

Dry block heaters » QBD2 mid range/general purpose example

## Showcase – mid range/general purpose example

Model QBD2\* stability and uniformity  $\pm 0.1^\circ\text{C}$ , temperature range: ambient +5 to 130  $^\circ\text{C}$

A versatile general purpose system with two removable/interchangeable blocks and a comprehensive specification to suit most dry block heating applications in the laboratory.

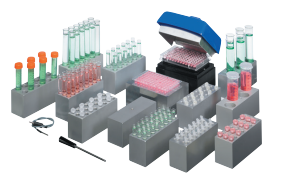
- **Stability and uniformity:  $\pm 0.1^\circ\text{C}$**
- **Digital temperature control for optimum precision**
- **Heating range: ambient +5 $^\circ\text{C}$  to 130 $^\circ\text{C}$ , with rapid heat-up time**
- **Range of convenient features including alarms, single and dual point calibration, programmed start/stop, 'offset' for known sample temperature variation and choice of external or internal probes**
- **External probe available for accurate temperature control in a tube**



**Microplate or microtube blocks for 0.2 ml tubes, strips and 96-well microplates** used in molecular biology and biotechnology applications.



**Wide range of interchangeable blocks** (order blocks separately) – extraction tool supplied as standard for easy and safe removal of blocks.



**Custom blocks** – for virtually any tube or vessel.

**High power heater** for fast heat-up – from 25 $^\circ\text{C}$  to 100 $^\circ\text{C}$  in only 20 minutes.

**Over temperature cut-out** protects your samples and your workplace.



**Optional safety cover** – protects samples from contamination and users from accidental contact with hot blocks.



**Convenient timer facility, with audible buzzer**, for reaction timing and function timing, e.g. delayed heater switch-on/turn-off.

**Simple to use rotary dial** plus two keys for fast, accurate set-up.

**Compact footprint and sloping fascia** optimise benchspace and ensure clear visibility during set-up and in use.





**High quality, robust construction in streamlined coolwall aluminium and chemical-resistant plastic** – durable in demanding environments.

\* see summary table on page 7.3-7.4 for accessories and for other models in the range

Dry block heaters » QB series » Technical specifications

Dry block heating systems - Technical specifications

● = standard

	Precision digital			High performance digital
	QBD1	QBD2	QBD4	QBH2
	1 block system	2 block system	4 block system	2 block system
				
	h: 120mm d: 240mm w: 200mm weight: 2.2kg	h: 120mm d: 285mm w: 200mm weight: 2.7kg	h: 120mm d: 390mm w: 200mm weight: 3.6kg	h: 120mm d: 295mm w: 200mm weight: 3kg
Temperature range	°C ambient +5 to 130			°C ambient +5 to 200
Temperature setting range	°C 15 to 130			°C 15 to 200
Setting resolution	°C 0.1			°C 0.1
Stability	@ 37°C, ±°C 0.1			@ 37°C, ±°C 0.1
Uniformity	within the block @ 37°C, ±°C 0.1			within the block @ 37°C, ±°C 0.1
	across similar blocks @ 37°C, ±°C 0.2			across similar blocks @ 37°C, ±°C 0.2
Temperature display, LED	●			●
Display resolution	°C 0.1			°C 0.1
Heat up time 25°C to 100°C	20 mins			15 mins
Three programmable temperature/ time segments plus end-of-program segments	-			●
Reaction timer, with audible buzzer	1 to 999 mins			1 to 999 mins
Function timer for delay of heater start-up/switch-off	up to 72 hrs			up to 72 hrs
Off-set adjustment	●			●
Two-point calibration of internal and external probes	●			●
High/low temperature alarms, settable to within 0.5°C of set temperature	●			●
Fault indication display	●			●
Power	W 150	W 300	W 600	W 300
Supply voltage	V 120 or 230			V 120 or 230
Safety	over temperature cut-out thermal fuse			over temperature cut-out thermal fuse
Extraction tool for easy and safe block removal	●			●

## Dry block heaters » QB series » Options and accessories

Options and accessories		QBD1	QBD2	QBD4	QBH2
- = not available • = available					
<b>Interchangeable blocks*</b>					
Number of blocks	140 x 50 x 63mm	1	2	4	2
QB-0 	Plain block without holes	•	•	•	•
QB-10 	For 24 x ø 10mm test tubes, 50mm hole depth	•	•	•	•
QB-12 	For 24 x ø 12mm test tubes, 50mm hole depth	•	•	•	•
QB-13 	For 12 x ø 13mm test tubes, 50mm hole depth	•	•	•	•
QB-16 	For 12 x ø 16mm test tubes, 50mm hole depth	•	•	•	•
QB-17H 	For 10 x Falcon tubes tall 17mm ø test tubes, 75mm hole depth	•	•	•	•
QB-18 	For 12 x ø 18mm test tubes, 50mm hole depth	•	•	•	•
QB-24 	For 5 x ø 24mm test tubes and universal bottles, 50mm hole depth	•	•	•	•
QB-50 	For 4 x 50ml centrifuge test tubes, glass universals, 50mm hole depth ø 29mm	•	•	•	•
QB-H 	For 56 x 0.2ml microtube, 14mm hole depth, ø 6.5mm	•	•	•	•
QB-E0 	For 24 x 0.5ml microtube, 30mm hole depth, ø 8mm	•	•	•	•
QB-E1 	For 24 x 1.5ml microtube, 35mm hole depth, ø 10.8mm	•	•	•	•
QB-E2 	For 24 x 2.0ml microtube, 35mm hole depth, ø 11mm	•	•	•	•
QB-E5 	For 12 x 5.0ml microtube, 53.5mm hole depth, ø 16.7mm	•	•	•	•
QB-DN 	Dolphin nose tube 24 x ø 11.13mm to ø 6.1mm	•	•	•	•
<b>External Pt1000 temperature probe</b>					
QBEP 	Standard probe. For in-sample or in-block temperature control; encased in stainless steel sheath, ø 3 mm x 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 x 14 mm long, with 350 mm of cable.	•	•	•	•
<b>Microplate blocks for molecular biology and biotechnology applications</b>					
Double-size blocks 140 x 100 x 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.	-	•	-	•
<b>Safety covers (not required with QDP-FL Microtiter blocks)</b>					
	Made from tough clear acrylic for maximum visibility whilst preventing accidental touching of a hot block or contamination of samples from splashes. Clearance height 85mm.	QBL1	QBL2	QBL4	QBL2

\* Custom blocks available - please email [salesdesk@grantinstruments.com](mailto:salesdesk@grantinstruments.com) for further information