



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.

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# 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



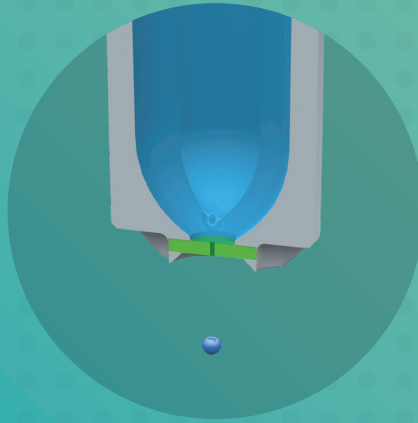
Dispense a variety of liquids, including but not limited to aqueous solutions, PCR-buffer, DMSO up to 100%



Dispense living cells



Scalable, from single samples to high throughput



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



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## I-DOT One dispensing specifications

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Volume range	2.0 nL – 80 µL
Accuracy	< 5 % (aqueous solutions)
Precision	< 3 % CV
Dead volume	< 1 µl
Time to dispense a 384 well plate	< 20 seconds
Time to dispense a 1536 well plate	< 80 seconds
Source	I-DOT Silica Plate
Destination	All SBS format microplates, any other not exceeding 127 mm width x 85 mm depth x 16 mm height
Fluid compatibility	DMSO up to 100 %, glycerin up to 50 %, PCR-buffers, aqueous solutions

## I-DOT One automation specifications

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Software	Reformatting, direct serial dilution, IC50, cherry picking, mixing, array, generation
Operating system	Windows XP or Windows 7
LAN	10 / 100 MBit/s
SiLA compatible	3rd party integration possible

## I-DOT One site requirements

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Dimensions	47 cm width x 52 cm depth x 27 cm height
Weight	30.3 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)



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