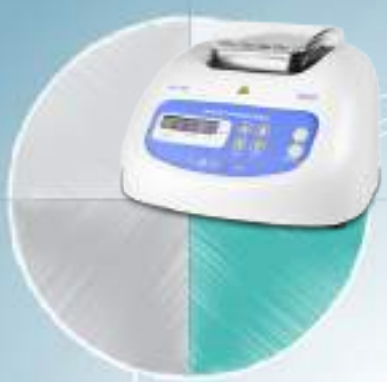
THERMOSTATED EQUIPMENT:

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 2021

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. The thermostat has an undeniable advantage in 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 for differences in the thermal behaviour of tubes from different manufacturers.

Blocks (built in) specifications:

Bio TDB-100

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

TDB-120

❷ **Block A-53** 21 × 0.5 ml +32 × 1.5 ml microtubes

❸ **Block A-103** 21 × 0.5 ml +32 × 1.5 ml +50 × 0.2 ml microtubes

❶ 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

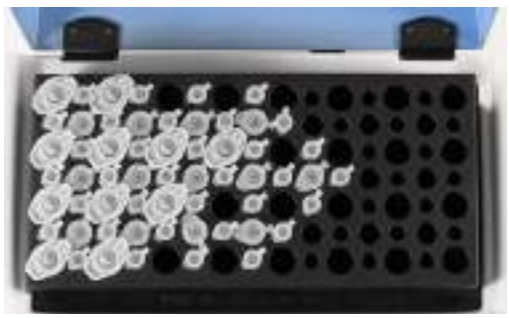
	Bio TDB-100	TDB-120
Temperature setting range	+25°C ... +100°C	+25°C ... +120°C
Temperature control range	5°C above ambient ... +100°C	5°C above ambient ... +120°C
Temperature setting resolution	0.1°C	
Temperature stability	±0.1°C	
Temperature uniformity @ +37°C	±0.1°C	
Temperature calibration coefficient 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 the aluminium block and Peltier element module cooled with the forced ventilation radiator provides fast switching of the cooling and heating modes.

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

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

Basic Plus
Product Class

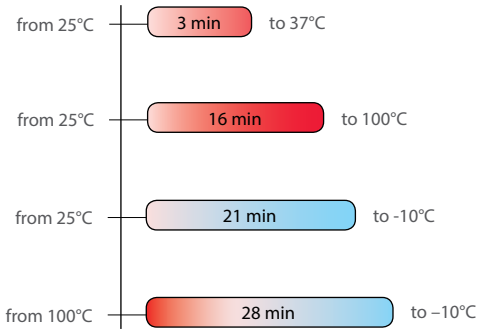
SPECIFICATIONS

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

Heat up and cool down times for **CH-100:**



Product video is available on the website

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

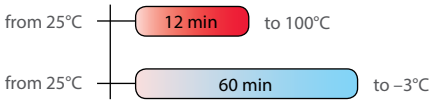
Ice on block CH-2

CH 3-150, Combitherm-2

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

DESCRIPTION

Combitherm-2 **CH3-150** is specially designed to thermostabilise materials at temperatures from –3 °C to +150 °C according to analysis methods. 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 front keyboard's left part 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 realise 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°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.

SPECIFICATIONS

Heating Block Specifications:	
Temperature setting range	+25°C ... +150°C
Temperature control range	5°C above ambient ...+150°C
Setting resolution	1°C
Stability	±0.1°C
Temperature calibration coefficient range	0.936...1.063 (±0.063)
Cooling Block Specifications:	
Temperature setting range	–3°C ... +20°C
Temperature control range	23°C below ambient ... 5°C below ambient
Setting resolution	0.1°C
Stability	±0.1°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)

❶ B2-50 ❷ B10-16 ❸ B6-25 ❹ B23-1.5 ❺ B10-13 ❻ B5-29 ❼ B18-12

QB Series, Dry Block Heating Systems with Interchangeable Blocks

Equipment presented on pages 60–61 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

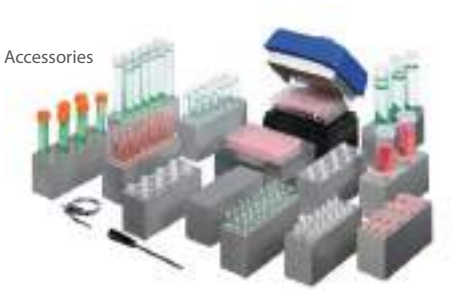
A market-leading range of versatile, high-quality dry block heating systems with excellent temperature control, providing a source of precision heating for many sensitive analytical procedures.

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

QBD4 with a lid



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 x 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							
QBEP	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	+	+	+	+	–	–
QBEP-WM	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							
QDP-H	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	–	+	–	+	–	+
QDP-FL	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