



Technical data at a glance

Device	Labcyler Basic & Labcyler Gradient
Line voltage	85 V to 265 V without switching, 50 to 60 Hz
Power Consumption	Maximum 350 W, standby 25 W
Loudness	Idle 38 dBA, typical run 44 dBA, maximum run 48 dBA
Interfaces	RS232
Heated lid	Electrically moving, temperature up to 105 °C and pressure programmable
Pressure	Programmable from 30 to 120 Newton
Dimension	Length = 444 mm Width = 251 mm Height: lid closed = 201 mm, lid open = 347 mm
Weight	11.5 kg
Display	TFT illuminated colour display ¼ VGA, 5.7" diagonal, 320 x 240 = 76800 pixel touchscreen
Keyboard	Numeric silicone keys Virtual keys on the touch screen depending on the context
Languages	English, German
Programs	680 5-step-programs, or at least 3000 steps The last 16 program runs can be displayed any time.
Password Protection	Individual for groups, persons, folders and programs, up to 64 users

Ordering information

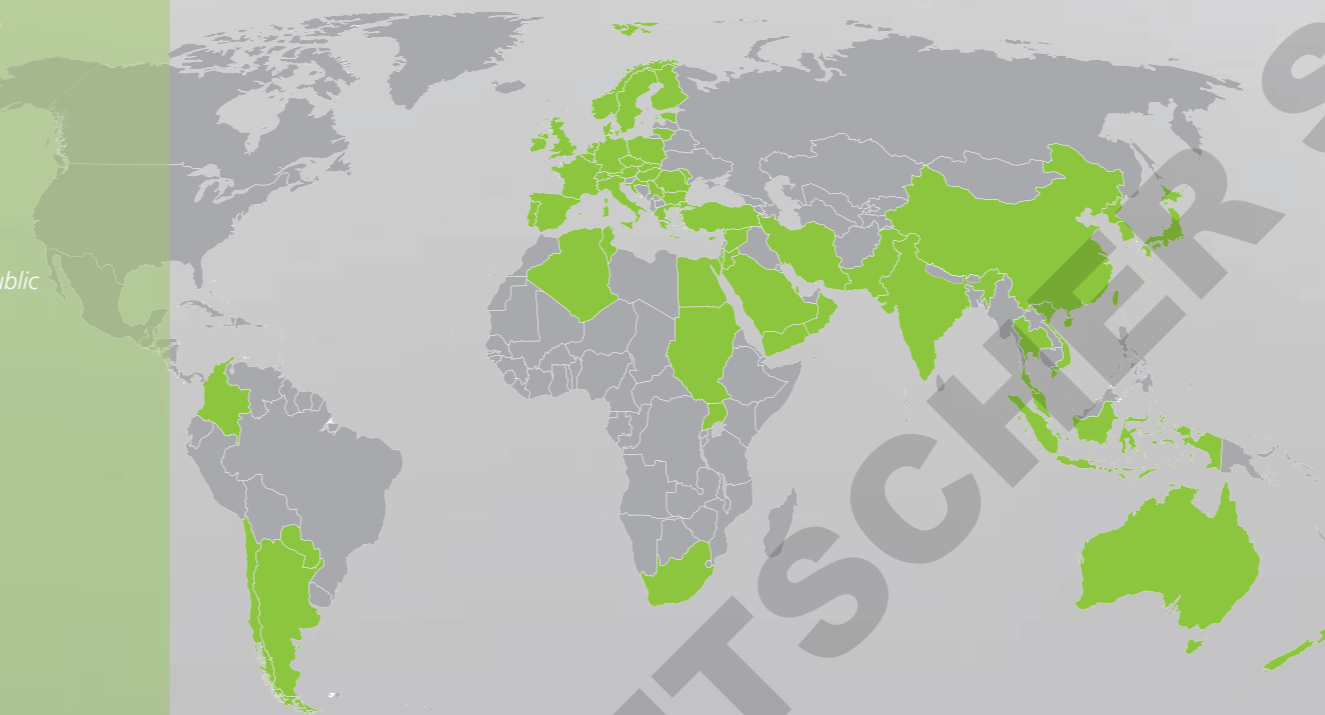
Product	Order number
Labcyler Gradient Without block	011-101
Labcyler Basic Without block	011-103
Inter System Copy Cable	011-702
Gradient Upgrade (Only for Labcyler Basic)	011-801
Thermoblock 384 For microtiterplates 384-well	012-101
Thermoblock 48 For reaction tubes of 0.5 ml	012-102
Thermoblock 96 For reaction tubes of 0.2 ml and microtiterplates 96-well	012-103
Triple Block Without Passive Lid	012-104
Passive Lid 3 lids are necessary for Triple Block application	012-201
Sealing Pad for Thermoblock 384	012-701

Blocks:	Thermoblock 48, 96, 384 and Triple Block
Temperature	Minus 5.0 °C to plus 99.9 °C
Uniformity	± 0.25 °C at 55 °C, ± 0.40 °C at 95 °C
Control accuracy	± 0.01 °C
Ramp rate	0.001 °C/s to 5.0 °C/s
De(In)crements	Temperature ± 9.99 °C Time ± 99.99 seconds
Format	Thermoblock 48 (48-wells, 0.5 ml single tubes) Thermoblock 96 (96-wells, 0.2 ml single tubes, stripes & microtiterplates) and Thermoblock 384 (384-wells, microtiterplates), electroformed gold plated silver, gradient capable (40 °C, ± 20 °C between the narrow sides of the block) heating rate: 4.2 °C/s, cooling rate: 3.6 °C/s
Format	Triple Block , 3 x 21 wells, anodised aluminium, 3 passive lids, separately controllable, 0.2 ml single tubes, not gradient capable, heating rate: 2.5 °C/s, cooling rate: 2.2 °C/s 3 different PCR processes at the same time in one device!



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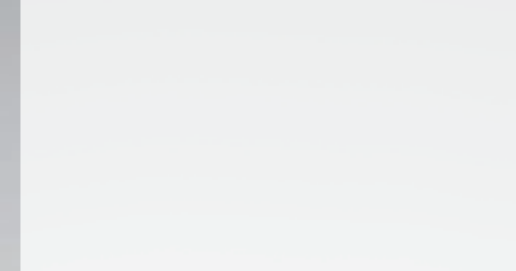
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SENSQUEST Biomedical Electronics

SensoQuest develops and produces thermocyclers which are sold by international distributors since 2005. The team of physicists, engineers, and biologists is very successful with 20 years of experience in the biomedical market. The company currently has the smallest and most versatile Triple Block system worldwide, as well as the only 384-well silver block.

Your local distributor



Cycler-Technology for life.

Labcyler



Hightech Thermocycler

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SENSQUEST
Biomedical Electronics

Labcycler

The SensoQuest team has been developing and making thermocyclers since 1990. SensoQuest launched a new generation of thermocyclers in 2005. Since this time more and more customers are working world wide with the Labcycler.

The Labcycler features are a truly intuitive user interface with a coloured touchscreen, a nice design and solid construction. All that comes with a unique block changing system, giving full flexibility for present and future applications. A choice of three **gold plated silver blocks** was designed for high speed, yet low energy consumption and good temperature uniformity. These are complemented by the Triple Block, which lets you run three independent processes on one machine.

Sustainability and good value were prime considerations. The peltier elements were tested to **600,000 cycles without any failures**, giving at least 20 years of lifetime even under the harshest conditions. The silver blocks are electroformed for lowest heat capacity and best heat conductance. This allows high speed with a maximum power of only 350 Watts. The average during a typical run is less than 150 Watts. The result is good performance with **low energy consumption**, low carbon dioxide footprint, less heat in the lab and, last but not least, less noise from the cooling fans.

Precision is further enhanced by a **6-zone temperature regulation** that corrects for any differences between the 6 peltier elements. Each block has its own processor with a continuously self-calibrating temperature measuring circuitry. Indefinite cooling at 4 °C is of course possible, the blocks even go down to minus 5 °C.

Although the user interface is quite self-explanatory, a context sensitive online help function further assists you, making the manual a rarely used item. Programs can be copied between two Labcyclers via a cable, making it easy to keep several of them „in line“. The password administration allows saving programs and folders up to 64 users.

Of course, there is an **automatic restart** after a failure of the power line. The program will continue with the last denaturation step to prevent false annealing.



Triple Block 3 x 21

- Material: anodised aluminium
- Thermal conductivity: 237 W/mK
- Heating rate: 2.5 °C/s · Cooling rate: 2.2 °C/s
- **3 independent PCR-runs**
- 3 x 21 wells for 0.2 ml caps
- Minimum volume of reaction: 10 µl
- Protection against condensation by 3 Passive Lids
- **Separate and parallel monitoring of all blocks**

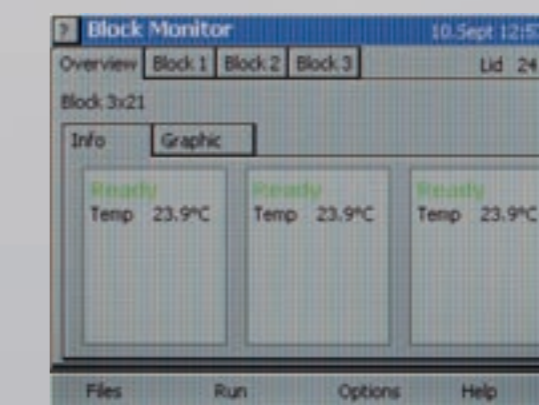
3 Devices
in one
BLOCK

TFT Touchscreen

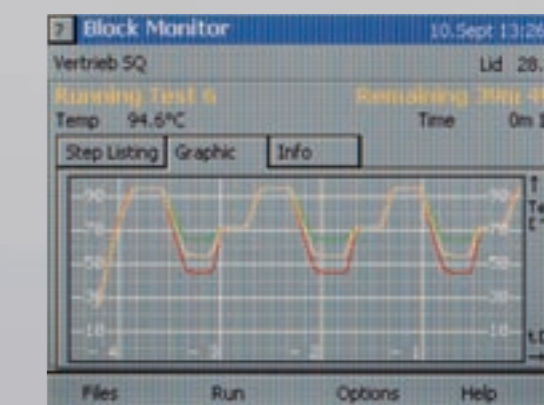
The Labcycler has a **TFT display with a touchscreen** featuring alphanumeric and function keys. Familiar buttons and icons enable an intuitive use. The interface „speaks“ English and German.

Graphic monitoring allows tracking of the PCR process for single and Triple Blocks. The Triple Block system is displayed with the TFT touchscreen separated in three parts.

- ✓ TFT 1/4 VGA illuminated colour display
- ✓ 320* 240 Pixel, 5.7" diagonal
- ✓ Languages: English and German
- ✓ Context-sensitive help function
- ✓ Alpha-keyboard on touchscreen
- ✓ Graphic monitoring of PCR process



Start Window Triple Block 3 x 21



Gradient-PCR Thermoblock 96

Thermoblocks

With the unique **quick block changing system**, a block change takes one hand and ten seconds.

All thermoblocks have their own processor with **6 separately controlled peltier elements** for extraordinary temperature uniformity at high heating and cooling rates.

The temperature measuring system is entirely in the block and continuously **self-calibrating**, ensuring precise and identical operation of a block in any machine.

Thermoblock 48

48 well block
8 zone gradient
0.5 ml tubes

20 µl

Thermoblock 96

Material: **Electroformed gold plated silver**
Thermal conductivity: 429 W/mK
Heating rate 4.2 °C/s · Cooling rate 3.6 °C/s

96 well block
12 zone gradient
0.2 ml tubes

Gradient capable: 40 °C, ± 20 °C from the left to the right

96 Well microtiterplates
Minimum reaction volumina

10 µl

Thermoblock 384

384 well block
24 zone gradient

384 Well microtiterplates

3 µl

Automatic Lid

The heated lid is controlled by an electric motor. Pressure and temperature are fully programmable. Maximum temperature is 105 °C.

It quickly reaches its uniform temperature through high power.

During a programmed or manual pause the lid comes up to give access to the probes for **hotstart-procedures**. The temperature and force of the lid can be preselected for each program.

- ✓ Power 200 W
- ✓ Heating rate > 1 °C/s
- ✓ Lid can be deactivated
- ✓ Preheating can be deactivated
- ✓ Pressure 30 N to 120 N
- ✓ Hotstart-procedures possible
- ✓ Up to 105° C

