

PicoPrecise

COMPACT DESKTOP MICRO DISPENSING SYSTEM



For dispensing onto high resolution targets and for batch production.

Engineered for the most challenging Life Sciences and Industrial applications, this ultra-high precision acoustic micro dispensing system allows for microdrop dispensing as small as 5pL at up to 10,000Hz (drops per second).

Featuring our patented disposable dispensing cartridge technology, the non-contact system is easy to use, easy to set up, and is fully integrated with a dedicated PC workstation. Proven to deliver for a wide range of applications including DNA / protein microarrays, dispensing of living cells, adhesives / coatings and the manufacture of sensors, microneedle patches, and more.

FEATURES & BENEFITS

Patented disposable dispensing cartridge technology

No cross-contamination by design, change fluids in a matter of minutes, no wastage of precious fluids, with a nozzle anti-clogging feature.

Super positional accuracy and precision

Microdispensing systems built with advanced robotics for superior positioning accuracy and precision. (Resolution: 1µm; XY precision +/- 6µm).

Ultra-low volume dispensing

Single microdrop volumes can be programmed to be any volume in the range of 5pL to 120pL (contingent on well-engineered fluids).

Target alignment camera

Allowing precise point-and-shoot dispensing for simpler, faster target alignment and inspection.

Exceptional dispensing speed

Maximum dispensing rate 10,000Hz (drops per second).

Robust, durable build

Build from the highest quality components with a 10 year+ design life.

Out-of-the-box ready

Simple and easy to use micro dispensing system, ready to go out-of-the-box, in a compact benchtop footprint.

Customisable dispensing deck

Dispensing deck has 4 locating dowels which allow the user to fit their own target substrate holder.

Ongoing software upgrades

Keep up to date with the latest features and capabilities. (Optional).

1-year & extended warranties

Includes a 1-year parts and labour, return to factory warranty. Option to extend the warranty for 3 to 5-years also available.

APPLICATIONS & MATERIALS

Our micro dispensing system is proven to deliver for a wide range of applications and materials, including:

- ✓ DNA / RNA
- ✓ Sensor technology
- ✓ Proteins / Antibodies
- ✓ Micro electro mechanical systems (MEMS)
- ✓ Living cells
- ✓ Coatings
- ✓ Nano-materials
- ✓ Microneedles
- ✓ Adhesives
- ✓ Microarrays
- ✓ Radioactive Materials

ACCESSORIES

Additions, upgrades and replacement parts.

A wide range of accessories including cameras, dispensing cartridges, maintenance kits and more.



Target Viewing Camera

The vertical target viewing camera is an invaluable accessory to assist in the precise alignment of dispensed microdrops and the target locations.



Dispensing Cartridges

Polypico offer an off-the-shelf range of dispensing cartridges with different orifice sizes, for immediate delivery. Standard orifice sizes include: 30µm; 50µm; 70µm; 100µm and 120µm.



Filling Bridge

Filling bridges make the filling of dispensing cartridges from 96 well plates simple and easy to do. They are also a convenient way of storing dispensing cartridges.



Suction Cups Adapter

Suction cup adapters fit standard 200ul pipettes. Suction cup adapters are used when aspirating fluids into dispensing cartridges.



Maintenance Kits

Service and maintenance kits are available for the PicoSpotter systems / robotics platform, which consists of lubricants and instructions on the cleaning and reapplication of lubricants.

SPECIFICATIONS

Robotics Accuracy

X,Y,Z resolution: 1µm
X and Y precision: +/- 6µm
Z precision +/- 20µm

Speed

120mm/s

Dimensions

530mm Length x 510mm Width x 470mm Height

Weight

30.37kg

Enclosed

Yes

Working Area

140mm x 190mm

Number of SBS well plate holders

2