

Polymer Jet™ Printhead for High-Temperature Operation

Product Description

The PH-04a Polymer Jet™ high-temperature, drop-on-demand printhead is designed for dispensing polymers and other materials at elevated temperature. Materials that must be heated above 50°C in order to melt and/or lower the viscosity of the fluid to less than 20cp can be dispensed using the PH-04a Polymer Jet™ printhead. Adhesives, optical polymers for light guides and lenses, and optically active materials have all been jetted successfully with the PH-04a. Drop volumes ranging from 5 pL to as high as 0.5 nL have been dispensed. The PH-04 uses the same interchangeable high temperature dispensing device, the MJ-SF, as does the PH-05a Solder Jet® printhead.



Standard Features

- Operation to 240°C.
- 30 mL capacity stainless steel reservoir.
- Separate heaters for reservoir and dispensing device, allowing different operating temperatures.
- Integrated, high-capacity, 10µm stainless steel filter.
- Compatible with Jetlab®, Jetlab® II, and Jetlab® 4.

Available Options

- MJ-SF devices available in orifice diameters 10-80µm.
- Filter material and pore size selectable.

Ordering Information

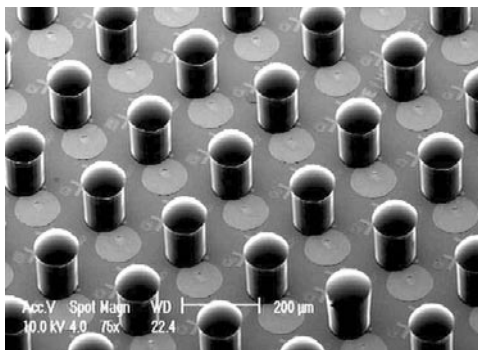
- PH-04a** Polymer Jet™ drop-on-demand printhead. Includes one cartridge (with filter) and one MJ-SF-01-xxx.
- MJ-SF-04-xxx** High-temperature device with VCO fluid fitting, xxx denotes orifice diameter in microns.
- C-02** Spare cartridge (empty), includes filter.

Support Equipment

The PH-04a 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-PT-01** Pressure / Thermal Controller with two (2) temperature controllers. Includes strobe delay unit and LED.
- CM-VS-01** Horizontal Optics System: CCD camera, power supply, zoom lens. Reticle projector, right angle adapter, and fine focus included. No monitor.

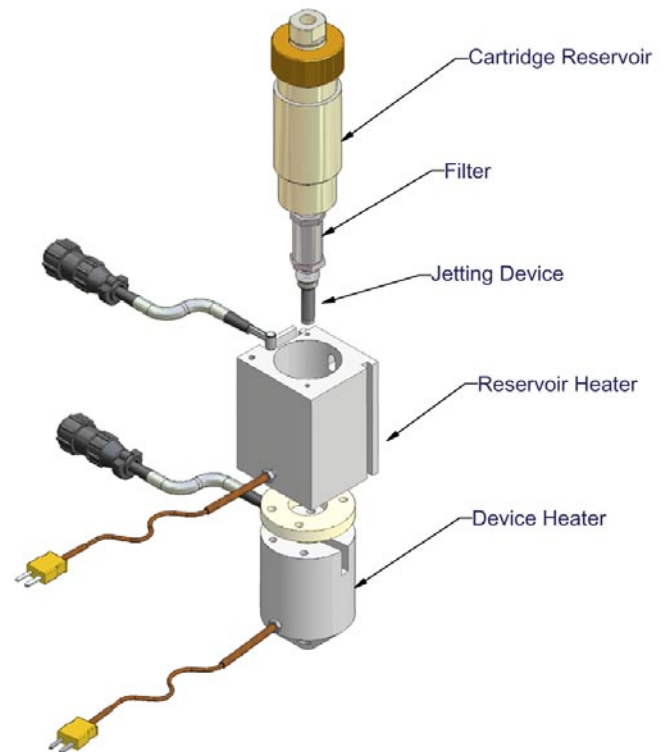
Epoxy microlenses, printed using a Polymer Jet™ printhead, on 100µm pedestals, to collimate VCSEL output.



Addition Information

Links to:

- High resolution version of [exploded view](#) shown below.
- [Assembly drawing](#) with printhead dimensions.



1.74-index optical thermoplastic printed, using a Polymer Jet™ printhead, on glass as 1-32 splitter, 120µm wide branches.

