

Biometra®

Performance Simplicity Elegancy

The **new**
TProfessional Thermocycler Family



Innovation · Advancement · Development

Biometra®

TProfessional Family

The Biometra **TProfessional Thermocycler** is inspired by the wish to simplify molecular biology research. To reach this goal the instrument housing, lid and block were totally redesigned, providing so far unrealised speed and temperature uniformity. Innovative user software was developed, driven by Biometra's 15-year experience in interface design. The result is an easy to use Thermocycler with excellent technical specifications.

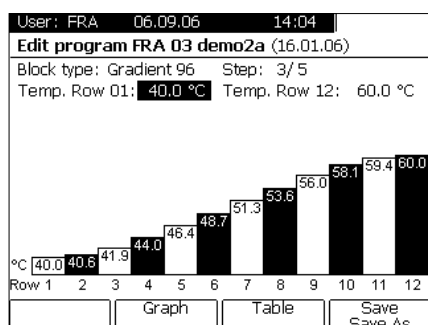
TPProfessional User Interface

The **TPProfessional User Interface** incorporates Biometra's proven spreadsheet programming philosophy. Avoiding endless serial program windows, all steps of a program are entered in a single screen. This makes the creation of new or editing existing programs fast and easy. One touch leads from the spreadsheet to an alternative graphical programming mode. The **TPProfessional** manages up to 30 individual users (optionally password protected) and features larger memory for increased program capacity.



Convenient set up of temperature gradients

Gradient steps are defined in a graphical screen, showing the individual temperature for each row. Alternatively, the temperature gradient can be entered directly in the programming spreadsheet.



Quick start of the last five programs

The **TPProfessional** displays the five most recently used programs for quick start. Thus, commonly used programs can be started without searching the user directory. The last programs are saved for each user individually.

User: FRA 06.09.06 14:10

Block free

Block type: Gradient 96

Latest programs edited / run by FRA

1: FRA	03 demo2a	16.01.06 Grad
2: FRA	06 demo3a	16.01.06
3: FRA	02 demo1b	16.01.06
4: FRA	01 demo	16.01.06
5: FRA	05 cycle seq	06.09.06 Grad

View Program

Easy spreadsheet programming ...

All program steps are entered in a single screen, thus avoiding endless serial program windows.

Spread sheet mode

User: FRA 06.09.06 15:07

Edit program FRA 06 demo3a (06.09.06)

Block type: Gradient 96 Preheat Lid: ON 99 °C

05 Steps	°C	m:s	goto	loops
1	40.0	15:00	--	--
2	60.0	00:30	--	--
3	30.0	00:30	--	--
4	50.0	00:30	2	4
5	15.0	Pause	--	--

Options

Insert/Delete Step Gradient Graph Save Save As



Top Performance for the highest demands

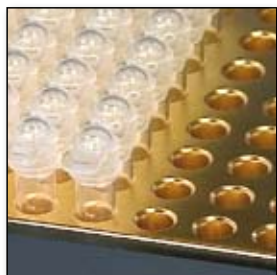
TProfessional

High Speed Silver Block

To achieve ultimate performance the 96 well and 60 well modules are made of silver. Due to its excellent heat conductivity silver equilibrates extremely quickly, thus providing maximum speed and temperature uniformity. To protect the valuable silver blocks against corrosion, the block surfaces are covered with a thin gold layer.

Exchangeable Block Modules

The TProfessional offers five different block modules that can be exchanged in less than 10 seconds. The 96 well and 60 well modules are available with gradient option for quick optimization of new protocols.



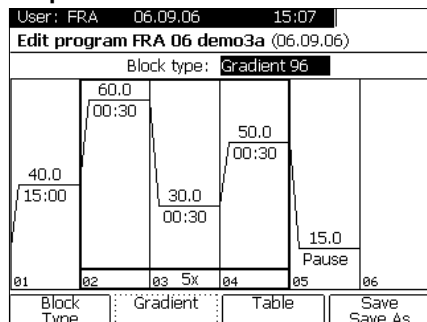
Features

- Large graphical display
- Spreadsheet plus graphical programming
- Quick start of the last five programs
- High speed silver block
- Five different block modules
- Block exchange in less than 10 seconds
- High performance smart lid
- Silent operation

... or graphical editing.

In addition to spreadsheet programming, the TProfessional allows editing in the graphical mode. Using this option an existing program is quickly modified and can be saved under a new name.

Graphical mode



TProfessional exchangeable block modules

Order number	Block format	Suitable plastic ware	Heating/cooling rate
070-810	60 well Gradient	0.5 ml tubes	5.0 / 3.5 °C per sec
070-910	60 well	0.5 ml tubes	5.0 / 3.5 °C per sec
070-811	96 well Gradient	0.2 ml tubes, plates, strips	5.0 / 3.5 °C per sec
070-911	96 well	0.2 ml tubes, plates, strips	5.0 / 3.5 °C per sec
070-912	384 well	plates	1.7 / 1.0 °C per sec



Professional technology for routine applications

TProfessional
BASIC

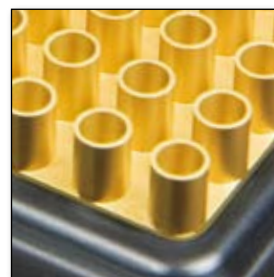
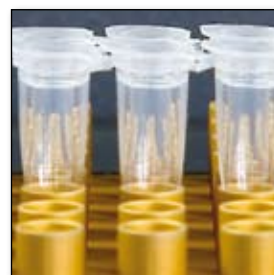
Gold Anodized 96 Well Block

The TProfessional Basic Thermocycler provides almost all the features of the TProfessional Thermocycler. However, the instrument is available at a budget price, that makes top technology also available for routine applications. The instrument features a gold anodized 96 well block with excellent temperature uniformity. A 96 well Gradient version for quick optimization of new protocols is also available.

The TProfessional Basic provides full functionality of easy spreadsheet programming and quick start of the last five programs.

Features

- Large graphical display
- Easy spreadsheet programming
- Quick start of the last five programs
- Gold anodized 96 well block
- Gradient or non-gradient version
- High performance smart lid
- Silent operation



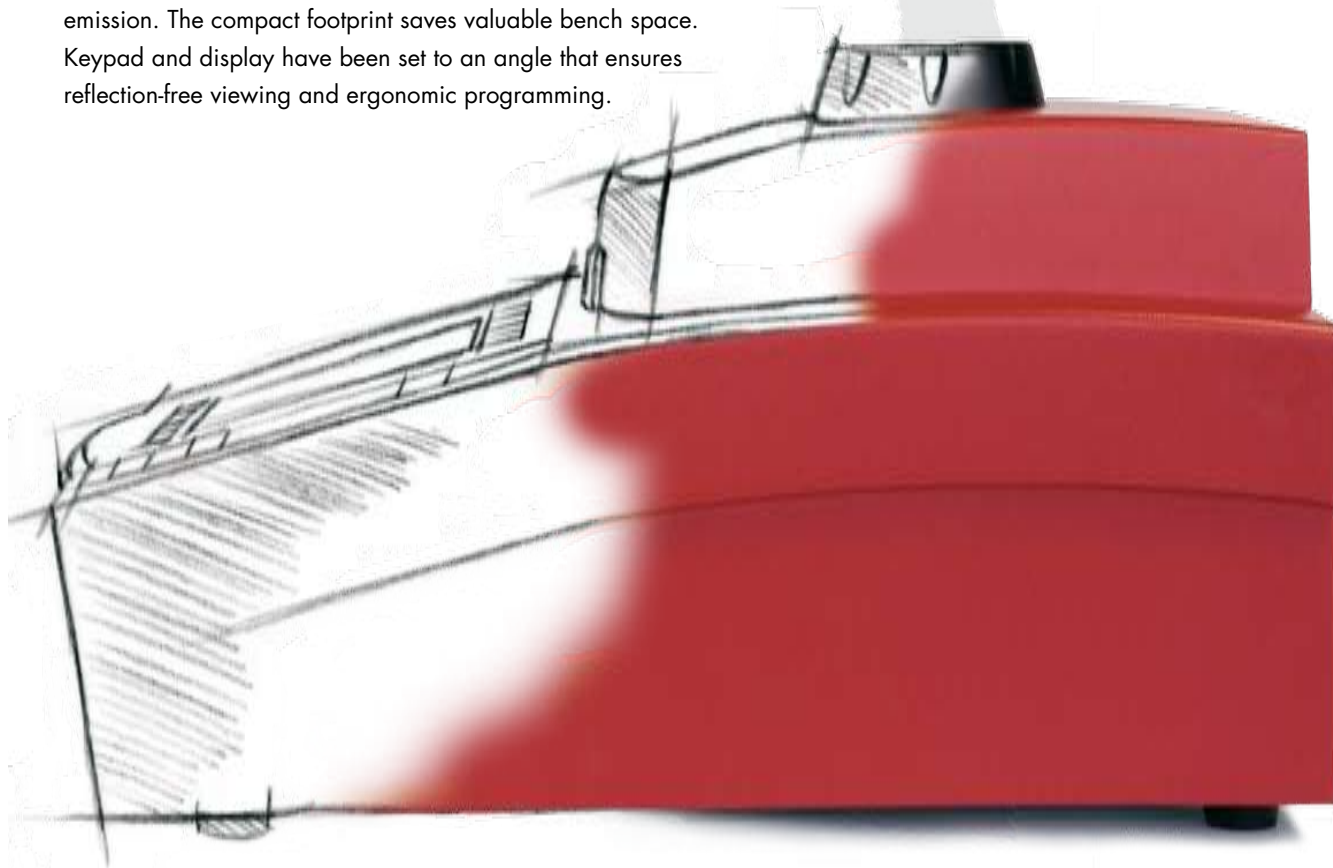


TPProfessional Lid

The TProfessional Lid has been optimised to achieve two essential requirements: prevention of condensation and reliable contact between samples and thermoblock. The lid is powered by Biometra's well known smart lid technology which automatically limits lid pressure to save tubes from damage. In addition, the new design of the High Performance Lid ensures an even temperature distribution between samples thus significantly improving temperature uniformity. With one press on the front button, the lid gently swings open and arrests in its end position.

TPProfessional Design

The elegant TProfessional housing is designed for heavy use. Due to an optimised air stream design even higher efficiency and better temperature uniformity is achieved. The instrument works quietly and consumes little power which in turn leads to low heat emission. The compact footprint saves valuable bench space. Keypad and display have been set to an angle that ensures reflection-free viewing and ergonomic programming.



	TProfessional	TProfessional Basic
Block	High Speed Silver Block	Gold anodized 96 well block
Max Heating	5.0 °C/sec*	2.4 °C/sec
Max Cooling	3.5 °C/sec*	1.7 °C/sec
Temp Uniformity	+/- 0.15 °C within 15 sec at 55°C +/- 0.25 °C within 15 sec at 70°C +/- 0.40 °C within 15 sec at 95°C	+/- 0.20 °C within 15 sec at 55°C +/- 0.30 °C within 15 sec at 70°C +/- 0.60 °C within 15 sec at 95°C
Temp Gradient**	40 °C	26°C
Temp Range	3 °C to 99 °C	3 °C to 99 °C
Control Accuracy	+/- 0.1 °C	+/- 0.1 °C
Block Formats	60 well / 96 well / 384 well ***	96 well
Block exchange	Within 10 seconds	-
Programming modes	Spread sheet plus graphical	Spread sheet
Software options	Quickstart of the last five programs, program preview prior to start, toggle between spreadsheet and graphical mode, gradient temperature graph, adjustable ramp rates, extended self test, service files, automatic block recognition, PC control	Quickstart of the last five programs, program preview prior to start, gradient temperature graph, adjustable ramp rates, extended self test, service files, PC control
Display	¼ VGA screen, 320 x 240 pixel	
Memory	350 typical programs in up to 30 user directories (optionally password protected)	
Auto restart after power failure	Yes	
Heated Lid	High Performance Smart Lid (HPSL)	
Lid Temperature Range	30 to 99 °C	
Power consumption	max. 480 Watt	
Power Supply	100, 115, 230 Volt / 50-60 Hz	
Noise emission	Very low	
Interface	RS232 serial port	
Dimensions (WxDxH)	28 cm x 38 cm x 24 cm	
Weight	13.0 kg	

Order numbers

070-601	TProfessional Basic Gradient	96 well	0.2 ml tubes, plates, strips
070-701	TProfessional Basic	96 well	0.2 ml tubes, plates, strips
070-801	TProfessional Gradient ***	96 well	0.2 ml tubes, plates, strips
070-901	TProfessional 96 ***	96 well	0.2 ml tubes, plates, strips

* Depending on block type ** TProfessional Gradient and TProfessional Basic Gradient *** For alternative block modules see page 3

Biometra®

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