## SMD

# Nanoliter Injection Pump

Nanoliter Injection Pump is an instrument that provide quantitative micro-injection or aspiration at a fixed speed for oocytes, animal larvae, protozoa, animal brain or eyeballs, etc..



### Features

- Olltra-high injection precision and stable operation over a long time.
- Perfectly sealed to prevent leakage during injection.
- O A wide injection range. Wider range and wider application.
- New data saving function during power failure.Providing choice to continue the unfinished program when restarted from power break in the progress of injection. Never leading to experiment failure due to an accident.
- New function of needle retention time setting. No need to use a timer for setting the retention time at the end of intracranial injection.
- O Adjustable screen brightness. Meeting the light intensity needs of different experimental situations.
- ∂ A small-sized injection pump, easy to use.
- ֎ Use in conjunction with stereotaxic instrument and micro-manipulator.
- Obsign of a 15 degree bevel, facilitating observation by customers.
- Soft connection cables of the injection unit. Producing no torsional force when used in conjunction with the positioner, preventing the injection unit shake caused by tugging during the experiment.
- Designed with anti-misalignment function. Allowing customers to make connections quickly and accurately, and preventing losses caused by blind mating of connection cables

اَبُالُ Product parameters

Control unit size $(L \times W \times H)$	170×120×45 mm		
Injection unit size (L)	20 cm		
Length of connection cable between injection unit and control unit	100 cm		
Length of connection cable between foot switch and control unit (optional accessories)	200 cm		
Display	5.0" capacitive touch screen		
Weight	Control unit: 0.8 kg; injection unit: 0.2 kg; foot switch: 1.5 kg		
Minimum injection speed	1 nl/s		
Maximum injection speed	200 nl/s		
Minimum speed resolution	1 nl/s		
Filling rate	10-200 nl/s		
Emptying rate	10-200 nl/s or 600-12000 nl/min		
Reset speed	200 nl/s or 12000 nl/min		
Minimum injection volume	0.6 nl		
Maximum injection volume	5000.0 nl		
Minimum volume resolution	0.1 nl		
Piston travel distance	28 mm		
Cycles	1-8000		
Delay time	1-999 s		
Glass electrode size	Outer diameter: 1.14 mm, inner diameter: 0.53 mm		

### ابال Product list

Name	Product model	Standard/optional	Quantity	Usage
Injection unit	1	Standard	1	For connecting glass electrodes and performing operations such as injection
Control unit	\	Standard	1	For setting parameters and controlling the injection unit to perform the corresponding operations
Connection cable	/	Standard	1	For connection between the injection unit and the control unit
3.5" (8.89 cm) glass electrode	GC-3.5	Standard	100	Outer diameter: 1.14 mm; inner diameter: 0.53 mm
7" (17.78 cm) glass electrode	GC-7	Standard	100	Outer diameter: 1.14 mm; inner diameter: 0.53 mm
Universal adapter for all nanojects	R480-SF	Standard	1	For use in conjunction with stereotaxic and micro-manipulator
Power adapter	\	Standard	1	For access to power supply
Filling needle	R480-FN	Standard	1	For oil filling
Sealing material	R480-SM	Standard	1	For replacing the sealing material inside the injection unit
Foot switch and connection cable	R480-FS	Optional	1	For controlling injection, emptying and other operations of the injection unit
Dedicated fastener for micro-manipulation	R480-AFM	Optional	1	A special accessory equipped with RWD electric micro manipulator

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