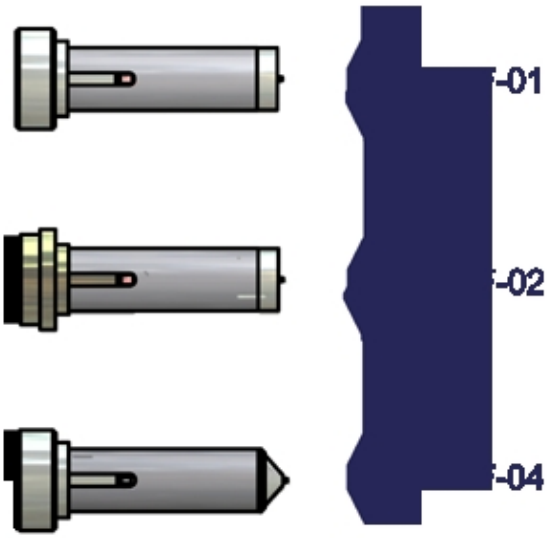

MJ-SF style drop-on-demand single jet dispensing devicesare suited for dispensing droplets of fluids such as adhesives, waxes, polymers and liquid metals at up to 250°C. An integrated orifice and wetted surfaces that are almost exclusively glass make MJ-SF devices extremely robust to aggressive materials, including solders. Orifice diameters of 20-80 um are available, allowing customers to optimize their process by selecting drop volumes with a two order of magnitude range. Fluids with viscosity less than 20 cp and surface tension in the range 20-500 dynes/cm can be dispensed.

Two fluid fitting styles are available: VCO and VCR. The VCO fitting is intended for use with the PH-04 and PH-05 high temperature printhead assemblies. The integrated orifice extends from the housing, allowing visualization of both internal flow and drop formation. Custom, application-specific configurations can also be developed.

Ordering Information

MJ-SF-01-xxx
High-temperature dispensing device with VCO fluid fitting, xxx denotes orifice diameter in microns. For PH-04 / PH-05 printheads.

MJ-SF-02-xxx
High-temperature dispensing device with VCR fluid fitting, xxx denotes orifice diameter in microns.

MJ-SF-04-xxx
High-temperature dispensing device with VCO fluid fitting, xxx denotes orifice diameter in microns. For PH-04a / PH-05a printheads.

-DLC
Diamond-Like Carbon coating on front face of orifice. Add –DLC designation to any MJ part number.

Support Equipment

CT-M3-02: JetDrive™ III controller

CT-PT-21: Pressure / Thermal Controller

CT-PT-A1: Electronic Pressure Controller

CM-VS-03: Basic Optics System

Printhead Assemblies & Misc.: PH-04a, PH-05a, reservoirs, in-line filters; cleaning & retesting service

Specifications

Standard orifice diameters	20-80 um, 5 um intervals
Standard orifice diam. tolerance	±1 um
MJ-SF-01, MJ-SF-04 fitting	VCO
MJ-SF-02 fitting	VCF
Electrical connector	Molex 50-57-9402; Molex 16-02-0097
Standard wire length	150 mm
Printheads for MJ-SF-04	PH-04a, PH-05a

Fluid viscosity	
Fluid surface tension	20-70 dyne/cm
Fluid pH	2-11

Compatible Materials

Organic Solvents	alcohols, keytones, aliphatics, aromatics, dipolar solvents
Aqueous Buffers	nucleic acids, proteins, cells
Other Biologicals	amino acids, lipids, biodegradable polymers
Electronic Materials	fluxes, photoresists, epoxies, polyimides, electroactive polymers, cyanoacrylates, organometalli
Particle Suspensions	pigments, latex spheres, metal particles, Teflon, phosphors, ferrites, zeolyts
Other	sol-gels, thermoplastics, thermosets, acrylics, >1M salt solutions, photographic developer, fuels, aqueous adh

* note: compatibility excludes O-rings

Additional Information

Brochure (PDF)
Drawings with dimensions
Equipment Selection Guide
Cleaning Guide