



Disc Pump is an award-winning micropump platform technology platform offering a unique combination of features. Disc Pump is a true enabling technology with applications ranging from healthcare to science.

Key Features

- Silent operation
- Ultra-smooth, pulse-less flow
- Exceptional pressure and flow
- Ultrafast millisecond response
- Compact form
- High-precision

Example Applications

- Medical devices
- Wearables
- Gas sampling and analysis
- Life sciences
- Microfluidics
- Inkjet pressure control

Our evaluation kits come with everything necessary to start testing, including a pump, electronics and PC application for configuration and control. The evaluation kits are suitable for laboratory testing, proof-of-concept and product prototyping.

Details

Kit Contents

Disc Pump (DP-S2-003 high pressure variant or DP-P2-004 high flow variant)
 Drive Board
 Mains PSU with region-specific adapter
 Accessories Kit
 USB drive with PC application for control, configuration and documentation
 Laptop not included. Requirements: Windows 7, 8, 10

Control Modes

Closed-loop Pressure Control

With its onboard pressure sensor connected to the pneumatic system, the drive board adjusts the pump drive voltage until a target pressure is reached. With control loop parameters well-configured for the specific pneumatic set up, pressure can be held with precision better than ± 0.1 mbar without the need for dampers, baffles or accumulators.

Closed-loop Power Control

The drive board continuously adjusts drive voltage supplied to the pump so that a target power is reached. This helps to normalise pump performance in response to changes in e.g. impedance, temperature, back pressure, etc.

Open-loop Voltage Control

The drive board supplies a fixed-amplitude square wave to the pump.

Control Interfaces

Analog In

The drive board provides a 0-3 VDC analogue input, which maps to 0 to 100% power output, so that the pump can be integrated with and controlled from your own development platform.

USB-Serial Interface

The drive board communicates with the PC application via a serial link. The control commands are available upon request so that customers can control the evaluation kit via serial independently of the PC application.