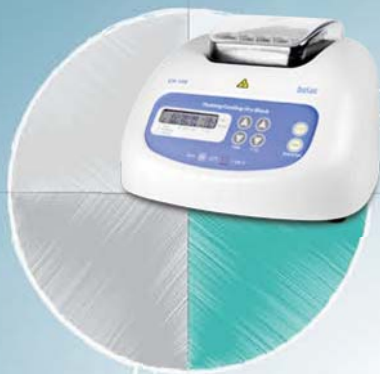


THERMOSTATED EQUIPMENT:

THERMOSTATS – DRY BLOCK, HEATING/COOLING SYSTEMS



CH-100
Heating/Cooling Dry Block



CH 3-150
Heating and cooling thermostat



TDB-120
Dry block thermostat

Catalogue 2020

Bio TDB-100 and TDB-120, Dry Block Thermostats

DESCRIPTION **Bio TDB-100 / TDB-120** – compact, easy-to-use thermostat for Eppendorf type micro tubes. It is specially designed for long incubation at different temperatures. Thermostat has undeniable advantage working with microquantities of reagents in microtubes. The thermostat possesses unprecedentedly high precision and uniformity of temperature distribution over the block.

With the help of the software-enabled temperature calibration function, the user can calibrate the unit in the range of several percent of the selected temperature to compensate differences in the thermal behaviour of tubes from different manufacturers.



Blocks (built in) specifications:

Bio TDB-100

- ① **Block** 24 × 2/1.5 ml + 15 × 0.5 ml + 10 × 0.2 ml microtubes

TDB-120

- ② **Block A-53** 21 × 0.5 ml + 32 × 1.5 ml microtubes
- ③ **Block A-103** 21 × 0.5 ml + 32 × 1.5 ml + 50 × 0.2 ml microtubes

- ① Block for Bio TDB-100



Basic Plus Product Class



Bio TDB-100

Heat up times for Bio TDB-100:



Basic Plus Product Class



TDB-120 with block A-103

Heat up times for TDB-120:



Products video is available on the website

Bio TDB-100 and TDB-120, Dry Block Thermostats

SPECIFICATIONS

	Bio TDB-100	TDB-120
Temperature setting range	+25°C ... +100°C	+25°C ... +120°C
Temperature control range	5°C above ambient ... +100°C	5°C above ambient ... +120°C
Temperature setting resolution	0.1°C	
Temperature stability	±0.1°C	
Temperature uniformity @ +37°C	±0.1°C	
Temperature calibration coefficient range	0.936 – 1.063 (± 0.063)	0.968 – 1.031 (± 0.031)
Digital time setting	1 min – 96 h /non-stop (increment 1 min)	
Timer sound signal	yes	
Display	LCD, 2 × 16 signs	
Block capacity	24 × 2/1.5 ml + 15 × 0.5 ml + 10 × 0.2 ml microtubes	A-53 21 × 0.5 ml + 32 × 1.5 ml microtubes A-103 21 × 0.5 ml + 32 × 1.5 ml + 50 × 0.2 ml microtubes
Overall dimensions (W × D × H)	210 × 230 × 115 mm	230 × 210 × 110 mm
Weight	2.8 kg	
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz	
Power consumption	200 W (870 mA)	

ORDERING INFORMATION:

Cat. number

Bio TDB-100 with built-in block

BS-010412-AAA

TDB-120 with built-in block **A-103**

BS-010401-QAA

TDB-120 with built-in block **A-53**

BS-010401-PAA



2 Block A-53



3 Block A-103



CH-100, Heating/Cooling Dry Block

DESCRIPTION

CH-100 is the result of combining two popular Biosan instruments:

1. Heating Dry block and
2. Cooling Dry block thermostat

The combined construction of aluminium block and Peltier element module cooled with the forced ventilation radiator provides fast changing of the cooling and heating modes.

CH-100 is a very effective instrument of sample preparation during enzyme reactions, hybridization reactions, DNA analysis.

Microprocessor controlled time and temperature. Simultaneous indication of set and actual temperature and time.

SPECIFICATIONS

Temperature setting range	-10 °C ... +100 °C
Temperature control range	30°C below ambient ...+100°C
Temperature setting resolution	0.1°C
Temperature stability	±0.1°C
Temperature uniformity @ +37 °C	±0.1°C
Temperature calibration coefficient range	0.936 – 1.063 (± 0.063)
Digital time setting	1 min – 96 h / non-stop (increment 1 min)
Timer sound signal	yes
Display	LCD, 2 × 16 signs
Overall dimensions (W×D×H)	240 × 260 × 165 mm
Weight	3.2 kg
Input current/power consumption	12 V, 4.4 A / 55 W
External power supply	Input AC 100–240 V 50/60 Hz; Output DC 12 V

Blocks (built in) capacity:

Block CH-1	20 × 0.5 ml + 12 × 1.5 ml microtubes
Block CH-2	20 × 1.5 ml microtubes
Block CH-3	20 × 2 ml microtubes



ORDERING INFORMATION:

	Cat. number
CH-100 with block CH-1	BS-010410-BAI
CH-100 with block CH-2	BS-010410-CAI
CH-100 with block CH-3	BS-010410-UAI

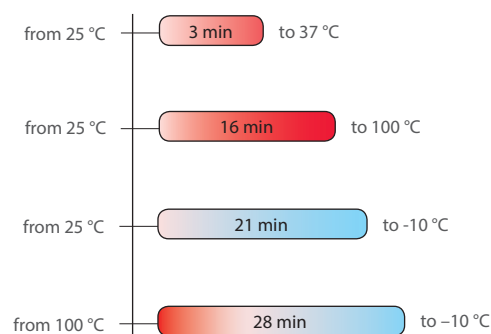
Ice on block CH-2



Basic Plus Product Class



Heat up and cool down times for CH-100:



Product video is available on the website



Premium
Product Class

Product video
is available
on the website



Heat up and cool down times for **CH3-150:**



INTERCHANGEABLE THERMOBLOCKS:

- ❶ **B2-50** Ø48 mm × 2 sockets, depth 58 mm
- ❷ **B10-16** Ø16 mm × 10 sockets, depth 56 mm
- ❸ **B6-25** Ø25 mm × 6 sockets, depth 40 mm
- ❹ **B23-1.5** 23 sockets for 1.5 ml microtubes, depth 35 mm
- ❺ **B10-13** Ø13 mm × 10 sockets, flat bottom, depth 30 mm
- ❻ **B5-29** Ø29 mm × 5 sockets, flat bottom, depth 40 mm
- ❼ **B18-12** 18 sockets for Ø12 mm round bottom tubes, depth 58 mm

Different block types can be provided on request

🛒 **ORDERING INFORMATION:** Cat. number

CH 3-150 without blocks	BS-010418-AAA
Optional blocks:	
B2-50	BS-010418-AK
B10-16	BS-010418-BK
B6-25	BS-010418-CK
B23-1.5	BS-010418-DK
B10-13	BS-010418-LK
B5-29	BS-010418-KK
B18-12	BS-010418-EK



CH 3-150, Combitherm-2

Combitherm-2 **CH3-150** is specially designed to thermostabilise materials at temperatures from -3 °C to $+150\text{ °C}$ according to methods of analysis. To obtain useful functionality and decrease foot-print of instruments Combitherm-2 thermoblocks combined in a common electronic circuit board as well as inside a common external body. The left part of the front keyboard is responsible for setting parameters for cooling plug-in blocks and the right part — for heating plug-in blocks. Both of them are regulated independently and can realize up to 16 programs including temperature and time in each program. Peltier technology is used for cooling below room temperature; PCB is used for heating till $+150\text{ °C}$.

Separation of cooling and heating parts from each other increases durability of the instrument and speed of temperature changing after setting a new program.

Heating Block Specifications:

Temperature setting range	$+25\text{ °C} \dots +150\text{ °C}$
Temperature control range	5 °C above ambient $\dots +150\text{ °C}$
Setting resolution	1 °C
Stability	$\pm 0.1\text{ °C}$
Temperature calibration coefficient range	$0.936 \dots 1.063 (\pm 0.063)$

Cooling Block Specifications:

Temperature setting range	$-3\text{ °C} \dots +20\text{ °C}$
Temperature control range	23 °C below ambient $\dots 5\text{ °C}$ below ambient
Setting resolution	0.1 °C
Stability	$\pm 0.1\text{ °C}$

General Specifications

Digital time setting	1 min – 99 h 59 min (increment 1 min)
Timer sound signal	yes
User adjustable programs (temperature and time)	16 (heating) +16 (cooling)
Display	LCD
Overall dimensions (W × D × H)	295 × 285 × 220 mm
Weight (without block)	5.6 kg
Nominal operating voltage	230 V, 50/60 Hz
Power consumption	430 W (1.8 A)

DESCRIPTION

SPECIFICATIONS

QB Series, Dry Block Heating Systems with Interchangeable Blocks

Equipment presented on pages 58-59 is produced by Grant Instruments (Cambridge) Ltd. Biosan is the sole distributor of Grant Instruments products in Russia, CIS and the Baltic States (Latvia, Lithuania, Estonia) and the official distributor for a number of other regions.

DESCRIPTION

A market leading range of versatile, high quality dry block heating systems with excellent temperature control, providing a source of precision heating for many sensitive analytical procedures.

A premium product range at an affordable price:

- Accurate, reproducible and safe heating of your samples — advanced temperature control combined with high quality, precision-engineered blocks providing excellent thermal contact;
- Versatile range of interchangeable heating blocks to fit any tube or plate you are using for your samples;
- Full range of models and options to cater for basic through to more sophisticated applications;
- Wide range of accessories.



Product video is available on the website



SPECIFICATIONS





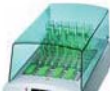
Model (Cat. Num.)	QBD1 / QBD2 / QBD4	QBH2
Type	Digital	Digital
Number of blocks	1 / 2 / 4	2
Temperature range	amb. +5 °C to 130 °C	amb. +5 °C to 200 °C
Temperature setting range	+15 °C to 130 °C	+15 °C to 200 °C
Temperature stability @ 37°C	±0.1	±0.1
Temperature uniformity within the block @ 37°C	±0.1	±0.1
Display / Resolution	LED / 0.1 °C	LED / 0.1 °C
Safety: Overtemperature	Thermal fuse	
Timer with a sound alarm	1 min up to 72 h	
Heat up time from 25°C to 100°C	15 min	
Power consumption	150 / 300 / 600 W	300 W
Power supply	120 V or 230 V	



ORDERING INFORMATION:

Catalogue number matches the name of the product

QB Series, Dry Block Heating Systems with Interchangeable Blocks: Accessories

Interchangeable blocks (Cat. Num.)		QBD1	QBD2	QBD4	QBH2	QBA1	QBA2
No. of blocks		1	2	4	2	1	2
QB-0 Plain block without holes		+	+	+	+	+	+
QB-10 24 × 10 mm Ø holes, 50 mm hole depth		+	+	+	+	+	+
QB-12 24 × 12 mm Ø holes, 50 mm hole depth		+	+	+	+	+	+
QB-13 12 × 13 mm Ø holes, 50 mm hole depth		+	+	+	+	+	+
QB-16 12 × 16 mm Ø holes, 50 mm hole depth		+	+	+	+	+	+
QB-17H for 10 × Falcon tubes tall 17 mm diam, 75 mm deep		+	+	+	+	+	+
QB-18 12 × 18 mm Ø holes, 50 mm hole depth		+	+	+	+	+	+
QB-24 5 × 24 mm Ø holes and universal bottles, 50 mm hole depth		+	+	+	+	+	+
QB-50 4 × 50 ml centrifuge tubes, glass universals, 50 mm hole depth		+	+	+	+	+	+
QB-H 56 × 0.2 ml microtube, 14 mm hole depth		+	+	+	+	+	+
QB-E0 24 × 0.5 ml microtube, 30 mm hole depth		+	+	+	+	+	+
QB-E1 24 × 1.5 ml microtube, 35 mm hole depth		+	+	+	+	+	+
QB-E2 24 × 2.0 ml microtube, 35 mm hole depth		+	+	+	+	+	+
QB-E5 12 × 5.0 ml microtube, 53.5 mm hole depth, 16.7 mm diameter		+	+	+	+	+	+
QB-DN Dolphin nose tube 24 × Ø 11.13 mm to Ø 6.1 mm		+	+	+	+	+	+
External Pt1000 temperature probe							
	Standard probe. For in-sample or in-block temperature control; encased in stainless steel sheath, Ø 3 mm × 30 mm long, with 350 mm of cable	+	+	+	+	-	-
	Short-form probe. For in-sample or in-block temperature control; encased in stainless steel sheath, Ø 3 mm × 14 mm long, with 350 mm of cable	+	+	+	+	-	-
Microplate blocks of molecular biology and biotechnology applications Double-size blocks 140 × 100 × 75 mm supplied with additional extraction tool							
	96 holes in microplate configuration for 0.2 ml microplates, strips or individual tubes. Uniformity ± 0.3°C within tubes across the block; 6.2 mm Ø holes, 14 mm hole depth	-	+	-	+	-	+
	Universal block for standard 96-well plates (u-well, v-well, flat bottom, high temperature) Uniformity ± 0.5°C between wells; supplied with hinged, double layer lid to create an insulated incubation chamber	-	+	-	+	-	+
Safety covers (not required with QDP-FL Microtiter blocks)							
	Made from tough clear acrylic for maximum visibility whilst preventing accidental touching of a hot block or contamination of samples from splashes. Clearance height 85 mm	QBL1	QBL2	QBL4	QBL2	QBL1	QBL2

ORDERING INFORMATION:

Catalogue number matches the name of the product

