ml tubes or 96 well PCR plates	95-06002-HPL
peqSTAR 384X HPL	with 384 well block and High Pressure Lid for 384 well PCR plates	95-050384-HPL
peqSTAR <i>in situ</i> X	with <i>in situ</i> block for up to four microscope slides and integrated buffer reservoir	95-050FLAT
peqSTAR 2X Universal	with 2 x 48 well universal blocks and standard lids for 48 x 0.2 ml tubes or 24 x 0.5 ml tubes with flat caps per block	95-07002
peqSTAR 2X Universal Gradient	with 2 x 48 well universal gradient blocks and standard lids for 48 x 0.2 ml tubes or 24 x 0.5 ml tubes with flat caps per block	95-08002
Gradient Upgrade	for peqSTAR 96X Universal or peqSTAR 96X HPL for peqSTAR 2X Universal	95-05GRAD 95-07GRAD
ZigBee® Module	for wireless remote control of the peqSTAR X-series	95-0ZIG

Some applications for which this products can be used are protected in certain countries by patent law. Because your purchase does not include the acquisition of licenses for use within this scope of applications protected by patent law, the acquisition of relevant licenses may be necessary depending on the application and on the country of application.

