

Cartridge Style Low Temperature Printhead

Product Description

The PH-41 is a cartridge style, low-temperature drop-on-demand printhead. It is designed for dispensing fluids at room temperature, or optionally up to 50°C. The reservoir attaches directly to the dispensing device, forming a replaceable assembly that allows quick change out and storage, permitting multiple fluids to be printed without having to clean or disassemble the printhead. An integrated filter enhances reliability. A broad range of materials can be dispensed using the PH-41, 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

- MJ dispensing device, filter, and reservoir form replaceable cartridge assembly for quick change out and storage, simplifying printing of multiple fluids. All parts cleanable / reusable.
- 2.5 mL capacity polypropylene reservoir; unused fluid recoverable; 0.5ml minimum load volume.
- Integrated, replaceable / removable 5 μ m stainless steel mesh filter.
- Compatible with Jetlab[®], Jetlab[®] II, and Jetlab[®] 4.

Available Options

- MJ-AL devices available in orifice diameters 10-80 μ m.
- Filter material and pore size selectable.
- Optional heater element for operation to 50°C.

Ordering Information

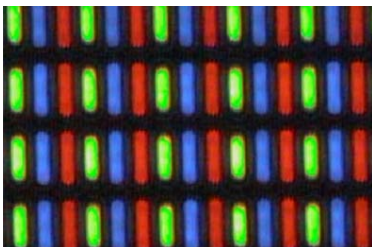
PH-41	Cartridge style, low temperature drop-on-demand printhead. Includes one polypropylene reservoir. H for heated option.
PH-41H	
MJ-AL-01-xxx	Low-temperature device with Luer fluid fitting, xxx denotes orifice diameter in microns. Includes 5µm stainless steel mesh filter element
C-03	Five (5) 2.5 mL polypropylene reservoirs with caps.
C-03a	C-03 plus one set insert & sleeve.

Support Equipment

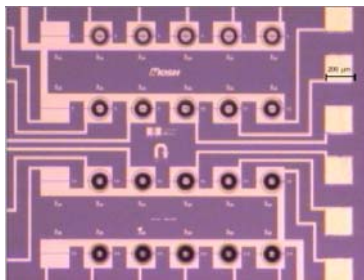
The PH-41 may be combined with the following components and subsystems to create a functional subsystem.

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 no (PH-41) or one (PH-41H) temperature controller. Includes strobe delay 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.

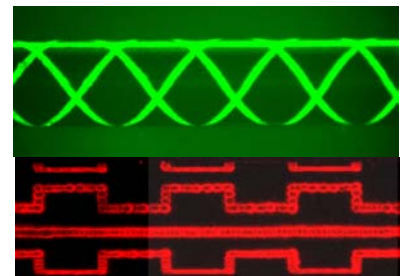
Polymer light-emitting diodes (PLED) printed into 100x300µm features.



Functional polymers printed onto 100µm sensor elements.



1.8mm diam. vascular stents coated with fluorescent dyes; (analog for antirestenotic drugs).



Addition Information

Links to:

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

