BIODOT
AN ATS COMPANY

NANOlab

High Precision, Nanoliter-Scale Freedom at Every Step

NANOlab is a high-precision liquid handling system engineered for advanced genomic, multi-omic, and drug discovery workflows that demand ultra-low-volume accuracy. Using disposable pipette tips to aspirate and dispense nanoliter-scale volumes, it delivers contamination-free operation and highly consistent results, ideal for NGS, PCR setup, library preparation, and other sensitive applications.

Powered by advanced robotics and intuitive software, the platform supports high-throughput processing, flexible workflow configuration, and true walk-away automation.

Its precise nanoliter control minimizes reagent consumption while safeguarding the quality and integrity of low-abundance or fragile samples.

NANOlab Dispensing Platform

Features & Benefits

- Versatile automated solution to help accelerate streamlined workflows
- Configurable dispensing including fixed and disposable tips to support a dynamic range of applications
- Nanoliter range disposable tips to eliminate cross-contamination and reduce reagent consumption and cost
- Compact Design
- Intuitive Powerful Software
- Configurable nests for printing onto slides, plates, and microfluidic devices
- Mechanical precision: X, Y, Z ≤ 0.03 µm
- Automated disposable tip mount and ejection
- Advanced Vision System
- Integrated Wash/Vacuum Station
- PC Control Workstation
- ILD5000 In-Line Degasser
- Integrated Humidity Chamber
- Aspirate and Dispense or Bulk Dispense

TEL: +1 (949) 440-3685 • www.biodot.com

BIODOT
AN ATS COMPANY

NANOlab

High Precision, Nanoliter-Scale Freedom at Every Step

General Specifications

Weight

- 300 lbs (8 channel disposable tip configuration)

Dimensions (L x W x H)

- 52” x 26.25” x 27.8”

Nest size/Dispense area

- Nest size: 18.6” x 19.25”
- Dispense area: 19.7” x 15.75”

Power Requirements

- 110/220 VAC; 50/60 Hz

Line Pressure Requirement

- Clean Dry Air: 45 PSI Minimum

Dispensing Modes

- On-the-Fly
- Step-and-Repeat

Compatible With External Devices

- Heating
- Cooling
- Mixing
- Magnetic Separation
- Thermal Cycling

Dispense Head Options

- Disposable tip channels: 8, 4, 1
- Fixed ceramic tip channels: 8, 4, 1
- Combination: 4 disposable tips, 1 fixed ceramic tip

Nest Options

Total number of sites: 9
Labware Selections:

- Glass Slides
- MTP (96, 384, 1536, and 3456-well)
- Tube Racks
- Custom Devices

BioJet Dispensing Technologies Specifications

Disposable Tip

Total Dynamic Range

- 50 nL - 13 µL

Individual Droplet Dynamic Range

- 50 nL - 2 µL
- %CV at 50 nL < 10%
- %CV at 2 µL < 1%

- Orifice Diameter: 190 µm

Fixed Tip

Total Dynamic Range

- 3 nL - 250 µL

Individual Droplet Dynamic Range

- 3 nL - 13 µL
- %CV at 3 nL < 5%
- %CV at 2 µL < 1%

- Orifice Diameter: 100 µm or 190 µm
- Reagent Viscosity < 10 cP
- Bulk Dispense, Aspirate and Dispense

TEL: +1 (949) 440-3685 • www.biodot.com