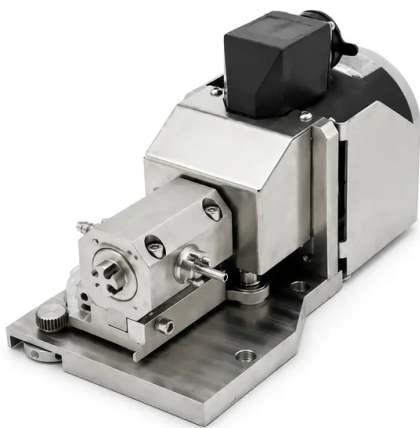


Single Head Electrolyte Injection Pump Precision Quantitative Metering Dispenser

Item Number: JZ10



Introduction

Engineered for high precision liquid dispensing this single head electrolyte injection pump delivers repeatable metering from 0.05 to 3000 microliters per stroke with high hardness alumina ceramic components and intelligent touchscreen control for demanding battery and chemical manufacturing line operations.

[Learn More](#)

Application	Description	Key Benefit
Lithium-Ion Battery Fabrication	Precision injection of liquid electrolyte (LiPF6, solvent carbonates, ionic liquids) into pouch, prismatic, and cylindrical battery cells.	Hermetic seal-free liquid path eliminates crystallization clogging and guarantees strict $\pm 0.3\%$ fill weight tolerances.
Pharmaceutical Dosing & Filling	Sterile micro-metering of liquid active pharmaceutical ingredients (APIs), biological reagents, and vaccine vials.	Alumina ceramic components withstand autoclave sterilization and aggressive CIP protocols with zero chemical leaching.
Specialty Adhesive & Sealant Dispensing	Controlled micro-bead application and potting of cyanoacrylates, UV-curable adhesives, and liquid silicones.	Valveless rotating plunger design eliminates adhesive curing inside moving valve seats and prevents drip defects.
Semiconductor & Electronics Assembly	Accurate delivery of flux solutions, photoresists, conductive inks, and specialized etching chemicals during wafer/board packaging.	Micro-dosing capacity down to 0.05 μL ensures repeatable micro-droplet placement without spatter or fluid creep.
Fine Chemical & Analytical Reagent Dosing	Automated inline dispensing of aggressive acids, bases, and volatile organic reagents into continuous synthesis reactors.	Outstanding chemical inertia across universal solvents paired with precise digital speed adjustment from 18 to 250 rpm.
Food & Flavoring Liquid Injection	Continuous micro-injection of highly concentrated aromatic essences, colorings, and nutritional additives during high-speed packaging.	Clean-in-place bidirectional flush system ensures zero flavor carryover between production changeovers without teardown.

Parameter Metric	Specification Value (Model: JZ10)
Product Item Number	JZ10
Valve Core Material	High-Purity Alumina Ceramic (\$Al_2O_3\$)
Pump Sleeve & Housing Material	SUS304 Stainless Steel
Valve Surface Hardness	1800 HV0.5
Single Stroke Dispensing Volume Range	0.05 – 3000 μL
Stroke Volume Adjustment Mechanism	Calibrated Gear Adjustment Mechanism
Maximum Continuous Flow Rate	750 mL/min
Volumetric Dispensing Repeatability Accuracy	$\pm 3\%$ ($\pm 0.3\%$)
Operating Rotational Speed Range	18 – 250 r/min (rpm)
Inlet Tubing Port Dimensions	6.0 mm (ID) x 8.0 mm (OD)
Outlet / Discharge Tubing Port Dimensions	4.0 mm (ID) x 6.0 mm (OD)
Standard Tubing Materials	Chemically Inert PE / PTFE
Drive Motor Configuration	Industrial Single-Axis 86 Series Stepper Motor

Parameter Metric	Specification Value (Model: JZ10)
Control System Architecture	Digital PLC with Interactive Touchscreen Interface
Physical Dimensions (W x D x H)	234 mm x 125 mm x 146 mm
Net Equipment Weight	5.9 kg
OEM & System Integration	Supported via standard mounting and digital I/O