

**Dri-Block heaters / Techne (Cambridge) Limited.**

**Contributors**

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# Techné

C A M B R I D G E

DRI-BLOCK® HEATERS





# TECHNE DRI-BLOCK® HEATERS

- Three separate temperature ranges 25°C to 450°C
- Strong attractive aluminium/engineering plastic housing
- Wide range of interchangeable insert blocks to accommodate a variety of tubes
- Insert blocks for microcentrifuge tubes and 96 well plates
- Zero voltage switching all solid state control
- Insert block removal/extraction tool
- Models available with LED display, analogue or preset temperature setting

Techne Dri-Block® heaters are the economical answer to every laboratory's need for a compact constant temperature heater suitable for test tubes, cuvettes, microcentrifuge tubes, 96 well plates and other small containers.

Dri-Blocks are particularly suitable for microbiology and clinical laboratory for incubation, boiling, inactivation, wet ashing, sample concentration, enzyme analysis and other general uses. They are also used for a variety of industrial applications.

The heat transfer medium is an aluminium alloy block with machined cavities to accept the test tubes or sample containers.

## Construction

Dri-Block® heater units have a recessed chamber to hold interchangeable insert blocks (one insert in the DB-1M -96 well plate, two in the DB-2A and DB-2P -or one aluminium insert block and two plastic spacers. Three in the DB-3 DB-3A, DB-3D and DB-4). The blocks are made of an aluminium alloy with excellent thermal conductivity and are drilled with a choice of different hole sizes for tubes or containers ranging from 6mm to 26mm diameter. Other blocks are available, including two for 0.5ml or 1.5ml microcentrifuge tubes and two alternative sizes undrilled for customers who wish to machine to their own requirements. Each aluminium alloy insert block has a threaded thermometer hole which also accepts the insert block extraction tool for ease of removing insert blocks from the heated chamber (*not applicable to insert blocks reference F4467, F4468, F4469*).

A close fit of the tubes in the block ensures high heat transference to the tube and the heater design, temperature sensor and solid state circuitry give exceptionally good temperature control uniformity.

Temperature setting on the DB-2A, DB-3 and DB-3A is by a dial calibrated in degrees centigrade, the DB-1M and DB-2P have three customer adjustable presets for extra security. Heat up rate on all units is rapid.

Independent pilot lights to indicate mains power, heater action and over-temperature conditions are incorporated and an on/off switch is mounted on the rear panel. The units are strongly constructed, light in weight and have extremely efficient insulation to ensure that the case remains cool enough to handle even at maximum operating temperatures.

## Model DB-4

The DB-4 is of larger construction than the other models because it is designed for very high temperature work - up to 450°C. It accepts three of the standard insert blocks so it has the same capacity as the DB-3, DB-3A and DB-3D, and uses a thermocouple temperature sensor in conjunction with a solid state proportional controller.

## Safety

The Dri-Block® range has been designed to comply with all important RF interference and electrical safety regulations.



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The DB-1M is designed to take one microplate block. Temperature setting is provided by 3 user selectable pre-set temperatures. Temperature range 25°C to 105°C.

The DB-2P is designed to take up to two aluminium alloy insert blocks. Temperature setting is provided by three user selectable pre-set temperatures. Temperature range 25°C to 105°C.



The photograph illustrates the use of one aluminium insert block and two plastic spacers.



The DB-2A is designed to take up to two aluminium alloy insert blocks. Temperature setting is by a calibrated knob/dial in degrees centigrade. Temperature range 25°C to 105°C

The DB-3A is designed to take three aluminium alloy insert blocks. Temperature setting is by a calibrated knob/dial in degrees centigrade. Temperature range 25°C to 200°C.

The DB-3 is similar in design to the DB-3A but with a temperature range 25°C to 105°C



The DB-3D this unit is similar to the DB-3A but has a red LED digital display. The temperature is set using the knob and set button and is displayed on the LED panel. Temperature range 25°C to 200°C.

The DB-4 accepts three aluminium alloy insert blocks and with a temperature range of 30°C to 450°C is designed for very high temperature work. Temperature control is by Eurotherm controller.





# SPECIFICATIONS

	DB-1M	DB-2P	DB-2A	DB-3	DB-3A	DB-3D	DB-4
Temperature range °C	25 - 105	25 - 105	25 - 105	25 - 105	25 - 200	25 - 200	30 - 450
Temperature stability @ 40°C @ 100°C @ 250°C	±0.1°C	±0.1°C	±0.1°C	±0.1°C ±0.25°C	±0.1°C ±0.25°C	±0.1°C ±0.25°C	±2°C
Temperature Setting	3 Adjustable Presets	3 Adjustable Presets	Rotary Knob	Rotary Knob	Rotary Knob	Rotary Knob and Button	Thumb wheel
Temperature Display	-	-	-	-	-	Red LED 3 digit	-
Temperature Scale Graduation	-	-	2°C	2°C	5°C	-	5°C
Maximum temperature variation between identical blocks @ 40°C	0.2°C	0.2°C	0.2°C	0.2°C	0.2°C	0.2°C	5°C
Set Point Accuracy	-	-	-	±2°C	±2°C	±2°C	±5°C
Maximum number of blocks	1 microplate block	2	2	3	3	3	3
Heat up time, minutes 30-37°C 30-56°C 30-Max.	18 27 39	10 15 35	10 15 35	8 12 20	8 12 30	11 15 25	- - 90
Overall size mm, L×W×H	202×260×135	202×260×105	202×260×105	279×260×105	279×260×105	279×260×105	525×295×205
Shipping Weight Kg.	4	4	4	3.5	5	5	21

## INSERT BLOCKS

Part Number	Tube Size (diam)	Number of Holes	Size
F3501	Plain Block	None	95×76×51
F3502	6mm	30	95×76×51
F3503	10mm	20	95×76×51
F3504	12mm	20	95×76×51
F3505	13mm	20	95×76×51
F3506	15mm	12	95×76×51
F3507	16mm	12	95×76×51
F3508	19mm	8	95×76×51
F3509	25mm	6	95×76×51
F3510	10mm cuvettes	2 channels	95×76×51
F3512	Plain block*	thermometer hole only	95×225×51
F4460	Plain block	thermometer hole only	95×76×51
F4461	9mm	10	95×76×51
F4462	7mm	20	95×76×51
F4463	24mm	6	95×76×51
F4464	26mm	6	95×76×51
F4464	1.5ml microcentrifuge tubes	20	95×76×51
F4465	0.5ml microcentrifuge tubes	30	95×76×51
F4466	Plastic spacer	None	95×37×51
F4467	Hi-Temp 96 block**	96 wells	95×151×61
F4468	Falcon round bottom plate block**	96 wells	95×151×61
F4169	Falcon flat bottom plate block**	96 wells	95×151×61

## ORDERING INFORMATION

Model	Part Number	Voltage	Watts
DB-1M	FDB01MD	220/240V 50/60Hz	450
DB-1M	FDB01MP	110/120V 50/60Hz	450
DB-2P	FDB02PD	220/240V 50/60Hz	450
DB-2P	FDB02PP	110/120V 50/60Hz	450
DB-2A	FDB02AD	220/240V 50/60Hz	450
DB-2A	FDB02AP	110/120V 50/60Hz	450
DB-3	FDB03OD	220/240V 50/60Hz	650
DB-3	FDB03OP	110/120V 50/60Hz	650
DB-3A	FDB03AD	220/240V 50/60Hz	650
DB-3A	FDB03AP	110/120V 50/60Hz	650
DB-3D	FDB03DD	220/240V 50/60Hz	650
DB-3D	FDB03DP	110/120V 50/60Hz	650
DB-4	F867D	240V 50Hz	1000
DB-4	F867P	117V 60Hz	1000



\*DB-3/DB-3A/DB-3D and DB-4 only \*\*DB-1M only

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