Picoliter & Nanoliter Dispensing Solutions

IMTEK – Lab for MEMS Applications

Pico-Injector

2 individually addressable fluid channels enable customized dispensing based on BubbleJet principle

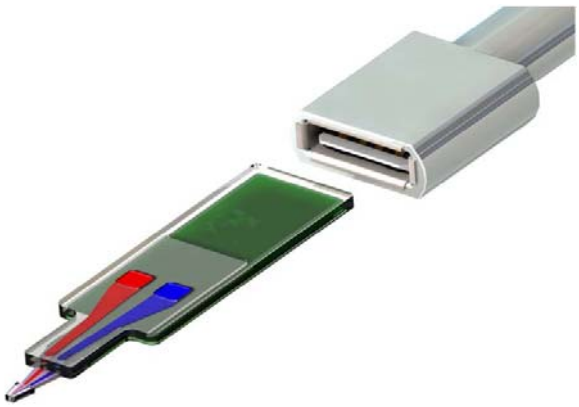
- Droplet volume: V ~ 6 pL
- Position accuracy: < 50 µm
- Dosage frequency: up to 11 kHz

Disposable low-cost device

- Simple handling – “click and dispense”
- Integrated reservoir (10 µL) – primed with pipettes

Silicon / SU-8 / PDMS microfluidic technology

- Biocompatibility tested according to ISO 10993-5
- Sterilizable (vapor @ 120 °C)



Pico-Injector

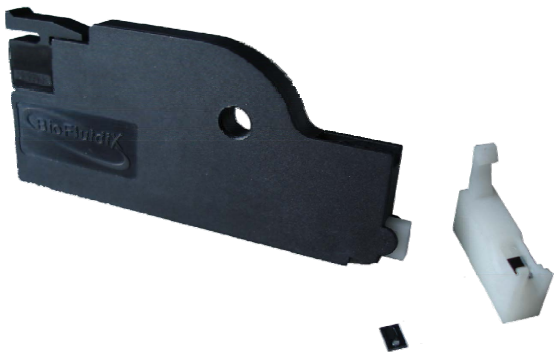
NanoJetTM+

Non-contact dispenser for nanoliter volumes based on NanoJetTM direct volume displacement technology

- Dosage range 100 – 500 pL
- Dosage frequency up to 10 kHz
- Media: large range of viscosities and surface tension

Easily stackable at 4.5 mm pitch

Silicon dispensing chip mounted into a clip-on disposable 100 µL reservoir that also integrates a 1/16” fluid connector



NanoJetTM+

PipeJetTM

Single channel non-contact dispenser using low-cost consumables (polymer tubes)

- Dosage range 5 – 60 nL (single droplet)
- Dosage frequency up to 250 Hz
- CV typically < 3 %
- Media: large range of viscosities and surface tension; handles even difficult liquids with particles (tested up to 40 µm diameter) or low surface-tensions (e.g. ethanol)

Easily stackable at 9 mm pitch

All fluid contaminated parts can easily be exchanged

PipeJetTM

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