

NE-1002X Microfluidics Syringe Pump - \$1500

Continuous Infusion Microfluidics
Syringe Pump System
DUAL-NE-1002X: \$3010

OEM Microfluidics Syringe Pump
NE-502X: \$1100



NE-1002X Features:

Advance Per Step: 4.252232 Nanometers

Smooth pumping at ultra low flow rates. Accepts syringes from the smallest size available up to 60 mL. A 140 mL syringe can be filled up to 120 mL. Pumping rate as low as 0.008 nL/hr with a .5 μ L syringe or as high as 1246 μ L/min with a 60 mL syringe. Includes the X Upgrade Smooth Linear/Gradient increasing and decreasing pumping feature.

The NE-1000 Family of Syringe Pumps Features

- Built for Automation
- Operates stand-alone or from a computer
- Infuses and withdraws
- Applications range from simple infusions to complex pumping programs
- Programmable preset protocols
- Program up to 41 pumping phases: change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer.
- RS-232 and TTL logic control interfaces

Two pumps connected with a dual cable create a Dual Pump System allowing for continuous infusion or emulsification. Network, control, and monitor up to 100 pumps with one computer. World-wide power supplies available. Motor stall detection. Non-volatile memory of all parameters and programming. Upgradeable to the X and X2 advanced firmware versions for gradient pumping and increased program memory. Dispensing accuracy of +/-1%. Unlimited lifetime technical support. Two year warranty. Plus many, many more features!

****Not For Clinical Use On Humans****

NEW ERA
Pump Systems Inc.
SyringePump.com

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138 Toledo St. • Farmingdale, NY 11735 • 631-249-1392



New Era Pump Systems Inc.
www.SyringePump.com
NE-1002X / NE-4002X / NE-4502X Micro-Fluidic Syringe Pumps

Syringe Manufacturer (all names TM)	Syringe (mL)	Inside Diameter (mm)	Maximum Rate (µl/hr)	Minimum Rate (nl/hr)	Maximum Rate (µl/min)				
B-D	1	4.699	2335	14.59	38.92				
	3	8.585	7796	48.68	129.9				
	5	11.99	9999	94.95	253.4				
	10	14.43	9999	137.6	367				
	20	19.05	9999	239.7	639.7				
	30	21.59	9999	307.9	821.7				
HSW Norm-Ject	1	4.69	2326	14.53	38.77				
	3	9.65	9850	61.51	164.1				
	5	12.45	9999	102.4	273.2				
	10	15.9	9999	167	445.6				
	20	20.05	9999	265.5	708.7				
	30	22.9	9999	346.4	924.5				
Monoject	1	5.74	3485	21.76	58.08				
	3	8.941	8456	52.8	140.9				
	6	12.7	9999	106.6	284.3				
	12	15.72	9999	163.3	435.6				
	20	20.12	9999	267.4	713.6				
	35	23.52	9999	365.4	975.2				
	60	26.64	9999	468.8	1251				
	140	38	9999	954	2545				
Terumo	1	4.7	2336	14.59	38.94				
	3	8.95	8473	52.91	141.2				
	5	13	9999	111.7	297.9				
	10	15.8	9999	164.9	440.1				
	20	20.15	9999	268.2	715.8				
	30	23.1	9999	352.5	940.7				
	60	29.7	9999	583	1555				
Poulten & Graf (Glass)	1	6.7	4748	29.65	79.14				
	2	8.91	8397	52.44	139.9				
	3	9.06	8682	54.22	144.7				
	5	11.75	9999	91.19	243.4				
	10	14.67	9999	142.2	379.4				
	20	19.62	9999	254.3	678.6				
	30	22.69	9999	340.1	907.6				
	50	26.96	9999	480.1	1281				
Steel Syringes	1	9.538	9.623	0.061	0.1603				
	3	9.538	9.623	0.061	0.1603				
	5	12.7	17.06	0.107	0.2843				
	8	9.538	9.623	0.061	0.1603				
	20	19.13	38.71	0.242	0.6451				
	50	28.6	86.52	0.541	1.442				
SGE (Glass – Gas Tight)	5	0.343	12.44	0.078	0.25	2.303	561	3.503	
	10	0.485	24.88	0.156	0.5	3.257	1122	7.006	
	25	0.728	56.06	0.351	1	4.606	2244	14.02	
	50	1.03	112.2	0.701	2.5	7.284	5612	35.05	
	100	1.457	224.5	1.403	5	10.3	9999	70.07	
Hamilton Microliter (Glass)	0.5	0.103	1.122	0.008	10	14.57	9999	140.3	
	1	0.146	2.254	0.015	25	23.03	9999	350.3	
	2	0.206	4.488	0.029	50	27.5	9999	499.5	
	5	0.326	11.24	0.071	100	34.99	9999	808.6	

1. Specifications

1.1 Mechanical & Electrical

Syringe sizes:	Up to 60 cc, 140 cc partially filled 140 cc fully filled with long versions
Number of syringes:	1
Motor type:	Step motor
Motor steps per revolution:	400
Motor gearbox reduction:	25:1
Motor to drive screw ratio:	15/28
Drive screw pitch:	20 revolutions/”
Micro-stepping:	1/16 to 1/2 depending on motor speed
Advance per step:	4.25223214 nm to 34.0178571 nm depending on motor speed
DC connector:	2.1 mm, center positive
Voltage at DC connector:	12V DC at full load
Amperage:	750 mA at full load
Power supply type:	External wall adapter, country and power source specific
Power supply output rating:	12V DC @ 1000 mA
Dimensions:	8 3/4” x 5 3/4” x 4 1/2” High (Non-OEM versions) (22.86 cm x 14.605 cm x 11.43 cm)
Weight:	3.8 lbs. (1.63 kg)

1.2 Operational

Maximum force:	150 lbs. at minimum speed, 18 lbs. at maximum speed
Maximum speed:	0.224469144 cm/min
Minimum speed:	8.40896E-05 cm/hr
Maximum pumping rate:	1246 µL/min with a B-D 60 cc syringe
Minimum pumping rate:	14.59 nL/hr with a B-D 1 cc syringe
Number of Program Phases:	41
RS-232 pump network:	100 pumps maximum
RS-232 selectable baud rates:	300, 1200, 2400, 9600, 19200
Syringe inside diameter range:	0.100 to 50.00 mm