DISPENDIX
A BICO COMPANY

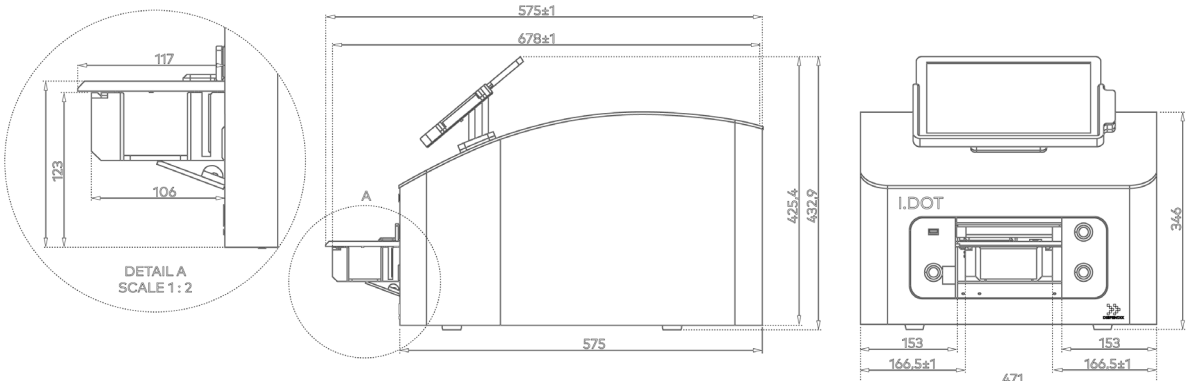
I.DOT S

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

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_2O)
Precision*	< 5% for dispensing volumes above 50 nL (H_2O)
Maximum Dispensing Volume	30 µL

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_2O 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.*

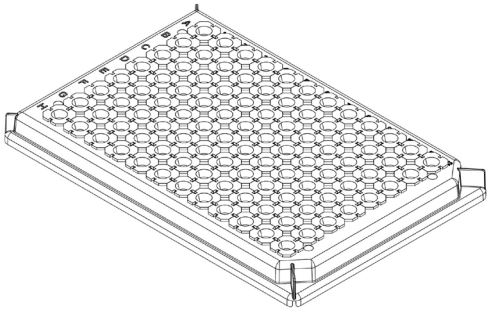
Minimum Droplet Volumes* [nL]

	MeOH / 0.55 mPa*s	0.6 mPa*s	0.75 mPa*s	0.89 mPa*s	H_2O / 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*	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

Source Plate Format	96-well plate
Source Well Capacity	80 µL
Recommended max. Source Well Fill Volume:	70 µL
Dead Volume	< 1 µL (H_2O)
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)

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

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	

SP CERTIFIED ISO 9001 Quality management systems

TÜV SÜD C US

CE RoHS compliant

CB

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