

# Low Constant Temperature Water Bath

## BBL101/301

Temperature control range

-10~+80°C

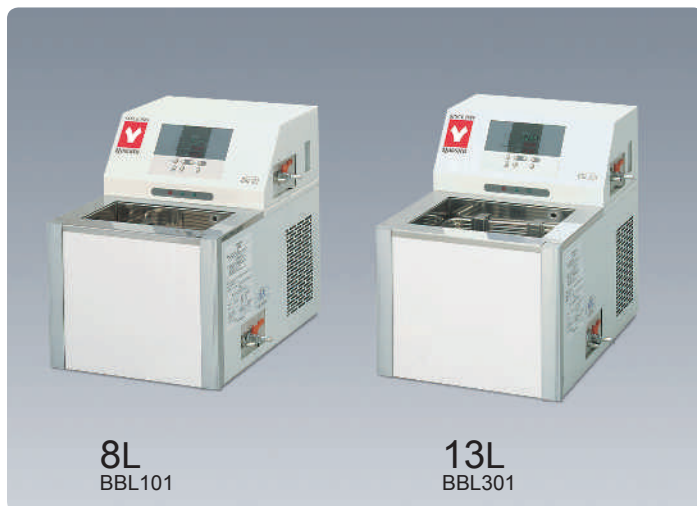
Temp. distribution accuracy

±0.3°C

Internal capacity

8L BBL101 | 13L BBL301

**Benchtop water bath with wide operating temperature range and sufficient bath capacity.**



8L  
BBL101

13L  
BBL301

Benchtop constant low temperature water bath, with capacity 8L/13L and operating temperature range -10~80°C

- Precision control with temperature adjustment accuracy of ±0.1°C
- More applications available with larger tank space
- Internal / External Circulation can be changed easily
- Shelf height is 2 stage adjustable for different flask sizes
- Standard equipped with auto stop, auto start, RS485 communication function, temperature output terminal (4~20mA)
- Enhanced safety features includes self diagnostic function, over-current circuit breaker, refrigerator overload relay, empty boiling prevention float switch, refrigerator protection delay timer function

### Specifications

Model	BBL101	BBL301
System	Pump circulation cooling / external circulation system	
Temperature control range *1	-10~+80°C (at room temperature 20°C)	
Temperature adjustment accuracy *1	±0.1°C	
Temperature distribution accuracy *1	±0.3°C	
Cooling capacity *1	~370W (320Kcal/h) (at liquid temp. 15°C)	~410W (350Kcal/h) (at liquid temp. 15°C)
Ambient temperature *1	5~30°C	
Temperature control	PID control	
Operation function	Fix temperature, Auto stop, Auto start	
Temperature sensor	Double sensor: Pt100Ω (for temp. control) and K-thermocouple (for overheat prevention device)	
Refrigerator / coolant	160W Air-cooled fully closed compressor R134A	300W Air-cooling sealed rotary R404A
Circulation method	Magnet pump circulation	
Circulation system capacity (50/60 Hz)	Maximum flow rate (pump capacity): 3.7/4.7L/min. (11.0/12.0L/min.) Maximum pump head (pump capacity): 1.0/1.5m (1.5/2.1m)	
Heater	700W	900W
Safety device	Earth leakage breaker, refrigerator overload relay protecting circuit, refrigerator pressure detection, empty boiling prevention float switch, delay timer for refrigerator protection, overheating prevention device, power failure protection function, key lock function	
Other function	Drain port, condenser filter, RS485 communication function, temperature output terminal, refrigerator pressure switch indicator, calibration offset	
Bath dimensions *2	W300 x D150 x H177.5 (Effective dimensions 238 x 100 x 85mm)	W300 x D240 x H177.5 (Effective dimensions 238 x 190 x 85mm)
Internal (effective) capacity	8 (6.95) L	13 (11.5) L
External dimensions *2	W500 x D530 x H500mm (water bath height 330mm)	W502 x D603 x H500mm (water bath height 330mm)
Power source (50/60Hz)	AC115V 8A / 220V 4A	AC115V 11A / 220V 6A
Weight	~50kg	~55kg
Accessories	Bottom shelf 1 pc., lid, drain hose 0.5m 1pc., over flow hose 0.5m 1pc.	

\*1. Performance data tested at RT20°C, no load, rated power 50Hz, performance might vary in different conditions

\*2. Projections not included

Note: Refrigerator turns OFF when setting temperature higher than 40.1°C.

### Max. quantity of erlenmeyer flask

Model	300mL	500mL	1000mL
BBL101	3 pcs.	2 pcs.	--
BBL301	5 pcs.	3 pcs.	2 pcs.

### Optional items

Product name	Description	Product code
External communication adapter	RS485-RS232C conversion	281387
Shelf for BBL101	Shelf support 4pcs.	221586
Shelf for BBL301	Shelf support 4pcs.	221587

### Control Panel



Monitoring indicator for pump and refrigerator

### Side View

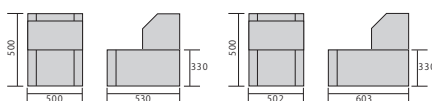


Equipped with water switch valve for easy switch ON/OFF the external circulation. Nozzle diameter 10.5mm.

### Example of Application



### Dimensions (mm)



BBL101

BBL301