

# Auto ELISA Processor BIOBASE4001



### Introduction:

Auto ELISA Processor BIOBASE4001 is a fully automatic detection equipment that integrates sample addition, incubation, shaking, washing, and reading. It is widely used in hospital laboratories, disease prevention and control centers, blood centers, and blood banks, animal and plant inspection and quarantine institutions, scientific research institutions, university laboratories and other places.

### Features:

- 1. Adopt the principle of pressure type liquid detection.
- 2. With TIP detection, clot detection function.
- 3. High-precision pipetting, the lowest volume can reach 5ul.
- 4. Position sensing, real-time monitoring of gripper status.
- 5. Multi-spacing and multi-strength adjustable grippers can be adapted to grasp and place microplates and plate covers of different sizes.
- 6. Dual thread control, can run simultaneously with the sampling arm without interfering with each other.

### Sampling Module

Disposable TIP design, high precision, zero carry-over pollution.  
4 injection channels are independently controlled, and each channel runs independently in Y-Z direction.  
With liquid level detection, TIP head detection, clot detection and other detection and alarm functions.

### Smart Gripper Module

Safe, reliable, stable, efficient, fast and accurate gripper.  
With position sensing system.  
Real-time monitoring of the grabbing process to prevent falling.

### Shaking Incubation Module

12 independent temperature-controlled shaking incubation modules.  
3-level shaking.  
Temperature range: RT~60°C.  
Plate cover design to avoid strong light interference.

### Microplate Washer Module

2 independent microplate washers, 16-channel (32-pin) washer head, 5-way cleaning solution.  
Injection uniformity CV < 1.5%, residual volume < 1µL/well.  
Program adjustable, applicable to microplates of different sizes.

### Microplate Reader Module

Built-in high-precision microplate reader.  
Single and dual wavelength detection, ten filter positions.  
Wide absorbance range, high sensitivity, good repeatability and strong stability.

### Parameters:

Model	BIOBASE4001
Sample& Reagent Unit	Sample Racks
	12*16 push-pull sample rack with detection
	Sampling Channel
	4 channels
	Air pressure level detection, clot detection function
Sample& Reagent Unit	Liquid Level Detection
	1000ul, 5 TIP racks
	Pipetting
	5ul-1000ul
	100ul: CV≤0.5%, Accuracy≤2.0%
Sample& Reagent Unit	Pipetting Precision
	1000ul: CV≤0.5%, Accuracy≤0.5%
	Reagent Position
	6 Reagent racks, reagent tanks with detection
	Washer
Washing Unit	Washing Head
	16-channel (32-pin), double row cleaning, hanging installation, with leakage recovery
	Injection Uniformity
	CV < 1.5%
	Washing Residual
Reading Unit	Reading Channels
	8 independent photometric channels, mono and dichromatic reading
	Linear Range
	0.000-3.000Abs
	Repeatability
Reading Unit	CV≤1.0%
	Stability
	≤±0.003Abs
	Optical Filters
	4 standard filters (405,450,492,630nm); Total 10 filters positions
Reading Unit	Reading Accuracy
	≤±0.02Abs from 0.0 to 1.0 OD, ≤±0.03Abs from 1.0 to 2.0 OD
	Sensitivity
	≥0.01mg/L
	Channel Difference
Incubation Unit	Incubators
	12 shaking incubators
	Cover Positions
	2 (12 covers)
	Heating Method
Incubation Unit	Dry heating with cover
	Shaking Function
	Horizontal circular oscillation, 1-3 levels adjustable, amplitude 2.5mm
	Temperature Range
	RT to 60 °C
Incubation Unit	Temperature Uniformity
	0.5 °C
	Temperature Fluctuation
	±0.5 °C
	Software
Data Management	Above Windows 7 system
	LIS System
	Bi-direction, support HL7 protocol
	Results
	Absorbance and results reviewable by software
Data Management	Printer
	External optional
	Built-in Scanner
	Optional
	Biosafety Protection
Other Function	Optional (Negative pressure working zone, HEPA filter)
	Disinfection
	UV lamp
	Lighting
	LED
Working Condition	IAP Function
	Firmware can be upgraded online at any time
	Power Supply
	AC220V±10%, 50/60Hz(Standard); 110V±10%, 60Hz( Optional)
	Temperature
Working Condition	10~40°C
	Humidity
	30~80%
	External Size (W*D*H)
	1775*190*1683mm
Size & Weight	Net Weight
	445kg
	Package Size(W*D*H)
	Machine: 1915*930*1150mm; Base Stand: 1905*920*995mm
	Accessories: 1370*930*530mm
Size & Weight	Gross Weight
	Machine: 364.5 kg; Base stand: 208.5 kg; Accessories: 97kg