King Square

# ADP1000-9 Pipetting Air Pump

A centrally symmetric pump for parallel pipetting at a minimum 9 mm pitch.



## Technical specifications

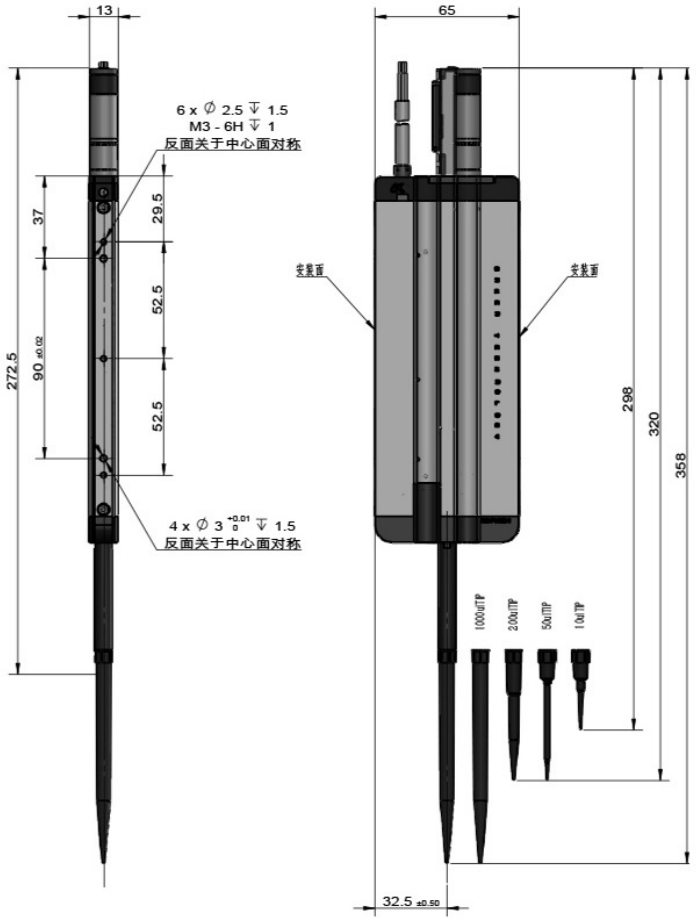
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|---|---|
| Maximum pipetting volume | 1,000 µL |
| Pipetting speed | 1,000 µL/s |
| Power supply | 24 V DC, 1 A peak |
| Electrical connection | 7-core high-flex cable |
| Communication | RS-485 / CAN |
| Signal output | One open-collector output for liquid-level detection |
| Operating environment | 15–35 °C, 20–85% relative humidity, non-condensing |
| Drive mechanism | Stepper motor and lead screw drive the plunger, with encoder feedback for closed-loop control |
| Plunger travel (total / effective) | 81 mm / 76 mm |
| Dimensions (H × W × D) | 276 × 65 × 8.5 mm |
| Mass | 190 g |
| Rated service life | 1,000,000 cycles |
| Compatible disposable tips | 10, 50, 200 and 1,000 µL, conductive or nonconductive |
| Minimum multi-channel pitch | 9 mm |

## Pipetting performance

| Operating mode | Tip capacity | Test volume | Precision (CV) | Accuracy |
|---|---|---|---|---|
| Single aspiration / single dispense | 10 µL | 1 µL | ≤5% | ±5% |
| Single aspiration / single dispense | 50 µL | 5 µL | ≤1.8% | ±1.5% |
| Single aspiration / single dispense | 200 µL | 10 µL | ≤2% | ±2.5% |
| Single aspiration / single dispense | 1,000 µL | 100 µL | ≤1% | ±2% |
| Single aspiration / multiple dispenses | 1,000 µL | 20 µL | ≤2.5% | ±3% |

CV is the coefficient of variation. Results apply to the test volumes shown.

# ADP1000-9 Dimensions and Features




Dimensions are in millimeters unless marked otherwise.

## Product features

- Minimum 9 mm pitch for multi-channel layouts.
- Centrally symmetric design supports multi-channel arrangements.
- Capacitive and pressure-based liquid-level detection.
- Tip status monitoring throughout the pipetting cycle.
- Air-path blockage detection.
- Active ejection of disposable tips.
- Detects aspiration of air.
- RS-485 and CAN communication.
- Compact command set and host control software.
- Integrated ceramic plunger.
- Low-noise operation.
- Disposable tips help reduce sample carryover.
- Can be integrated with a compatible Z-axis module.