

TGRADIENT Thermocycler



Get the perfect
annealing temperature
in a single run

Biometra®

Temperatures of the current gradient

T1- 6:	30.0	30.9	33.7	38.1	42.8	47.6 °C
T7- 12:	52.3	57.1	61.8	66.2	69.0	70.0 °C

remaining time: 1h 16min

B quit D



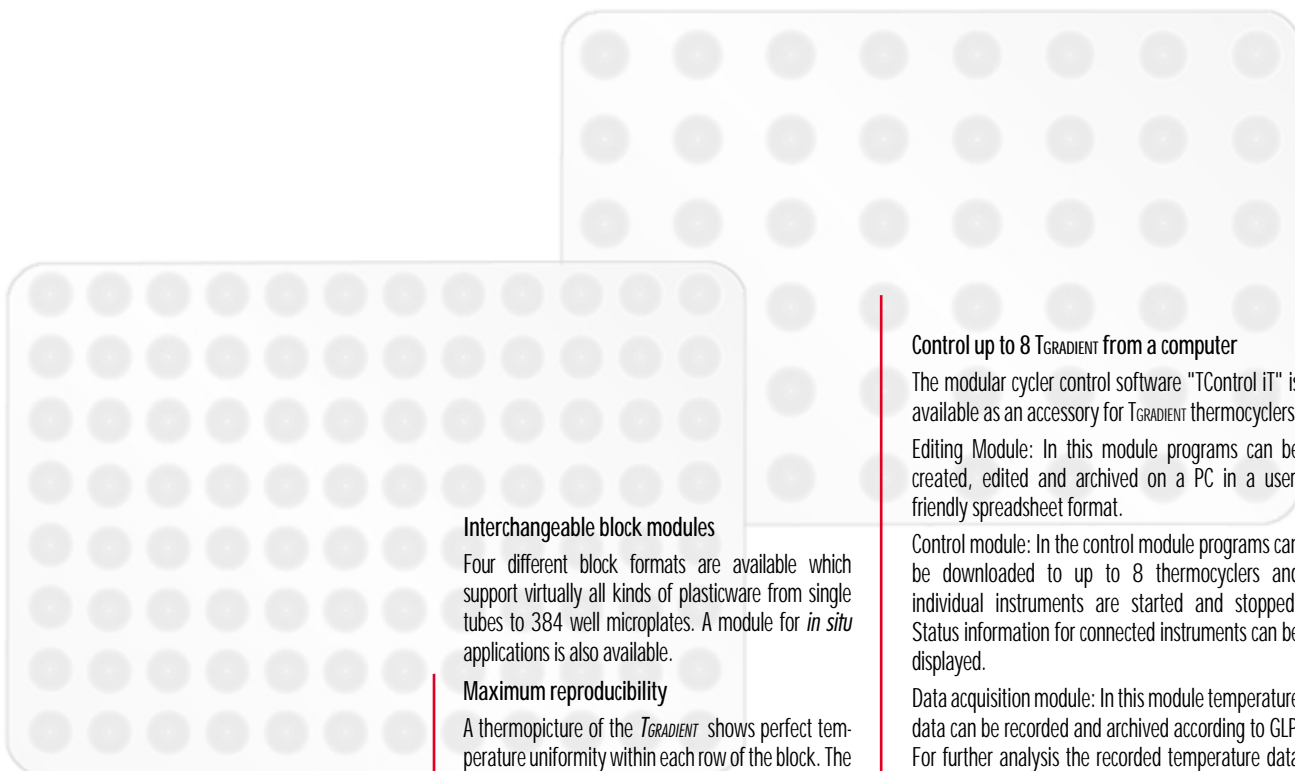
TGRADIENT Thermocycler



For the development of the new *TGRADIENT* two main competencies of BIOMETRA are joined together in an ideal way:

10 years of experience in the production of Peltier-based thermocyclers and the know how of generating temperature gradients used in TGGE (Temperature Gradient Gel Electrophoresis). The result is an instrument that allows the detection of the perfect annealing temperature in a single experiment. The *TGRADIENT* also achieves unrivalled speed and the highest reliability for routine cycling.

Our experience for your success

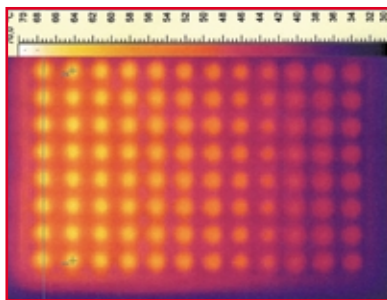


Interchangeable block modules

Four different block formats are available which support virtually all kinds of plasticware from single tubes to 384 well microplates. A module for *in situ* applications is also available.

Maximum reproducibility

A thermopicture of the *TGRADIENT* shows perfect temperature uniformity within each row of the block. The optimum annealing temperature achieved in the test run can then be reliably used for routine cycling.



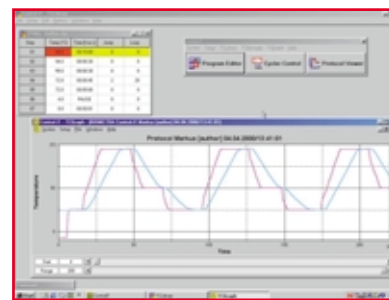
Control up to 8 *TGRADIENT* from a computer

The modular cyler control software "TControl i!" is available as an accessory for *TGRADIENT* thermocyclers.

Editing Module: In this module programs can be created, edited and archived on a PC in a user-friendly spreadsheet format.

Control module: In the control module programs can be downloaded to up to 8 thermocyclers and individual instruments are started and stopped. Status information for connected instruments can be displayed.

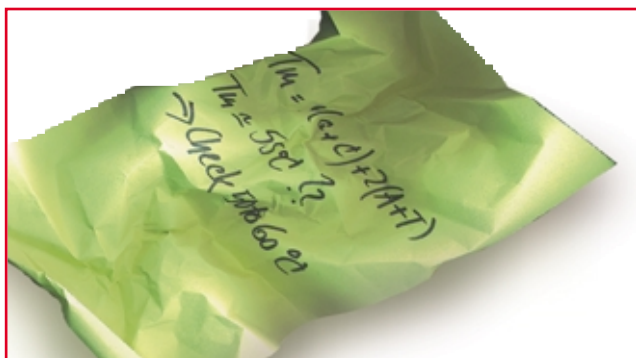
Data acquisition module: In this module temperature data can be recorded and archived according to GLP. For further analysis the recorded temperature data can be exported in ASCII format or directly visualized as a graph.



Optimization of annealing temperatures

With the new *TGRADIENT* different annealing temperatures can be tested on a single run. Just enter the estimated annealing temperature and define the range of temperatures you want to test. Then, through a temperature gradient during the annealing step, each row of the block displays a specific temperature that is documented by the software.

With a maximum gradient of 40°C there are no limitations to the experimental design.



```
prog 42 CYCLESEQ directory 3 BIOMETRA
step 3/6 cycle 3/30
temp[°C] 45.2, 55.1, 65.0 → 40.0, 50.0, 60.0
time 0h 0m 0s → 0h 1m 0s
lid 99.0°C tube sensor 55.3°C
[?] help [B] start/stop [C] programs [D] options
```

Easy to program

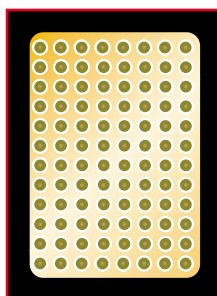
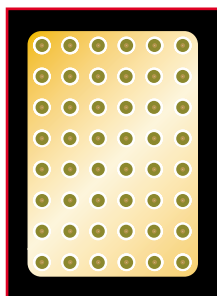
The large display of the *TGRADIENT* provides all relevant information in real time. Intuitive programming is supported by navigation keys and detailed online help.

Speed

Using the latest Peltier technology, the highest ramping rates ever can now be achieved. The *TGRADIENT* will save you time, not only in optimising protocols but also in your daily routine work.

Technical Specifications

Order Information



Thermocycler

Sample capacity
Block type
Block exchangeable
Temperature gradient
Max. Heating
Max. Cooling
Temperature range
Temperature uniformity
Control accuracy
Display
Program memory

Software options

Heated lid
Height adjustable
Selection of temperature
Temperature range
Pressure control

Power consumption
Noise emission

Interfaces

Dimensions (WxLxH)
Weight

TGRADIENT 48
TGRADIENT 96
See order information
Gold plated silver block
Yes
Max. 40 °C
4 °C/sec
3 °C/sec
-3 – 99.9 °C
± 0.3 °C within 15 s
± 0.1 °C
Back-lit graphical LCD display
Total capacity: 1500 steps
10 directories with 100 programs each
maximum 99 steps per program.
maximum 99 cycles per step
Gradient calculator
Adjustable ramping rates (0.01-5 °C/s)
Definition of temperature increments
Definition of time increments
Automatic and manual pause mode
Automatic restart after power failure
Online help
Language selectable: English/ German
High Precision Lid
Yes
Yes
30-99 °C
Smart lid technology
Max. 310 Watt
Extremely low
Serial RS232, printer Centronics
25 x 34 x 16.5 cm
8.8 kg

Order information

Thermocyclers	Order number
TGRADIENT 48 for 48 tubes (0.5ml)	050-800
TGRADIENT 96 for 96 tubes (0.2ml), 96 well microplates or strips	050-801
Modules	
TGRADIENT 48 module for 48 tubes (0.5ml)	050-810
TGRADIENT 96 module for 96 tubes (0.2ml), 96 well microplates or strips	050-811
TGRADIENT 384 module for 384 well microplates*	050-812
T1 in situ Module for 4 microscopic slide*	050-813
TControl iT software	050-820

For information about tubes, strips, microplates and other consumables please contact us/ your local distributor.

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