

Closed-loop controlled pressure driven dispensing



Calibration-free dispensing—
independent of liquid properties

Facts

- Volume precision
 - $CV < \pm 2\%$ from 1 μl to 3 ml
 - $CV < \pm 5\%$ from 25 nl to 1 μl
- Frequency
 - Up to 25 Hz dispensing frequency with measurement of every droplet
 - Unlimited speed (kHz) for cumulated measurements
- Driving pressure
 - 0-10 bar (with external pressure regulation)
- Form factor
 - Approx. 42x35x55 mm

Advantages

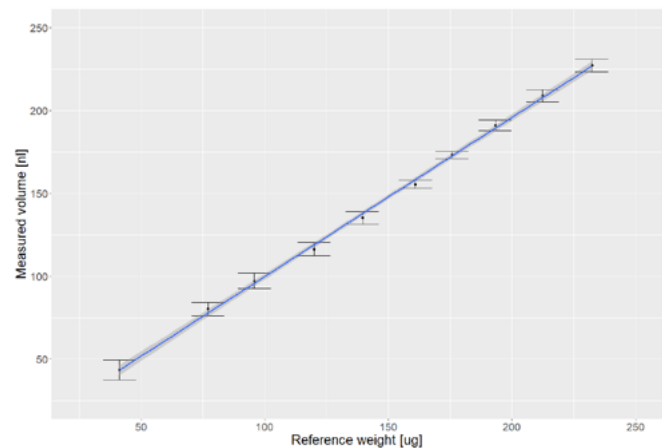
- No time-consuming calibration
- Liquid class independent
- Volume dispensed is monitored and logged
- Drifts (viscosity, clogging) are compensated in real-time
- Easily scalable to drive multiple reservoirs in parallel
- Compact and affordable solution

Applications

- Liquid handling robots
- Electronic dosing units and pipettes
- Grease and adhesive dispensing
- Processes requiring sequential fluid flow



Pneumatic head with integrated air flowrate sensor and micro-valve



Measured volume vs reference weight

