

Thermostats, Dry Block Heating/Cooling Systems, Water Baths



Bio TDB-100, Dry block thermostat



Bio TDB-100 is a compact easy-to-use dry-block thermostat designed for long incubation processes at various temperatures. The universal aluminium block can accommodate 3 most popular Eppendorf tube types.

Simultaneous indication of set and actual temperature and time.

Specifications:

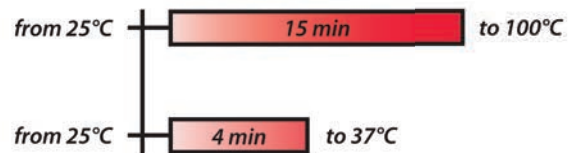
Temperature setting range	+25°C to +100°C
Temperature control range	5°C above ambient ... +100°C
Setting resolution	0.1°C
Stability	±0.1°C
Uniformity	(at +37°C) ±0.1°C
Digital timer with sound alarm	1 min–96 hrs
Display	LCD, 2 × 16 signs
Block diameter / depth	Ø 130 mm / 45 mm
Block capacity	
24 × 2/1.5 ml + 15 × 0.5 ml + 10 × 0.2 ml	microtubes
Overall dimensions (W × D × H)	210 × 230 × 110 mm
Weight, not more	3.1 kg
Heating power	200 W
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230 V)	200 W (870 mA)

Catalogue number:

Bio TDB-100	MA-010412-AAA
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Heat up times for Bio TDB-100



Different block types can be produced on request.





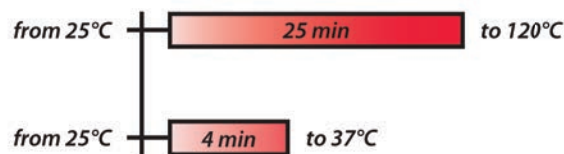
TDB-120 is a traditional Maikoarray dry block thermostat for laboratory analysis. Thermostat is designed for maintaining constant temperature of samples in tubes inserted in the aluminium block sockets. Unprecedented high precision and uniformity of temperature over the block. It is widely used for PCR-analysis.

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

Specifications:

Temperature setting range	+25°C ... +120°C
Temperature control range	5°C above ambient ... +120°C
Setting resolution	0.1°C
Stability	±0.1°C
Uniformity (at +37°C)	±0.1°C
Display	LCD, 2 × 16 signs
Digital timer with sound alarm (increment 1 min)	1 min–96 hrs
Overall dimensions (W × D × H)	210 × 230 × 110 mm
Weight, not more	2.6 kg
Heating power	200 W
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230 V)	200 W (870 mA)

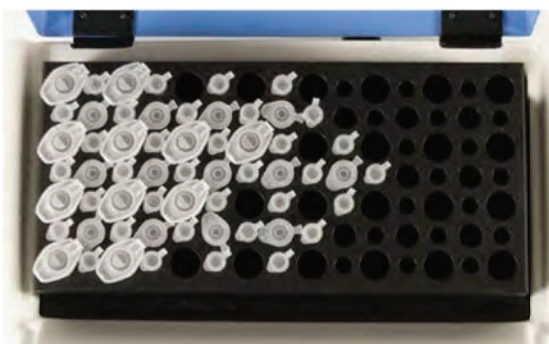
Heat up times for TDB-120



1 Block A-53



2 Block A-103



Block specifications:

Two models are available offering a choice of tube configurations to meet the needs of many standard laboratory procedures:

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

Catalogue number:

TDB-120 with block A-53	MA-010401-PAA
TDB-120 with block A-103	MA-010401-QAA



DB-10C, Dry block thermostat for spectrocells



DB-10C Dry block is designed for sample thermostating in cuvettes before optical density measurements.

Together with any photometer **DB-10C** Dry block is the basic set for conducting biochemical indicators diagnostics methods (enzyme reaction intensity and metabolite concentration).

Specifications:

Temperature setting range	+25°C ... +42°C
Temperature control range	+5°C above ambient ... +42°C
Setting resolution	0.1°C
Stability	±0.1°C
Uniformity (at +37°C)	±0.3°C
Independent timer with sound signal	1 min – 96 hrs
Temperature display	LCD, 2 × 16 signs
Digital indication of temperature and time	
Block capacity:	10 cuvettes (10 mm optical pathway)
Overall dimensions (W × D × H)	140 × 120 × 70 mm
Weight, not more	0.9 kg
Heating power	11 W
Input current/power consumption	12 V, 1 A / 13 W
External power supply	Input AC 100-240 V 50/60Hz; Output DC 12V

Catalogue number:

DB-10C	MA-010417-AAG
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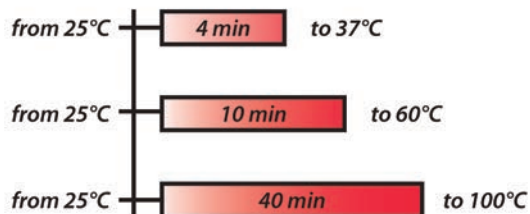


Heat up time for DB-10C:

from 25°C + **15 min** to 42°C



Heat up time for DB-4S:



Thermostat **DB-4S** is designed for maintaining constant temperature of samples in tubes inserted in the aluminium block sockets. Unprecedented high precision and uniformity of temperature over the block. It is widely used for PCR-analysis.

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

Specifications:

Temperature setting range	+25°C ... +100°C
Temperature control range	+5°C above ambient ... +100°C
Setting resolution	0.1°C
Stability (at +37°C)	±0.03°C
Uniformity (at +37°C)	±0.12°C
Independent timer with sound signal	1 min – 96 hrs
Temperature display	LCD, 2 × 16 signs
Digital indication of temperature and time	
Block capacity	0.2 ml × 36 tubes or 4 × 0.2 ml PCR strips
Overall dimensions (W × D × H)	140 × 120 × 70 mm
Weight, not more	0.9 kg
Heating power	11 W
Input current/power consumption	12V, 850 mA / 10.2 W
External power supply	Input AC 100-240 V 50/60Hz; Output DC 12V

Catalogue number:

DB-4S	MA-010420-AAA
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CH 3-150, Heating and cooling thermostat, Combitherm-2



Combitherm-2 CH 3-150 is specially designed to thermostabilise materials at temperatures from -3°C to $+150^{\circ}\text{C}$ according to methods of analysis. To obtain useful functionality and decrease foot-print of instruments Combitherm-2 consists of 2 independent cooling and heating plug-in 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 $+150^{\circ}\text{C}$.

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	$+25^{\circ}\text{C} \dots +150^{\circ}\text{C}$
Temperature control range	5°C above ambient ... $+150^{\circ}\text{C}$
Setting resolution	1°C
Stability	$\pm 0.1^{\circ}\text{C}$

Cooling block specifications:

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

General specifications:

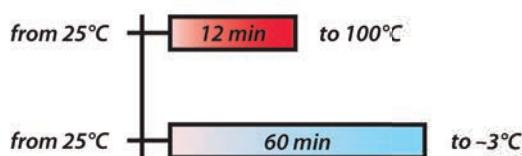
Digital timer with sound alarm	1 min–99 hrs 59 min (increment 1 min)
User adjustable programs (temperature and time)	16 (heating) +16 (cooling)
Display	LCD
Overall dimensions (W × D × H)	295 × 285 × 220 mm
Weight, not more	6 kg
Heating power	500 W
Nominal operating voltage	230 V, 50/60 Hz
Power consumption	420 W (1.8 A)

Catalogue number:

CH 3-150 without blocks	MA-010418-AAA
B2-50	MA-010418-AK
B10-16	MA-010418-BK
B6-25	MA-010418-CK
B23-1.5	MA-010418-DK



Heat up and cool down times for CH3-150



Interchangeable thermoblocks:

- 1 B2-50 2 sockets $\varnothing 50$ mm
- 2 B10-16 10 sockets $\varnothing 16$ mm
- 3 B6-25 6 sockets $\varnothing 25$ mm
- 4 B23-1.5 23 sockets 1.5 ml microtubes

Different block types can be provided on request

1 B2-50



2 B10-16



3 B6-25

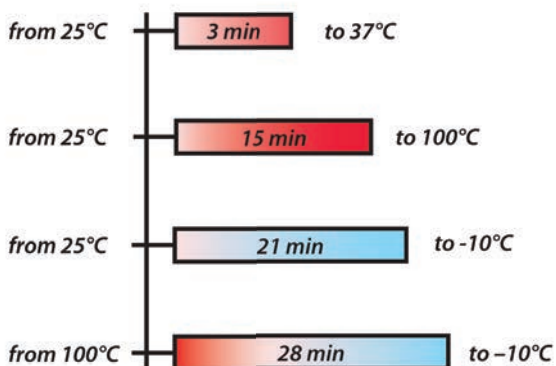


4 B23-1.5





Heat up and cool down times for CH-100



CH-100 is the result of combining two popular Maikoarray 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
Setting resolution	0.1°C
Stability	±0.1°C
Digital timer with sound alarm	1 min – 96 hrs
Display	LCD, 2 × 16 signs
Overall dimensions (W × D × H)	240 × 260 × 165 mm
Weight, not more	3.6 kg
Input current/power consumption	12V, 4.4 A / 55 W
External power supply	Input AC 100-240 V 50/60Hz; Output DC 12V

Blocks 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

Catalogue number:

CH-100 with block CH-1	MA-010410-BAI
CH-100 with block CH-2	MA-010410-CAI
CH-100 with block CH-3	MA-010410-UAI



BWT-U, Universal stirred water bath



Stirred water bath **BWT-U** provides stable temperature maintaining in the range from $+5^{\circ}\text{C}$ above ambient temperature to $+100^{\circ}\text{C}$. The digital display switches between actual and set temperature readings. Thermostat can be equipped with a flowing water cooler **D-1** (installed at factory) which allows to cool the working volume by connecting cold water from tap or other source.

Intended for use in medical, ecological monitoring and food control laboratories as well as in scientific research and microbiology laboratories.

Two models are available: with 8 or 20 litres stainless steel tanks

Specifications:

Temperature control range	5°C above ambient ... $+100^{\circ}\text{C}$
Temperature control range with D-1 cooler	$0 \dots +100^{\circ}\text{C}$
Temperature setting range	$0^{\circ}\text{C} \dots +100^{\circ}\text{C}$
Setting resolution	0.1°C
Uniformity (at $+37^{\circ}\text{C}$)	$\pm 0.1^{\circ}\text{C}$
Stability	$\pm 0.1^{\circ}\text{C}$
Constant mixing for even temperature distribution in the working volume and increased heat transfer	
Display	LED

General specifications:

Model	8 litres	20 litres
Working volume	240×180×140 mm	300×320×140 mm
Overall dimensions (W × D × H)	280×390×270 mm	345×550×290 mm
Weight, not more	8 kg	11 kg
Power supply	220/240 V, 50/60 Hz	
Nominal operating voltage	230 V, 50/60 Hz	
Power consumption	1 kW (4.2 A)	

① Optional lifting platform **LP-1** (or **LP-1/20**) with adjustable height with Plexiglas lid **FL-1** (or **FL-1/20**)

Catalogue number:

BWT-U 8 litres	MA-010404-AAA
BWT-U 8 litres with D-1	MA-010404-FAA
LP-1	MA-010404-BK
FL-1	MA-010404-CK
BWT-U 20 litres	MA-010404-GAA
BWT-U 20 litres with D-1	MA-010404-HAA
LP-1/20	MA-010404-EK
FL-1/20	MA-010404-DK

BWT-U 20 litres with lid FL-1/20 and platform LP-1/20



BWT-U 8 litres



① **FL-1 and LP-1**



BWT-U 20 litres




WB-4MS with base BP-1 (on the bottom)


Water bath-thermostat **WB-4MS** is designed for chemical, pharmaceutical, medical and biological laboratory research. **WB-4MS** provides increased temperature stabilization (up to 0.1°C) due to built-in magnetic stirrer (regulated speed 250–1000 rpm). Easy set up, high temperature maintenance accuracy, compact size and attractive modern design make this water bath widely used.

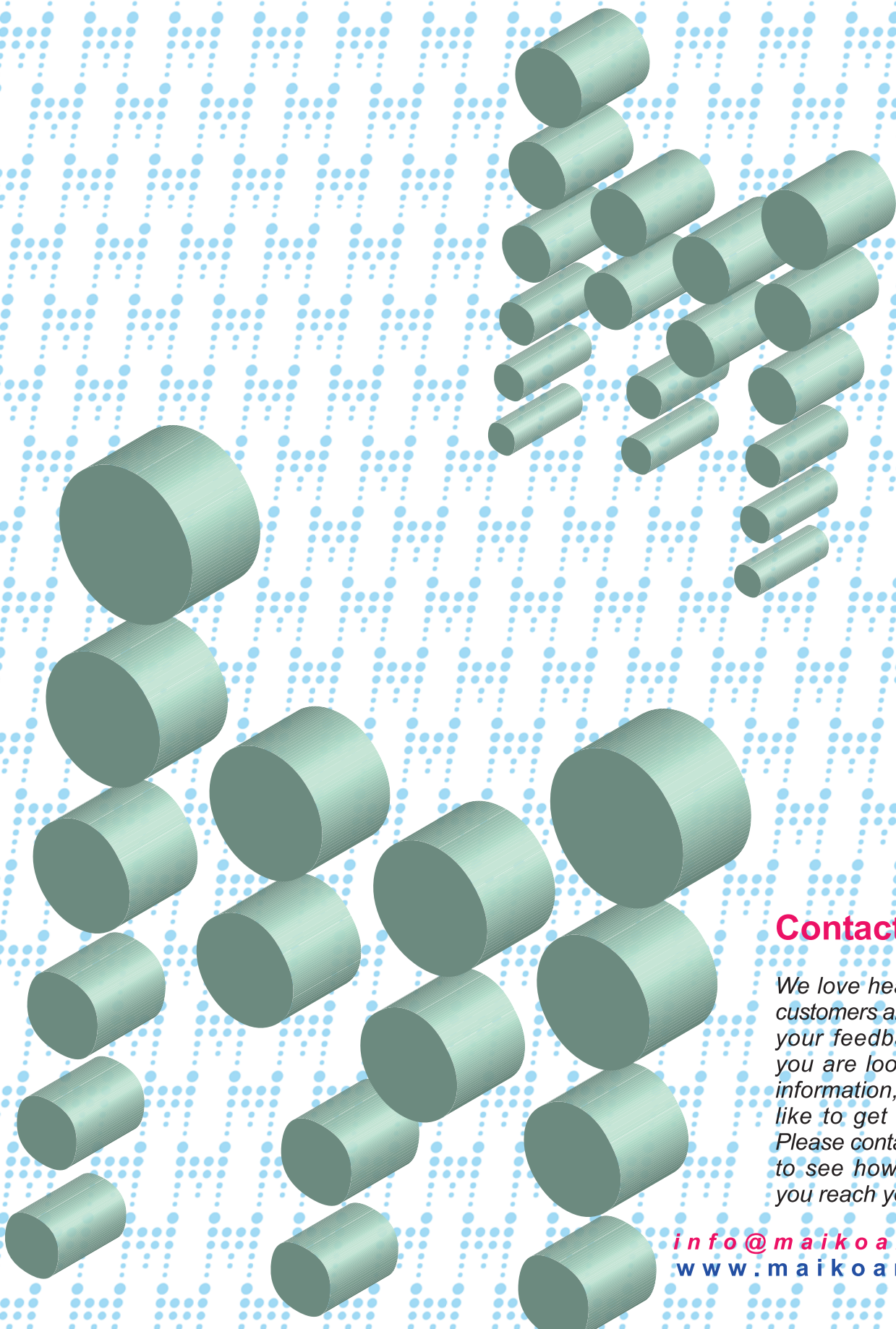
Specifications:

Temperature setting range	+25°C ... +100°C
Temperature control range	+5°C above ambient ... +100°C
Setting resolution	0.1°C
Stability	±0.1°C
Uniformity (at +37°C)	±0.1°C
Speed regulation range	250–1000 rpm
Digital timer with sound alarm	1 min–96 hrs
Temperature display	LCD, 2 × 16 signs
Digital setting of temperature, time and mixing speed	
Plastic lid with stainless steel interior included	
Quiet operation	
Tank capacity	4 litres
Working volume	235 × 135 × 110 mm
Overall dimensions (W × D × H)	345 × 275 × 235 mm
Weight, not more	3.6 kg
Heating power	700 W
Nominal operating voltage	230 V; 50/60 Hz
	or 110-120 V 50/60 Hz
Power consumption	for 230 V: 700 W (3 A)
	or for 100 V: 600 W (6 A)
	for 115 V: 600 W (5.2 A)

Catalogue number:

WB-4MS with base BP-1	MA-010406-AAA
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