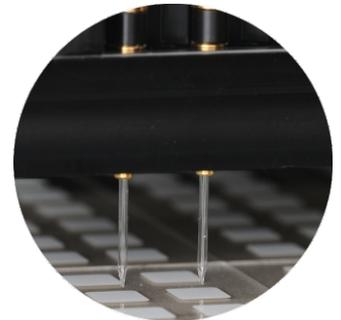
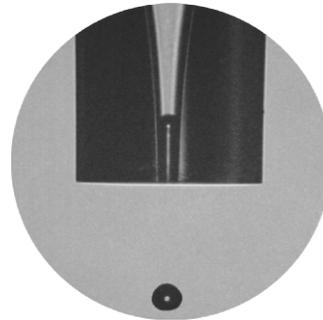


sciOPTION



sciDROP PICO

- Piezo Dispense Capillary PDC
- different coating types for specific applications and long production runs
- dispenses 50-800 pL per drop with optical volume control
- superior spot morphology, high accuracy and reproducibility
- multichannel capability with up to 8 PDCs
- compatible with all sciFLEXARRAYERS
- DIN EN ISO 9001:2008 Quality Management System

sciDROP PICO . . . *Tiny drops for your success*



# sciDROPPICO

## About sciDROPPICO

Miniaturizing diagnostic test systems with the objective of increasing throughput and decreasing cost, requires a precise handling of picoliter to nanoliter liquid volumes.

SCIENION sciDROPPICO is State of the Art non-contact dispensing technology based on a piezo driven inert glass capillary. Depending on the piezoelectric ceramic deformation mode, induced pressure pulses force the printing solution through the dispense capillary and create a volume-defined droplet released at the orifice. This allows drop-on-demand dispensing with up to 500 drops per second. All Piezo Dispense Capillaries (PDCs) feature full aspirate and dispense liquid handling at the pico-liter scale and enable accurate and precise droplet deposition under various conditions.

Established SCIENION optical control systems can be used to monitor sciDROPPICO's performance throughout application development or in a production environment, thus allowing the user to actively control the bioprinting performance.

The sciDROPPICO option together with SCIENION's surface coating technology provides access to a broad field of applications with high accuracy and reproducibility for biomolecules dispensing, using water based printing buffers and even organic solvents and viscous liquids.

All sciFLEXARRAYER systems can be equipped with both SCIENION dispensing technologies, sciDROPPICO and sciDROPPICANO, and can be configured with up to eight sciDROPPICO dispensers.

- Enables Drop-in-Drop and Drop-on-Drop dispensing
- Printing into MTPs and on slides and membranes
- Biosensor loading
- Protein and peptide microarrays, nanoliter PCR for SNP detection, RT-PCR, multiplex ELISA, cell dispensing, RPPA
- No adapters needed to enable aspiration from different vials or plates

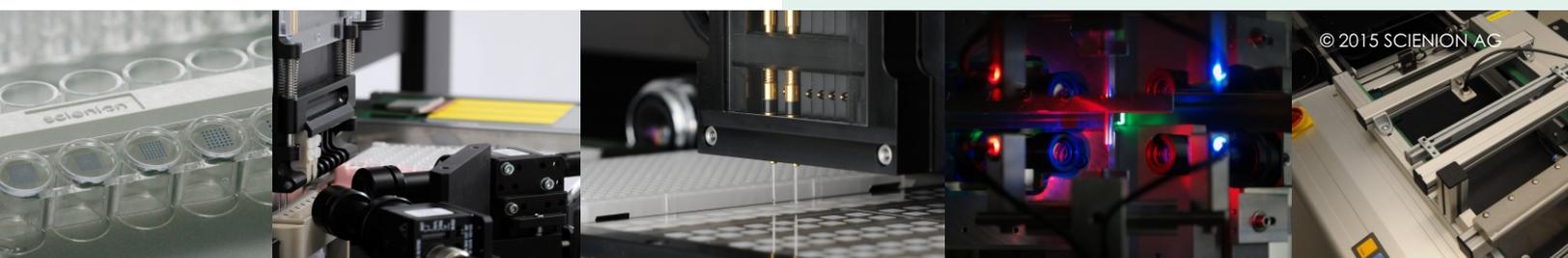
## Options & Software

- PDC cleaning service
- Heated head to dispense viscosities of up to 1000 mPa.s
- DropVolume software for precise volume detection

## Technical Specifications Piezo Dispense Capillary (PDC)

Piezo dispensing:	non-contact
Capillary orifice:	40 - 110 $\mu\text{m}$
Available PDCs:	
PDC 40	100-150 $\mu\text{l}$
PDC 50	150-220 $\mu\text{l}$
PDC 60	220-300 $\mu\text{l}$
PDC 70	300-360 $\mu\text{l}$
PDC 80	360-440 $\mu\text{l}$
PDC 90	440-520 $\mu\text{l}$
PDC 100	520-600 $\mu\text{l}$
PDC 110	600-800 $\mu\text{l}$
Spot frequency:	1 - 1500 Hz
Typical spot size:	80 - 250 $\mu\text{m}$
Average CV of drop volumes:	< 2 %, typically 0,5 %
Typical pitch (spacing):	freely scalable (> 50 $\mu\text{m}$ )
Capillary materials:	borosilicate glass, TEFLON®tube, PEEK fitting
High chemical resistance:	organic solvents (ethanol, NMP, DMSO, DMF), acids
Supported media:	water, inks, alcohols, detergents, liquid UV-adhesives
Viscosity of spotable solutions:	0,4 - 5 (mPa.s)
Available coatings:	
PDC Coating Type 1	aqueous solutions & organic solvents
PDC Coating Type 2	samples containing organic solvents like DMSO, DMF etc. & protein mixtures (e.g. lysate, allergens ect.)
PDC Coating Type 3	samples containing protein solutions & organic solvents like methanol, isopropanol, acetonitrile etc.
PDC Coating Type 4	protein solutions & Sol-Gel samples
PDC Coating (Special)	modified according customers requirements and specifications

For additional information about sciDROPPICO, please contact us by email at: [support@scienion.com](mailto:support@scienion.com)



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