

instrumentZERO

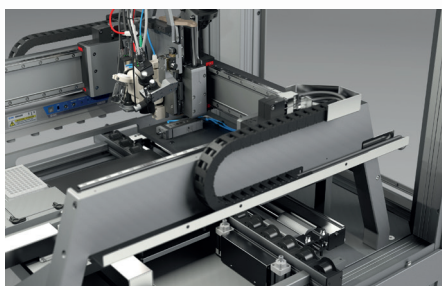
Your Modular Solution in Micro-Dispensing



The instrumentZERO series contains everything you value about M2-Automation's technology and combines it with a fully flexible, scalable and highly automated production environment. Without the need to change or reprogram the entire setting during production, the remote-controlled software handles a variety of different products, and protocols at ease. From a few dozen to several thousand units produced per day, the almost maintenance free iZERO™ reduces the changeover time to a minimum while maximizing its productive time - Making it the obvious choice to spot your future.



Fully climate controlled system with integrated HEPA filter, ready for clean room production.



A tilted camera monitors the dispensing process on the target - live. This way, each dispensing process is documented and is saved for instantaneous quality control.

A dual active feed through transfer system transports the carrier from one portal to the next, equipped with a barcode scanner for target identification.

Starting with a single iZERO™ unit, M2-Automation's extendable production line is able to address all needs from an early pilot phase to an automated well-engineered production.

Key Features

- in-line-QC
- database connection
- highest process safety
- modular flexibility
- high-precision magnetic drive stage
- HEPA-Unit
- dual active feed through transfer system
- μm Resolution Z Level Distance Sensor
- 3D-droplet detection cameras
- DXF target format import
- Quattro-Dispensing-Technology

Novel Quattro-Dispensing Technology

Non-contact and contact dispensing within one hybrid system

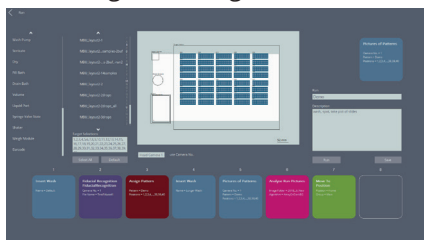
1. Piezo Driven Micro-Dispenser for pico- to low nanolitre applications (30 pL+; c.v. 2%)
2. Solenoid Driven Micro-Dispenser for nano- to low millilitre applications (30 nL+; c.v. 10%)
3. M2-Micro-Dispenser for low nano- to low millilitre applications (10 nL+; c.v. 2%)
4. Pin Head
PinDMD for split, hollow or solid/blunt end pins



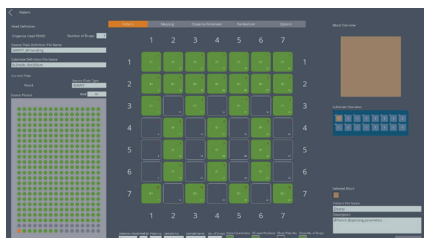
Intuitive User Interface

InDot is M2-Automation's latest software development - unique, intuitive and innovative.

- Self explanatory user interfaces reflecting the current application and processing status
- Direct access to all installed features (liquid supply and removal, shaking, tilting, illumination, processing times, cooling or heating)



- Wizards and automation scripts for instrument preparation, rinsing and disinfection



- Pattern Import / Export and smart sample transfer from source to target



Instrument Applications

- Processing of biochips: protein, DNA, cell and other microarrays
- Processing of versatile blot membranes, reel-to-reel applications
- Processing of glass, plastic slides or other formats
- Lab-on-a-Chip / dipsticks
- compound library screening
- bio-sensors
- drug discovery / immunoassays
- cell transfection assays
- lateral flow applications

Technical Data

- Capacity:
printable area of
350 / 400 - 600 mm
- Source formats:
96-, 384-, 1536-MTP; 16 plastic vials of 0.5-2 mL; 1 24-well chip (well volume 100 µL); 1 65-well chip (well volume 25 µL); cartridge dispensing from 2-20 mL vial (M2-Dispenser-M2MD-C)
- Maximum speed
X=0.7 m/s, Y=0.7 m/s, Z=0.7 m/s
- Maximum drive range
X=372 mm, Y=400 mm, Z=80 mm
- Single increment resolution
1 µm
- Positioning repeatability
+/-5 µm
- Maximum positioning velocity
up to 5 depositions per second
- Self-contained fluidic system
- Power
200-240 VAC; 756 W + optional components

Dimensions:

- Complete Unit
W 85 cm, D 130 cm, H 265 cm
- Weight
~300 kg

Additional Information:

- Target
65 glass microscope slides (portrait); 9 MTPs (portrait); MALDI plates, microfluidics, biochips, wavers; membranes; customized targets



The iZERO™ is a fully flexible, scalable and highly automated production environment.