



Inscintech

Pumps



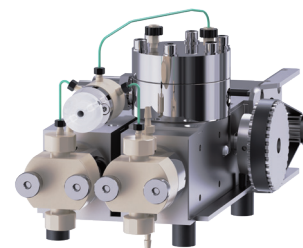
Professional Fluid Control

Innovation for BioProcess



Product Introduction

LC pump is a double-piston constant flow pump equipped with two pump heads and four check valves. It offers high pressure resistance, little pulsation, stable and accurate output flow, and easy maintenance. Set the mode, flowrate, pressure by the control screen, or PC, or your HPLC system. The standard material for the flowpath is PEEK, but other materials can also be chosen. Additional features include automatic shutdown for max pressure, and leakage alarm.



Special Features

- Floating pistons design reduces pressure on the seal, improving the lifespan.
- Continuous Self-washing on the pump head, reduces effects of crystallization.
- Seal, Pumphead, Check valves all allow for easy inspection, maintenance, and repair.
- Has four pre-set modes: constant flow, constant pressure, fix time, fix volume.
- 3.5 Inches display screen, displaying all the essential values such as flowrate, pressure, total volume, total time.
- Integrated leakage sensor below the pump head, alarm in case of leakage.
- Automatic stop when the pressure exceeds the pre-set (or input) max pressure.
- Built-in flowrate correction mechanism, set between 85~115% of the input flowrate.
- Each and every pump is checked for all the specification parameters.
- Multiple communication ports, allows for stand alone control, from PC, and from workstation.



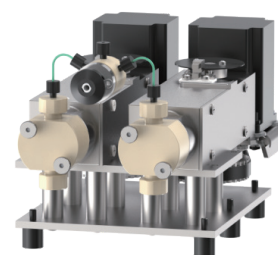
Product Specifications

Model	LC-10-PK	LC-25-PK	LC-100-PK	LC-150-PK	LC-300-PK
Flow Range	0.001~10ml/min	0.001~25ml/min	0.001~100ml/min	0.01~150ml/min	0.01~300ml/min
Flow Accuracy	±1% or 2μL/min	±1% or 2μL/min	±1%	±1%	±1%
Flow Precision	RSD≤0.3% 1ml/min water	RSD≤0.5% 1ml/min water	RSD≤0.5% 5ml/min water	RSD≤0.5% 20ml/min water	
Pressure Range	0~27.5MPa		0~10MPa	0~5MPa	0~3.5MPa
Cylinder displacement (μL) Connection size	Inlet: 1/8" ETFE Outlet: 1/16"×0.5 mm I.D. PEEK		Inlet: 1/8" ETFE Outlet:1/16"×1.0mm I.D. PEEK	Inlet: 3/16" ETFE Outlet:1/16"×1.0mm I.D. PEEK	Inlet: 3/16" ETFE Outlet: 1/8" PEEK
Pressure Precision	≤±30psi			≤±5psi	
Pumphead Material	Standard setup is PEEK, Optional: SS316, TA2, C276, Floride material (with different max pressure)				
Piston Wash	Automatic continuous pump head wash				
Flowpath Material	Standard setup: Pumphead, outlet checkvalve, inlet check valve, and the connectors are Stainless steel 316 or PEEK material. Other standard marterials include ruby or saphire (check valves), UHMWPE for the seals, PEEK for the check valve body and damper seal, FEP for the damper membrane.Please contact us for special materials.				
System Dimensions (H×W×D)	380 mm×300 mm×210 mm				
Viscosity	0.3~10cP				
Power Supply	220VAC (±10%) , 50~60 Hz				
Communications	1 RS-232, 2 RS485 , 2 CAN ports				



Special Features

- Floating pistons design reduces pressure on the seal, improving the lifespan.
- Continuous Self-washing on the pump head, reduces effects of chrystalization.
- Dual Motor drive, the relative angles between the gears are automatically corrected.
- Seal, Pumphead, Check valves all allow for easy inspection, maintanance, and repair.
- Has four pre-set modes: constant flow, constant pressure, fix time, fix volume.
- 3.5 Inches display screen, displaying all the essential values such as flowrate, pressure, total volumn, total time.
- Integrated leakage sensor below the pump head, alrm in case of leakage.
- Automatic stop when the pressure exceeds the pre-set (or input) max pressure.
- Built-in flowrate correction mechanism, set between 85~115% of the input flowrate.
- Each and every pump is checked for all the specification parameters.
- Multiple communication ports, allows for stand alone control, from PC, and from workstation.



Product Specifications

Model	LC-10D-PK	LC-25D-PK	LC-100D-PK	LC-150D-PK	LC-300D-PK
Flow Range	0.001~10ml/min	0.001~25ml/min	0.001~100ml/min	0.01~150ml/min	0.01~300ml/min
Flow Accuracy	±1% or 2μL/min	±1% or 2μL/min	±1%	±1%	±1.5%
Flow Precision	RSD≤0.06% 1ml/min water	RSD≤0.3% 1ml/min water	RSD≤0.3% 5ml/min water	RSD≤0.3% 20ml/min water	RSD≤0.3% 20ml/min water
Pressure Range	0~27.5MPa	0~27.5MPa	0~10MPa	0~5MPa	0~3.5MPa
Pressure Precision	≤±30psi		≤±5psi		
Pressure Pulsation	<0.1MPa, @1ml/min 8MPa water		/		
Pumphead Material	Standard setup is PEEK, Optional: SS316, TA2, C276, Floride material (with different max pressure)				
Piston Wash	Automatic continuous pump head wash				
Flowpath Material	Standard setup: Pumphead, outlet checkvalve, inlet check valve, and the connectors are Stainless steel 316 or PEEK material. Other standard marterials include ruby or saphire (check valves), UHMWPE for the seals, PEEK for the check valve body and damper seal, FEP for the damper membrane. Please contact us for special materials.				
System Dimensions (H×W×D)	380 mm×300 mm×210 mm				
Viscosity	0.3~10cP				
Power Supply	220VAC (±10%), 50~60 Hz				
Communications	1 RS-232, 2 RS485 , 2 CAN ports, and 1 LAN port (Optional)				



Product Introduction

The DP series is designed to deliver fixed quantities at a low and steady flowrate. It finds application in feeding micro and small reaction devices such as high-precision catalyst evaluation devices, and microreactors. It is widely used in petrochemical, chemical, environmental protection, medicine and other fields.

Special Features

- Has four pre-set modes: constant flow, constant pressure, fix time, fix volume.
- 3.5 Inches display screen, displaying all the essential values such as flowrate, pressure, total volume, total time.
- Integrated leakage sensor below the pump head, alarm in case of leakage.
- Automatic stop when the pressure exceeds the pre-set (or input) max pressure.
- Built-in flowrate correction mechanism, set between 85~115% of the input flowrate.
- Each and every pump is checked for all the specification parameters.
- Multiple communication ports, allows for stand alone control, from PC, and from workstation.



Product Specifications

Model	DP-1040	DP-2020	DP-3020	DP-8008	DP-20005
Flow Range	0.01~10ml/min	0.01~20ml/min	0.01~30ml/min	0.01~80ml/min	0.1~200ml/min
Flow Accuracy	≤±1%	≤±1%	≤±1%	≤±1%	≤±1%
Flow Precision	RSD≤0.5%	RSD≤0.5%	RSD≤0.5%	RSD≤0.5%	RSD≤0.5%
Pressure Range	0~40MPa	0~20MPa	0~20MPa	0~8MPa	0~5MPa
Pressure Chamber Volume	100μl	200μl	277μl	900μl	1800μl
Pressure Precision	≤±30psi			≤±5psi	
Pumphead Material	Standard setup is SS316, optional PEEK, TA2titanium				
Flowpath Material	Standard setup: Pumphead, outlet checkvalve, inlet check valve, and the connectors are Stainless steel 316, Other standard marterials include ruby or saphire (check valves), mPTFE for the seal. Please contact us for special materials.				
System Dimensions (H×W×D)	380 mm×300 mm×210 mm				
Viscosity	0.3~10cP				
Power Supply	220VAC (±10%) , 50~60 Hz				
Communications	1 RS-232, 1 RS485 , 2 CAN ports, and 1 LAN port (Optional)				



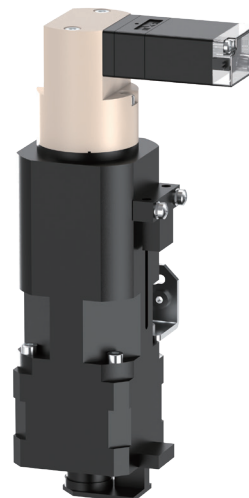
Product Introduction

Micro plunger pumps are widely used in single-fluid aspiration and dispensing applications. They deliver class-leading performance, ensuring high precision and accuracy in pipetting, dilution, and dispensing operations, with exceptional performance in low-volume liquid handling. Their ultra-low maintenance design provides superior process safety and peace of mind for even the most challenging applications.

Featuring a compact structure and offering a wide selection of fluid path materials, these plunger pumps are built with a modular component design that enables flexible configuration and easy integration. They can be directly incorporated into systems such as biomedical analytical instruments, high-precision sampling equipment, and environmental monitoring devices.

Special Features

- High precision: world-leading liquid processing, excellent accuracy/precision for low volume.
- Wide application: can be used in any fluidic application.s
- Long lifespan: long lifespan and enduring, requires little to none maintenance.
- Many Optional Components: depends on the customers' needs, the pump head could use either PEEK or Acrylic, the piston can be made in PEEK or SS316L (100μL and 250μL can only use SS316L). We provide encoder, three-way valve and other optional configurations.



Product Specification

Pump size(μL)	100	250	500	1000	2500	5000
Accuracy	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%
100% Flow Precision	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%
10% Flow Precision	≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Piston Diam.(mm)	3.166	5.006	7.08	10.01275	14.1602	20.0255
Max Displacement(mm)	12.7	12.7	12.7	12.7	15.875	15.875
Cycle Increments	2000	2000	2000	2000	2500	2500
Per Increment(μL)	0.05	0.125	0.25	0.5	1	2
Lead Screw Nut	Anti-Backlash Nut	Anti-Backlash Nut	Anti-Backlash Nut	Anti-Backlash Nut	Anti-Backlash Nut	Non-Anti-Backlash Nut / Standard Nut
Main Parameters	Motor Step Angle	Screw Diameter	Screw Lead	Travel per Step	Connection Type	Expected Service Life
	1.8	6.35	1.27mm	0.00635mm	1/4-28UNF/ M6	5 mil increments
Other Parameters	Voltage	Current	Working Temp	Storage Cond.	Storage Temp.	Communications
	24V	1.5A	5°C~35°C	≤80%RH, No Condensation	-20°C~+60°C	1 RS-232, 2 RS-485, 2 CAN

Note: This pump should be transported and stored at below 0°C.

Because any residual water can damage the seal or the piston, please make sure to dry inside the pump before transportation or storage.



Product Introduction

The DT Series syringe pump is an intelligent industrial device specifically designed for high-precision fluid delivery. Featuring a modular structure, it is suitable for applications such as chemical synthesis, pharmaceutical filling, precision coating, and laboratory automation.

The core advantage of this product lies in its high-precision flow control, combined with a wide flow rate adjustment range, making it capable of meeting diverse requirements from micro-injection to medium-volume delivery. Currently, the product is available in two models: DT60-01A and DT30-01A.

Special Features

- High precision control: we deliver the fluid in accurate amounts and accurate speeds. We support RS232, RS485, CAN Communication ports. Used individually or connected.
- Reliable: long life span. Stepper motor drive and ball screw transmission ensure continuous and stable high-precision transmission and extend its service life.
- Modular Expandability: Supports multi-pump coordinated control, making it suitable for high-throughput applications such as 3D bioprinting and other scenarios that require synchronized multi-channel operation.
- Easy Maintenance: Its compact design supports vertical placement or embedded installation, saving valuable bench space and facilitating seamless integration into automated workstations.



Specifications

Pump Type	DT60-01A	DT30-01A
Aspiration/Dispensing Accuracy	Error $\leq$ 1% (full stroke)	Error $\leq$ 1% (full stroke)
Aspiration/Dispensing Repeatability	Repeatability error $\leq$ 0.3% (full stroke)	Repeatability error $\leq$ 0.5% (rated stroke)
Rated Stroke	60mm	30mm
Linear Speed	0.01 – 6 mm/s (test medium: pure water)	0.02 – 6 mm/s (test medium: pure water)
Applicable Valve Types	4/6/8/10-port optional	4/6/8/10-port optional
Compatible Syringe Sizes	100ul/250ul/500ul/1ml/2.5ml/5ml	100ul/250ul/500ul/1ml/2.5ml/ 5ml
Overall Dimensions (L × W × H)	148mm(L)×65mm (W) ×238mm (H)	155mm(L)×46mm (W) ×128.5mm (H)

