

I.DOT S

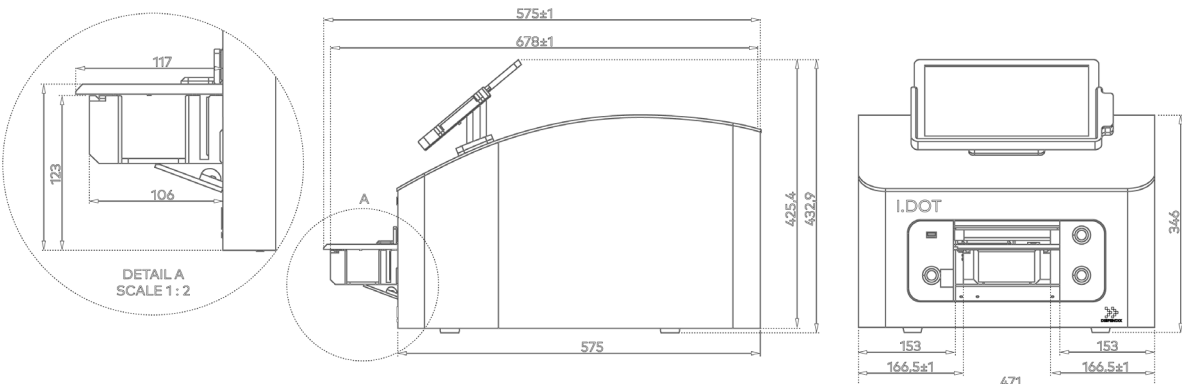
Non-contact Dispenser

DISPENDIX GmbH, Stuttgart, Germany



Physical Specifications

| | |
|----------------------------|--|
| Size L x W x H | 471 mm x 575 mm x 433 mm |
| Display | 12.3" Touch Screen Monitor |
| Weight | 45kg / 99.2 lbs |
| Case | Powder coated aluminum, EN-AW 5754, RoHS compliant |
| Minimal Clearance Distance | 100 mm |



Operating Specifications

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|------------------------------|--|
| Power Supply | AC 100-240V, 50/60Hz |
| Average Power Consumption | 120 W |
| External Air Pressure Supply | 3-10 bar / 40-145 psi / filtered 20 µM, oil-free optional compressor available |
| Connectivity | 3x USB 2.0, 1x Ethernet (LAN, RJ45) |
| Operating Temperature | 18°C – 25°C |
| Operating Humidity | 30% RH – 65% RH |
| Protection Class | I |

Dispensing Specifications – Any well to any well

| | |
|---------------------------|--|
| Liquid Type Compatibility | Viscosity range: 0.55 mPa*s (Methanol) - 23.32 mPa*s (65% Glycerol) Including but not limited to: PCR Master Mixes, Enzyme Stocks, PCR Primers, Nucleic Acid Solutions, Magnetic and Resin-based Beads, Antibody Dilutions, DMSO, Ethanol |
| Target Applications | Including but not limited to: (RT-)PCR & Digital PCR Set-Up, NGS Sample Prep Assay Development & Optimization, Dose Response Curves, Synthetic Biology, Drug Discovery, Proteomics |
| Dispensing Resolution | 0.1 nL |
| Accuracy* | < ± 5% for dispensing volumes above 50 nL (H ₂ O) |
| Precision* | < 5% for dispensing volumes above 50 nL (H ₂ O) |
| Maximum Dispensing Volume | 30 µL |

TECHNICAL DATASHEET

| | |
|------------------------------|--|
| Dispensing Technology | Non-contact Immediate Drop on Demand Technology (I.DOT) |
| Dispensing Channels | 8 parallel channels with independent volume control |
| Combinatorial Dispensing | Enables any source well to any target well liquid dispensing |
| Dispensing Speed | Dispenses 10 nL H ₂ O across a 96-well plate in 10 seconds, across a 384-well plate in 20 seconds and across a 1536-well plate in 80 seconds. |
| Volume Verification | Independent optical sensor detects and reports each dispensed droplet (overall drop count accuracy per run: 99%) |
| Target Labware Compatibility | Any ANSI-SLAS (SBS) compatible well plate with a maximal height of 50 mm and a density of up to 1536 wells |

* Measured under DISPENDIX lab conditions.

** 100% DMSO can be dispensed into plates with a density of up to 384 wells.

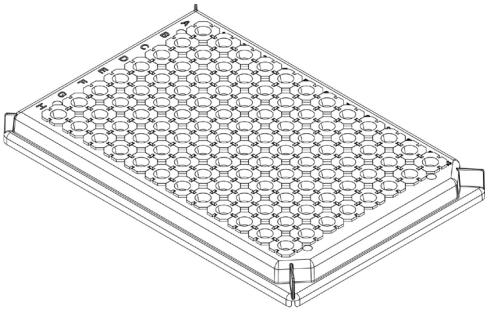
Minimum Droplet Volumes* [nL]

| | MeOH / 0.55 mPa*s | 0.6 mPa*s | 0.75 mPa*s | 0.89 mPa*s | H ₂ O / 1 mPa*s | 10% Gly / 1.38 mPa*s | 25% Gly, DMSO / 2.42 mPa*s | 33% Gly / 3.42 mPa*s | 39% Gly / 5.63 mPa*s | 43% Gly / 5.63 mPa*s | 50% Gly / 8.37 mPa*s | 60% Gly / 16.06 mPa*s | 65% Gly / 23.32 mPa*s |
|-------------|-------------------|-----------|------------|------------|----------------------------|----------------------|----------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| S.60 Plate | 6.2 | | 5.4 | 3.9 | 3.3 | 2.55 | | | | | | | |
| S.100 Plate | 11.1 | 16.9 | 13.6 | 10.5 | 9.9 | 9.4 | 10.8 | 18.9 | 16.6 | 15.9 | | | |
| S.200 Plate | | | | | | | | 48.5 | | 45.3 | 37.6 | 30.8 | 39.1 |

* Minimal Droplet Volumes are liquid type and source plate dependent. Measured under DISPENDIX lab conditions.

Consumables

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|---|--|
| Source Plate Format | 96-well plate |
| Source Well Capacity | 80 µL |
| Recommended max. Source Well Fill Volume: | 70 µL |
| Dead Volume | < 1 µL (H ₂ O) |
| Material | Polypropylene |
| Source Well Orifice | 60 µM (S.60 Plate) 100 µM (S.100 Plate) 200 µM (S.200 Plate) |
| Storage Conditions | Lidded source plates containing DMSO solution can be stored in a dry (1% RH), low-oxygen (1% O ₂) atmosphere |
| Shelf Life | 36 months |
| Storage Conditions | Store in a dry environment at temperatures between 18°C and 25°C and protect from light |



Automation & Integration Capabilities (optional automation kit)

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|--|--|
| Software | SiLA2 API enabling integration with any third-party scheduling software, automation guide available |
| Hardware | Source and target tray optimized for robotic arm access and advanced robustness for automation.* (e.g., Brooks Precise Flex 400, PAA KX-2) |
| Source and Target Labware Gripping Options | Landscape - top grip Landscape - side grip |

Accessories and Service

I.DOT Compressor oil-free, 20 µM filtered, 3-10 bar / 40-145 psi

Transfer Track - Advanced I.DOT Protocol Designer Software

I.DOT Automation Kit, incl. optimized Source & Target Tray and Integration Guide

Customer Care Package, incl. Service Parts and Repairs, Travel Time, Shipping Costs, Technical Remote Support

Priority Customer Care Package, incl. Service Parts and Repairs, Travel Time, Shipping Costs, Technical Remote Support, on-site and/or remote application support, highest prioritization level incl. 24h response time, yearly preventive maintenance

Diamond Customer Care Package, full coverage incl. incidents of accidental damage

Compliance

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|---|--|
| CE, CB, cTÜVus 1:2010/AMD1:2016, UL 61010- A1:2019/AC:2019) EN61000-4-3:2006 + 6:2014, EN61000-4- | (EN 61010-1:2010/A1:2019, IEC 61010-1:2010, IEC 61010-1:2012/R:2019-07 CSA C22.2 No. 61010-1:2012/A1:2018-11) Low voltage Directive 2014/35/EU(EN61010-1:20210 + A1:2019+, EMC Directive 2014/30/EU (EN61000-3-2:2014, EN61000-4-2:2009, A1:2008+ A2: 2008, EN61000-4-4- 2012, EN61000-4-5:2014, EN61000-4-8:2010, EN61000-4-11:2004, EN55011:2016, EN55032:2016) RoHS Directive 2011/65/EU EN IEC 63000:2018 |
| REACH | Regulation (EC) No. 1907/2006 |
| ISO 9001:2015 | |





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