Technical Data

Biometra TOne
PCR Thermal Cycler

Analytik Jena GmbH+Co. KG
Konrad-Zuse-Strasse 1
07745 Jena · Germany

Phone +49 3641 77 70
Fax +49 3641 77 9279
info@analytik-jena.com
www.analytik-jena.com

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General

- Stand-alone control by 7“ color touchscreen or remote control by cycler network
- Whisper Quiet with max. 45 dBA
- Small footprint and minimal clearance zone
- Sample block in 96 well format with or without gradient (over 12 columns)
- HPSL technology for ideal constant contact pressure independent of the used consumable
- Suitable for low-profile and high-profile plastic with or without skirt, as well for semi-skirt

Thermal block

Sample block	Aluminum sample block with special alloy
Block capacity	96 x 0.1/0.2 mL tubes, 96 well microplates or 8 well strips
Sample size	5 to 50 µL
Block exchange	No
Number of blocks	1
Max. heating[1]	4.0 °C/s
Average heating[1]	3.7 °C/s
Max. cooling[1]	3.3 °C/s
Average cooling[1]	3.0 °C/s
Tempering method	Peltier elements
Standby temperature	Yes, down to 4 °C
Temperature control mode	Block control
Adjustable temperature range	3 °C to 99 °C
Block temperature uniformity[2] at target temperature	
95 °C	± 0.60 °C
70 °C	± 0.30 °C
55 °C	± 0.20 °C
Temperature control accuracy	± 0.1 °C
Gradient[3]	Yes (Semi Linear Gradient Tool)
Max./Min. Gradient[3]	20 °C/0.1 °C
Adjustable gradient range[3]	12 columns from 20 °C to 99 °C

[1] measured at cavity wall of the block
[2] typical value after 15 sec
[3] only models with gradient (G)

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Heated lid

Heated lid	High-Precision Smart Lid (HPSL)
Lid temperature	30 °C to 110 °C
Contact pressure	Approx. 11 kg, manual with integrated slip clutch for constant contact pressure independent from the used consumables

Control

Control	Stand-alone or remote control via optional Windows software Biometra TSuite
Control and analysis software	Optional & licensed: Biometra TSuite thermal cycler management software
Minimum requirement of PC	Windows 10
Minimum requirement cycler	Firmware version ME 2.04 – RE 2.04
Language	English, German, Chinese
Display	7“ color touchscreen
Export function	Yes
Power fail function	Yes
Quick start function	User-specific quick start
Time inc	1 to 240 sec/cycle
Temperature inc/dec	±0.1 to 20 °C/cycle
Memory capacity	At least 350 programs with a typical 6 step program, in up to 90 user directories
Features	▪ Extended Self Test ▪ Graphical or spreadsheet programming ▪ Multip-step programming ▪ Incubation mode ▪ Protocol templates ▪ Program preview

Dimensions

Weight	Approx. 11.5 kg
Dimemsions (W x L x H)	260 mm x 430 mm x 241 mm
Required clearance zone	10 cm behind rear side of device. When operating several units side by side, an additional 10 cm between the units.

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Additional technical data

Interface	▪ USB-A (front side): connection of an USB memory stick ▪ Ethernet (back side): connection to a network
Fuses	2x T 8A H 250 V
Power supply	100 V, 115 V oder 230 V ±10 %, 50 – 60 Hz
Power consumption	
Active power	Max. 550 W
Apparent power	Max. 700 VA
Noise emission	Max. 45 dBA
Operation conditions	15 °C to 35 °C, max. 70% humidity, max. 2000 m NN. Operation > 2000 m above sea level has not been tested according to standards. Practical experience with operation > 2000 m has shown normal operating behavior, as is to be expected due to the design and components used. It is possible that heating and cooling rates are reduced due to the low air density. This is not a device fault. The heating and cooling rates are automatically adjusted to the conditions. Overvoltage category II, pollution degree 2, IP20
Warranty	2 years warranty on device system

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