SCIENION
A BICO COMPANY

Two technologies

One dispense head

SCIDROP PICO / SCIDROP NANO

Enabling precision dispensing versatility through wide volume range

PICOLITERS   NANOLITERS   MICROLITERS

SCIDROP PICO   **SCIDROP** NANO

- Up to 8 fluidic channels in standard configurationUp to 8 fluidic channels in standard configuration
- Visual detection of single droplets and liquid jetsVisual detection of single droplets and liquid jets
- Volume control through the optical detection or flow sensorsVolume control through the optical detection or flow sensors
- Outstanding reproducibility of dispensed volumes (typically below 2%)Outstanding reproducibility of dispensed volumes (typically below 2%)
- Freely adjustable configuration and many software optionsFreely adjustable configuration and many software options
- From R&D to high-throughput production environmentFrom R&D to high-throughput production environment
- Both technologies can be installed in one sciFLEXARRAYER Both technologies can be installed in one sciFLEXARRAYER

HIGH REPRODUCIBILITY, UNSURPASSED PRECISION & ACCURACY

SCIDROP TECHNOLOGY

SCIDROP PICO

sciDROP PICO meets the requirements of most sophisticated applications in R&D and manufacturing. High reproducibility of droplet volumes combined with unsurpassed precision, accuracy and multiple hardware & software options deliver seamless spotting performance during short and long printing runs.

SCIDROP NANO

sciDROP NANO is the perfect choice for printing larger spots, lines and coatings. Bulk dispensing or aspirate/dispense working mode can be employed depending on the application. Online volume measurement and control, quick and easy exchange of sample reservoirs and accurate positioning and stability underpin its performance.

Both technologies are **compatible with all sciFLEXARRAYER models** and can be both installed in a **single instrument**, covering a full range of precision dispensing applications

10 pL   100 µL
Full volume range with sciDROP PICO & NANO combined

	SCIDROP PICO	SCIDROP NANO
Dispense Technology	Non-contact piezo-acoustic dispensing	Non-contact dispensing with fast-response electromagnetic microvalve
Dispense Mode	Stop-and-spot, spot-on-the-fly, line printing, and predefined patterns	
Volume	10 pL* - 800 pL per single droplet	25 nL - 1 µL per single jet (flow rate 1.5 µL / cm)
Individual Volume Range	10 pL* - 70 nL	25 nL - 100 µL
Combined Volume Range	10 pL - 100 µL when both technologies are installed in one instrument	
Volume Control	Online optical detection	Online optical detection and flow sensor
Viscosity Range	0.4 - 20 mPas*	up to 25 mPas
Spotting Frequency	1 - 1500 Hz	1 - 50 Hz
Dispensed Volume Reproducibility	CV typically below 0.5%	CV typically below 2%
Dispense Capillaries	Medical-grade borosilicate glass with special coatings (depending on sample properties)	Medical-grade borosilicate glass with special coating
Capillary Coatings	Various coatings to ensure stable production runs. Optimal coating type will be determined in a demo.	Special capillary coating to ensure stable jet dispensing.
Popular Substrates	• Biosensors • Microcantilevers • Microfluidic chips • LoAC & POC devices • Microplates • Membranes • Glass & polymer slides	• Biosensors • Microfluidic cartridges • Microplates • Microwells • Nitrocellulose sheets • Lateral flow membranes • Microneedles

*results obtained with optimized samples and configuration

Contact us for your free demo — Our team of experts will determine the optimal solution for your applications

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MADE IN GERMANY