

EzMate

Automated Pipetting System

Liquid Handling Partner for Increasing Productivity



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EzMate automated pipetting system series is ideal for routine low volume 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

- Single, 4- and 8-channel, 50 μ l or 200 μ l automated pipetting modules
- 6 interchangeable standard microplate/tip rack adapters and 2 interchangeable reagent vessel adapters



Exceptional Safety

UV lamp and HEPA filter meet the need of high-contamination assays



Temperature-Sensitive Sample Protection

Active cooling and heating module (ACHM) options for sensitive samples/reagents



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)

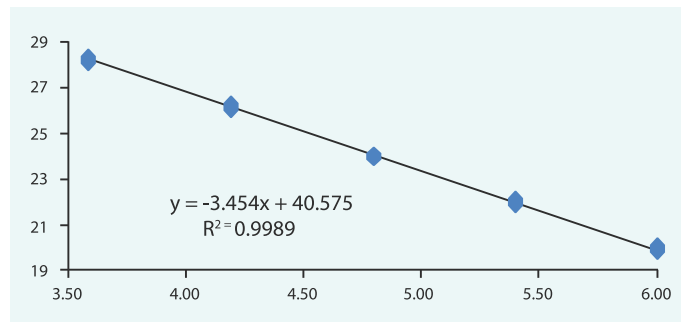


Figure 1: Excellent Serial Dilution Results

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.

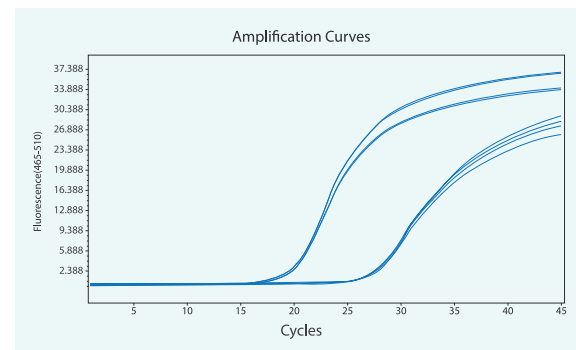
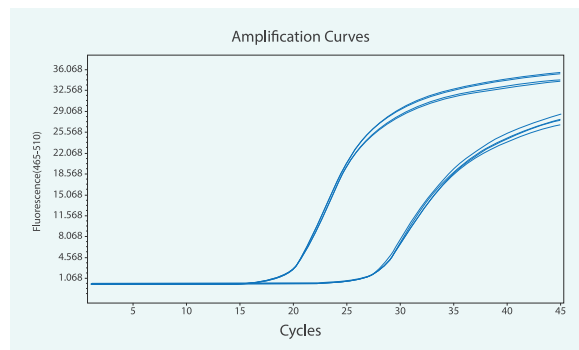


Figure 2: Better Precision than Manual Pipetting

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 single or 8-channel pipetting module

200 µl tip on single or 8-channel pipetting module

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

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

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.

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.arisebio.com.tw

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/cm ²
Wavelength	254 nm (UV-C)

HEPA Filters	
Filter	3M Air-Mate HEPA Filter x2
Volume Flow	> 200 L/min

Temperature-Sensitive Sample Protection

Optional Active Cooling / Heating Module (ACHM) includes a control box, allows temperature adjustment from 4-70 °C, thus protecting sensitive samples and reagents.

ACHM Control Box	
Setting Range	4 - 70 °C
Max. Heating Rate	5 °C / min at RT = 22 °C
Max. Cooling Rate	2 °C / min at RT = 22 °C
Available Position	R1 / A / C Areas



EzTips

EzTip pipette tips are fully compatible with EzMate Automated Pipetting System Series. Available pipetting volume with 2 types, ranges from 1 µl to 50 µl and 10 µl to 200 µl. All EzTips are certified free from DNase/RNase, protease and pyrogen, suiting the needs of various methods.



	EzTip 50 µl	EzTip 200 µl
Volume	1 - 50 µl	10 - 200 µl
Sterile	●	●
With Filter	●	●
Applications	genomics applications, PCR preparation, Normalization, NGS library preparation, pooling	genomics applications, drug discovery, ELISA, cell experiment, serial dilutions
Packaging Format	5 Packs / Cs	

Choose the System That Suits Your Needs






Model	401 4-position	601 6-position	401s 4-position & UV / HEPA	601s 6-position & UV / HEPA
Worktable Capacity				
SBS Format Area	2 - 3	2 - 5	2 - 3	2 - 5
Tip Rack Area	1 - 2	1 - 4	1 - 2	1 - 4
Reagent Area	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	
UV / HEPA	N/A	N/A	●	●
Active Cooling / Heating Module (ACHM)	N/A	N/A	Optional	Optional
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	740 x 450 x 470 mm	660 x 450 x 490 mm	810 x 450 x 490 mm
Weight (N.W.)	25 kg	29 kg	31 kg	35 kg
ACHM Control Box Size (W x D x H)	N/A	N/A	240 x 300 x 230 mm	240 x 300 x 230 mm
ACHM Control Box Weight (N.W.)	N/A	N/A	2 kg	2 kg

Ordering Information

Catalog No.	Description	
EzMate 401 Automated Pipetting System		
AREZ401-100000	4-position Automated Pipetting System, 15.6" Notebook Computer and EzStarter control software.	
EzMate 601 Automated Pipetting System		
AREZ601-100000	6-position Automated Pipetting System, 15.6" Notebook Computer and EzStarter control software.	
EzMate 401s Automated Pipetting System		
EZ4SU00-100000	4-position Automated Pipetting System with UV & HEPA, 15.6" Notebook Computer and EzStarter control software	
EZ4SUA0-100000	4-position Automated Pipetting System with UV & HEPA and 2-position Active Cooling / Heating module, 15.6" Notebook Computer and EzStarter control software	
EZ4SUAC-100000	4-position Automated Pipetting System with UV & HEPA and 3-position Active Cooling / Heating module, 15.6" Notebook Computer and EzStarter control software	
EzMate 601s Automated Pipetting System		
EZ6SU00-100000	6-position Automated Pipetting System with UV & HEPA, 15.6" Notebook Computer and EzStarter control software	
EZ6SUA0-100000	6-position Automated Pipetting System with UV & HEPA and 2-position Active Cooling / Heating module, 15.6" Notebook Computer and EzStarter control software	
EZ6SUAC-100000	6-position Automated Pipetting System with UV & HEPA and 3-position Active Cooling / Heating module, 15.6" Notebook Computer and EzStarter control software	
Robotic Tips		
T00-EZAR13-00	EzTip 50 µl, filter, sterile, 1 case	
T00-EZAR14-00	EzTip 200 µl, filter, sterile, 1 case	
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-ezar02-31	8-channel, 50 µl Pipetting Module for EzTip	
275-ezar04-21	8-channel, 200 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	
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	
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	
275-ezar78-00	Illumina 48-well plate adapter	

Specifications are subject to change without prior notice.

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Catalog No.	Description	
Accessories - Tube Adapter		
275-ezar68-00	0.5 ml tube adapter for 20 well adapter	
275-ezar26-00	4 x 2 1.5 ml tubes adapter	
275-ezar27-00	3 x 2 2 ml storage tubes and 1 x 5 ml bottle adapter	
275-ezar74-00	3 x 8-strip tubes adapter	
275-ezar40-00	20-well x 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 2 1.5 ml tubes	
275-ezar35-00	CoolBlock R20 adapter for 3 x 2 2 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	
Accessories - HLA Typing Adapter		
275-ezar66-00	HLA Typing 60 & 72-well Terasaki Tray Adapter	
275-ezar67-00	HLA Typing 96-well Terasaki Tray Adapter	
Accessories - Active Cooling/Heating Adapter (only for 401s / 601s)		
275-ezar79-00	R1 Active Cooling / Heating Adapter (Optional)	
275-ezar80-00	R2 Active Cooling / Heating Adapter	
275-ezar81-00	96-well PCR plate Active Cooling / Heating Adapter	
275-ezar82-00	384-well PCR plate Active Cooling / Heating Adapter	
275-ezarA4-00	20-well tube Active Cooling / Heating Adapter	



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ISO 13485