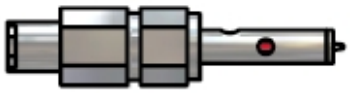
MJ-AT-01

MJ-ATP-01

MJ-AB-01

MJ-ABP-01

MJ-ABL-01



MJ-AL-01

MJ-A style drop-on-demand single jet dispensing devices are suited for dispensing droplets of aqueous and solvent-based fluids at up to 50°C. An integrated orifice and wetted surfaces that are almost exclusively glass make MJ-A devices extremely robust to aggressive fluids. Orifice diameters of 20-80um are available, allowing customers to optimize their process by selecting drop volumes within a two order of magnitude range. Fluids with viscosity less than 20 cp and surface tension in the range 20-70 dynes/cm can be dispensed.

Three fluid fitting styles are available: barbed, threaded, and Luer. The threaded fitting is intended for use with PTFE tubing. The Luer fitting contains an integrated, removable filter.

The integrated orifice extends from the housing, allowing visualization of both internal flow and drop formation. The orifice can optionally be protected from damage by metal extensions on two sides.

Custom, application-specific configurations can also be developed.

Ordering Information

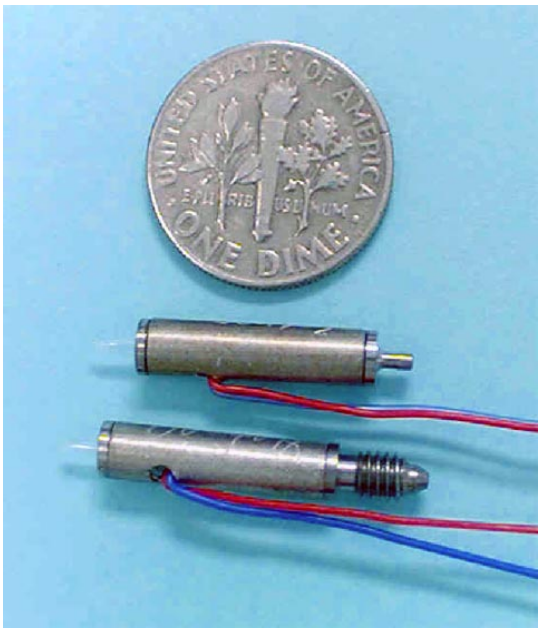
MJ-AB-01-xxx

Low-temperature dispensing device with barb fluid fitting, xxx denotes orifice diameter in microns. MJ-ABL (large) for 80-120 um orifice diameters.

MJ-ABP-01-xxx

Low-temperature dispensing device with barb fluid fitting & protected tip, xxx denotes orifice diameter in microns.

MJ-AT-01-xxx



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

MJ-ATP-01-xxx

Low-temperature dispensing device with MINSTAC threaded fluid fitting & protected tip, xxx denotes orifice diameter in microns.

TF-04

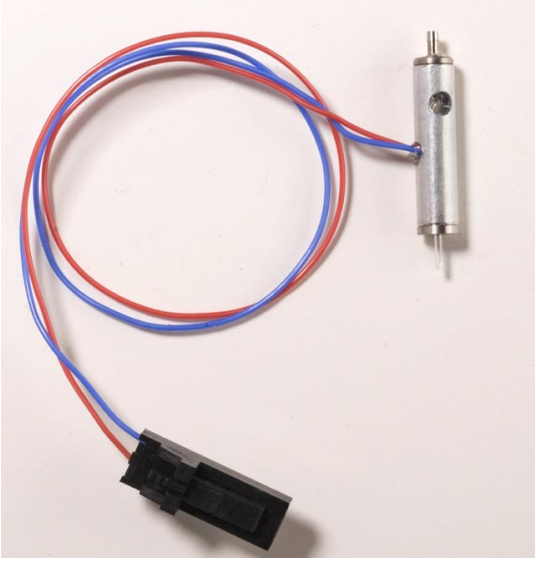
Tubing assembly for AT and ATP devices: Minstac union, 20cm length of Teflon tubing (0.75mm ID, 1.5mm OD), Minstac to Luer adapter.

MJ-AL-01-xxx

Low-temperature device with Luer fluid fitting, xxx denotes orifice diameter in microns. Includes 5 um stainless steel mesh filter element.

-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

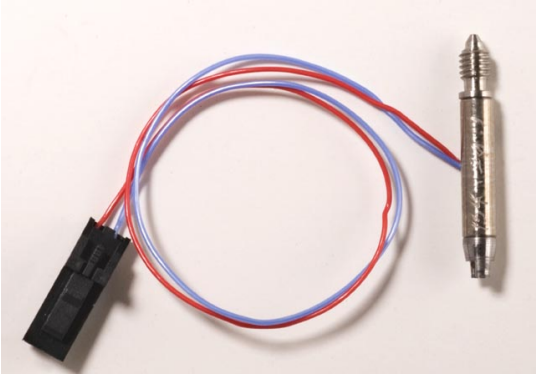
CT-PT-21: Pressure / Thermal Controller

CT-PT-A1: Electronic Pressure Controller

CM-VS-03: Basic Optics System

Printhead Assemblies & Misc.: PH-03, PH-43, PH-46, PH 47, PH-41; tubing assemblies, reservoirs, in-line filters; cleaning & retesting service

Specifications



Standard orifice diameters	20-80 um, 5 um intervals; 80-120 um for MJ-ABL
Standard orifice diam. tolerance	±1 um
Barb fitting	For 1 mm ID tubing

Threaded fitting	MINSTAC, 0.138-40 UNF 2A, 5 turns
MJ-AL, o-rings for filter	EPDM, Buna, or Viton
MJ-AL, filter	5 um stainless steel mesh
Electrical connector	Molex 50-57-9402; Molex 16-02-0097
Standard wire length	150 mm
Printheads for MJ-AB, MJ-ABP	PH-03, PH-43
Printheads for MJ-AT, MJ-ATP	PH-46, PH-47, PH-43
Printhead for MJ-AL	PH-41
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

* compatibility excludes O-rings (AL) and tubing (ABx)

Additional Information

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

Cleaning Guide