Electro-Steering System

PRINT 2D PATTERNS AT ULTRA-HIGH SPEED, WITH NO MOVING PARTS



State-of-the-art electro-steering system high speed print system for small targets

The revolutionary electro-steering technology from Polypico controls the trajectory of micro-drops in free space. The system can print 2D patterns at speeds which can be orders of magnitude faster than traditional printers. Traditional printers, using robotic platforms, spend more time moving the printhead over the target rather than printing.

The electro-steering system has been designed especially for small targets which need high positional placement accuracy, e.g.: TEM grids; micro-needle arrays; sensor chips; etc. Customisation is possible for larger footprint targets.

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.

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).

Ultra-high speed 2D printing

Print 2D patterns at high speed with high placement accuracy and no moving parts. Print speeds dependent on target pattern complexity and required volume per deposition. For example, less than 4 seconds to print 200 discrete locations on a 10mm square target, with 2nl deposited per location.

Customisable

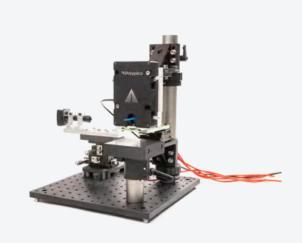
Custom configurations possible to suite your specific application requirements.

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:

- Active Pharmaceutical Ingredients
- Proteins / Antibodies
- Vaccines
- DNA / RNA
- Protein microcrystals
- ✓ Nano-materials
- Micro-needles
- Sensor technology
- Transmission Electron Microscope grids
- Microarrays

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

Positioning Accuracy	Application specific (fluid and substrate dependant) Typically +/-50µm
Speed	Application specific (fluid and target geometry dependant) Typically 5,000 micro-drops deposited per second Up to 200 discret locations dispensed onto per second
Dimensions	System enclosure 600mm x 600mm x 1500mm
Weight	Approx 30 kg
Enclosed	System enclosed
Working Print Area	Standard 10mm x 10mm (Customisable)

