

SINCE 1889



Shaking Water Bath Incubator

BT101/311

Two new models are available of the popular series that combines a constant temperature water bath and a shaking mechanism. Ideal not only for culture but also for reaction and dissolution.

Equipped with a shaking rack

Equipped with drainage



× If it's a test tube.
260 pcs.

34 L BT311

× If it's a test tube.
130 pcs.

19 L BT101

Excellent temperature distribution

A high temperature distribution of $\pm 0.1^{\circ}\text{C}$ can be obtained in the tank due to the jet flow agitation function by the pump. It can be used as a highly accurate constant temperature water bath bath even when shaking is not used.

Variable shaking width and shaking frequency

Shaking width can be set within the range of 10~40mm and shaking frequency of 20~160 times/min.

Equipped with safety functions as standard

Equipped as standard with safety functions such as automatic overheat protection, temperature sensor error, and overcurrent leakage breaker. It can be used safely.

A full range of options

The top cover (optional) is useful for long-time use to increase heat retention and prevent water evaporation. Output system options such as external communication, temperature output, time up output, and external alarm are also available.



Improved operability

Easy operation with the latest VS6 controller



To set the shaking frequency, simply turn the knob.

Specifications

Model		BT101	BT311	
Product code		221204	221205	
Method		Reciprocating horizontal shaking, Stirring by pump		
Performance	Temp. control range	Room temp. +5°C to 80°C (when the top cover is attached)		
	Temp. control accuracy / Temp. fluctuation	±0.02 to 0.08°C / 0.3°C JIS		
	Temp. distribution accuracy / Temp. gradient	±0.1°C / 1.5°C JIS		
	Max. temp. reaching time	Approx. 95 min. room temp. 23°C	Approx. 120 min. room temp. 23°C	
	Shaking frequency	20 to 160 times/min		
	Shaking width	10~40mm, variable		
Configuration	Heater	1.2kW	2.5kW	
	Stirring pump	6W	10W	
	Shaking motor	25W	40W	
Safety function		Self-diagnosis function (automatic overheat protection, temp. sensor error, heater disconnection, SSR short-circuit, main relay failure, memory error, internal communication error, measurement temp. error, abnormality of empty heating) / Overheat protector / Overcurrent leakage breaker		
Controller	Controller type	VS6 type, PID control		
	Operation function	Fixed temp. operation, auto stop operation, auto start operation, quick auto stop operation		
	Additional functions	Calibration offset function / Set value lock function / Power failure recovery mode selection function		
	Sensor	Pt resistance thermometer Pt100Ω (for temp. control) / K thermocouple (for overheat protection)		
Standard	Number of test tube / flask	Test tube	Diameter 16.5 mm, applicable length 150 to 200 mm (JIS) 130 pcs.	260 pcs.
		Flask	Round, Erlenmeyer flask 100/300/500mL 12/5/3 pcs.	24/10/6 pcs.
	External dimensions	W579×H414×D325mm		W809×H414×D325mm
	Bath capacity (when full of water)	Approx. 19L		Approx. 34L
	Power source (50/60Hz)	AC220V Single phase with step-down transformer		
	Weight	Approx. 27kg		Approx. 48kg
Accessories	Shaking rack	1 pc.		2 pcs.
	Rack dimensions (effective dimensions)	290×220×170mm (268×200×150mm)		
		Drainage cap, Drainage hose (assembled), Spanner		

Optional Items

	Product name	Model	Product code	Supported	
				BT101	BT311
Option	Bath top cover	OBT10	221380	●	-
		OBT30	221382	-	●
Factory-installed option	External communication adapter (RS485-USB conversion)	OA017	281146	●	●
	External alarm terminal (RS485)	OA049	281269	●	-
		OA053	281273	-	●
	External alarm terminal	OA050	281270	●	-
		OA054	281274	-	●
	Time up output terminal	OA051	281271	●	-
		OA055	281275	-	●
	Temp. output terminal	OA052	281272	●	-
OA056		281276	-	●	