

EzMate Automated Pipetting System

Liquid Handling Partner for Increasing Productivity



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EzMate automated pipetting system series is ideal for routine pipetting, and helps eliminate tedious pipetting and human error, which enables more precise and standardized results to improve productivity.

With highly-customized adapters and application-oriented software, EzMate can satisfy the various needs of assays, including PCR/qPCR set up, sample normalization, NGS preparation, and reagent kit manufacturing methods.



Simple Operation

Easy-to-use system setup software without need of additional technical support



Accuracy and Precision

Each Automated Pipetting Module (APM) is calibrated using ISO-8655 standards



High Flexibility and Capacity

- 1, 4- and 8-channel, 50 μ L, 200 μ L or 1,000 μ L automated pipetting modules
- 4 or 6 SBS format areas and 2 reagent areas



Sample Protection

Integrated UV lamp and HEPA filter system make sure a contamination-free environment



Open Labware

Customized adapters support various types of labware. Fully compatible with a variety of consumables on the market

Accuracy and Precision

- Excellent serial dilution results for qPCR standard curve and replicates (Figure 1)
- Better precision and pipetting results than manual pipetting (Figure 2)

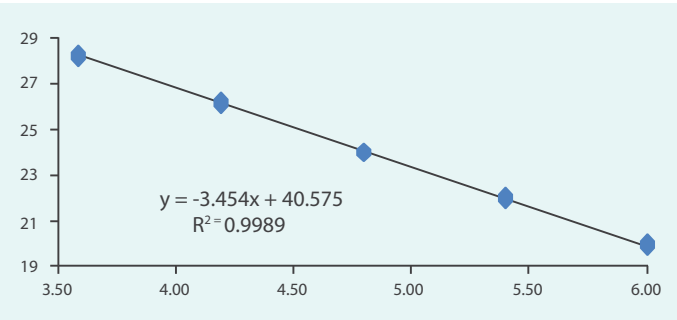
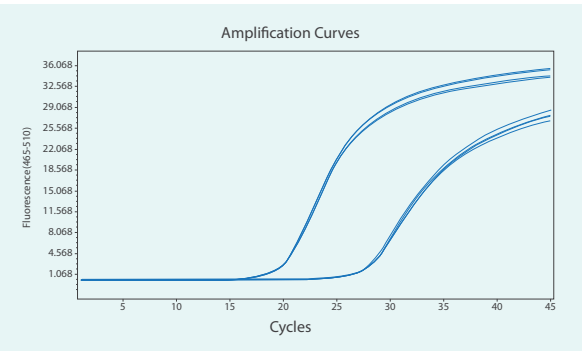
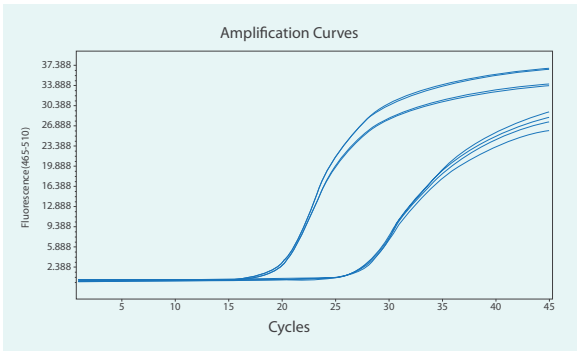


Figure 1: Excellent Serial Dilution Results

PCR efficiency = 94.77%
A 10 µL synthetic DNA sample is diluted in 30 µL water at an 1:4 ratio. Roche® LightCycler® 480 real-time thermal cycler and Finnzyme DyNAmo™ Flash SYBR® Green qPCR Kit (F-415L) were used.



EzMate 401 : Ct std dev = 0.135



Manual pipetting : Ct std dev = 0.145

Figure 2: Better Precision than Manual Pipetting

Target: Human GAPDH (top curve) was amplified in replicates of 4.18 µL (master-mix) and 2 µL (cDNA) were pipetted into a 20 µL reaction volume. Roche® LightCycler® 480 real-time thermal cycler and Invitrogen™ Platinum Taq DNA Polymerase were used.

Performance of Automated Pipetting Module (APM)

50 µL tip on 1, 4- or 8-channel pipetting module

	1 µL	50 µL
Accuracy (Rel.)	± 7%	± 1%
Precision (Rel. CV)	≤ 7.5%	≤ 0.4%

200 µL tip on 1, 4- or 8-channel pipetting module

	10 µL	200 µL
Accuracy (Rel.)	± 3%	± 0.8%
Precision (Rel. CV)	≤ 1%	≤ 0.15%

1,000 µL tip on 1, 4- or 8-channel pipetting module

	100 µL	1,000 µL
Accuracy (Rel.)	± 3%	± 0.5%
Precision (Rel. CV)	≤ 0.8%	≤ 0.2%

Note: According to ISO-8655 standards (Gravimetric method), APM is calibrated in a temperature (21 - 25 °C, ± 0.5 °C) and humidity (60-90%) controlled environment. Twice-distilled water, robotic tips and microbalance were used.

Exceptional Safety for High-Contamination Application

The UV modules and HEPA filters ensure effective workable decontamination and provide clean air pressure throughout the workflow.



UV Lamp	
Irradiation Period Per Run	15 min
Irradiation Capacity	> 40 µW/cm²
Wavelength	254 nm (UV-C)

HEPA Filters	
Filter	Air-Mate HEPA Filter x2
Volume Flow	> 200 L/min

EzTips

EzTip pipette tips are fully compatible with EzMate Automated Pipetting System Series. Available pipetting volume with 3 types, ranges from 1 µL to 50 µL, 10 µL to 200 µL and 100 µL to 1,000 µL. All EzTips are certified free from DNase/RNase, protease and pyrogen, suiting the needs of various methods.



	EzTip 50 uL	EzTip 200 uL	EzTip 1,000 µL
Volume	1 - 50 uL	10 - 200 uL	100-1,000 µL
Sterile	●	●	●
With Filter	●	●	●
Applications	Genomics applications, PCR preparation, Normalization, NGS library preparation, Pooling	Genomics applications, Drug discovery, ELISA, Cell experiment, Serial dilutions	Buffer preparation, Reagent dispensing, Sample dilution
Packaging Format	10 Racks/Pack, 5 Packs/Cs		

Applications

Widely used in a variety of laboratory methods, including PCR/qPCR set up, NGS preparation, Sample normalization, Reagent kit manufacturing, Cell-based assay, etc. Learn more application notes at www.blue-raybio.com

Choose the System That Suits Your Needs



Model	401 4-position	401s 4-position & UV/HEPA	601 6-position	601s 6-position & UV/HEPA	601 Ex 6-position	601s Ex 6-position & UV/HEPA
Worktable Capacity						
SBS Format Area	2-3	2-3	2-5	2-5	2-5	2-5
Tip Rack Area	1-2	1-2	1-4	1-4	1-4	1-4
Reagent Area	2	2	2	2	2	2
Automated Pipetting Module	Interchangeable 1 / 4 / 8-channel, Maximum volume 50 µL / 200 µL		Interchangeable 1 / 4 / 8-channel, Maximum volume 50 µL / 200 µL		Interchangeable 1 / 4 / 8-channel, Maximum volume 50 µL / 200 µL / 1,000 µL	
UV/HEPA	N/A	●	N/A	●	N/A	●
Function						
Liquid (Sample / Reagent) Transfer (LT)	●	●	●	●	●	●
Multiple Dispense (MD)	●	●	●	●	●	●
Serial Dilution (SD)	●	●	●	●	●	●
Hold (Pause)	●	●	●	●	●	●
Mixing (MIX)	●	●	●	●	●	●
Loop	●	●	●	●	●	●
General						
Connection	RS-232, USB 3.0 / 2.0		RS-232, USB 3.0 / 2.0			
Power Supply	100 - 240 V, 50 / 60 Hz, 100 W		100 - 240 V, 50 / 60 Hz, 100 W			
Size (W x D x H)	590 x 450 x 470 mm	660 x 450 x 490 mm	740 x 450 x 470 mm	810 x 450 x 490 mm	743 x 475 x 543 mm	806 x 475 x 543 mm
Weight (N.W.)	25 kg	31 kg	29 kg	35 kg	36 kg	40 kg

Ordering Information

Catalog No.	Description	
EzMate 601 Ex Automated Pipetting System		
EZ6E300-X00000	6-position Automated Pipetting System with EzStarter control software (110/220V)	
EZ6EU00-X00000	6-position Automated Pipetting System with UV/HEPA (110V) and EzStarter control software	
EZ6EV00-X00000	6-position Automated Pipetting System with UV/HEPA (220V) and EzStarter control software	
EzMate 601 Automated Pipetting System		
AREZ601-X00000	6-position Automated Pipetting System with EzStarter control software (110/220V)	
EZ6SU00-X00000	6-position Automated Pipetting System with UV/HEPA (110V) and EzStarter control software	
EZ6SV00-X00000	6-position Automated Pipetting System with UV/HEPA (220V) and EzStarter control software	
EzMate 401 Automated Pipetting System		
AREZ401-X00000	4-position Automated Pipetting System with EzStarter control software (110/220V)	
EZ4SU00-X00000	4-position Automated Pipetting System with UV/HEPA (110V) and EzStarter control software	
EZ4SV00-X00000	4-position Automated Pipetting System with UV/HEPA (220V) and EzStarter control software	
Robotic Tips		
T00-EZAR13-00A	EzTip 50 µL, sterile, 96 tips/rack; 10 racks/pack	
T00-EZAR14-00A	EzTip 200 µL, sterile, 96 tips/rack; 10 racks/pack	
T00-NIBR00-00	EzTip 1,000 µL, Filter Pipette Tip, 96 tips/rack; 10 racks/pack	
Interchangeable Automatic Pipetting Modules (APM)		
275-ezar01-21	1-channel, 50 µL Pipetting Module for EzTip	
275-ezar03-21	1-channel, 200 µL Pipetting Module for EzTip	
275-ezar85-00	1-channel, 1,000 µL Pipetting Module for EzTip	
275-ezar05-10	4-channel, 50 µL Pipetting Module for EzTip	
275-ezar06-10	4-channel, 200 µL Pipetting Module for EzTip	
275-ezar86-00	4-channel, 1,000 µL Pipetting Module for EzTip	
275-ezar02-31	8-channel, 50 µL Pipetting Module for EzTip	
275-ezar04-21	8-channel, 200 µL Pipetting Module for EzTip	
275-ezar87-00	8-channel, 1,000 µL Pipetting Module for EzTip	
Accessories - Tip Rack Adapter		
275-ezar21-00	96 tips rack adapter	
275-ezar21-10	Tip rack adapter/w lock	
Accessories - Plate Adapter		
275-ezar22-00	Elevated 96-well PCR plate adapter	

Catalog No.	Description	
275-ezar75-00	96-well conical bottom adapter	
275-ezar23-00	Elevated 384-well PCR plate adapter	
275-ezar76-00	Elevated ELISA / cell culture adapter	
275-ezar24-00	Deep well plate adapter	
Accessories - Tube Adapter		
275-ezar68-00	0.5 mL tube adapter for 20 well adapter	
275-ezar26-00	4 x 21.5 mL tubes adapter	
275-ezar27-00	3 x 22 mL storage tubes and 1 x 5 mL bottle adapter	
275-ezar74-00	3 x 8-strip tubes adapter	
275-ezar40-00	20-well 1.5 mL adapter	
275-ezarA5-00	48-well x 1.5 mL adapter	
Accessories - Reservoir Adapter		
275-ezar72-00	3 x 15 mL reservoirs adapter	
275-ezar47-00	80 mL reservoir adapter	
Accessories - Reservoir Labware		
275-ezar73-00	Disposable 15 mL reservoir x 9 pcs	
275-ezar49-00	Disposable 80 mL reservoir x 20 pcs	
Accessories - Cool Block Adapter		
275-ezar30-00	CoolBlock 96 adapter for 96-well PCR plates	
275-ezar31-00	CoolBlock 384 adapter for 384-well PCR plates	
275-ezar34-00	CoolBlock R10 adapter for 4 x 21.5 mL tubes	
275-ezar35-00	CoolBlock R20 adapter for 3 x 22 mL storage tubes and 1 x 5 mL bottle	
275-ezar37-00	CoolBlock 20 adapter for 20-well x 1.5 mL tubes	
Accessories - Tip Tray		
275-ezar51-00	Disposable used tip tray x 10 sets	

Specifications are subject to change without prior notice.

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