Digital Lab Syringe Pump

dLSP 500 Series

LONGER
PRECISION FLUID TRANSFER



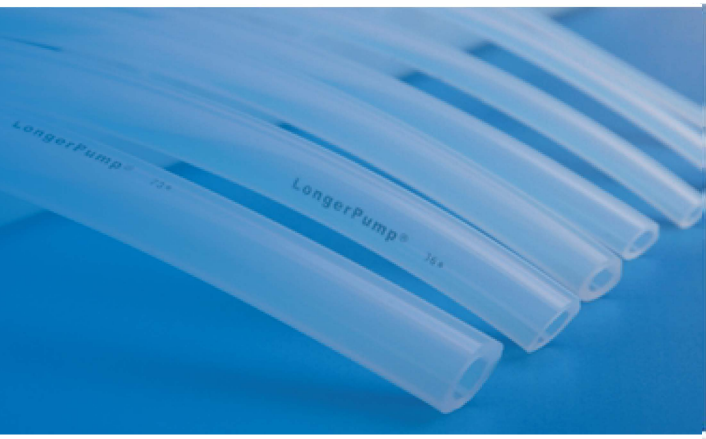
- Ethernet and wireless (Wifi/bluetooth) communication, dedicated PC software and Android app, permit remote control and monitoring
- To know the working progress and pump status in real time through intelligent diagnosis and voice reminder
- High precision and stable fluid delivery with good EMC performance, ideal for microfluidic and electrospinning application
- 7 inch full touchscreen with intuitive graphic interface for fantastic interactive experience
- Custom parameters can be configured quickly, and the parameter methods can be stored and easily recalled
- User access control and log record for safety management. With the electronic signature function, Pro pump can meet FDA(21CFR Part 11) audit trail requirements

	dLSP 510	dLSP 520	dLSP 510 Pro	dLSP 520 Pro
Work mode	Infusion only, withdrawal only, infusion/withdrawal, withdrawal/infusion, auto repeated, programming (on dedicated PC software)			
Number of channel	1	2	1	2
Pusher advance per microstep	0.03255μm/μstep		0.015625μm/μstep	
Linear speed	0.0833μm/min-180mm/min		0.04μm/min-86.4mm/min	
Step speed	23.4375 sec/μstep-10.85 μsec/μstep			
Linear travel accuracy (Rated)	±0.5%		±0.35%	
Linear travel CV(Rated)	±0.05%			
Linear force (Rated)	40lbs/18kg @ 100% force selection			
Motor and drive	1.8° step motor with 1/64 microstepping			
Syringe	0.5uL-60mL	0.5uL-30mL	0.5uL-60mL	0.5uL-30mL
User-defined syringe	Travel≤108mm, OD≤31.5mm	Travel≤108mm, OD≤26mm	Travel≤108mm, OD≤31.5mm	Travel≤108mm, OD≤26mm
Display	7 Inch, 1024x600, IPS HD LCD			
Language	Chinese or English, set as needed			
Control mode	Touch screen control, dedicated PC or Android App control, footswitch control, RS485 communication control			
Interface	RS485(optional), USB-B,USB-A,Wifi, bluetooth, Ethernet, footswitch 3 outputs- solid state relay signal, 2 inputs-switch signal or TTL signal, 4-20mA signal(optional)			
Wireless connectivity(optional)	Wifi, bluetooth			
Programming function	Parameter configured based on work flow: constant, ramp, loop, delay, repeat, I/O output trigger, I/O event input trigger, tooch screen trigger			
Calibration	Improve flow rate/ dispensing volume precision and accuracy			
Parameter method	Parameter methods can be stored and easily recalled			
Real time clock	Date and time can be set			
Audible alarm	For keypad clicks, end of run, near end of run, power on, motor stall, calibration reminder, etc.			
Voice reminder	N/A		For working progress, alarm, diagnosis	
Intelligent diagnosis	N/A		For presence of syringes, syringe leakage	
Screen lock	To prevent misoperation			
User access control	Three levels of user accesses(administrator, developer, operator), in line with safety management requirement(21CFR Part 11)			
Predictive maintenance	Real-time monitoring of pump running status providing information such as alarms, regular maintenance, predictive maintenance			
Log record	Record the complete operation history of the pump, and can be exported directly			
Electronic signature and audit trail	N/A		Meet the requirement of 21CFR Part 11 (on dedicated PC software)	
Support 3Q(IQ/OQ/PQ)	Meet GMP requirement			
EMC	CE (TUV) certified			
Deminsion(L×W×H)	Drive unit: 260mm×185mm×180mm, Controller: 190mm×123mm×33mm			
Power supply	AC 100V-240V/30W 50/60Hz		AC 100V-240V/20W 50/60Hz	
Operating condition	Temperature: 5°C-40°C, Relative humidity<85%			
IP rating	IP31			
Weight	Drive unit: 3.49kg, Controller: 0.37kg			

Product Model		dLSP 510/dLSP 520	dLSP 510 Pro/dLSP 520 Pro
Syringe	Syringe ID (mm)	Reference flow rate (nL/min-mL/min)	
0.5ul	0.1	0.0007-0.0014	0.0003-0.0007
5ul	0.35	0.008-0.017	0.004-0.008
10ul	0.5	0.016-0.035	0.008-0.017
25ul	0.8	0.042-0.090	0.020-0.043
50ul	1.1	0.079-0.171	0.038-0.082
100ul	1.6	0.167-0.362	0.080-0.174
500ul	3.25	0.691-1.493	0.332-0.717
1ml	4.72	1.458-3.150	0.700-1.512
2ml	9	5.299-11.451	2.545-5.497
5ml	13.1	11.227-24.261	5.391-11.645
10ml	16.6	18.028-38.956	8.657-18.699
20ml	19	23.618-51.035	11.341-24.497
30ml	23	34.609-74.786	16.619-35.897
60ml (510 series)	29.14	55.554-120.044	26.677-57.621

LONGER
PRECISION FLUID TRANSFER

Peristaltic Pump
Laboratorial Syringe Pump
Industrial Syringe Pump
Precise Gear Pump
Piston Pump
Pump System
OEM



USA Distributor: Aurora Pro Scientific

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Website: www.auroraprosci.com

Email: sales@auroraprosci.com

* Please determine the product material according to fluid media and environment.