

Constant Temperature Immersion Type Controller "Thermomate"
BF200/400/500/600

BF200/400/500/600 have been discontinued.



Model			
200	400	500	600
Operating temp. range			
Room Temp. +5deg.C to 80deg.C		Room TeRoom Temp. +5deg.C to 80deg.Cmp	

- Immersion Type Water Bath's Temp. Controller.
- Various Functions from "Fixed Temp. Operation" to "Programmable Operation".
- Data Output, External Communication, etc. are available as Option.

■ Specifications

Type	Basic Type		Multi Function Type		Oil/Water Compatible Type
Model	BF200	BF400	BF500		BF600
Performance					
Temp. Setting Range	-20.0 to 100deg.C			0 to 200deg.C	
Operating Temp. Range	Room Temp. +5 to 80deg.C			Room Temp. +5 to 180deg.C*1	
Temp. Control Accuracy	±0.05 to 0.1deg.C	±0.02 to 0.05deg.C		±0.05 to 0.2deg.C*1(*1 Condition: Setting Temp. 100deg.C, Testing Bath BZ100D, Silicon Oil Stickiness 50cst)	
Components					
Stirrer	Propeller Stirring	Water Jet Stirring		Propeller Stirring	
Heater	Stainless Pipe Heater				
	1.0kW			1.2kW	
Temp. Control System	PID Control by Micro Computer				
Temp. Setting	Digital Setting by Key				
Temp. Display	Digital Display by Green LED				
	Min. Digit Indication: 0.1deg.C			Min. Digit Indication: 1deg.C	
	Setting Temp./ Measured Temp. Changeable	Indicated on Main Indicator(Sub-indicator: Indicate Setting Temp.)			
Timer	Nil	1min. to 99h.59min. or 100h. to 999h.			
Timer Resolution	Nil	1min. or 1h.			
Operating Function	Fixed Operation	Fixed Operation: Continuous Operation by Set Temp., Quick Automatic Stop Programming Operation: 1 to 3 Optional Pattern, Max. 5 Segment Pattern (Repeating, Gradient Operation)			
Additional Function	Temp. Pre-setting (Memory/Recall 1Temp.)	Temp. Pre-setting (Memory/Recall 10 Temp.)/Timer Function (to 49,999h.), Key Lock Function, Water Jet Strength Changeable Function (10 steps Changeable)			
	N/A	Pump Jet Angle Changeable			N/A
	N/A	N/A	Temp. Output (10mV/deg.C), External Alarm Output, Time -up Output, External Communication Function (RS422A)		N/A
Heater Circuit Control	Triac Zero-cross Type				
Sensor	Thermister			Pt Sensor	
Safety Device					
Safety Countermeasure	Shelf Diagnosis Function (Automatic Overheat Prevention, Abnormal Temp. Sensor, Heater Wire Broken*2, Triac Short Circuit*2, Main Relay Defect*2), Circuit Protector, Float Type Empty Boiling Preventor, Buzzer Alarm for Abnormal Condition (*2: This Function is Not Applicable for BF200)				
Accessories	Testing Bath Model BY100 (Polypropylene)				
Standard					
External Dimension	W140 x D138 x H305mm				
Clamp Available Thickness	Max. 35mm				
Power Source	AC 100V 50/60Hz 11A			AC100V 50/60Hz 13A	
Weight	Approx. 7kg				

■ Control panel

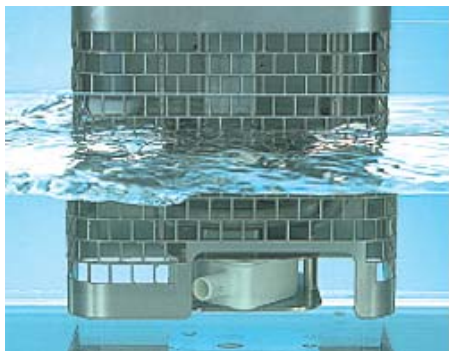


BF200



BF400/500

■ Water Jet Stirring



■ Function Chart

Model	BF200	BF400	BF500	BF600
Digital Setting/Display	●	●	●	●
Temp. Pre-setting	●	●	●	●
Programming Function	-	●	●	●
Water Jet Strength Changeable Function	-	●	●	-
Propeller Stirring	●	-	-	●
External Output, Communication Function, etc.	-	-	●	-
Oil Temp. Control	-	-	-	●

■ Optional items(BF200/400/500/600)

Level Controller, Cooling Pile



Bath Cover



External Circulation Nozzle

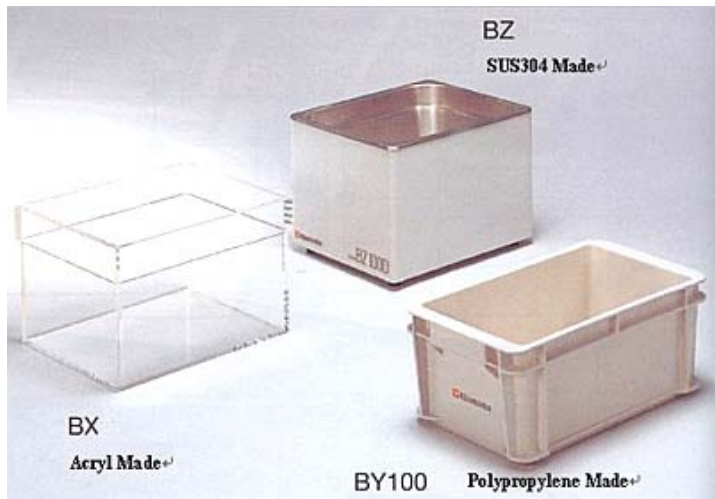


Float for Micro Tube



Product Name	Model	Specification
Level Controller (Automatic Water Supplier)	OBF10	Water Supply by Direct Connected Tap Water Type (Electromagnetic Valve Open/Close Type)Fix to Testing Bath by Clamp
Cooling Pipe	OBJ10	, O.D.φ10mm, with Neo Plane Hose 3m (φ13 x φ9)
Bath Cover	OBI10	Polycarbonate Cover for Testing Bath Model BY100 (This Cover couldn't be operated with Automatic Water Supplier, External Circulation Nozzle and Cooling Pile.)
External Circulation Nozzle	OBG10	External Closed Circulation available by connection with BF400 or 500I.D. 9mm with Neo Plane Hose 3mFlow Rate: Approx. 8L/min., Lift: Approx. 1.8m
Float for Micro Tube	OBH10	(For φ8mm) External Dimension: 90 x 137mm
	OBH20	(For φ11mm) External Dimension: 90 x 137mm
Cable for BF500	OBL10	Multi Cable for Temp. Output, External Alarm Output, Time- up Output
	OBK10	Cable for External Communication
	RC23	Inter Face for Personal Computer Connection (with AD Adapter)

■ Optional items(Testing BAth) (BF200/400/500/600)



Material	Model	Bath Internal Size (W x D x H)	Capacity	Operating Temp. Range
	BZ100	230 x 390 x 150mm	12L	Room Temp. to +200deg.C
	BZ100D	240 x 300 x 200mm	13L	
	BZ200	300 x 500 x 150mm	20L	
	BZ300	300 x 500 x 200mm	27L	
Polypropylene	BY100	185 x 327 x 156mm	8L	-5 to +80deg.C
	BY200	300 x 455 x 152mm	18L	
Acryl	BX100	230 x 390 x 150mm	12L	<=50deg.C (for Water Only)
	BX100D	240 x 300 x 200mm	13L	
	BX200	300 x 500 x 150mm	20L	