PH-46

Four Fluid
Low Temperature Printhead

Product Description

The PH-46 is a drop-on-demand printhead that contains four independent fluid reservoirs and dispensing devices. The mounting block for the dispensing devices optionally contains a heater and thermocouple, allowing the fluids to be dispensed at up to 50°C. The 2 mL (1.5 and 0.5 mL optional) polypropylene reservoirs can be capped and used to store fluids off-line, and unused fluid can be fully recovered. PEEK and PTFE fittings and tubing combine with the reservoir to make an inert fluid path. A broad range of materials can be dispensed using the PH-46, including bioactive, optically active, sensor, and other materials. Drop volumes ranging from 5 pL to as high as 0.5 nL have been dispensed.

Standard Features

- Four independent fluid reservoirs and dispensing devices.

- All parts cleanable / reusable.

- 2 mL capacity removable polypropylene reservoir can be used for off-line fluid storage. Unused fluid recoverable; 250 µL minimum load volume.

- Compatible with Jetlab® 4xl, Jetlab® 4xl-A, and Jetlab® II.

Available Options

- MJ-AT devices available in orifice diameters 10-80µm.

- 1.5 mL and 0.5 mL polypropylene reservoirs.

- Operation to 50°C

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Ordering Information

PH-46
PH-46H
Four fluid heated drop-on-demand printhead. H for heated option.

MJ-AT-01-xxx
Low-temperature device with MINSTAC threaded fluid fitting, xxx denotes orifice diameter in microns.

C-05
Ten (10) 2 mL capacity polypropylene reservoirs.

C-05a
C-05 plus one set of replacement tubing, fittings, and fluid block.
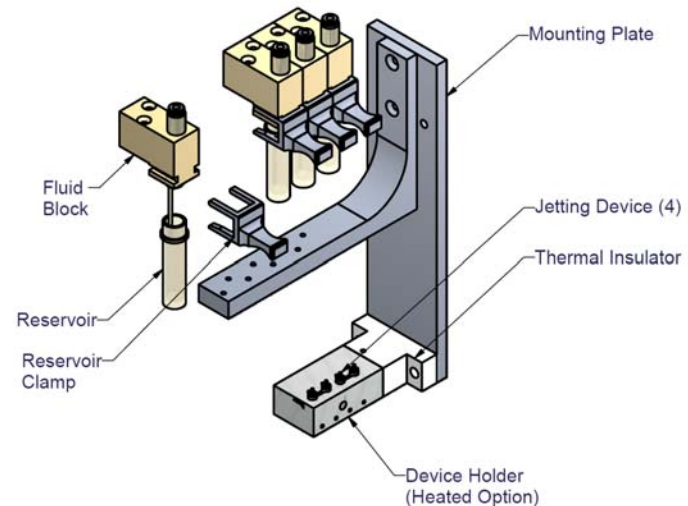
Support Equipment

The PH-46 may be combined with the following components and subsystems to create a functional subsystem.

CT-M3-02
JetDrive™ III controller, including command set and stand-alone control program. Includes built in strobe delay. Level 02 firmware (complex waveforms) included.

CT-PX-08
Eight channel relay unit for multiplexing output of JetDrive III. USB interface. Controlled by JetServer program.

CT-PT4
CP-01
TS-01
Four channel Pressure / Thermal Controller and four CP-01 manual pneumatic channels. Add one TS-01 temperature controller for the PH-41H.

CM-VS-01
Basic Optics System: CCD camera, power supply, lens, fine focus, mounting block.
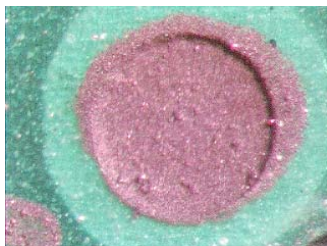
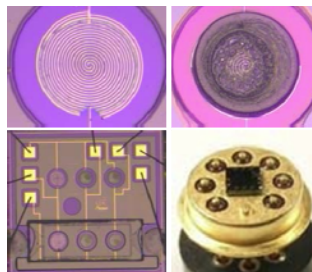## Addition Information

Available at microfab.com

- Drawings with dimensions
- Equipment selection guide
- Integration Guide
- Cleaning Guide.

Nano-copper ink printed onto PWB.

Chemo-resistive sensor, 350µm well.

Eight fluorescent dies printed as 75µm spots on 200um centers.

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