



simple.
precise.
reliable.
robust.

non-contact liquid handling,
affordable for everyone.



belief

We believe that simplicity and passion leads to elegance, robustness and reliability.

Hi, we're dispendix

We, the Dispendix GmbH, are a spin-off of the Fraunhofer Institute for Manufacturing Engineering and Automation (IPA) in Stuttgart, Germany - and a part of the CELLINK Group.

At IPA a novel liquid handling technology, called I-DOT ("Immediate-Drop-On-Demand technology") has been developed to establish an efficient, flexible alternative non-contact solution for liquid-handling tasks for nano- to microliter volumes.



vision

Our vision is to establish a simple and elegant gold-standard in non-contact liquid handling, affordable for everyone.



mission

Our passion for simple and elegant solutions drives our motivation to create robust, reliable and precise solutions for nanoliter dispensing.

I-DOT One

Simple, reliable, robust, and elegant non-contact dispensing

Applying a well-defined pressure pulse on top of the well forms a droplet, and a high-precision nanoliter droplet is released into or onto nearly any destination. Larger volumes are achieved by applying up to 400 pulses per second. Immediate Drop-On-Demand Technology (I-DOT) is a new approach for nano- to microliter liquid-handling tasks. It uses patented non-contact pressure-based dispensing technology. The general principle is simply based on a hole in the bottom of a microliter plate well. Capillary forces keep the sample liquid in the cavity.



Non-contact, no pipetting tips, means no carry-over and cross contamination



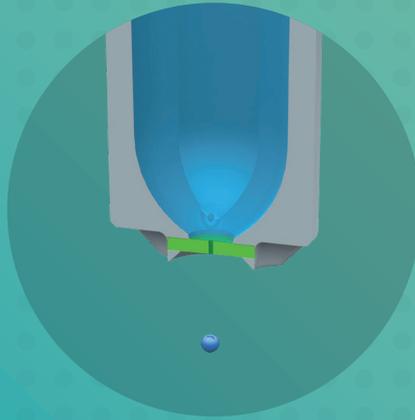
Dispense a variety of liquids, including but not limited to aqueous solutions, PCR-buffer, DMSO up to 100%



Dispense living cells



Scalable, from single samples to high throughput



Immediate Drop on Demand Technology (I-DOT) – droplet generation.



I-DOT One dispensing specifications

| | |
|--|--|
| Volume range | 2 to 80,000 nL. |
| Accuracy | < 5% (≥ 100 nL) and < 8 % (<100 nL). |
| Precision | < 5% (≥ 100 nL) and < 8 % (<100 nL). |
| No. of I-DOT source plates | 1 |
| No. of target plates | 1 |
| Target plate types | Any SBS-compatible well plate, e.g. 96; 384; 1,536; 3,456 well plates. |
| Time to dispense a 384 well plate | \approx 20 seconds. |
| Time to dispense a 1536 well plate | \approx 80 seconds. |
| Maximum no. of different liquids per run | 96 |

I-DOT Dispensing Plates

| | I-DOT Pure Plates | I-DOT Silica Plates |
|---------------------------------------|--------------------|---------------------|
| Orifice | 90 μm | 60 μm |
| Dispensing volume (aqueous solutions) | 10 to 80,000 nL | 2 to 80,000 nL |
| Well format | Single wells | 8-well strips |
| Material wells | Polypropylene (PP) | Polycarbonate (PC) |
| Material frame | Polystyrol (PS) | Polystyrol (PS) |
| Plate format | 96 | 96 |
| Compatible with I-DOT One | Yes | Yes |

I-DOT One site requirements

| | |
|-----------------------|--|
| Dimensions | 47 cm width x 52 cm depth x 32 cm height |
| Weight | 45 kg |
| Power supply | AC 100-120 V, 50/60 Hz, 10 A or AC 200-240V, 50/60 Hz, 5 A |
| Compressed air supply | Filtered, oil-free, dry air, 6 Bar (87 PSI) – 10 Bar (145 PSI) |
| Operating conditions | 22°C ± 5°C (72°F ± 9°F) |



