

# Dry Bath

- Designed for Multi-functional Dry Block Heater
- User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature ( $\pm 10.0^{\circ}\text{C}$ )
- Various kind of Blocks are offered (Optional)
- Over Temperature & Over Current Protection and Sensor Error Detection
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function

• **High-performance Dry Bath-Heating** ..... P. 43, 44

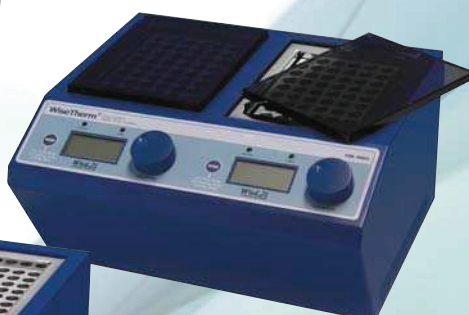
• **High-performance Dry Bath-Heating & Cooling** ..... P. 45, 46

❖ Dry Bath - Heating & Cooling

❖ Dry Bath - Heating



**HB-48-Set**



**HB-96D-Set  
-Dual type**



**HB-96-Set-Double Size**



**HB-R48-Set**

# “witeg” **WiseTherm® HB** High-performance Dry Bath, Heating, up to 150°C, ±0,2°C with Digital PID Control, Acrylic Lid, Precise Temperature Control, Modular Blocks, Anodized Aluminum Block

- Designed for Multi-functional Dry Block Heater
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

- \* Ideal for Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures
- \* Precise Temperature Control : ± 0,1°C at 37°C, ± 0,2°C at 90°C, ± 0,4°C at 135°C
- \* User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature (±10,0°C)
- \* Over Temperature & Over Current Protection and Sensor Error Detection
- \* Digital Timer Included : up to 99 hr 59min (Operation Time + Delay Time)
- \* Storage Function of Temperature and Timer setting values
- \* Alarm Function : Error Status and Timer-end
- \* Various kind of Blocks are offered (Optional), \* Modular Block
- \* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
- \* The Block Extraction Tongs and Included for Easy Handling

## Specification

Models		Single Control System		Dual Control System
		“HB-48-Set”	“HB-96-Set”	“HB-96D-Set”
Controller		Single Digital PID Controller		Dual Digital PID Controller
Capacity (1,5/2ml Tube)		48 Holes×1,5/2ml Tube		96 Holes×1,5/2ml Tube
Heater		150W×2(Cartridge Heater)		150W×4 (Cartridge Heater)
Dimension	Block (mm)	90×120×h60	(90×120×h60)×2ea	(90×120×h60)×2ea
	Unit (mm)	180×220×h155	240×255×h155	285×250×h155
Heater		150W×2(Cartridge Heater)	150W×4 (Cartridge Heater)	
Temp. Range, & Accuracy		Ambient +5℃ to 150℃, ±0,1℃ at 37℃, ±0,2℃ at 90℃, ±0,4℃ at 135℃		
Heat-Up Speed & Sensor		Approx. 5℃/min, PT100		
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector		
Timer with Alarm		99hr 59min, Alarm (Error Status and Timer - end)		
Display		Digital LCD with Back-Light Function		
Material	Internal & External	Stainless Steel ( # 304), and Powder Coated Steel		
	Block	Anodized Aluminum		
Included Standard Acce.		Block “BLC548” for 1,5/2ml Tubes, and Block Tong “BLE101”		
Packing Size		400×270×h200 mm		
Gross Weight		4 kg	6 kg	
Power Consumption		300 W	600 W	
Power plug type		Hybrid E+F		
Power Supply*		AC 230V, 1N~, 50/60Hz		

\* Other Specifications are available upon Customer's Request.

## Ordering Information

### (a) Single Control System, available 1 Block

DH.WHB00149 Dry Bath, Heating, 230V, “HB-48-Set”, with 1,5 / 2ml Block  
DH.WHB00148 , “HB-48 Unit”, without Block

### (b) Single Control System, available 2 Blocks

DH.WHB00197 Dry Bath, Heating, 230V, “HB-96-Set”, with 1,5 / 2ml Block  
DH.WHB00196 , “HB-96 Unit”, without Block

### (c) Dual Control System, available 2 Blocks

DH.WHB00199 Dry Bath, Heating, 230V, “HB-96D-Set”, with 1,5 / 2ml Block  
DH.WHB00198 , “HB-96D Unit”, without Block

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(a) Single Control System, Dry Bath, Heating Package-Set “HB-48-Set” with Block “BLC548” for 1,5/2ml Centrifuge Tube × 48 holes



(b) Single Control System, Dry Bath, Heating Package-Set “HB-96-Set” with 2 × Block “BLC548” for 1,5/2ml Centrifuge Tube × 48 holes



(c) Dual Control System, Dry Bath, Heating Package-Set “HB-96D-Set” with 2 × Block “BLC548” for 1,5/2ml Centrifuge Tube × 48 holes

<Continued from... "witeg" **WiseTherm® HB** High-performance Dry Bath-Heating >



(a) Single Control System, Dry Bath, Heating Package-Set  
"HB-48-Set" with Block "BLC548"  
for 1,5/2ml Centrifuge Tube × 48 holes

### Optional Interchangeable Blocks

- DH.WHB510596\* (1) Block, "BLC596", for 0,2ml PCR Tube, 96 holes  
 DH.WHB510570\* (2) Block, "BLC570", for 0,5ml Centrifuge Tube × 63 holes  
 DH.WHB511548\* (3) , "BLC548", for 1,5/2ml Centrifuge Tube × 48 holes  
 DH.WHB521248\* (4) Block, "BLT248", for  $\phi$  12mm Test Tube, 48 holes  
 DH.WHB521335\* (5) , "BLT335", for  $\phi$  13mm Test Tube, 30 holes  
 DH.WHB521535\* (6) , "BLT535", for  $\phi$  15mm Test Tube, 30 holes  
 DH.WHB521628\* (7) , "BLT628", for  $\phi$  16,5mm Test Tube, 24 holes  
 DH.WHB521828\* (8) , "BLT828", for  $\phi$  18mm Test Tube, 24 holes  
 DH.WHB531515\* (9) Block, "BLC515", for 15ml Conical Tube, 15 holes  
 DH.WHB535008\* (10) , "BLC008", for 50ml Conical Tube, 8 holes

DH.WHB500101 Spare Block Extraction Tong, "BLE101"

\* 1 × Block Extraction Tongs, BLE101 included

※ If you order BLT series Block, please make sure your test tube size is exact same with your order one.

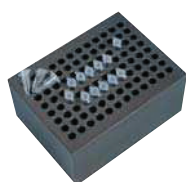


### Validation (IQ, OQ) Service

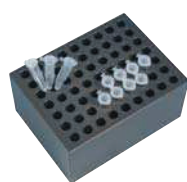
- DH.WHB30148 Validation Service(IQ, OQ), "DBV148", for HB-48  
 DH.WHB30196 , "DBV196", for HB-96  
 DH.WHB30198 , "DBV198", for HB-96D

※ You will find matching tubes in our general catalogue at following pages : 223–225, 263–265, 371, 372.

### The Details of 10 Optional Blocks



(1) "BLC596"  
0,2ml PCR Tube × 96 holes



(2) "BLC570"  
0,5ml Centrifuge Tube × 63 holes



(3) "BLC548"  
1,5 / 2ml Centrifuge Tube × 48 holes  
Included in the Package-Set



(4) "BLT248"  
 $\phi$  12mm Tube × 48 holes



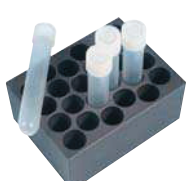
(5) "BLT335"  
 $\phi$  13mm Tube × 30 holes



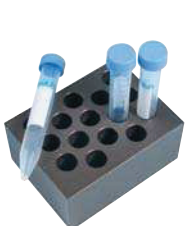
(6) "BLT535"  
 $\phi$  15mm Tube × 30 holes



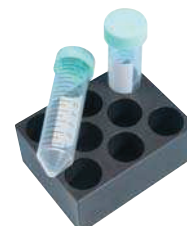
(7) "BLT628"  
 $\phi$  16,5mm Tube × 24 holes



(8) "BLT828"  
 $\phi$  18mm Tube × 24 holes



(9) "BLC515"  
15ml Conical Tube × 15 holes



(10) "BLC008"  
50ml Conical Tube × 8 holes



## “witeg” **WiseTherm® HB-R** High-performance Dry Bath-Heating & Cooling with Precise Temperature Control, Modular Blocks, Acrylic Lid, Anodized Aluminum Block, $-5^{\circ}\text{C}\sim 95^{\circ}\text{C}$ , $\pm 0,15^{\circ}\text{C}$

■ Designed for Multi-Function : Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures.

■ **Patented Jog-Shuttle Control System** and Digital LCD Display with Back-Light Function

■ CE Certified

- \* User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature
- \* Storage Function of Temperature and Timer setting values
- \* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

### Specification

Model	Heat/Cool Package-Set “HB - R48-Set”
Capacity (1,5/2ml Tube)	48 holes $\times$ 1,5/2ml Centri. Tubes
Dimension : Unit & Block	185 $\times$ 230 $\times$ h220mm, and 90 $\times$ 120 $\times$ h60mm
Cooling	Two Peltier Modules
Cool-Down Speed	2,3 $^{\circ}\text{C}$ /min. between 95 $^{\circ}\text{C}$ to 25 $^{\circ}\text{C}$ , 0,5 $^{\circ}\text{C}$ /min. between 25 $^{\circ}\text{C}$ to $-5^{\circ}\text{C}$
Heater and Sensor	150 W $\times$ 2 (Cartridge Heater), PT100
Temp. Range, & Accuracy	$-5^{\circ}\text{C}$ to 95 $^{\circ}\text{C}$ , and $\pm 0,1^{\circ}\text{C}$ at 37 $^{\circ}\text{C}$ , $\pm 0,2^{\circ}\text{C}$ at 90 $^{\circ}\text{C}$
Heat-Up Speed	Approx. 5 $^{\circ}\text{C}$ /min
Safety Device	Over Temp. and Over Current Protector, Sensor Error Detector
Timer with Alarm	99hr 59min, Alarm (Error Status and Timer - end)
Display	Digital LCD Display with Back-Light Function
Controller	Digital PID Controller
Material	Internal & External
	Block
	Stainless Steel (# 304), and Powder Coated Steel Anodized Aluminum
Included Standard Acce.	Block “BLC548” for 1,5/2ml Tubes, and Block Tong “BLE101”
Packing Size, Gross Weight	350 $\times$ 220 $\times$ h310mm, 9 kg
Power Consumption	450 W
Power plug type	Hybrid E+F
Power Supply*	AC 230V, 1N~, 50/60Hz

\* Other Specifications are available upon Customer's Request.

### Ordering Information

#### Dry Bath-Heating & Cooling Package-Set, with 1,5/2ml Block

DH.WHB00249 Dry Bath, Heat/ Cool, “HB-R48-Set”, 230V, with 1,5/2ml Block

#### Dry Bath-Heating & Cooling Unit Only, without Block

DH.WHB00248 Dry Bath, Heat/ Cool, “HB-R48-Unit”, 230V, without Block

#### Optional Interchangeable Blocks

- DH.WHB510596\* (1) Block, “BLC596”, for 0,2ml PCR Tube, 96 holes  
 DH.WHB510570\* (2) Block, “BLC570”, for 0,5ml Centrifuge Tube  $\times$  63 holes  
 DH.WHB511548\* (3) , “BLC548”, for 1,5/2ml Centrifuge Tube  $\times$  48 holes  
 DH.WHB521248\* (4) Block, “BLT248”, for  $\phi$  12mm Test Tube, 48 holes  
 DH.WHB521335\* (5) , “BLT335”, for  $\phi$  13mm Test Tube, 30 holes  
 DH.WHB521535\* (6) , “BLT535”, for  $\phi$  15mm Test Tube, 30 holes  
 DH.WHB521628\* (7) , “BLT628”, for  $\phi$  16,5mm Test Tube, 24 holes  
 DH.WHB521828\* (8) , “BLT828”, for  $\phi$  18mm Test Tube, 24 holes  
 DH.WHB531515\* (9) Block, “BLC515”, for 15ml Conical Tube, 15 holes  
 DH.WHB535008\* (10) , “BLC008”, for 50ml Conical Tube, 8 holes

DH.WHB500101 Spare Block Extraction Tong, “BLE101”

\*1  $\times$  Block Extraction Tongs, BLE101 included

※ If you order BLT series Block, please make sure your test tube size is exact same with your order one.

#### Validation (IQ, OQ) Service

DH.WHB30248 Validation Service(IQ, OQ), “DBRV248”, for HB-R48

※ You will find matching tubes in our general catalogue at following pages : 223-225, 263-265, 371, 372.



Heat/Cool Package-Set “HB - R48-Set” with Block “BLC548” for 1,5/2ml Centrifuge Tube  $\times$  48 holes

### Included Block in the Package-Set



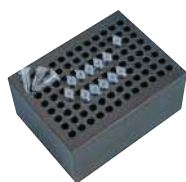
(3) “BLC548”  
1,5 / 2ml Centrifuge Tube  $\times$  48 holes



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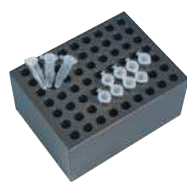
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### The Details of 10 Optional Blocks



(1) "BLC596"

0,2ml PCR Tube × 96 holes



(2) "BLC570"

0,5ml Centrifuge Tube × 63 holes



(3) "BLC548"

1,5 / 2ml Centrifuge Tube × 48 holes  
Included in the Package-Set



(4) "BLT248"

φ 12mm Tube × 48 holes



(5) "BLT335"

φ 13mm Tube × 30 holes



(6) "BLT535"

φ 15mm Tube × 30 holes



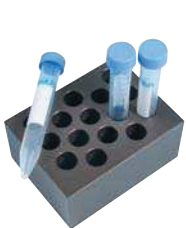
(7) "BLT628"

φ 16,5mm Tube × 24 holes



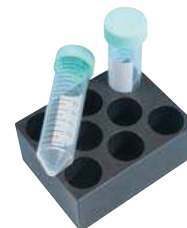
(8) "BLT828"

φ 18mm Tube × 24 holes



(9) "BLC515"

15ml Conical Tube × 15 holes



(10) "BLC008"

50ml Conical Tube × 8 holes