

# Primus advanced<sup>®</sup>

Innovative PCR Technology.



## ***Innovation and Reliability***



Molecular biological practice and years of experience in the manufacture of thermocyclers have gone into the logical further development of the Primus advanced<sup>®</sup> PCR systems. The result: innovative technology combined with maximum reliability.

- **Speed:** optimized adjustment of the Peltier elements, heat sinks and software for the shortest run times
- **Precision:** maximum regulating accuracy with PT 1000 thermal probes for steadily reproducible results
- **Reliability:** Peltier elements specially developed for Primus advanced<sup>®</sup> with High Temperature Range (HTR) technology for the longest operating times
- **Quality:** extensive quality controls in the production of the Primus advanced<sup>®</sup> thermocyclers and absolutely accurate calibration to NIST standard

# advanced primus 25



*The Primus 25 advanced® is designed for small to medium numbers of samples. It is distinguished by short run times, excellent results and very simple operation – and all this with minimal space requirements.*



## Technical data

- Peltier element with HTR technology and PT 1000 thermal probe
- Temperature range: 4 to 105°C
- Regulating accuracy: +/- 0.1°C
- Block uniformity (at 72°C): +/- 0.7°C
- Run time of a standard PCR program: approx. 75 minutes (30 seconds each denaturation at 95°C, annealing at 55°C, extension at 72°C, 30 cycles)
- Heating and cooling rate: 2°C/s
- Max. number of programs: 90 (with up to 99 steps/program)  
Optional: any number of programs via PC software
- Incremental/decremental time: 0:01 to 9:59 minutes
- Incremental/decremental temperature: 0.1 to 9.9°C
- Block capacity: universal block for 25 x 0.2 ml tubes or 13 x 0.5 ml tubes with flat lid
- Heatable lid with automatic height adaptation
- Temperature range, lid heating: 70 to 120°C
- Interfaces: Centronics, RS232
- GLP reports for continuous recording of all runs
- Dimensions (W x D x H): 225 x 280 x 245 mm
- Weight (with block): 6.3 kg

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Creating the future together.

# advanced primus 96

*The Primus 96 advanced® meets all requirements of a modern thermocycler: speed, intelligent software, simple operation and maximum flexibility provided by an innovative exchangeable thermoblock system – PCR technology of the highest level. And by means of a software upgrade you can upgrade your Primus 96 advanced® to a genuine gradient cycler!*

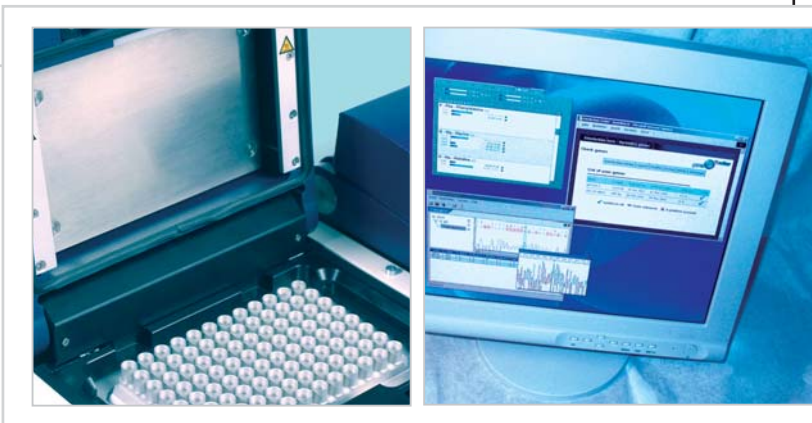


## Technical data

- 6 Peltier elements with HTR technology and PT 1000 thermal probes
- The new microprocessor system allows editing and copying of programs even during a run
- Temperature range: 4 to 105°C
- Regulating accuracy: +/- 0.1°C
- Block uniformity (at 72°C): +/- 0.35°C
- Run time of a standard PCR program: approx. 75 minutes (30 seconds each denaturation at 95°C, annealing at 55°C, extension at 72°C, 30 cycles)
- Heating and cooling rate: 2°C/s
- Max. number of programs: 90 (with up to 99 steps/program)
  - External memory card for up to 50 programs available
  - Optional: any number of programs via PC software
- Incremental/decremental time: 0:01 to 9:59 minutes
- Incremental/decremental temperature: 0.1 to 9.9°C
- Heatable lid with automatic height adaptation
- Temperature range, lid heating: 70 to 120°C
- Electromechanical lid locking preventing accidental opening during a run
- Optionally with High-Pressure Lid (HPL) or motor lid
- Interfaces: Centronics, RS232, PS/2 for PC keyboard
- GLP reports for continuous recording of all runs
- Dimensions (W x D x H): 315 x 315 x 295 mm
- Weight (with block): 12 kg
- Block capacity: universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid
- Blocks additionally available:
  - Block for '384 well' PCR plates
  - *In situ* block with integrated buffer reservoir

# primus 96 advanced gradient

*The Primus 96 advanced® Gradient provides you with simple and reliable optimization of your PCR protocols. Six HTR Peltier elements and an ingenious arrangement of the thermal probes result in a temperature curve which genuinely deserves the name "gradient" – an almost linear rise in temperature over the entire thermoblock.*



**The Primus 96 advanced® Gradient is based technically on the Primus 96 advanced® and offers the following additional features:**

- Maximum gradient: 19.8°C
- Temperature range, gradient: 35 to 105°C
- Gradient accuracy: +/- 0.1°C
- Simple transfer of the optimum annealing temperature into a standard PCR program

# advanced primus HT2X

*The Primus advanced® HT2X and HT4X high throughput systems are designed for reliable processing of high numbers of samples with the best possible flexibility. Their modular construction allows the networking of up to 30 blocks. Each individual block is operated and programmed separately to give maximum independence*



## Technical data

- 6 Peltier elements with HTR technology and PT 1000 thermal probes per block
- Temperature range: 4 to 105°C
- Regulating accuracy: +/- 0.1°C
- Block uniformity (at 72°C): +/- 0.35°C
- Control via PC (PC not included in the items delivered)
- Run time of a standard PCR program: approx. 75 minutes (30 seconds each denaturation at 95°C, annealing at 55°C, extension at 72°C, 30 cycles)
- Heating and cooling rate: 2°C/s
- Max. number of programs: any number via PC software
- Incremental/decremental time: 0:01 to 9:59 minutes
- Incremental/decremental temperature: 0.1 to 9.9°C
- Heatable lid with automatic height adaptation
- Temperature range, lid heating: 70 to 120°C
- Electromechanical lid locking preventing accidental opening during a run
- GLP reports for continuous recording of all runs
- Dimensions:
  - PCR unit HT2X (W x D x H): 455 x 300 x 160 mm
  - control unit HT2X (W x D x H): 345 x 300 x 210 mm
  - PCR unit HT4X (W x D x H): 815 x 300 x 160 mm
  - control unit HT4X (W x D x H): 545 x 300 x 210 mm
- Weight:
  - PCR unit HT2X (with blocks): 12.8 kg
  - control unit HT2X: 13.8 kg
  - PCR unit HT4X (with blocks): 24.3 kg
  - control unit HT4X: 24 kg

# advanced primus HT4X



## Available lid versions

- **Standard:** manual opening and closing with automatic height regulation and electromechanical locking against accidental opening during a run.
- **High Pressure Lid (HPL):** a compression force adjustable from 50N to 300N enables absolutely leak-tight closure of PCR plates. Manual opening and closing of the lid.
- **Motor Lid:** In addition to the HPL function, opening and closing of the lid takes place by motor. This enables the Primus advanced® to be linked into fully automatic systems.

## Available blocks

- Universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid
- Block for '384 well' PCR plates
- *In situ* block with integrated buffer reservoir

## Our Service for You

- Individual advice
- Proficient technical service
- Installation and on-the-spot instruction



Article	Short description
95-4002	<b>Primus 25 advanced®</b> with universal block for 25 x 0.2 ml tubes or 13 x 0.5 ml tubes with flat lid
95-5002	<b>Primus 96 advanced®</b> with universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid
95-5002-HPL	<b>Primus 96 advanced® HPL</b> with universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid; High-Pressure Lid (HPL)
95-6002	<b>Primus 96 advanced® Gradient</b> with universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid
95-6002-HPL	<b>Primus 96 advanced® Gradient HPL</b> with universal block for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid; High-Pressure Lid (HPL)
95-7002-HPL	<b>Primus 96 advanced® HT2X</b> with 2 universal blocks for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid; High-Pressure Lid (HPL)
95-8002-HPL	<b>Primus 96 advanced® HT4X</b> with 4 universal blocks for 96 x 0.2 ml tubes, '96 well' PCR plates or 48 x 0.5 ml tubes with flat lid; High-Pressure Lid (HPL)
You can obtain further information on other versions from <a href="http://www.peqlab.de">www.peqlab.de</a> or from your PEQLAB representative.	



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