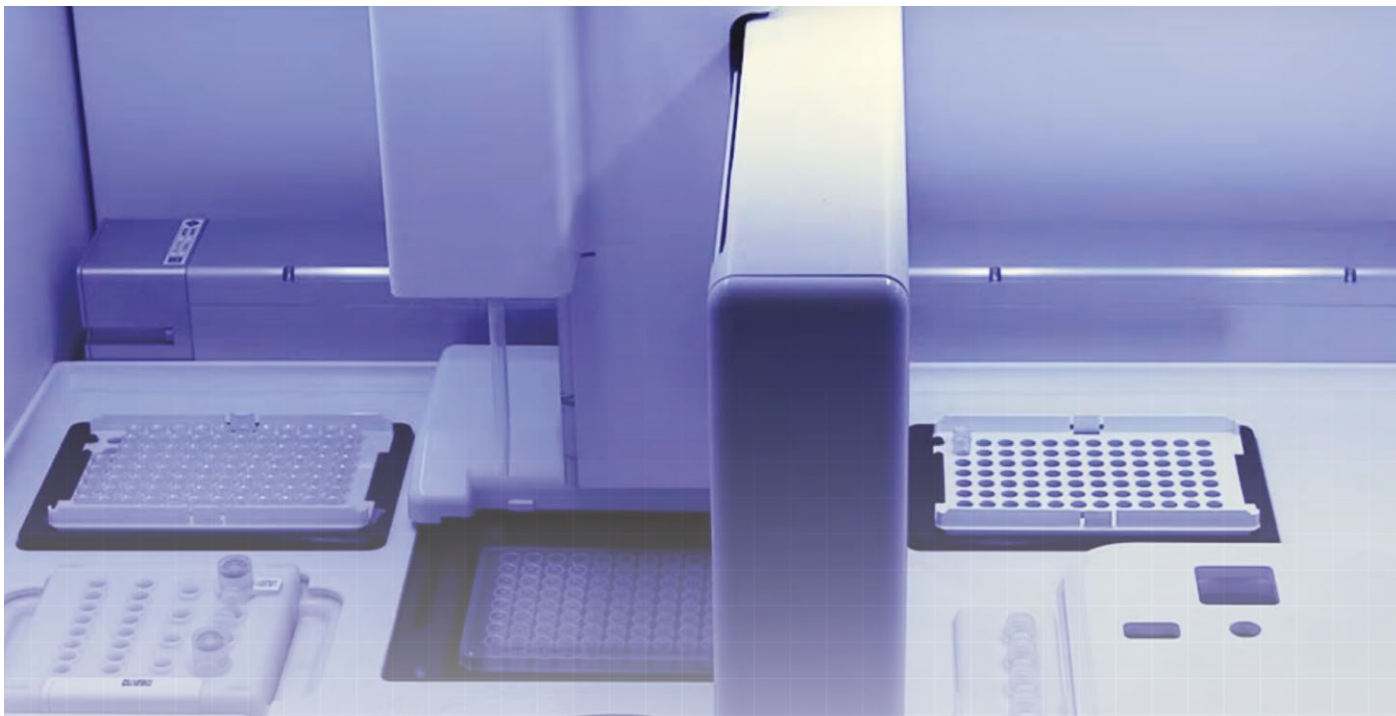


Air-Z

Air Displacement Pipettes

Precision. Efficiency. Flexibility.





Air-Z air displacement pipettes simplify liquid handling



©2016 Thermo Fisher Scientific Inc. Used under permission.

These state-of-the-art automated pipettes can handle fluid volumes from a few microliters up to five 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 analytical equipment, the choice for rapid, reliable liquid handling has never been so easy.

WHY AIR DISPLACEMENT? SIMPLY SECURE.

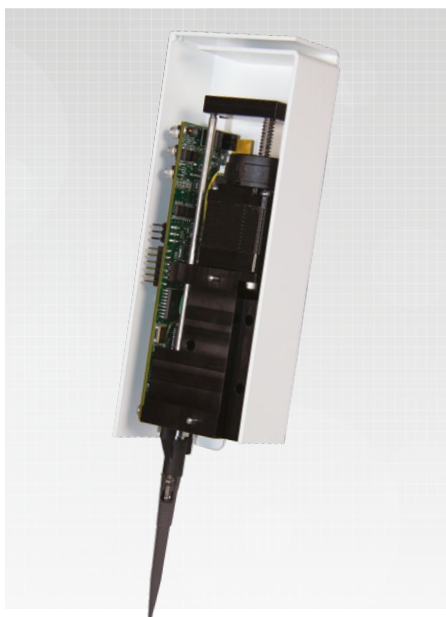
Air displacement technology ensures greater simplicity and security, regardless of your application. Since they are used with disposable tips, air displacement pipettes prevent cross contamination and carryover during sample transfer and reagent aliquoting. Additionally, they eliminate tubing and priming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



Air-Z Premier

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



Air-Z Flex

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



Air-Z Legacy

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

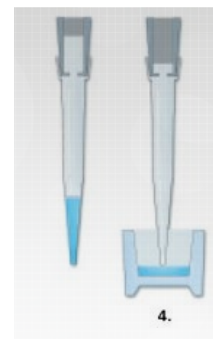
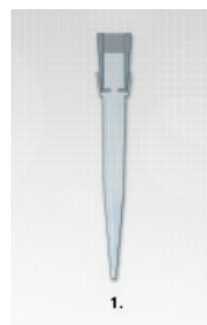
WHAT DOES AN AIR DISPLACEMENT PUMP DO?

Air displacement pumps function by having a plunger aspirate fluid into a disposable polymer tip. As the plunger moves up within a tube above the pipette tip, the displaced air decreases pressure within the sealed volume, and atmospheric pressure forces fluid into the pipette tip. The plunger then can be driven downward to increase the pressure above atmospheric pressure within the cylinder that is sealed to the pipette tip and force the fluid out. The volume of air displaced directly corresponds to the volume of fluid pipetted within the tip. The pipette tip can then be discarded and a new tip can be attached to the air displacement pump. This allows for zero carryover between pipetting actions.

Air displacement pump technology differs from positive displacement technology like what is found in

precision syringe pumps. The primary difference in a positive displacement system is the lack of an air gap; instead, fluid is "primed" (i.e. present) throughout the entire system, leading to a few disadvantages related to carry-over.

In an air displacement system, the air gap allows for sample isolation from the plunger. TriContinent air displacement pumps are used with disposable pipette tips. Because the fluid being transferred in an air displacement pump system only comes in contact with a disposable tip and air, carry-over issues are eliminated. With TriContinent electronics and extremely precise motors driving the plunger, the air displacement pumping process is carried out with exceptionally high accuracy and precision.



Air-Z Premier

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



FEATURES

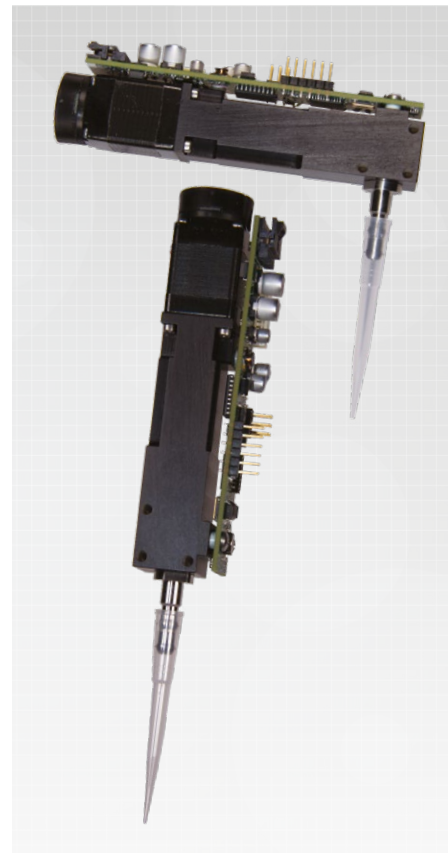
- High-resolution encoder for dependable step loss detection
- Multiple liquid level detection options: pressure, capacitive and hybrid
- Real time pressure data for aspirate and dispense verification and blocked tip detection
- Integrated tip-on and tip-loss detection
- Integrated tip ejector
- Configurable for single unit operation or address up to 15 pumps individually
- Functional status feedback with LED indicators
- Overall dimensions (H x W x D): 168.7 mm x 60.5 mm x 30.5 mm (without cover, not including disposable tip)
- Pump volume: 1000 μ L
- Lightweight, compact and maintenance free
- Optional cover, 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): 130.5 mm x 30.6 mm x 25.0 mm
Horizontal orientation (H x W x D): 53.7 mm x 107.7 mm x 25.0 mm (without disposable tip)
- Pump volume options: 50 μ L, 250 μ L, 1000 μ L
- 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

- Three 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): 131 mm x 47 mm (without disposable tip)
- Pump volume options: 200 μ L, 1000 μ L, 2000 μ L, 5000 μ L
- Optional tips and evaluation kit



*Note: no standard configuration; available after application evaluation

GENERAL CONTACT

EMEA

Gardner Denver Thomas GmbH
Livry-Gargan-Str. 10
82256 Fuerstenfeldbruck
Germany

Tel: +49 8141 2280 0
Fax: +49 8141 8892136
Thomas.de@irco.com

AMERICAS

Tricontinent Scientific Inc.
12740 Earhart Avenue
Auburn, CA 95602
USA

Tel: +1 530 273 8888
Fax: +1 530 273 2586
liquidhandling.tcs@irco.com

ASIA PACIFIC

Gardner Denver Thomas Pneumatic Systems (Wuxi) Co., Ltd.
No. 1 New Dong An Road
Shuofang Town
Wuxi, Xinwu District
Jiangsu 214142
China

Tel: 400-012-1268
Fax: +86 510 6878 2200
QQ: 800 018 724
tricontinent.cn@irco.com

Please check out all our brands for your mission-critical flow control technologies:



OEM Pumps
thomaspumps.com



Vacuum Pumps & Systems
welchvacuum.com



Syringe Pumps
tricontinent.com



Lab Automation
zinsser-analytic.com



Syringes
microsyringes.com



Gas Sampling Pumps
airdimensions.com