





Air-Z air displacement pipettes don't just simplify liquid handling. They perfect it.



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These state-of-the-art automated pipettes can handle fluid volumes from a few microliters up to 5 milliliters with superior precision and accuracy. They also offer superior flexibility. That's due to their simple mechanical interface that can be seamlessly integrated into any liquid handling (XYZ) robotic system. Whether for diagnostic or analytics equipment, the choice for rapid, reliable liquid handling has never been so easy.

WHY AIR DISPLACEMENT? SIMPLY SECURE.

Air displacement technology ensures greater simplicity and security, regardless of your application. Since they are used with disposable tips, air displacement pipettes prevent cross contamination and carryover during sample transfer and reagent aliquoting. Additionally, they eliminate tubing and priming normally required for liquid handling.

PRECONFIGURED OR CUSTOMIZED? YOU DECIDE.

We offer Air-Z pipettes in four preconfigured models – ranging from fully programmable to truly economical. For more special OEM applications, we offer customized designs, volumes and mounting options to your exact requirements. Developers can either use their own drivers, or choose a complete package that matches Air-Z pipettes with our optimized pump controllers.

COMPARE Air-Z MODELS

Find the best solution for your automated pipetting requirements





Full-featured, fully programmable air displacement pipetting module with integrated tip ejection and automatic detection of liquid levels, tips, tip blockage, step loss and more.



Air-Z Flex

Automated air displacement pipetting module available with or without control electronics and pressure sensor.



Air-Z Mini

Most economical model for low-duty cycle applications, designed for easy installation and replacement.



Air-Z Legacy

TriContinent's first air displacement pipette with proven technology for use on liquid handling robotic systems.

Air-Z FEATURES	Air-Z Premier	Air-Z Flex	Air-Z Mini	Air-Z Legacy
High resolution encoder (step loss detection)	Yes	Option	No	No
Liquid level detection: pressure (pLLD	Yes	Yes	No	No
Liquid level detection: capacitive & hybrid (cLLD & hLLD)	Yes	No	No	No
Real time streaming pressure data	Yes	Yes	No	No
Quiet at all speeds	Yes	Yes	Yes	Yes
Built-in tip ejector	Yes	No	No	No
Clogged tip detection	Yes	Option	No	No
Fully programmable (w/control electronics)	Yes	Option	No	No
Optional horizontal or vertical mounting orientation	No	Yes	No	No
Pump volume options	1000 µL	50 μL, 250 μL, 1000 μL	50 μ L	200 μL, 1000 μL, 2000 μL, 5000 μL
Tip volume availability	20 μL, 50 μL, 200 μL, 1000 μL	20 μL, 50 μL, 200 μL, 1000 μL	20 μL, 50 μL	200 μL, 1000 μL, 2000 μL, 5000 μL
Overall dimensions without disposable tip (H x W x D)	168.7mm x 60.5mm x 30.5mm	130.5mm x 30.6mm x 25.0mm	110.7mm x 20.2mm x 19mm	131mm x 47mm

Air-Z Premier

Air-Z Premier is a full featured, fully programmable automated air displacement pipette with the features listed below.

FEATURES

- ✓ High resolution encoder for dependable step loss detection
- Multiple liquid level detection options: pressure, capacitive, and hybrid
- Real time pressure data for aspirate and dispense verification and blocked tip detection
- ✓ Integrated tip-on and tip-loss detection
- Integrated tip ejector
- Configurable for single unit operation or address up to 15 pumps individually
- Functional status feedback with LED indicators
- Overall dimensions (H x W x D): 168.7mm x 60.5mm x 30.5mm (without cover, not including disposable tip)
- ✓ Pump volume: 1000 µL
- Lightweight, compact, and maintenance free
- Optional cover, tips, and evaluation kit



Air-Z Mini

Air-Z Mini is an automated air displacement pipettor module with features listed below.

FEATURES

- Most economical and compact automated air displacement pipette for low-duty cycle applications
- Designed for easy installation and replacement
- Can be nested on 18mm centers for multi-channel applications
- Custom tip adaptors available
- Overall dimensions (H x W x D): 110.7mm x 20.2mm x 19.0mm (without disposable tip)
- ✓ Pump volume: 50 µL
- ✓ Lightweight, compact, and maintenance free
- Optional tips and evaluation kit



Air-Z Flex

Air-Z Flex is an automated air displacement pipettor module with high resolution encoder for dependable step loss detection. Additional options for Air-Z Flex, including pressure sensor and control electronics, are listed below.

FEATURE OPTIONS

- ✓ With or without control electronics, including pressure sensor
- With or without pressure sensor for real time pressure data
- Optional mounting configurations with horizontal or vertical orientation
- Configurable for single unit operation or address up to 15 pumps individually
- Custom tip adaptors in orientations and sizes to fit your instrument design
- ✓ Overall dimensions: Vertical orientation (L x W x D): 130.5mm x 30.6mm x 25.0mm Horizontal orientation (H x W x D): 53.7mm x 30.6mm x 25.0mm (without disposable tip)
- ✓ Pump volume options: 50 μL, 250 μL, 1000 μL
- Optional pipette tips and evaluation kit



Air-Z Legacy

Air-Z Legacy is a single tip air displacement pipette designed for use on liquid handling robotic systems.

FEATURES

- 3 configurations: standard, w/ integrated homing sensor, and "Instrument Ready"
- Custom mounting configurations available
- Custom tip adaptors available
- Proven TriContinent air displacement solution since 2008
- Overall dimensions (H x W): 131mm x 47mm (without disposable tip)
- ✓ Pump volume options: 200 μL, 1000 μL, 2000 μL, 5000 μL
- Optional tips and evaluation kit



GLOBAL CONTACT

TriContinent Scientific is part of the Gardner Denver Medical family. We supply precision syringe pumps and liquid handling robots to the world's leading medical diagnostic equipment manufacturers.



Contact us for consultancy

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