

NE-1000 Single Syringe Pump

High Pressure Syringe Pump

NE-1010: Ask the price

Continuous Infusion
Syringe Pump System

Dual-NE-1000: Ask the price

Microfluidics Single
Syringe Pump

NE-1002X: Ask the price



NE-1000 Features:

Accepts 1 syringe from the smallest size available up to 60 mL. A 140 mL syringe can be filled up to 120 mL. NE-1000 & Dual-NE-1000 pumping rate as low as 0.73 $\mu\text{L/hr}$ with a 1 mL syringe or as high as 35.33 mL/min with a 60 mL syringe. NE-1010 pumping rate as low as 1.459 $\mu\text{L/hr}$ with a 1 mL syringe or as high as 127.2 mL/min with a 60 mL syringe. NE-1002X pumping rate as low as .008 nL/hr with a 0.5 μL syringe or as high as 1555 $\mu\text{L/min}$ with a 60 mL syringe.

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. Worldwide 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****

NE-1000 Single Syringe Pump Maximum and Minimum Flow Rates

| Mfgr. | Syringe (cc) | ID (mm) | Max Rate | Min Rate | Max Rate | | | |
|------------------------------|--------------|---------|----------|----------|-------------|---------|----------|----------|
| B-D | 1 | 4.699 | 53.07 | 0.73 | 0.884 | | | |
| | 3 | 8.585 | 177.1 | 2.434 | 2.952 | | | |
| | 5 | 11.99 | 345.5 | 4.748 | 5.758 | | | |
| | 10 | 14.43 | 500.4 | 6.876 | 8.341 | | | |
| | 20 | 19.05 | 872.2 | 11.99 | 14.53 | | | |
| | 30 | 21.59 | 1120 | 15.4 | 18.67 | | | |
| | 60 | 26.59 | 1699 | 23.35 | 28.32 | | | |
| HSW Norm-Ject | 1 | 4.69 | 52.86 | 0.727 | 0.881 | | | |
| | 3 | 9.65 | 223.8 | 3.076 | 3.73 | | | |
| | 5 | 12.45 | 372.5 | 5.119 | 6.209 | | | |
| | 10 | 15.9 | 607.6 | 8.349 | 10.12 | | | |
| | 20 | 20.05 | 966.2 | 13.28 | 16.1 | | | |
| | 30 | 22.9 | 1260 | 17.32 | 21 | | | |
| | 50 | 29.2 | 2049 | 28.16 | 34.15 | | | |
| Monoject | 1 | 5.74 | 79.18 | 1.088 | 1.319 | | | |
| | 3 | 8.941 | 192.1 | 2.64 | 3.202 | | | |
| | 6 | 12.7 | 387.6 | 5.326 | 6.46 | | | |
| | 12 | 15.72 | 593.9 | 8.161 | 9.899 | | | |
| | 20 | 20.12 | 972.9 | 13.37 | 16.21 | | | |
| | 35 | 23.52 | 1329 | 18.27 | 22.15 | | | |
| | 60 | 26.64 | 1705 | 23.44 | 28.42 | | | |
| | 140 | 38.00 | 3470 | 47.69 | 57.84 | | | |
| Terumo | 1 | 4.7 | 53.09 | 0.73 | 0.884 | | | |
| | 3 | 8.95 | 192.5 | 2.646 | 3.208 | | | |
| | 5 | 13 | 406.1 | 5.581 | 6.769 | | | |
| | 10 | 15.8 | 600 | 8.244 | 10 | | | |
| | 20 | 20.15 | 975.8 | 13.41 | 16.26 | | | |
| | 30 | 23.1 | 1282 | 17.63 | 21.37 | | | |
| | 60 | 29.7 | 2120 | 29.13 | 35.33 | | | |
| Poulten & Graf (Glass) | 1 | 6.7 | 107.8 | 1.483 | 1.798 | | | |
| | 2 | 8.91 | 190.8 | 2.622 | 3.18 | | | |
| | 3 | 9.06 | 197.2 | 2.711 | 3.288 | | | |
| | 5 | 11.75 | 331.8 | 4.559 | 5.53 | | | |
| | 10 | 14.67 | 517.2 | 7.107 | 8.62 | | | |
| | 20 | 19.62 | 925.2 | 12.72 | 15.42 | | | |
| | 30 | 22.69 | 1237 | 17.01 | 20.62 | | | |
| | 50 | 26.96 | 1746 | 24.01 | 29.11 | | | |
| Steel Syringes | 1 | 9.538 | 218.6 | 3.005 | 3.644 | | | |
| | 3 | 9.538 | 218.6 | 3.005 | 3.644 | | | |
| | 5 | 12.7 | 387.6 | 5.326 | 6.46 | | | |
| | 8 | 9.538 | 218.66 | 3.005 | 3.644 | | | |
| | 20 | 19.13 | 879.5 | 12.09 | 14.65 | | | |
| | 50 | 28.6 | 1965 | 27.01 | 32.76 | | | |
| | Syringe (µl) | ID (mm) | Max Rate | Min Rate | SGE Syringe | ID (mm) | Max Rate | Min Rate |
| SGE (Glass - Gas Tight) | 5 | 0.343 | 209.2 | 0.004 | .25 | 2.303 | 9.432 | 0.176 |
| | 10 | 0.485 | 418.3 | 0.008 | .5 | 3.257 | 18.86 | 0.351 |
| | 25 | 0.728 | 942.5 | 0.018 | 1 | 4.606 | 37.73 | 0.701 |
| | 50 | 1.03 | 1886 | 0.036 | 2.5 | 7.284 | 94.36 | 1.752 |
| | 100 | 1.457 | 3775 | 0.071 | 5 | 10.3 | 188.6 | 3.504 |
| Hamilton Micro-litre (Glass) | 0.5 | 0.103 | 18.86 | 0.001 | 10 | 14.57 | 377.5 | 7.01 |
| | 1 | 0.146 | 37.91 | 0.001 | 25 | 23.03 | 943.2 | 17.52 |
| | 2 | 0.206 | 75.47 | 0.002 | 50 | 27.5 | 1344 | 24.98 |
| | 5 | 0.326 | 189 | 0.004 | 100 | 34.99 | 2177 | 40.43 |

Specifications

Mechanical & Electrical

| | |
|-----------------------------|---|
| Syringe sizes: | Up to 60 mL (140 mL partially filled) |
| Number of syringes: | 1 |
| Motor type: | Step motor |
| Motor steps per revolution: | 400 |
| Microstepping: | 1/8 to 1/2 depending on motor speed |
| Advance per step: | 0.2126 uM to 0.8504 uM depending on motor speed |
| Motor to drive screw ratio: | 15/28 |
| Drive screw pitch: | 20 revolutions/” |
| 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: | Unregulated linear external wall adapter, country and power source specific |
| Power supply output rating: | 12V DC @ 800 mA |
| Dimensions: | 8 3/4” x 5 3/4” x 4 1/2” High (22.86 cm x 14.605 cm x 11.43 cm) |
| Weight: | 3.6 lbs. (1.63 kg) |
| Allen Wrench | 3/32 Hex |

Operational

| | |
|--------------------------------|--|
| Maximum speed: | 5.1005 cm/min |
| Minimum speed: | 0.004205 cm/hr |
| Maximum pumping rate: | 1699 mL/hr with a B-D 60 cc syringe |
| Minimum pumping rate: | 0.73 µL/hr with a B-D 1 cc syringe |
| Maximum force: | 35 lbs. at minimum speed, 18 lbs. at maximum speed |
| 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 |

Custom Applications

For specialized and OEM applications, contact your dealer or New Era Pump Systems Inc. Custom modifications can be made to the mechanics or the firmware.

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